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Games for the ages

On YouTube, there's a video with over 19 million views. It's never going to get featured in articles about how to make your YouTube video go viral, but the number of views is remarkable because its subject is so mundane: it's a video of an older woman patiently explaining how to fold a fitted sheet.

The games industry is still, by and large, populated by the young. (I know exactly one dev who's actually retired.) But as the twenty-somethings of the 1990s and early 2000s FPS boom have moved on to the next stage of their lives, we've seen the games they make shift focus. *The Dishonored*, *God of War*, and *BioShock* franchises have turned their eyes to fatherhood.

Parents are present and increasingly taking starring roles in triple-A games, and I'm glad to see it. But what I want is more grandparents. Maybe it's because I'm an older millennial – our worldview and values are supposedly closest to those of the Greatest Generation, not those of our Boomer parents – that I'm longing for more elders in my games. Maybe it's because I and most of my social circles are transplants, living far from our families, stuck figuring out adulthood without much of a connection to past generations, and feeling a little bit like Wendy and the Lost Boys.

I want elders in my games. I want genuine elders, not just old kung fu masters or characters who happen to have grey hair but are otherwise indistinguishable from younger characters. (Sindel from *Mortal Kombat* is an



JESSICA PRICE

Jessica Price is a producer, writer and manager with over a decade of experience in triple-A, indie and tabletop games.

especially egregious example.) They exist, certainly. Flemeth from *Dragon Age* and Sully from *Uncharted* are perpetual favourites of mine. But I want more Gandalfs who have something significant to impart to us, not just quest-givers and exposition-droppers. I want characters who have some genuine wisdom to share that extends beyond the borders of fictional worlds, and for that to be authentic, I think it needs to come from real-world experience, not merely from our imaginings of what it's like to be old.

What I'm saying, I guess, is that I wish more games would turn to actual elderly people for stories and dialogue and character building. They're about wish fulfilment, after all, and sometimes you want to save the world, but sometimes you just want your grandpa to take you for a walk and point out what's changed and what's stayed the same in the vistas you're surveying, or your grandma to teach you a recipe and talk through a thorny moral dilemma. Opportunities to spend time with older people are usually presented as being for their benefit – it's hell to get old, they're lonely, they have nothing to do all day. But as anyone who spends significant time with elders can tell you, the benefits go both ways. And that's true in terms of who's telling our stories as well.

Life and the stories in which we practice navigating it are lonely roads to walk when there's never anyone ahead of you to break the trail. Let's bring in more people who've lived in worlds now vanished to share their wisdom while it's still available to us. 🗣️

#04



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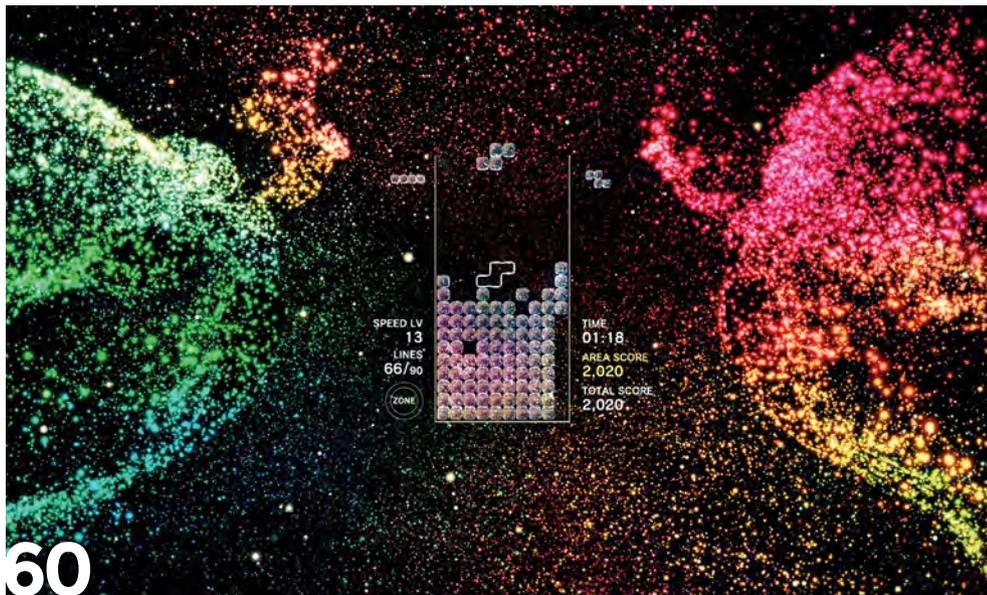
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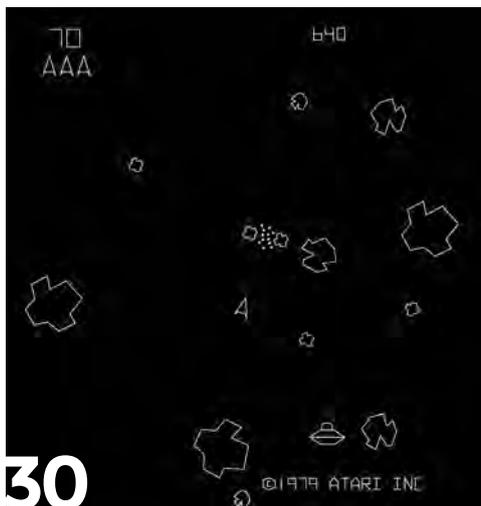
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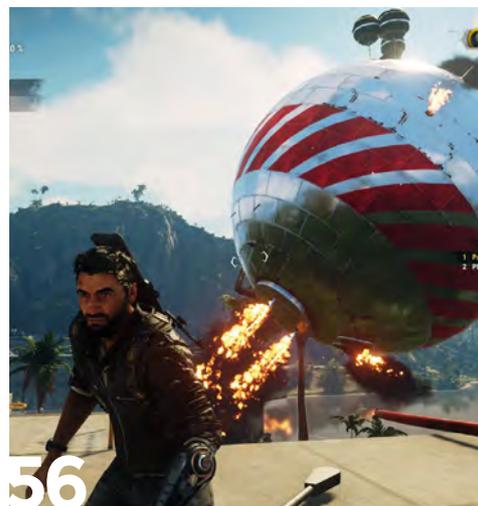
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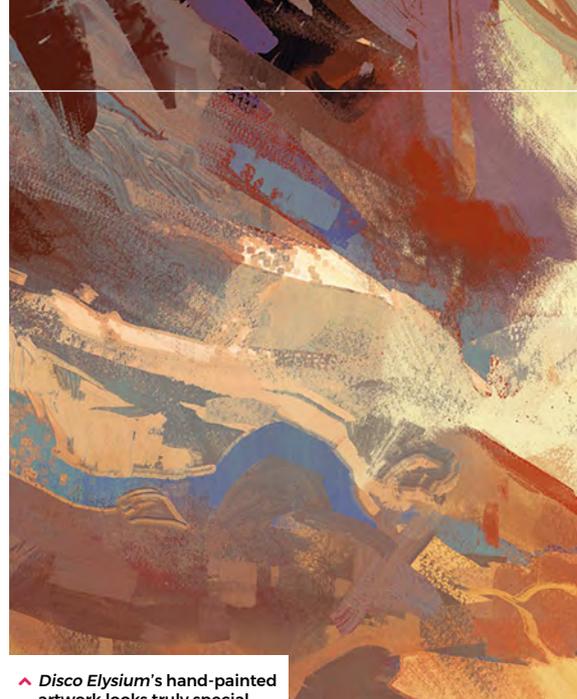
We first encountered *Disco Elysium* earlier this year, and something about its chilly, dystopian fantasy world immediately lodged in our minds. In essence, it's a detective RPG about a grizzled lawman interrogating subjects, solving mysteries and battling his own demons; the oily, hand-painted environments are full of atmosphere, while the soundtrack by *British Sea Power*, among others, adds to the sense of foreboding.

Overwhelmingly, *Disco Elysium* is about decision making, and how the game's virtual world shifts and reacts to the kind of cop you want to be. Hence *Wireframe* #4's pair of special, limited-edition covers. Do you choose to go rogue as a rage-filled lawman, or play by the book as a more cerebral detective? You can find out more about the nuances of developer ZA/UM's game in our in-depth interview on page six. We're not sure whether their hardboiled thriller will have a happy ending, whichever path we choose, but we're really looking forward to finding out.

Ryan Lambie
Editor



Police state of mind



^ *Disco Elysium's hand-painted artwork looks truly special.*

A focus on looking and acting different has earned *Disco Elysium* early plaudits – we find out why it may well be something special

Much of the focus on *Disco Elysium* has been on its art style – and with good reason. It's a gorgeous looking game, reminiscent

of the bold, thick strokes of many of history's best oil painters. It is, in short, a conversation starter.

Below that painterly surface lies a policing RPG with some seriously deep trappings. *Disco Elysium* isn't just about its looks; it's about diving into the psyche of a cop trying to find his way in a broken world, while nursing a broken mind.

ZA/UM Studio, the team of 'artists, writers, entrepreneurs, and socialists' behind *Disco Elysium*, has been hard at work for over three years now, keen to piece together something that stands out in the now-crowded world of contemporary isometric RPGs. And stand out it does, not just because of that bold art style, but because of the depth of its narrative, its focus on freedom in your approach and its desire to offer something different from the traditional PC RPG.

It's a bold statement backed by a supremely confident team – some of whom have zero video game experience prior to *Disco Elysium*. And like all good detective stories, it grabs your attention and wrings your curiosity for all it's worth.

Wireframe sat down with Robert Kurvitz, lead designer and writer, and Aleksander Rostov, art director, to find out a bit more about this intriguing case.

When you started *Disco Elysium* – when it was known as 'No Truce With The Furies' – you posted a blog saying it would be 'a smaller game to work out our big mechanics and storytelling methods'. What went wrong?

RK: That completely spiralled out of control. I think the game we had planned would take about 20 years to make. It was about 40 times bigger than what we're working on.

What happened was this so-called 'smaller game' had a really nice narrative hook – once I had the beginning written out it started connecting with people really nicely. And it started doing something that I haven't seen RPGs do – it got them naturally into the game, it just got them playing.

"If you really want to break down a person in an interrogation, you have to really take apart their mind"

I've had troubles wanting to get friends to play *Fallout 2* or *Planescape: Torment*, and it just doesn't stick with them. I'm like, 'come on man, work with it for six hours and you'll love it!' But this smaller project developed a narrative hook that I think solved a lot of those problems surprisingly

well – possibly because we were thinking of it as a smaller thing.

[We then found] that the resolution of everything in this so-called 'smaller' game got amped up to like a hundred. If we started out with something huge, then took a tiny chunk out of it, we then blew that tiny chunk up to something massive again. So here we are four years later... and we're just reining it in now.

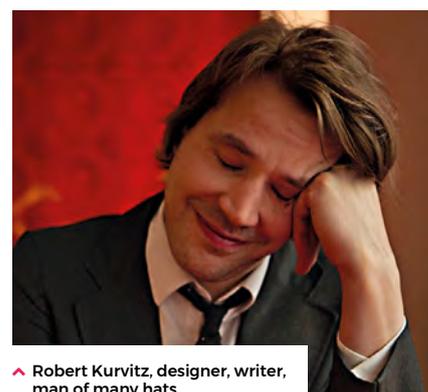
What was that hook? What was it that made you think you had something special – that you had to make it bigger than the initial plan?

RK: Well, we also discovered what it means to do a detective role-playing game – a really *hardcore* detective game. Honestly, beforehand what I knew about detective games came from *L.A. Noire* and David Cage games, and so on. They don't strive to actually show you detective work – what the inner logic and deduction systems of it mean; that they're actually writing down leads, and breaking down characters in psychologically realistic [ways]... If you really want to break down a person in an interrogation, you have to really take apart their mind. It takes a lot of work. That's why they leave you there marinating in your own thoughts for like, two hours, they go away, then come back, and so on. Even just ballistics and so on... it's incredibly detailed, the work of being a cop.

So we discovered we were making a really hardcore detective game, and that



▲ Aleksander Rostov brings *Disco Elysium* to life with stunning art.



▲ Robert Kurvitz, designer, writer, man of many hats.

blew up the resolution. It's not a surprise that a cop's symbol is the looking-glass. We really ran with the looking-glass, I guess... Also Rostov made the world really large and made giant beautiful coastal areas and just started drawing everywhere. It's 'the art guy's made something beautiful and you have to use it' problem of video game production.

It's a gorgeous game and really stands out, so naturally creates a lot of discussion around the look. What are your feelings on so many of us talking about *Disco Elysium's* look when you have so many in-depth systems beyond just the graphics?

AR: It feels good, of course! Art in video games is a weird topic. Historically, art has been a bit of a big evil – 'oh, developers are putting all their money and development into graphical fidelity and where is the gameplay?', that kind of thing.

It's been kind of true in some senses, I think especially in the Xbox 360 generation. What's happened is video game art has in some sense plateaued on this photorealistic, physically- ▶

▼ Dialogue is deep, branching, and extremely verbose at times.



based rendering stuff. They have this entire production pipeline built up with outsourcing a studio so you don't have to have an art direction – you can just hire, like, 200 artists from around the world and they'll be cranking mailboxes and street lanterns out for you in no time.

With *Disco Elysium*, with the entire project, our ambition is to bring an artistry into the art of video games; to bring some novel visual techniques and take some video game aesthetics into it, and to bring some artistic, conceptual depth into it.

For instance, in the game, the character portraits are painted in an efficient manner so you can churn them out, and every character in the game can have a portrait. But then there are these little artistic nudges in there – like how the alcoholics in the game, their portraits are kind of like disintegrating, they're not quite as stable as the other people's portraits. Then other little details, or technical aspects like how something is painted or made, subtly hints at a deeper conceptual meaning, or perhaps as a detective even helps you understand some characters better.

You've said the combat in *Disco* is 'if not the future of RPGs, then an early warning

of that future'. Could you talk a little bit about how the combat works, and how it was developed?

RK: Absolutely – I stand by my grand, eloquent phrases there! [laughs]. It begins with the first question, pretty much the number one question for every game that's ever been made: 'Who are we going to kill by the thousand? Who are we going to genocide?' In a cop game we can't kill so many of them... we can maybe kill five people or ten people before you become a weird statement on American policing tactics.

So we wanted depth – we wanted your partner getting shot and then you shooting someone; we wanted you getting shot not to be divorced from the rest of the game mechanics. This is a huge problem not just for role-playing games, but video games in general – in a way, it's also the good part of games. Death doesn't mean anything; you just shoot someone in the head with a funny gun, then run around. But for development this is a problem.

Little mistakes, as things go for a police officer, can cost you so much emotionally. Story-wise, we've put some real bravado, choice and consequence in there that really changes the game, which you wouldn't get in something like no-consequence tactical combat, where it's just like a puzzle.

We know the kind of moments where you get shot – which can happen – and you start bleeding out on the ground and start blabbering some weird stuff to your partner, receding into some real depths of yourself... we know it's going to be really memorable moments of video game deaths, and stuff like that. We just knew this was going to hit much harder than tactical combat – which is nice, but in a way I think has been keeping role-playing games back. Also, at the same time, we didn't want a bloodless experience – that was also undoable, because cops still get into this shit.

“Chris Avellone’s work on *Planescape: Torment* and in Obsidian later was an absolute number one touchstone for me”



▲ In *Disco Elysium*, every door can be opened, and every room tells a story.

Writing is clearly a key part of the game. Which writers have inspired you in the process of making *Disco Elysium*?

RK: I always give different answers to this question. I just haven't made up my mind what's the most honest and at the same time commercially viable thing to say to that [laughs]. I'm feeling cynical today, I don't know why, so I'll say for the American market we just like *True Detective*. We like Nic Pizzolatto's writing. We're just like Nic Pizzolatto but with stronger female characters. For the European market I'd say more *Twin Peaks* stuff – we're going to go there. Go further east, I would say the Strugatsky brothers, Soviet science fiction writers.

But I think the ultimate truth of it is we had so many writers on the team who'd

written other things before this. None of us were video game writers when we started making this. I myself am a novelist, so my kind of literary background – my impressions had already been formed, I'm a formed writer. So when I started writing specifically for a video game, I was inspired by – and we looked up to – video game writers and the way video games have been written.

Chris Avellone's work on *Planescape: Torment* and in Obsidian later was an absolute number one touchstone for me... Then, as lame as it is to add it there, also *Mass Effect*. The way it was done as a professional, beautiful, large commercial product. [It] always stays in the back of my mind – this hero narrative and what they were able to do with it. I think the influences have been non-literary to me.

'What kind of cop do you want to be' is the tagline. Given how dark and harsh the game's world is, can the player actually succeed by being polite and not hurting people?

AR: Video game writing tends to be very naive with the 'good cop, bad cop'/renegade stuff. Our stuff is much more nuanced and out-there, even though it

can be out-there and absurd – the main character is this larger-than-life guy. The text is realistic, but it isn't mundane in how you speak. It's not a 20th century European novel where people are silent before saying five-word sentences to each other. It's quite verbose and absurd, but the realism comes from this almost rhythmic structure of how this 'good cop, bad cop' dynamic has been spread out to so many different variables and ways of pursuing different situations.

RK: In games, there's this suck up to win kind of thing. I look at these 'good' options and they're not good options – they're sycophantic options. It's just like 'oh, I love you, bro', then you go to the other guy and say 'yeah, that guy? I understand why you don't like him – I love you, bro!' There's this sycophantic thing that you can do there, that I think we're not doing. You can just honestly say something and everyone will understand it, in a way.

It's more like, do you care about the world, do you care about these people you're supposed to help as a police officer? Or do you care about yourself and your own self-pity, and so on? 🗨



▲ *Disco Elysium* can be dark, but it has plenty of humour thrown in.

Disco Elysium releases on Steam in 2019.



Build it and they will come

Stormworks designer Dan Walters talks to us about the future of his coastguard sim, and why construction is such a big thing right now

Info

GENRE
Sandbox / Sim

FORMAT
PC

DEVELOPER
Sunfire Software

PUBLISHER
Green Man Gaming

PRICE
£10.99

RELEASE
On Steam Early Access now

✓ Players are using *Stormworks'* logic system in ways its creators could never have imagined. Working Pong game, anyone?

W

hat's wonderful about creativity is that it creates a positive feedback loop, where one clever thing lights sparks in other people's heads,

resulting in lots of other clever things. Take *Kerbal Space Program*, for example: as well as being a wonderful space sim in its own right (seriously, download it now), it also provided a jolt of inspiration to British game designer, Dan Walters.

"I'd never played a game like that before," Walters enthuses over Skype, "and like many people, I loved it. At three in the morning, I was still playing. An unhealthy gaming habit."

Before *Kerbal Space Program*, the games Walters had made were, to use his own term, story-based: "Our previous game was *Peregrine*, which was a narrative game – you start at A and go through each scene in order until the end." *Kerbal Space Program*, on the other hand, offered a virtual toolbox of modular parts where players could build their own rockets and blast off into space – or, more likely at first, explode on the

launch pad. It was an experience that ultimately led Walters to start making *Stormworks*, a sandbox sim where, cast as a coastguard, you build vehicles and embark on rescue missions.

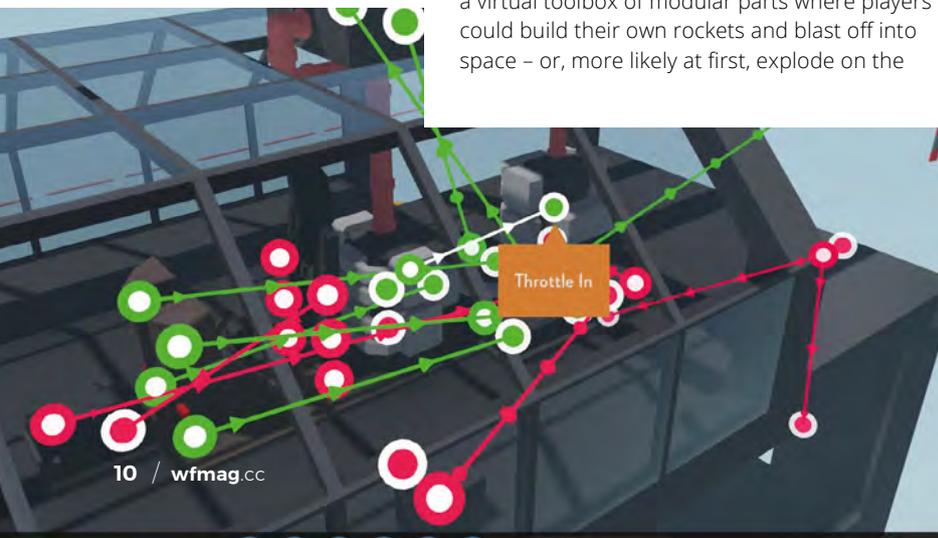
"Really, the coastguard theme was born purely from the idea of creating a non-combat, mission-based narrative for a sandbox game," Walters says. "It's just been a journey, really. As we've gone through and created a game mechanic, it's grown and grown."

GOING DOWN A STORM

Since its launch on Steam Early Access in February 2018, *Stormworks* has garnered an enthusiastic community, making it the most successful game to emerge from Walters' indie studio, Sunfire Software. In the months since its release, the game's online workshop has steadily filled up with increasingly large and complex vehicles that players have built using *Stormworks'* construction system. That *Stormworks* is the product of a tiny studio – aside from Walters, Sunfire comprises another programmer and an artist – makes the scale of what they've created all the more impressive.

"The community's grown in a big way, not just in terms of size but ability," Walters says. "We still look at some of the older vehicles in the workshop and say, 'Remember when we thought this vehicle was the best ever?' At that point we were thinking, 'We're not the best at the game anymore!'"

Some impressive user-generated creations include a gigantic flying aircraft carrier akin to the one in Marvel's *The Avengers*, a working





▼ Although currently set in the Hebrides, Sunfire also has at least one other new biome planned for Stormworks.

submarine, and a replica of Thunderbird 2. Walters says that some players have managed to make vehicles so large that they can't even be spawned onto the main world in one piece; they have to be added one section at a time, and then joined together with magnets. Other players have gone for things that are small and complex, such as a functioning calculator or even a fully working adaptation of an antique arcade game.

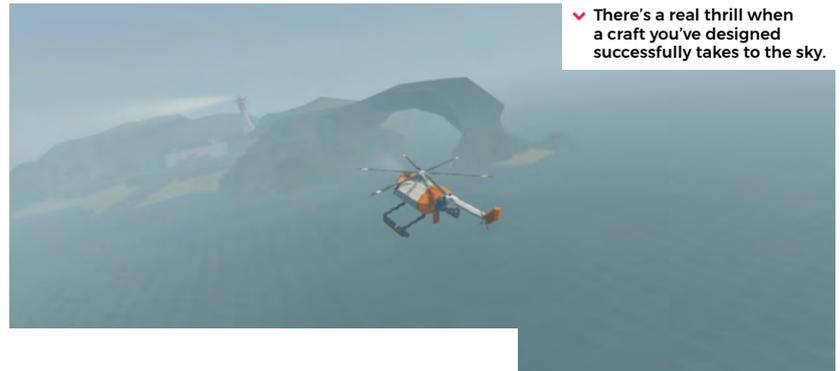
"Someone made *Pong* in the game as well," Walters says. "We can't understand it. We don't know how you can do that. Some players have put in 1,000 hours or 2,000 hours. They're coming up with uses for parts that we'd never even thought of – like, people making flushing toilets, showers, kitchens, just using these basic blocks."

Stormworks is also something of a sandbox for its creators. Back when the concept was still fresh in Walters' mind, he hadn't even reckoned on the game featuring a proper simulated ocean, with waves tossing players' vessels around and possibly even damaging them. Since then, Sunfire have worked on a string of major updates, each one improving things like fluid mechanics and the construction interface.

One update added the option of death – something Walters says has only increased players' affection for *Stormworks*.

"Player engagement has jumped up massively – they absolutely love that things can go wrong. Bringing it straight back to *Kerbal* again, if the rockets don't blow up; it wouldn't be as much fun. Add the mechanic of failure to the game, and you end up in this very rewarding loop of trying something, and failing, and trying again."

According to Walters, the additions that his



▼ There's a real thrill when a craft you've designed successfully takes to the sky.

team have planned could take 18 months or more to implement. These range from additional biomes (the game's currently set in a simulated version of the Hebrides) to more vehicles and in-game items. One of the more controversial things Walters is toying with, though, is the addition of weapons.

"It's probably about 50-50 among players who really want weapons and players who feel very strongly that it should remain weapon-free," Walters tells us. "I really want to see players making machines that are capable of warfare; naval battles; collaborating with other players; manning submarines, reconnaissance; flying fighter jets off aircraft carriers..."

Here, Walters seems to go just a little misty-eyed at all the possibilities that *Stormworks* opens up. For the game's hardcore following,

busily making everything from working toilets to flying aircraft carriers, *Stormworks* is a true sandbox. It's clear, though, that its creator

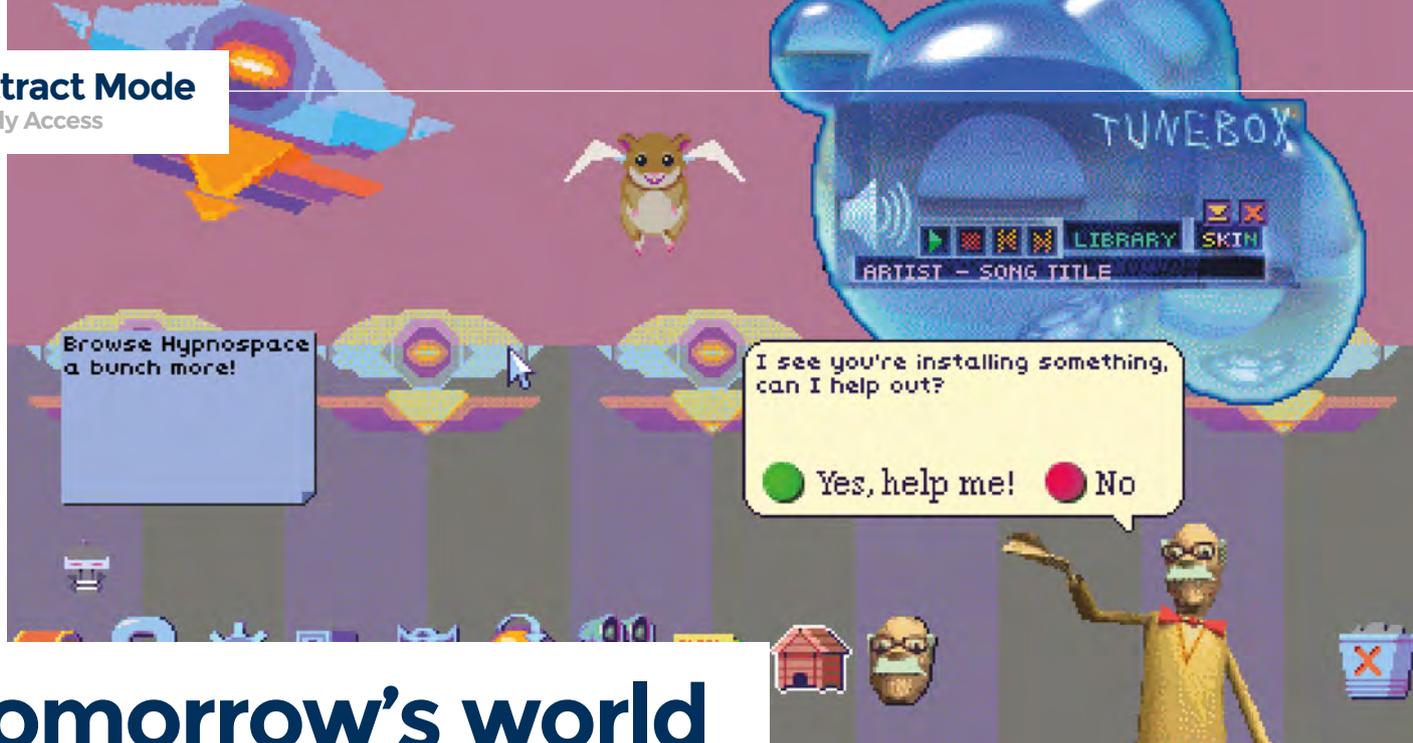
also loves the positive feedback loop he's set in motion.

"It's exciting to be involved with a game that people are really enjoying," he says. "I'm constantly in the workshop looking at what people have made and watching all the YouTube videos. It's a little bit of luck, but it's not lost its magic yet." 🗨️

***Stormworks: Build and Rescue* is available on Steam Early Access now.**

SANDBOX REVOLUTION

Ever since *Minecraft* exploded in popularity, the sandbox sim has become a hugely important genre; even shooter phenomenon *Fortnite* has construction at the heart of it. So why does Walters think making things is so big in gaming right now? "A lot of these games gamify the process of design to the point where it's very lightweight and easy to try new things and experiment," Walters says. "It's taking us into a playground of art. It's less like a traditional video game and more like physical play, I think. It's called a sandbox, and that's what it is – a children's sandpit where you can play with your imagination as much as anything else. Making these games in a low-poly style isn't a mistake; it's about promoting that context of projecting your own ideas onto the game. Whether you're an adult or a child, I don't think it matters."



Tomorrow's world

Jay Tholen talks to us about designing an entire fake internet in [Hypnospace Outlaw](#)

Info

GENRE
1990s internet simulator

FORMAT
PC

DEVELOPER
Tendershoot, Michael Lasch

PUBLISHER
No More Robots

RELEASE
January 2019

Hypnospace Outlaw is a retro revival like no other; a self-described 'nineties internet simulator' offering players an authentic operating system and a stack of interactive web pages to play around with. All the hallmarks of the era you'd expect are present – animated GIFs, looping MIDI music files, garish background images, downloadable virtual pets – resulting in a pleasingly accurate representation of the technology's early formative years.

It's a unique concept, one that relishes in the outlandish marketing terms of the time, like the 'information superhighway', 'cyberspace' and the wholly inaccurate activity of 'surfing the web'.

"It was always inspired by this idea of taking the information superhighway and turning that into a game," lead designer Jay Tholen tells us. "A weird take on the early World Wide Web".

Funded on Kickstarter in 2016, *Hypnospace Outlaw* began as a stylish endless runner of sorts. Players would hunt down miscreants on a literal digital highway, avoiding obstacles and other vehicles as they rushed to deliver online justice.

"At the time, the web and operating system were just really ornate level select screens, essentially," says Jay. "They were just a cute way of contextualising going and knocking into criminals on this highway. After the Kickstarter, when we started development, we realised that when I would post GIFs of the highway bits they weren't getting a lot of interest, [but] the OS bits people were really interested in!"

The highway may be gone (in its original form, at least) but the premise remains the same: players assume the role of a digital enforcer

within the titular world of Hypnospace, an alternate reality version of the internet its fictional users access via a headband while they sleep.

The game's virtual operating system serves as a base camp for your activities. HypnOS is a fever dream version of Windows 95 and is fully customisable. Users can change wallpapers, install new software, and can even be bombarded with pop-ups if they accidentally install malware.

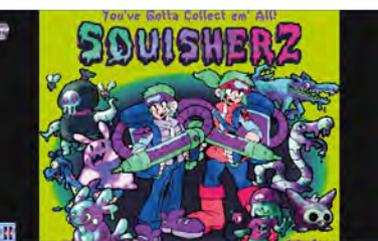
From here, players access the game's dense internet using their Hypnospace Browser, searching for misdemeanours such as copyright infringement or cyberbullying, in order to complete objectives. Reporting online crimes is rewarded with Hypno Coins, a currency used to purchase additional trinkets for your desktop.

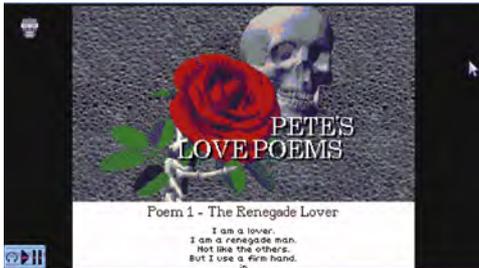
THE SCIENCE OF SLEEP

The game's main storyline, a nebulous thread that revolves around Hypnospace owner Merchantsoft and its upcoming Year 2000 update, is uncovered through organic exploration and searching for hidden pages using the browser's inbuilt tools. There's a subtle resemblance to 2015's excellent *Her Story* in the way additional twists and turns are uncovered through player-led investigation.

Despite the game's incorporation of far-fetched sleep-based technology – the kind of thing that wouldn't seem out of place in an episode of *Black Mirror* – the team insists this isn't a modern-day parable for the digital age. Rather, *Hypnospace* intends to explore the disappointment that surrounded the internet in the late 1990s, as dreams of a 'cyberspace' utopia were replaced by the sobering realisation of its limitations.

▼ The game's fictional brands serve as a surreal parallel to their real world nineties counterparts.





▲ The people of Hypnospace are a varied bunch and are by far the game's most interesting element.

"I really see the company behind Hypnospace as a pathetic start-up", says Jay. "They don't know what they're doing. So as novel as it is to use the internet while you're sleeping, this technology is at its peak in the game. It's bad. There's disappointment for sure."

The webpages themselves are staggeringly varied, ranging from personal sites created by Hypnospace's various citizens to pages dedicated to music groups, products, television shows and memes. The team has spent two and a half years crafting this fictional online society, made up of warped versions of real world nineties trends and products. Pages targeted towards children advertise Squisherz, a video game where players catch horrific monsters. A GIF of a pizza slice dancing to an annoying jingle is a favourite among teens. "I would say most of the time has been spent making up all this stuff, this little world of things," says Jay.

There is a pervasive sense of weirdness throughout Hypnospace's digital world, amplified by the game's distorted musical score. The soundtrack currently consists of around 70 songs (the majority composed by Jay) and encompass a wide variety of era-correct genres. "There's some that sound like Yanni - new-age cheesy keyboard pan flute music - and then there's some that sound like a weird version of shoegaze," Jay tells us. "I think I've probably spent half of the development time on just the music alone."

But it's the fictional citizens of *Hypnospace Outlaw* who are the true stars. Their individual pages burst with personality thanks to clever, often funny, writing. Their sites will even reflect choices you make throughout the game. Banning a teacher for using copyrighted images on her page, for instance, sees her friends rally together against your decision. "I always try to keep the characters more or less like something you could realistically find on the real internet," says Jay.

Creating all of this content comes with a cost, though. Keeping the browsable world of

"HypnOS is a fever dream version of Windows 95 and is fully customisable"

Hypnospace cohesive has been a challenge, and for the past year the team has struggled to find a balance between creating a surrealist experience and an actual game. "For some, who I don't think represent most people who buy games, they would be cool with just having this big alternate reality internet to go poke around in," Jay tells us. "But it needs to be a game with some challenge.

So there's always been this struggle for the last couple of years of, how to take all this content and stick a good 'game' in there."

For Jay, January 2019 not only marks the release date of *Hypnospace Outlaw*, but a proposed end to working on the game's surreal assets in secret, an issue he's faced since development began.

"I do sometimes work on the game on buses and trains, as long as the game proper is open and you can see the context that it's just some weird thing," he says, "But if I'm working on a bad drawing? I'll save that for when I'm alone."

Hypnospace Outlaw offers a compelling exercise in nostalgia; one that could well deliver on its promise of providing an alternate reality 1990s internet simulator to its players. It may finally be time to surf that information superhighway, or whatever it was we were promised all those years ago. 🌐



▲ There's more than just a passing resemblance to Yahoo's Geocities in the design of Hypnospace's web pages.

DO IT YOURSELF

Hypnospace Outlaw will also include two programs: The Hypnospace Page Builder and the Hypnospace Tune Sequencer. These will allow players to create custom pages and music for the game. The team plans to include Steam Workshop support for *Hypnospace* post-launch, enabling players to swap between the base game and custom collections of pages via the in-game UI. "There will be a screen where you can select, in-game, which 'internet network' you want to load," says Jay. "We might contextualise it like internet archive 'captures', so you can load in a separate 'internet' after you complete the game."

▼ The gaudiness of the nineties net in one image.





▲ *Overkill's The Walking Dead* has proven far less successful than hoped.

The Chronicles of Starbreeze

Life imitates art as Starbreeze becomes the walking dead

Starbreeze Studios appears to be in dire straits, with the sudden public appearance of financial woes and the removal of its CEO almost immediately compounded by the arrest of an individual on insider trading charges.

The arrest, it should be noted, does not place Starbreeze under any suspicion and the nature of the ongoing investigation means specifics will only be released when revealed in the courts. That said, it – almost – capped off a tumultuous few weeks for the once-critical darling development studio-turned-publisher.

The quick-fire succession of issues began with Starbreeze announcing a cost-cutting exercise towards the end of November, with initial sales revenue for *Overkill's The Walking Dead* taking the brunt of the blame for poor financial performance at the company. While the announcement remained positive and claimed 'a pulse of concurrent players' on which to build the game, the dominoes had begun to topple.

Just over a week after the money woes were revealed, on 3 December, Starbreeze announced it was replacing its CEO Bo Andersson, in charge since 2012, with deputy Mikael Nermark stepping in as acting CEO.

Starbreeze chairman Michael Hjorth was quoted in a statement as saying: "In this phase, Starbreeze needs a different kind of leadership and we have therefore decided to ask Mikael Nermark to take on full responsibility with our full mandate for this new phase."

RECONSTRUCTION EFFORTS

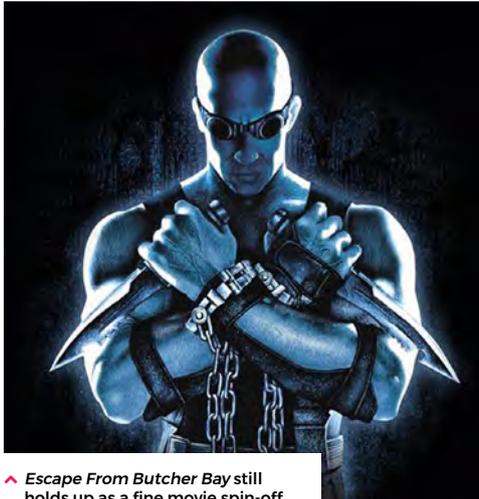
The move also saw two departures from the company's board of directors in the shape of Andersson and Kristofer Arwin. On the same day as the restructuring came the more dire reveal: Starbreeze had applied – and been accepted for – reconstruction in the Swedish courts.

This action, effectively filing for a form of protection against insolvency, was accepted in Swedish District Court. With the procedure came the inevitable news the company would not be able to meet its financial targets for the year owing to a shortage of liquidity. The reconstruction procedure will cover salaries and general day-to-day costs associated with the company, but Starbreeze warned that "no payments can be made to suppliers for services or goods relating to the period prior to the date of filing for reconstruction. Suppliers will be paid for services and goods provided during the reconstruction period."

"The quick-fire succession of issues began with Starbreeze announcing cost-cutting"



▲ Financial issues have been a constant in Starbreeze's 20-year history.



▲ *Escape From Butcher Bay* still holds up as a fine movie spin-off.

Said announcements were quickly followed up just a couple of days later with the news of a raid on Starbreeze's headquarters in Stockholm by the Economic Crime Authority. The surprise swoop saw the aforementioned arrest on insider trading charges, as well as the seizure of computers and documents from the studio.

And of course, when it rains... Starbreeze had announced a Developer's Program for its StarVR virtual reality hardware, a co-venture between the studio and hardware company, Acer. The program would allow select dev teams access to an early production version of the StarVR One headset, as announced on 19 November. Less than a month later it was cancelled, with StarVR blaming 'uncertainties with our key overseas shareholder', that being Starbreeze.

Other companies have been left in an even less secure position following the series of revelations. Nozon, Parallaxer, Starbreeze LA Inc, Starbreeze USA Inc, Starbreeze Paris, Starbreeze Barcelona, Starbreeze IP LUX, Starbreeze IP Lux II Sarl, and Dhruva Infotech Ltd were all named by Starbreeze as potentially 'indirectly affected' by the news, with each being a part-funded subsidiary of the Stockholm firm.

MEANWHILE...

Then there's the status of both *System Shock 3* and *Psychonauts 2*, the latter most recently making an appearance at the Game Awards. Starbreeze is, at the time of writing, still set to publish both titles, but this could of course change. While it's fair to assume *Psychonauts* developer Double Fine could weather any potential storm well enough, it being an established player and with its own numerous sources of income, OtherSide Entertainment's work on *System Shock 3* is largely reliant on a £9.5 million investment from Starbreeze.



▲ *The Darkness*: a great game that underperformed.

Financial issues at the publisher could potentially have a large knock-on effect on the project, and the studio as a whole.

Starbreeze's most recent release, Overkill's *The Walking Dead*, was the first title developed internally at the company – albeit via subsidiary Overkill – since 2013's *Brothers: A Tale of Two Sons*. It received a score of 49% in Wireframe #3, with our reviewer intimating that given enough time (and money), Starbreeze might be able to patch it into better shape. It's a surprise to see the same is true of the company itself. 🗣️

76 FALLOUT

Bethesda might have warned us *Fallout 76* would see some unexpected issues rearing their head, but even they wouldn't have guessed at how much has happened since the game's release. Beyond just bugs and in-game issues, there's been the unfulfilled (later fulfilled) promise of canvas bags for special edition owners – the originally provided nylon bags not being quite what was expected; a personal information leak from Bethesda's help desk; the threat of a class action lawsuit over players' inability to easily seek refunds; and a high-profile in-game homophobic assault, resulting in players receiving lifetime bans. Things can only get... better?



Preview



Generation Zero ↗

At the time of writing, Avalanche has just unleashed its frenzied sandbox sequel *Just Cause 4* on the gaming world. Its next opus, meanwhile, promises to be rather different: where the *Just Cause* series is about blowing stuff up on picturesque islands, *Generation Zero* is a more sombre looking affair, taking place in an alternate 1980s where Sweden's been taken over by giant killer robots. It's a co-operative FPS, in essence, with friends teaming up to take out evil machines of varying shapes and sizes. In between, there are some survival activities – hunting abandoned buildings for ammo and so forth. We're intrigued to see how much fun Avalanche can make shooting various antennae and appendages off faceless robots; they've certainly made attaching oil drums to helicopters enjoyable in the past, so the pedigree's certainly there. If nothing else, the late 1980s fashions – it's all baseball jackets and tight jeans – look great.

Release date: TBA 2019

Ooblets ↘

Cuteness abounds in *Ooblets*, a farming and life sim inspired by the Japanese staples of those genres – namely, *Harvest Moon* and *Animal Crossing*. You tend crops in your garden, customise your characters with clothes and haircuts, and in a *Pokémon*-style touch, collect and train little creatures called Ooblets. Unlike *Pokémon*, though, the creatures engage in dance-offs rather than vicious fights.

Release date: TBA



Indivisible ↙

The animation, heroine and exotic locations of *Indivisible* recall *Shantae*, though *Indivisible* leans more heavily on the RPG side of things than WayForward's cult platformer series. Developed by Lab Zero, *Indivisible*'s a fantasy adventure that follows the exploits of Ajna, a girl who leaves her hometown to fight an evil overlord. The action's influenced by JRPGs and platformers, and the eastern touch is underlined by the presence of *Secret of Mana* composer Hiroki Kikuta. *Indivisible*'s core team previously worked on the wonderful *Skullgirls* – reason enough, we think, to add this title to our already lengthy must-play list.

Release date: TBA 2019



Control ↗

From Remedy Entertainment, the makers of *Max Payne* and *Alan Wake*, along comes another third-person action adventure. The twist here is the player has telekinetic,

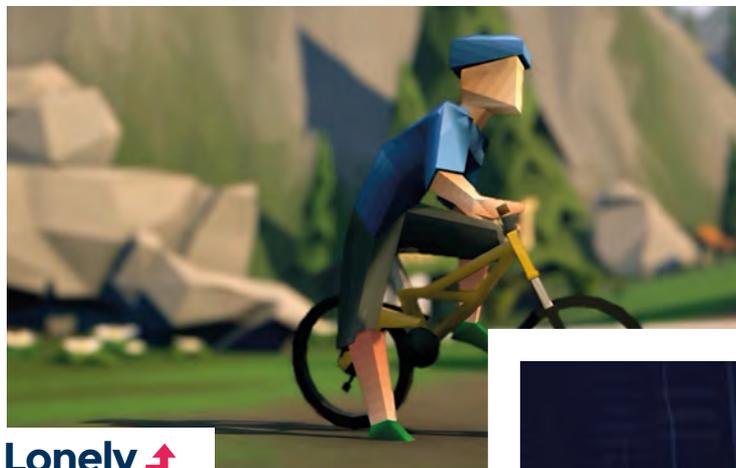
object-hurling powers as well as a gun, so we'll be able to use a desk, say, as a weapon or a shield. *Max Payne* crossed with *Akira*? We'll take that.

Release date: TBA 2019

Rico ↘

After a hard day's work, you sometimes just want to unwind with a simple, bracing first-person shooter. *Rico* certainly looks the part: played either solo or with a friend, it's a somewhat retro-looking FPS with cel-shaded graphics, a slow-mo button and plenty of gory action. To underline the old-school feel, there's even a split-screen co-op mode.

Release date: TBA



Lonely ↗ Mountains: Downhill

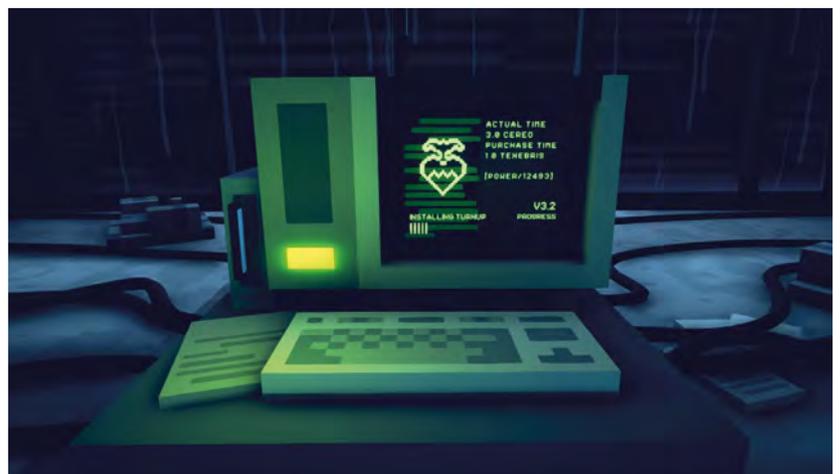
If this were the 1980s, this would probably be called *Advanced Mountain Bike Simulator*. Instead, it's *Downhill*, a game dedicated to the pastime of hurtling down a hill and hoping you don't break your neck in the process. A fun action game rather than a sim, *Downhill* was successfully Kickstarted a couple of years ago, and we've been looking forward to it ever since.

Release date: TBA 2019

Morning Star ↘

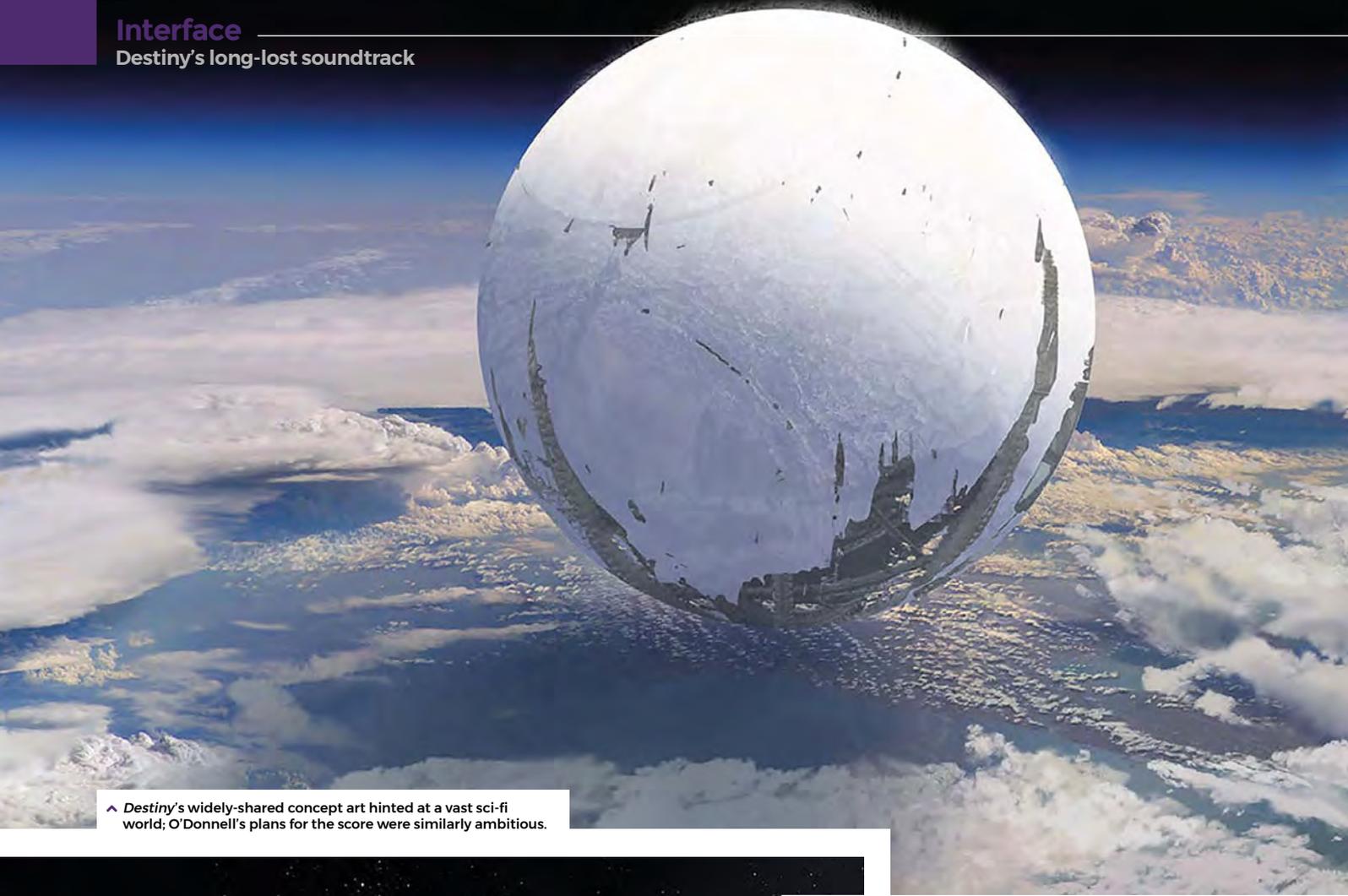
If *Ooblets* looked just a little too whimsical for you, how about a farming sim that takes place in a cyberpunk dystopia? "Computers are your soil and software is your seeds," is how developer Metkis pitch this, and that's enough to get our attention all by itself. As far as we can tell, this is like *Harvest Moon*, except with a barren landscape and ageing computer mainframes.

Release date: TBA 2019



Interface

Destiny's long-lost soundtrack



^ *Destiny's* widely-shared concept art hinted at a vast sci-fi world; O'Donnell's plans for the score were similarly ambitious.



^ Paul McCartney, Marty O'Donnell and music producer Giles Martin at Avatar Studios in New York City.

v The video for Paul McCartney's *Hope for the Future* - all that publicly remained of his contribution to *Destiny*, at least officially.



Recovering the Satellites:

Destiny's long-lost soundtrack

Missing for five years, Destiny's soundtrack album, *Music of the Spheres*, resurfaced in 2017. Composer Marty O'Donnell reflects on what happened

W

hen Bungie unveiled its space-opera shooter *Destiny* in February 2013, it marked the end of two years of near silence from the creators of the *Halo* franchise.

Fans celebrated at the prospect of an entirely new game from such well-known talent. Behind closed doors, however, *Destiny* was in trouble.

Though the game was almost complete by mid-2013, plans to launch that September were put on hold when concerns over *Destiny's* story forced its narrative structure to be rebuilt from scratch. It would be more than 18 months before *Destiny* was released: a fun but strange shooter that bore difficult-to-pin-down traces of its troubled gestation. But one element of *Destiny* – that had been a huge part of its development – was nowhere to be seen. It was an ambitious original soundtrack written and recorded with an impressive but unexpected collaborator: Paul McCartney.

Audio director and composer Marty O'Donnell had been with Bungie since the late 1990s, and for him, *Destiny* represented an opportunity to develop something new: a musical prequel to the video game. This would become *Music of the Spheres* – an eight-part musical suite that took nearly two years to complete. This was no mere soundtrack, however. Born out of discussions between O'Donnell and

WORDS BY
Matthias Sundström

"I honestly
don't
think they
understood
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working
with Paul
McCartney"

Bungie COO Pete Parsons early in the game's production, it was to play an integral role in *Destiny's* marketing campaign.

"I wasn't writing this just to be marketing fodder," O'Donnell laughs. "I was writing it as a standalone listening experience that would then eventually become marketing fodder – but I didn't want the other to happen first."

Between 2011 and 2012, Bungie and O'Donnell devised plans for the album.

"Every few weeks or so, I would be called to a meeting in one of their big conference rooms and there would be a whole bunch of new faces there, pitching some cool idea or other," says O'Donnell. "[At one point] it was going to be a visualisation with your mobile device."

But there were fundamental differences between what Bungie had planned and what Activision – *Destiny's* publisher, and keeper of the purse strings – wanted.

"I think Activision was confused [about] why you would ever use music as marketing... And the other thing is, I honestly don't think they understood why we were working with Paul McCartney. I think they didn't think that that was the right person for the demographic."

News of a collaboration with McCartney had raised eyebrows when he revealed his involvement

on Twitter in July 2012. His interest had been piqued during his attendance at E3 2009 following the announcement of *The Beatles: Rock Band*, which was preceded by Bungie's unveiling of *Halo ODST*.

"I had a contact in Los Angeles who worked out deals with actors we used on *Halo*," O'Donnell recalls. "He was able to make contact with Paul's people and set up a meeting between the two of us in spring of 2011. My impression was that Paul saw a new crop of fans come from *Beatles' Rock Band* and was interested in seeing what was involved with creating music for video games. He seemed convinced that Bungie was working on a project that he could get behind."

LOOP SYMPHONY

Within a few weeks, O'Donnell and McCartney were exchanging ideas for *Destiny*.

"The first thing he sent me was what he called his 'loop symphony,'" says O'Donnell. "He used the same looping tape recorder that he used on *Sgt. Pepper's* and *Revolver*... He hauled this tape recorder out of his attic."

Working with regular collaborator Michael Salvatori, O'Donnell and McCartney set about developing *Music of the Spheres* into a fully-fledged album, comprising eight movements.

"I have all of these wonderful things, which included interesting things he did on his guitar that sort of loop and sound otherworldly... I think there are a couple of times in *The Path*, which is the first piece, and then I think *The Prison*, which is the seventh piece, where we use a recording of Paul doing this loop with his voice. This little funny thing. That's Paul's voice, which is cool."

The album was completed in December 2012 following recording sessions at Capitol Studios in California, Avatar Studios in New York, and Abbey Road in London. Musical elements from *Music of the Spheres* accompanied Bungie's big reveal of *Destiny* at a PlayStation 4 event in New York in February 2013. But after that, things started to go south.

"He used the same looping tape recorder that he used on *Sgt. Pepper's* and *Revolver*"

PICTURE PERFECT

"We captured several of the sessions on video," O'Donnell says. "One of them was a session that I had with Paul at Abbey Road, upstairs in the penthouse studio, which is on the top floor. I spent the day with Paul in the studio. There's a picture of Paul and I and he's got his hands up, and there's a picture of me listening."

There are a couple of pictures out there that were taken from the video shoot that day, so that's where those pictures come from."



"After that PlayStation 4 announcement, I said, 'Let's figure out how to release this. I don't care if we have Harmonix do an iPad version with a visualiser for it. I mean, if we can't pull the trigger on something big and interesting like that, that's fine with me. Let's just release it online.' It had nothing to do with making money... It was always fan service, in my mind at least."

Activision, on the other hand, had other priorities. "Activision had a lot of say on the marketing. I think that's where things started to go wrong, for me... things started being handled badly, or postponed, and then all of a sudden I was seeing bits of *Music of the Spheres* being cut up and presented in ways that I wasn't happy with."

FRICITION

Things came to a head in May 2013, when Activision kiboshed plans for the official announcement video at E3 that would have heavily featured material from *Music of the Spheres*, cutting a trailer instead that used none of O'Donnell, Salvatori and McCartney's work. Frustrated by Activision's increasingly far-reaching creative decisions, Bungie's board of directors wrote a letter of protest.

"Our contract with them stated explicitly that Bungie would have an equal seat at the table in regards to PR and marketing for *Destiny*," the letter read. "By changing the story of the announce trailer, we felt strongly that the wrong impression would be given to the public as to what *Destiny* actually was intended to be. That was something that Bungie should have had control over."

The letter was rejected, but O'Donnell continued to voice his concerns.

"I was really depressed about how this relationship was working out," he muses. "I just saw the way Activision reacted to the two years of work we did on *Music of the Spheres* and what our plans were for it... I just felt like they were exceeding the bounds of what they should have been influencing and I just didn't like what that was. And I was the only one on Bungie's board of directors that was saying this. So it became

▼ O'Donnell and McCartney, pictured here at Abbey Road, collaborated on five of *Music of the Spheres'* eight movements.





a thing where I was always on the other side of the issue... I think, probably rightfully so, Bungie needed to be unified and not have someone so obviously dissenting from a lot of the creative decisions."

The friction with Activision had devastating consequences for O'Donnell. In April 2014, he announced that he'd been terminated without cause. His work on the *Halo* franchise had set the benchmark for video game music. It seemed unthinkable that Bungie could release *Destiny* without him.

When *Destiny* was finally released in September 2014, O'Donnell, Salvatori and McCartney's musical contributions to the game itself remained intact. The *Music of the Spheres* project, meanwhile, had all but disappeared, and despite being credited on five of the album's movements, McCartney's contribution to *Destiny* appeared to be little more than the song 'Hope For The Future'.

"If people haven't heard [*Music of the Spheres*], it's really hard to explain: 'You know that little melody that comes in there?' I'd love to point to that and say, 'that's Paul McCartney, and that's how we implemented that, and used that, and collaborated...' People who think he just did the song are mistaken."

Following his dismissal, O'Donnell filed an arbitration lawsuit against Bungie before being countersued for violating their copyright by sharing copies of *Music of the Spheres*.

"I don't know how many I gave out when I was audio director," he recalls. "But as soon as I was fired, that was when I had violated copyright. I think there was something like twelve to fifteen confirmed CDs that supposedly I had given away after I was fired... I really thought that their counter-suits and everything that they were doing against me was trying to make me drop my arbitration suit and negotiate some sort of settlement."

A DATE WITH DESTINY

Destiny's troubled production was well documented in the months running up to its 2014 release, from the heavy retooling of its story to its overhauled soundtrack. Nor was O'Donnell the only departure behind the scenes; Joe Staten, the design director who'd co-created both *Halo* and *Destiny*, left Bungie in 2013. For O'Donnell, the danger signs were easy to see.

"I was warning the guys at Bungie that Activision was taking a very strong position on influencing creative," the composer says. "And I saw it from working with them on the commercial and I was very nervous that it was going to start affecting what we did and how we made the game – not just the marketing. And, this is my opinion, but I think I'm right."



Paul McCartney and Marty O'Donnell collaborating at Abbey Road Studios, London.

HOPE FOR THE FUTURE

Talk of *Music of the Spheres'* release had all but vanished until December 2017, when a fan launched a petition pressuring Bungie to release O'Donnell's original vision, to which he gave his blessing.

"I thought, 'Well, yeah, a petition's great, but they're never going to do anything.' But I know there's a whole bunch of CDs out there in the wild, so it occurred to me that people that I know that I'd given the CDs to follow me on Twitter, so I decided to say, 'Hey, I have no ability to give you permission to release it, but I can give you my blessing.'"

An anonymous source came through, and on Christmas Day, a SoundCloud user uploaded the *Music of the Spheres* in its entirety.

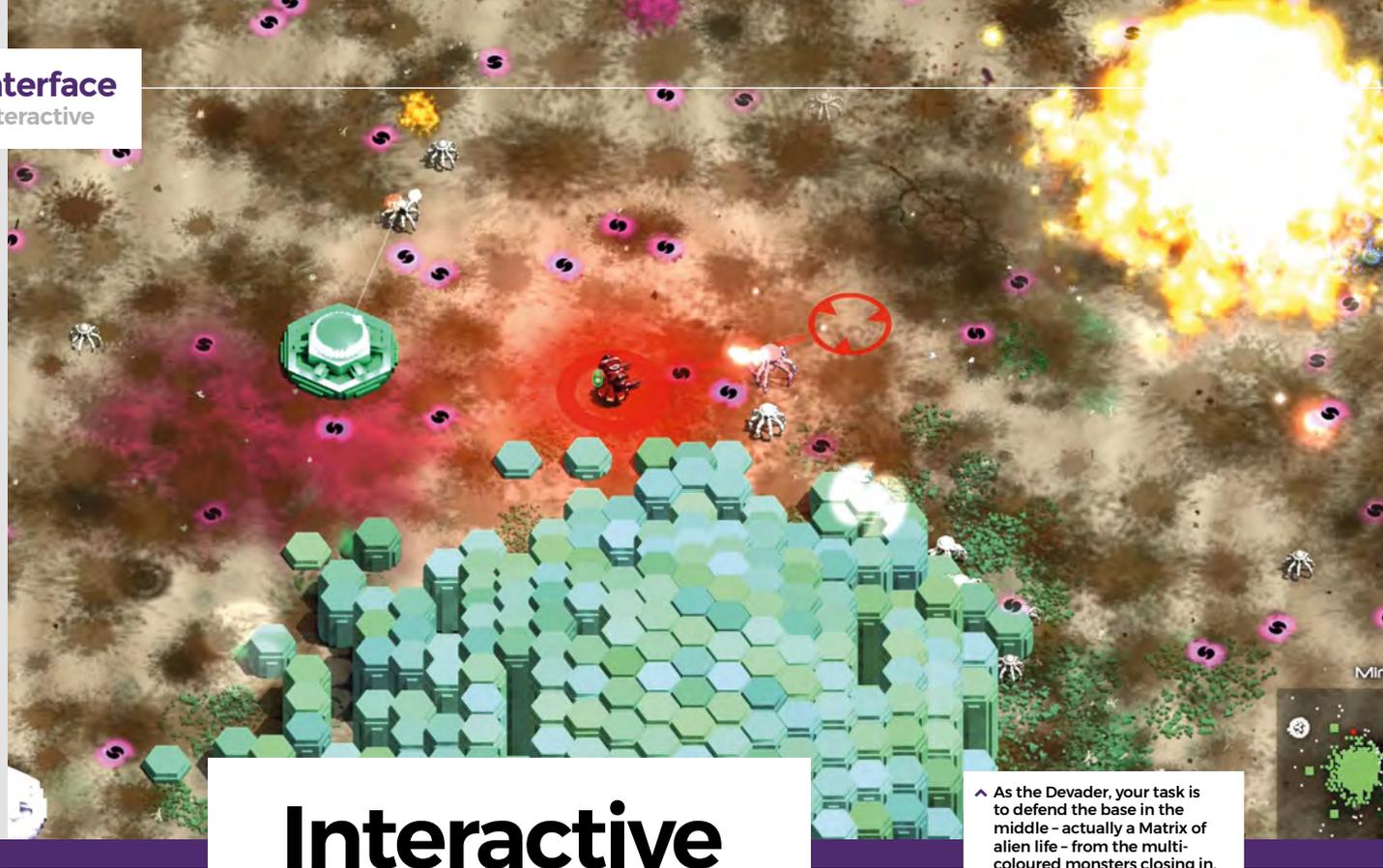
"It was a fun Christmas, that's for sure," O'Donnell laughs.

The full version of *Music of the Spheres* remained online until April 2018, when Bungie issued Spence with a cease and desist letter, informing him that, after years of silence, they were planning to release the work officially. This came as something of a surprise to O'Donnell, who only heard the news for the first time via a thread on Reddit, in which Bungie's Art Director Chris Barrett confirmed the company's plans.

"Were you planning on telling me at some point?" O'Donnell asked. Bungie have yet to officially announce a release date for the album, and O'Donnell is still in the dark over the studio's plans. Nevertheless, following the leak, O'Donnell expressed his satisfaction that fans were finally able to hear *Destiny's* score the way that he, Salvatori and McCartney had originally intended half a decade ago.

"It's sort of like, regardless of what happened between Mom and Dad and they got a divorce – there was a planned trip to Disneyland and that should still happen... Let's go ahead and just take the kids to Disneyland anyway."

Although *Music of the Sphere's* fate remains unclear, it's increasingly looking like that trip might finally be going ahead. 🙏



As the Devader, your task is to defend the base in the middle – actually a Matrix of alien life – from the multi-coloured monsters closing in.

Interactive

Devader, the twin-stick bullet-hell shooter from Switzerland

Developer Marc Breuer has made a stunning-looking shooter called Devader. We caught up with him to find out more

Are you a solo developer working on a game you want to share with Wireframe? If you'd like to have your project featured in these pages, get in touch with us at wfmag.cc/hello

Amusement arcades may be comparatively small in number these days, but the spirit of classic coin-op games lives on in modern indie titles like *Geometry Wars* and *Resogun*. *Devader* is cut from a similar cloth: its twin-stick action harks back to arcade classics like *Robotron: 2084* and *Defender*, but its tower defence elements provide an additional layer of strategy, even as its psychedelic visuals dazzle the eye.

Devader's the work of Marc Breuer, a freelance software engineer from Baar, Switzerland. Better known as Falkenbrew, Breuer began work on *Devader* back in December 2015, and he's spent the past three years creating his bullet-hell shooter. As you'd expect from an arcade game, the concept's quite simple, even if the flow of the action doesn't seem obvious from a static screenshot. Cast as a heavily-armed robot called the Devader, it's your job to defend your base – depicted as a pile of hexagonal columns, like Northern Ireland's Giant's Causeway – from advancing waves of

fast-moving and aggressive aliens. Allow the aliens past you, and they'll nibble away at your pile of columns – and you can probably guess what will happen if you let the invaders gulp down the last bit of your precious base.

To even the odds, you can equip a variety of exotic weapons, while gun turrets can be placed around the screen to help break up the enemy ranks. Figuring out which weapons work best against which enemies is, Breuer says, a key part of the game.

"By choosing different upgrades, the game plays out differently," Breuer tells us. "So not only does it change the Devader, but also what

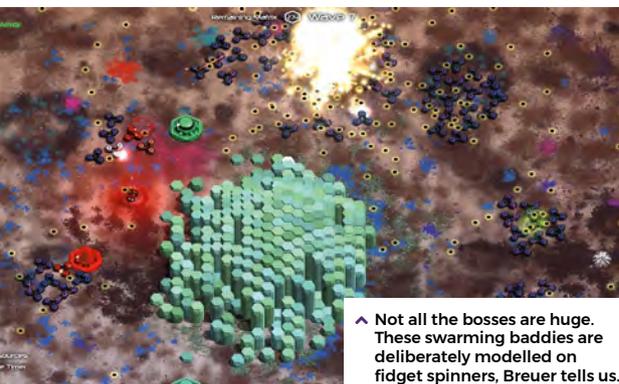
"The final game will have 25 unique bosses, five difficulty levels, and 12 special endings"

enemies you will encounter and which bosses you will have to face. This means that your decisions can make your life better or harder and you won't have to rely on luck to give you the right weapons at the right time."

Although *Devader* might sound like a relatively self-contained project for a solo developer, the sheer range of enemies Breuer has created is quite staggering. In a few minutes' footage you'll see tiny scuttling robot spiders, scores of



^ The sheer number and variety of enemies we've seen in *Devader* so far is rather mind-boggling.



^ Not all the bosses are huge. These swarming baddies are deliberately modelled on fidget spinners, Breuer tells us.

glowing, angry amoeba, and colossal, shadowy bosses that look like they've slithered up from the bottom of the ocean.

"I've possibly gone a little overboard for a one-man studio," Breuer admits. "It's a one-room game – I guess you could compare it to movies like *Cube*. This freed me from actual level creation, so my main focus was on mechanics and enemy design. The final game will have 25 unique bosses, five difficulty levels, and 12 special endings."

Where most indie developers tend to go for Unity, Unreal or GameMaker these days, Breuer made *Devader* in Google Chrome with HTML5, WebGL and JavaScript. It's a setup that Breuer praises for its speed – "Google's done an amazing job here, and I would never have continued working on the job if they hadn't," he says. He adds, though, that development on *Devader* hasn't been without its challenges – partly due to the sheer number of alien monsters he has whizzing around.

"In spite of all the improvements, JavaScript isn't exactly known to be the fastest technology," Breuer says. "I also have a huge amount of enemies on screen at the same time. I also use a lot of alpha blending, something that everyone tells you not to use if you read up on it online, but I think it looks nicer. Maybe with more

knowledge on my part I'd find better solutions, but I'm learning on the job."

Making *Devader* may have been a learning process, but Breuer hasn't faced the task entirely by himself. Taking his work in progress to events like Gamescom and GDC has given him some much-needed motivation, while a handful of collaborators, among them Austrian musician Mathias Binder and artist Rosen Simeonov, have helped lighten the creative load a little. Mostly, though, it's been a process of refining and honing for Breuer. "I've never stopped making improvements," he says. "To be honest, it's just playing the game thousands of times and watching people play at events. It's going in the right direction, but it's tough as a one-man team."

Visually and aurally, at least, the process of refinement is clearly paying off. The action's fast and colourful, and the huge, shadowy bosses are true stand-out: some are as large as the screen, and range from crawling, insectoid things to what can only be described as spinning octopuses from hell. And while *Devader's* development is almost finished – it's currently scheduled for release in March 2019 for PC, Mac and Linux – Breuer still has a few nightmarish abominations left to create.

"I've not completed all the bosses yet," Breuer says. "I still have at least four more to go... and a lot more to tweak." 🌀



RUN AND GUN

Robotron: 2084 wasn't the first twin-stick shooter, but its brilliance – and popularity – made it the gold standard for the sub-genre. Designed by Eugene Jarvis and Larry DeMar, and released in arcades in 1982, *Robotron* was brilliant in its simplicity: controlling a small protagonist beset on all sides by killer robots, you had to survive for as long as you could by blasting enemies and rescuing human survivors. As with Jarvis and DeMar's other big hit, *Defender*, *Robotron's* ferocious difficulty was leavened by its then-unusual control scheme; the twin joystick layout allowed players to gun down robots as they beat a hasty retreat, or blast-shoot their way out of a tight corner. A huge hit, *Robotron* was followed by Jarvis' own *Smash TV* and *Total Carnage* in the 1990s, while its genre-defining legacy can still be felt today.

^ The genre-defining twin-stick shooter. A quarter of a century later, *Robotron: 2084* is still a blast to play.



Preparing to launch

French developer Novaquark talk us through the work that's going into launching its sci-fi MMO, *Dual Universe*

W

ith Earth facing extinction, humanity heads for the stars, searching for other planets where they can settle and carve out new

civilisations. Such is the backstory for *Dual Universe*: the forthcoming MMO from French developer, Novaquark. Director and designer Jean-Christophe Baillie describes his work in progress as a combination of *EVE Online* and *Minecraft*, and the influence is easy to see: you can dig for rare materials and forge them into everything from shelters to spacecraft, and there's the beginnings of what sounds like an *EVE*-like economy driven by players. With *Dual Universe*, however, Baillie and his team

hope to take elements from their influences and create "a concept that has never been seen before."

Part of that concept is a single-shard universe, where thousands (or millions, if the game takes off) of players all mine, build, and barter on the same server. While *Dual Universe* will use an existing rendering engine – a modified version of Unigine 2 – Novaquark has built its own server technology which, Baillie says, will be able to support the huge influx of players it's hoping to attract.

"The server technology is entirely ours," Baillie tells us via Skype. "You've probably heard of a company called Improbable – we're not using that. We think that our technology is bringing more possibilities than what they're currently doing, especially with voxel tech, which allows you to modify the terrain. As far as we know, this is not something you can do with [other server technologies]."

STRESS TESTS

It should be pointed out that Baillie knows a thing or two about computer science: he has

a PhD in artificial intelligence and robotics, and has spent well over a decade leading research in that field. It's fair to

"All of the theoretical background and tests tell us that it's going to work"

say, then, that when Baillie takes us through technical aspects of a virtual economy or the specifics of stress-testing server technology, he really knows what he's talking about. So given that *Dual Universe* isn't fully up and running when we talk to Novaquark one autumn afternoon in 2018, how do they know their game will cope with an influx of players when it launches more widely in 2019?

"How do you stress test with millions of players? The short answer is, you can't," Baillie tells us. "Because you need to have one

▼ Like *No Man's Sky* before it, *Dual Universe* hopes to appeal to players' desire to explore. You won't find aliens on other planets, but you'll be able to mine them for precious minerals.





^ Everything in *Dual Universe* can be edited, its makers say. Screens will even be modifiable with LUA scripting.



^ Craft can be fitted with a variety of engines for space travel or flying in a planet's atmosphere.

million players to do the test. What we can do is emulate the players, so we use bots. We simulate players, and we try to hit the servers with as many of those bots as possible. And even that isn't so easy, because those bots require a lot of intelligence. So far, we've tested with several thousand bots, together with the players, and it works. It scales as we hope it will scale. So all of the theoretical background and tests tell us that it's going to work. But the ultimate test is going to be the day it happens, right? We'll see."

Baillie says there are several thousand players digging through *Dual Universe* right now, as the MMO goes through its first beta phase; the full game isn't due to be released until 2020, but players can still get early access by pledging 60 euros or more. Log in, and you'll find a voxel-based landscape where everything can be edited, terraformed and reworked – in a hands-off demo, Novaquark show us how players will start on a home planet "the size of England", where they'll be able to build their own spacecraft and head off for other worlds.

Building and mining is only one phase of *Dual Universe's* growth, though. While players will eventually want to explore other planets for more resources, the need to branch out will become more urgent, Novaquark hopes, when the in-game markets kick in at some point in 2019. Not unlike the real world, it'll be the economics of making, buying and selling that will provide *Dual Universe* with one of its engines of growth.

"A good way to look at the economy is to look at *Eve Online*," Baillie says. "It's going to be fairly similar in terms of the basic principles of what's going on there. The difference with *Eve* – and it's a bit of an experiment as nobody's done it as far as I know – is the fact that the markets will be player-driven. A player can create and set up a market, they will have to secure it, power it, and so on, and they can make money by taking fees out of the market. They can create their own business model, basically."

THE FUTURE

Again, Novaquark have been using a mixture of real players and bots to stress-test its fledgling marketplace, where prices of everything from base materials to ships can rise and fall according to buyer demand.

"It's very important to have this kind of realistic economy, so that the magic of Adam Smith can take place," Baillie says. "Everything's balancing itself. That's something we're eager to observe. There will also be market bots that will operate on the markets to regulate the amount of cash in the economy. This is a fairly complex topic, but we're working on ways to control these dynamics."

It's clear, then, that Novaquark have lofty goals for their MMO. As well as the building and trading, the studio's roadmap for *Dual Universe* also includes PvP combat, nation states, territorial warfare between said states, and, at the less dramatic end of the spectrum, pets. While there are plenty of other sci-fi MMOs vying for attention in the real-world marketplace, Baillie has high hopes for *Dual Universe's* future. "If we can capture the best of *Eve* and the best of *Minecraft*, then we have a concept that has never been seen before," Baillie says. "It could be absolutely amazing." 

^ Ships can be crafted piece by piece, but blueprints will help speed up the process of building if you want something off-the-peg.



MANIC MINING

If players can mine a planet until its resources are depleted, that led us to thinking: how many players would it take to completely wreck one of *Dual Universe's* worlds? Baillie has the answer: ages.

"You can model how much stuff you can [mine] per unit of time, and then you multiply that by the number of players," Baillie explains. "For example, we did a calculation: if you want to take out one percent of a planet, just lower the ground by a few metres. If you have a group of 1,000 players who are doing nothing but just mining eight hours a day, weekends included, that's going to take 19 years."

That, folks, is a lot of digging.

Assassin's Creed's killer history



SAM GREER

Sam Greer is a freelance writer, loud Scot, and one of only three *Final Fantasy Lightning Returns* fans. She has written for the BBC, The Guardian and Eurogamer, and champions issues of representation and independent games.

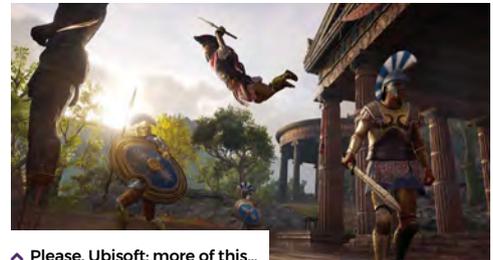
“Assassin's Creed prefers to boil everything down into two neat camps at every opportunity”

Still a towering giant of a franchise over a decade since it started, *Assassin's Creed* is perhaps Ubisoft's greatest success of all time. It started in the Middle East during the Crusades, went through Renaissance Italy, the American Revolution, the Golden Age of Piracy, the French Revolution, Victorian London, Ancient Egypt, and its latest entry has brought us to Ancient Greece. That's just the main entries, but it at least highlights how much ground the series has covered. It's fantastic stuff.

Assassin's Creed isn't all history, though. The series also covers a fictional secret war between two factions across millennia: the freedom-craving Assassins of the title and the order-seeking Knights Templar. Usually, this is framed from the present, where a modern-day descendant relives the past through their 'genetic memory'. There's also an ancient civilisation that predates mankind who, with their advanced technology, essentially gave birth to most of humanity's myths and legends. This stuff? Absolute rubbish.

It's not the pseudoscience of the framing device that bothers me so much, though the modern component really is an unwelcome interruption. Really, it's the secret factions and ancient civilisation malarkey that brings the series down. Because the series is well researched (and big budget), the attention to detail Ubisoft have shown is breathtaking – they even made Discovery Tour for *Assassin's Creed: Origins*, an educational mode that was built with classrooms in mind.

Yet all that ends up filtered through the prism of the series' own absurd, simplistic mythology. Where an exploration of history should embrace the messy complexities of the times, *Assassin's Creed* prefers to boil everything down into two neat camps at every opportunity: the goodies and the baddies, with all grey areas carefully removed. While there's plenty to soak up as you run around incredible recreations of ancient cities, the spirit of those ages is all but lost.



▲ Please, Ubisoft: more of this...

Of course, times (and franchises) change. More recently, Ubisoft seems to have responded to its critics. The modern segments have shrunk with each instalment, and in *Assassin's Creed: Odyssey*, they barely factor at all. The ancient civilisation, now called the Isu, still feature, but in a much reduced capacity. But best of all, the Assassins are gone. So are the Templars. There's still an underlying conspiracy, but it feels much more closely tied to real history. The result is that *Odyssey* doesn't feel like another *Assassin's Creed* game wearing a new costume – it feels like its own thing. Your character's story weaves through historical events and figures like before, but in a way that feels so much more natural. No discovering Socrates was a secret assassin or Templar here, thank the gods.

Ubisoft could go further, though, and I hope the praise this trend has received will encourage them to ditch their own fiction altogether.

When your historical stealth-murder-adventure's as good as this, who needs sci-fi conspiracies, anyway? 🗨



▲ ...and less of this.

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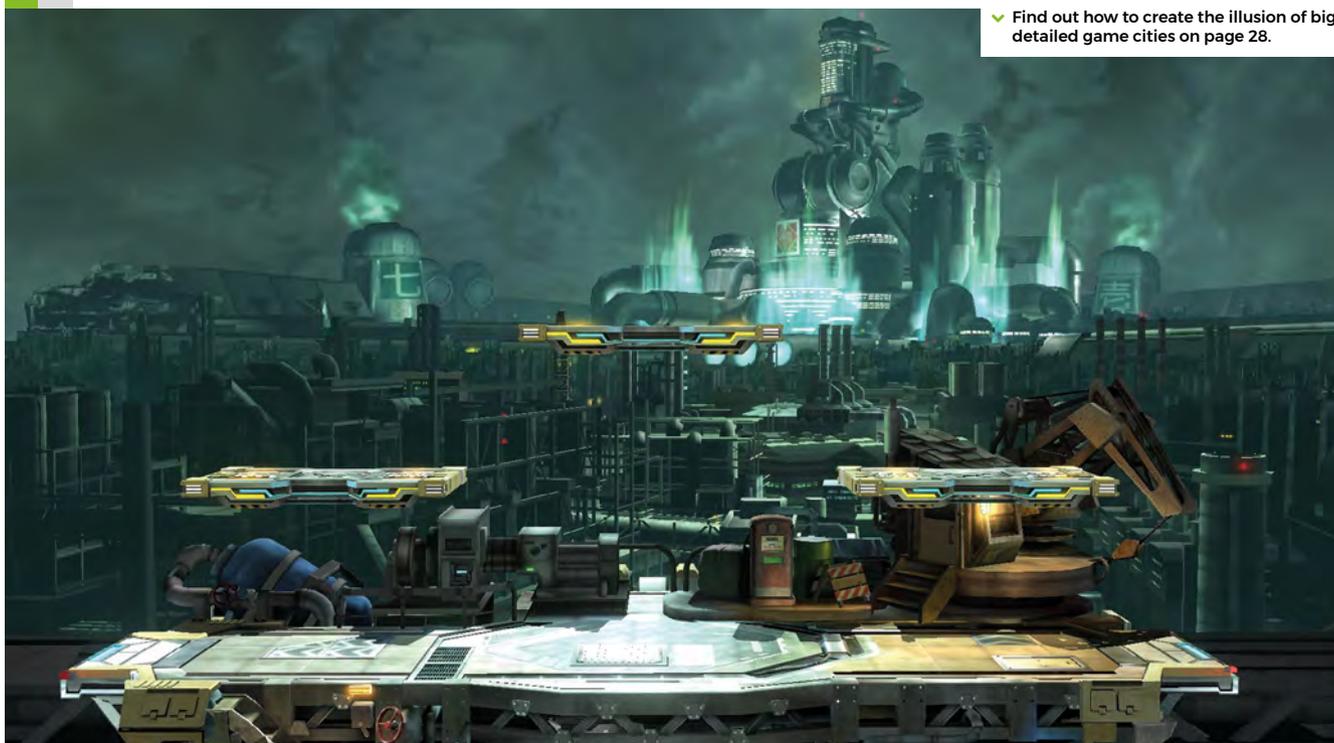
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Online courses and resources to help with your game's sound



▲ Get your indie masterpiece on to itch.io's online marketplace with our step-by-step guide on page 34.

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CityCraft: Suggesting size and complexity

Smoke, mirrors, and how to create the illusion of big, detailed game cities



AUTHOR
KONSTANTINOS DIMOPOULOS

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Sound and Space

A carefully designed soundscape can suggest a much larger virtual city than the one players can see. Blaring sirens in the background, dogs barking in the distance, the roar of unseen traffic, underground subway vibrations, and distant church bells can easily expand the perceived game space. Best of all, sound is much cheaper to create than a vast city map.

Imagine you've completely planned and detailed a unique, sprawling metropolis. Your imaginary city is meticulously mapped, thoroughly described, and its architectural styles have all been sorted out. You're proud of your creation, even if attempting to digitally model it in its complete glory would probably cost you a few million pounds. It is, you see, no mystery why even the grandest *Grand Theft Auto* metropolis is tiny when compared to a modestly sized, real life urban centre.

Assuming you're neither Blizzard nor Rockstar, you'll have to think carefully before building your virtual city. You'll have to abstract and generalise your world, probably limit exploration to a handful of locations, or avoid creating an open world altogether. You'll have to imply a sense of history and life in as cost-effective a way as possible, and somehow convey a scale that isn't really there. So how can we do this?

A THOUSAND WORDS

If a game's design allows for it, we can do amazing things with little more than a single image – a view through a window or a 2D background, for example. Provided the appropriate elements and detail are there (see **Figure 1**), scale can be conjured up with relative ease. Dense apartment buildings, hundreds of washing lines, and a background of churches, chimneys and obvious population density simply couldn't exist in a village or a

small town – such a view could only be found in the middle of a city.

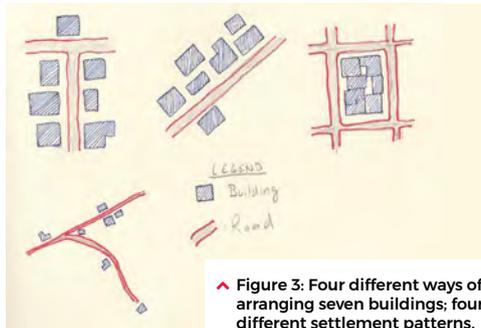
Only a tiny part of such a place needs to be shown, and people will instantly, almost instinctively, identify this type of density, architecture and spatial organisation as decidedly urban. What's more, an image like **Figure 1** provides the viewer with a hint of a city's overall texture and history.

Practically, this means that small urban scenes in carefully selected areas can also work brilliantly in implying size, complexity and texture, and they'll allow us to conjure images of everyday life. They can showcase our elaborately thought-out creation in an easy to summarise way – provided, of course, there is a sensible backstory to our city, and an imaginary or real geography to draw on. Using a pre-existing city plan (or actual city) for inspiration can help immensely here.

✓ **Figure 1: Early 20th century tenement houses. Notice how a simple static image instantly creates a sense of scale.**



^ **Figure 2: A bridge, a saxophone and a highly abstracted skyline by the river are more than enough to set a scene in 1970s New York.**



▲ Figure 3: Four different ways of arranging seven buildings; four different settlement patterns.

Wadjet Eye Games' *Blackwell* series (see Figure 2) was particularly successful in evoking the richness and sheer size of New York, and distilling it all in low resolution, two-dimensional images. Picking which elements to show – a huge bridge that only a major metropolis could ever afford to build, a jazz musician or the silhouette of a skyline – is crucial in capturing New York's ambience. Snapshots of infrastructure, such as bridges and roads, are another means of instantly creating a sense of scale.

“We can do amazing things with little more than a single image”

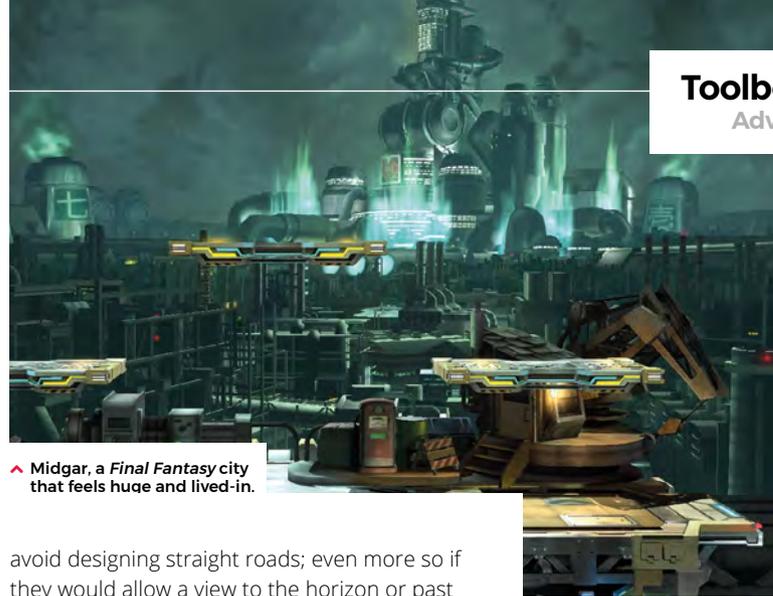
BUILDINGS AND MAPS

Movies, by using sets and carefully framed shots, have long been able to create the illusion of much larger places. Director John Carpenter's classic *In the Mouth of Madness*, for example, created an urban area by showing seven buildings arranged to look like a stereotypical Main Street in America. It was the topology of those buildings that created the sense of structure, and it is clever placement and topology that game designers can employ to create a similar illusion themselves – as shown in Figure 3.

There's also the option of providing players with in-game maps that fill in the detail a city is missing. The combination of a few carefully selected views, a selection of maps strategically placed in the game world, and a dominant landmark shown from a variety of distances worked wonders for City 17 in *Half-Life 2*. The *Final Fantasy* series' Midgar, on the other hand, only allowed players to visit a dozen or so locations, but used cutscenes to show the city from afar, or a wireframe map to establish scale.

STRATEGIC ROADBLOCKS

Blocking views is another handy trick in the virtual urbanist's arsenal. When looking to create, say, long avenues or boulevards, you should



▲ Midgar, a *Final Fantasy* city that feels huge and lived-in.

avoid designing straight roads; even more so if they would allow a view to the horizon or past the city limits. Curving your avenues will obscure their short length, hide unwanted views or unmodelled areas, and suggest a denser, richer urban environment (see Figure 4). Similarly, mountains of tall buildings may obstruct the view of the suburbs, and medieval fortifications will

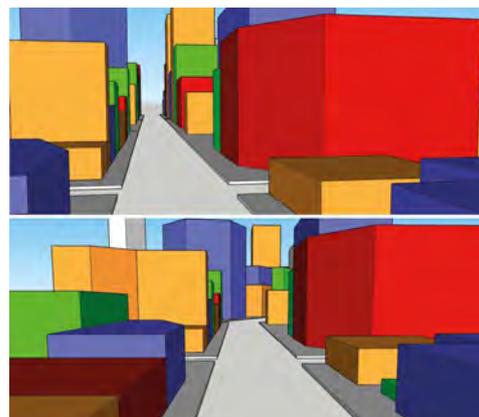
block a player's line of sight.

You can also block off whole areas, and treat them as much simpler to craft backgrounds that can never be visited.

Most of *BioShock's* Rapture was seen exclusively from afar with malfunctioning bulkheads believably restricting access, and *Grim Fandango* hid most of El Marrow behind a colourful yet impassable carnival.

There are obviously countless other ways of blocking off areas, just as there are dozens of other tricks that can be applied to misdirect a gamer's eye. Modelling a city block that in reality contains 16 buildings using only eight will easily go unnoticed, while sending players through sewers or subways will help expand a perceived space. And, of course, the interiors of most buildings don't have to be modelled, as we don't expect to enter every building we see in real life, either.

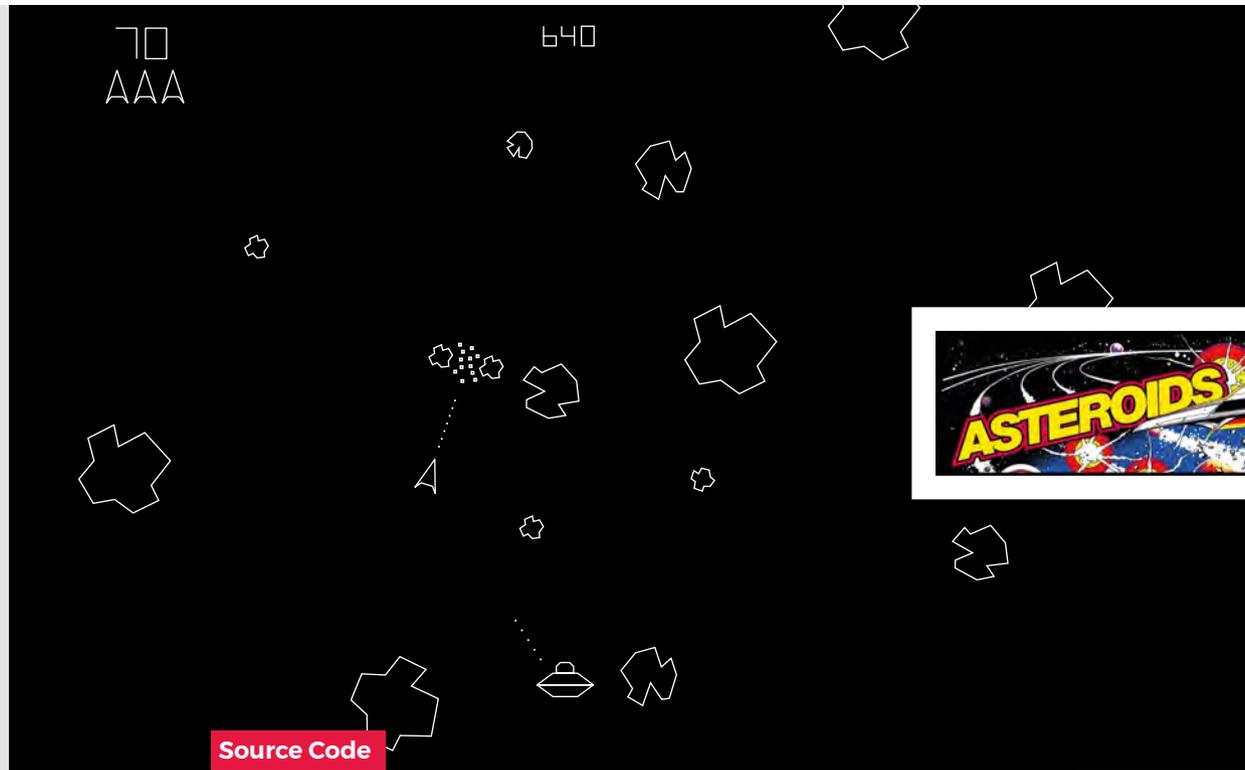
With a bit of cunning and a lot of planning, then, you too can create the impression of a gigantic, bustling city. 🗺



◀ Figure 4: Curving roads can successfully hide their short lengths, as well as adjacent empty/unmodelled spaces, while simultaneously saving processing power.

Modularity and Procedural Generation

Two oft-employed methods to help reduce the work of creating large settings are modular design and procedural generation. Breaking buildings and infrastructure into flexible, repeatable elements (door, walls, roofs, windows, concrete tiles, etc.) allows for huge gains in speed and reductions in asset-building costs. Procedural content, on the other hand, especially when touched up by hand or shown from afar, can rapidly and cheaply create a convincing cityscape.



Asteroids' thruster motion

Learn how to recreate the iconic player physics from Atari's arcade classic, Asteroids



AUTHOR
RIK CROSS

Asteroids is a space-shooter game released by Atari in 1979, first as an arcade game and later for the 2600 and other Atari consoles. The aim of *Asteroids* is to control a spaceship, stay alive and score points, by shooting asteroids as they move around the screen, breaking them into smaller and smaller pieces.

The controls for the player's spaceship were unique in that you could only 'thrust' the spaceship forwards in the direction it was facing. The spaceship would then continue in this direction until it either decelerated to rest, or until the spaceship was thrust in another direction. This resulted in some unique player physics that made for very simple yet addictive gameplay.

“The thruster motion makes use of trigonometry, which you may remember from your school days”

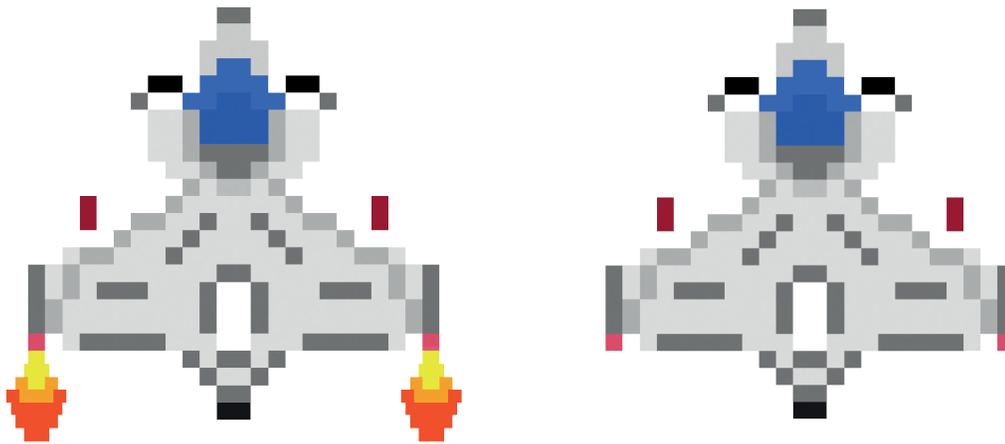
The spaceship thruster motion is achieved by making use of some trigonometry, which you may remember from your own school days. A force applied at an angle can be broken down into its horizontal and vertical components, acting independently at right angles to each other.

When applied together, these two components have the same effect as the original force.

The horizontal and vertical components can be easily calculated by taking the cosine and the sine of the angle (respectively) and multiplying by the force. These values can then be used to calculate an object's position over time.

To replicate this type of player motion for yourself, you'll first need two images

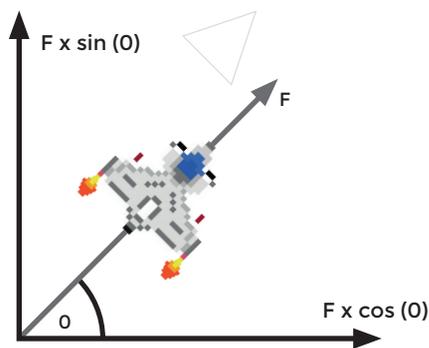




^ Two spaceship images, with one adapted to show forwards acceleration. Image credit: pitrizzo (opengameart.org).

for your spaceship; one 'normal' spaceship image, and one that shows the spaceship being thrust forward. You can either create these images yourself, or if (like me) your artistic skills are lacking, you can adapt images from an open-source media repository like opengameart.org.

This example will be using the Python 'Pygame Zero' framework, in which an angle of 0 corresponds to the spaceship facing to the right. The angle of the spaceship is then incremented as the spaceship turns anticlockwise. I've therefore duplicated the image, rotated it so that it is facing to the right, and added flames to the rear of one of the images to show forward acceleration.



^ Using cosine and sine to calculate horizontal and vertical components of a force.

Initially, the spaceship is placed in the centre of the screen, with an angle of 0. The spaceship is also given a value for acceleration, as well as horizontal and vertical speeds. As I want the spaceship to be stationary to begin with, both of the values for speed are initially set to 0.

```
# create a new spaceship, using the
'spaceship.png' image
spaceship = Actor('spaceship')
# place the spaceship in the centre of
the screen, facing right
spaceship.center = (WIDTH/2, HEIGHT/2)
spaceship.angle = 0
# set an acceleration for the spaceship
spaceship.ACCELERATION = 0.02
# initially the spaceship is stationary
spaceship.x_speed = 0
spaceship.y_speed = 0
```

Pressing the 'up' arrow key will apply acceleration to the spaceship, in the direction that it is currently facing. I'll start by first changing the spaceship's image, so that it appears to be thrusting forward when the 'up' arrow key is pressed.

```
if keyboard.up:
    spaceship.image = 'spaceship_
thrust'
else:
    spaceship.image = 'spaceship'
```

Spaceship motion is achieved by splitting its acceleration into horizontal →

SEVENTIES ROCK

Asteroids was by no means the first arcade game to feature detailed physics or eye-catching vector graphics; the likes of Nolan Bushnell and Ted Dabney's *Computer Space* (1971) and Atari's own *Lunar Lander*, released just a few months before *Asteroids* in 1979, got there first. But by the end of the seventies, the success of *Space Invaders* had led to an amusement arcade boom, and the time was perfect for a game like *Asteroids*. As programmed by Ed Logg and Dominic Walsh, *Asteroids* felt at the time like a thrilling evolution of the *Space Invaders* theme: here, the enemies assaulted the player from all sides, not just from the top of the screen. This, married to the player ship's likeably skittish thrust motion, created an addictive and engrossing arcade experience.



YOU COULD ALSO TRY...

Once you've understood the theory behind *Asteroids'* thrust motion, it could be applied to all kinds of other game ideas. You could create your own twist on *Lunar Lander*, Atari's 1979 game that tasked players with setting a fragile landing pod on a rocky planet surface. Or you could create your own maze game, where your rocket has to navigate an increasingly tight network of caverns laced with traps. To this day, game designers are still finding fun riffs on the thrust motion in *Asteroids* and games like it; *Thrust XL*, the indie action game we covered in issue three, is a recent example.



and vertical components, and applying each to the corresponding speed variable.

```
spaceship.x_speed += math.cos(math.radians(new_angle)) * spaceship.ACCELERATION
spaceship.y_speed += math.sin(math.radians(new_angle)) * spaceship.ACCELERATION
```

When working with angles, it's often preferred to use radians instead of degrees. One radian is defined as the angle made by an arc whose length is equal to the radius of a circle. One radian corresponds to about 57 degrees, and there are 2π radians in a circle. When using radians, not only are commonly used angles convenient fractions of π , but calculations in radians are less likely to introduce rounding errors.

These updated horizontal and vertical speeds are then used to update the spaceship's position on the screen. Notice that the vertical speed is actually subtracted from the spaceship's position,

due to the fact that the 'y' coordinate increases as a sprite moves down the screen.

```
spaceship.x += spaceship.x_speed
spaceship.y -= spaceship.y_speed
```

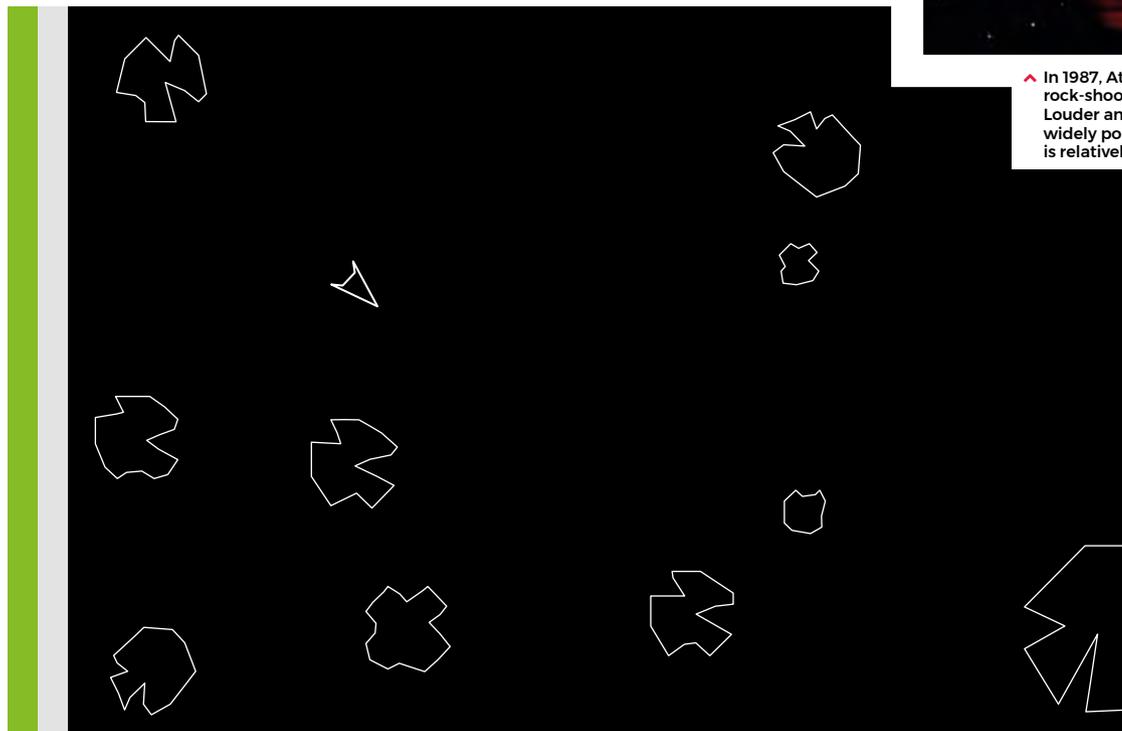
The 'left' and 'right' arrow keys will only be used to rotate the spaceship, and will not have any direct effect on the spaceship's motion. Because Pygame Zero resets a sprite's angle when its image is changed, notice that the angle is saved to a temporary `new_angle` variable, before being updated and re-applied to the spaceship.

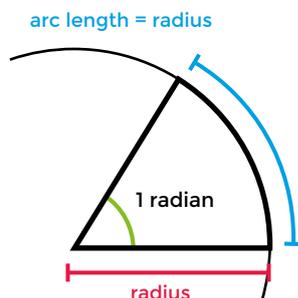
```
def update():
```



▲ In 1987, Atari returned to the rock-shooting well with *Blasteroids*. Louder and more colourful, it was widely ported to home systems, but is relatively obscure today.

◀ With its thruster physics allied to an enemy that rolled in from all sides, *Asteroids* was easy to grasp yet hugely challenging.





^ One radian is the angle made by an arc of equal length to a circle's radius.

```
new_angle = spaceship.angle

# rotate left on left arrow press
if keyboard.left:
    new_angle += 2

# rotate right on right arrow press
if keyboard.right:
    new_angle -= 2

spaceship.angle = new_angle
```

Once the basic spaceship movement has been implemented, there are many adaptations that can be made. Firstly, the spaceship's acceleration value could be modified, to allow for faster or slower motion around the screen. It's worth trying out different values until you settle on something that feels right. The spaceship could also be made to decelerate when not being thrust forward, to mirror the original game. This deceleration could happen either when the 'up' arrow key isn't being pressed, or when the

“The spaceship's acceleration value could be modified, to allow for faster or slower motion around the screen”

'down' arrow key is pressed. As a more difficult challenge, you could even try 'wrapping' the spaceship's movement, so that it appears on the opposite edge of the screen if it travels too far in any particular direction. 🌐

Asteroids thruster motion in Python

Here's that *Asteroids* thruster code in full. To get it running on your system, you'll first need to install Pygame Zero – you can find full instructions at wfmag.cc/XVzieD

```
import math

# set screen width and height
WIDTH = 800
HEIGHT = 800

# create a new spaceship, using the 'spaceship.png' image
spaceship = Actor('spaceship')
# place the spaceship in the centre of the screen, facing right
spaceship.center = (WIDTH/2, HEIGHT/2)
spaceship.angle = 0
# set an acceleration for the spaceship
spaceship.ACCELERATION = 0.02
# initially the spaceship is stationary
spaceship.x_speed = 0
spaceship.y_speed = 0

def update():
    # save the spaceship's current angle,
    # as changing the actor's image resets the angle to 0
    new_angle = spaceship.angle

    # rotate left on left arrow press
    if keyboard.left:
        new_angle += 2

    # rotate right on right arrow press
    if keyboard.right:
        new_angle -= 2

    # accelerate forwards on up arrow press
    # and change displayed image
    if keyboard.up:
        spaceship.image = 'spaceship_thrust'
        spaceship.x_speed += math.cos(math.radians(new_angle)) * spaceship.ACCELERATION
        spaceship.y_speed += math.sin(math.radians(new_angle)) * spaceship.ACCELERATION
    else:
        spaceship.image = 'spaceship'

    # set the new angle
    spaceship.angle = new_angle
    # use the x and y speed to update the spaceship position
    # subtract the y speed as coordinates go from top to bottom
    spaceship.x += spaceship.x_speed
    spaceship.y -= spaceship.y_speed

def draw():
    screen.clear()
    spaceship.draw()
```



Publish and sell your games on **itch.io**

itch.io is the digital distribution platform of choice for indies, game jammers and experimental work. Here's our guide to using it for fun and profit



AUTHOR
K.G. ORPHANIDES

K.G. Orphanides is a writer and game developer with an interest in interactive fiction, cosmic horror and ancient PC games. K.G. is currently doing audio development for Deck of Bards' *Wolf at the Door*.

Launched in 2016 and now hosting over 135,000 games and thousands of development tools, graphics packs, books and other downloadable objects, itch.io has become a key tool for indie developers.

For players, it's one of the best places to follow, support and find both niche and experimental projects and a surprising number of commercially successful and critically lauded games, such as *Night in the Woods*, *Everything*, and *Chuchel*, although the top sellers list is dominated by more leftfield titles, most of which you'll never see on Steam.

Windows and in-browser HTML games dominate, but there's a significant number of titles for macOS, Linux, Android and iOS on the platform. Whether or not you plan on releasing any of your own games there, if you're interested in what's up and coming in the world of indie development, it's worth keeping an eye on.

itch.io isn't a curated store like GOG.com and it costs nothing to host your games there. The service makes money by taking a creator-defined share of software sales.

Appropriately labelled adult content is allowed and the platform has a relaxed attitude towards

homages and fangames. However, DMCA requests by copyright holders are enforced and there's a clear policy against any 'content that promotes or participates in racial intolerance, sexism, hate crimes, hate speech or intolerance to any group of individuals'.

THE ITCH.IO APP

As well as its very capable web interface, itch.io has a desktop app for Windows, Linux and macOS. It's in the same general territory as the Steam client or GOG.com's Galaxy client, making it easy to buy and download titles for your platform.

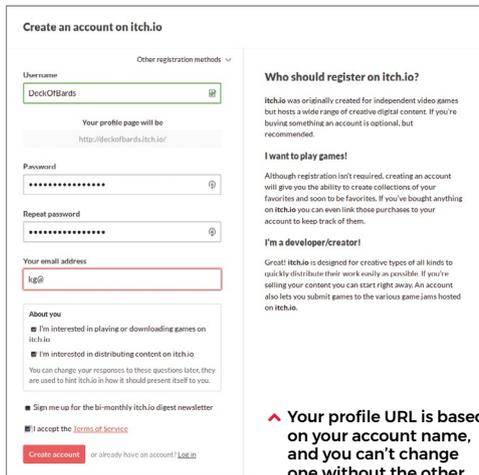
It's designed for players, rather than developers, although the My creations tab lets you see and install all your own games.

The client also neatly allows online HTML games to be installed for offline play, assuming you've packaged all your assets appropriately, so

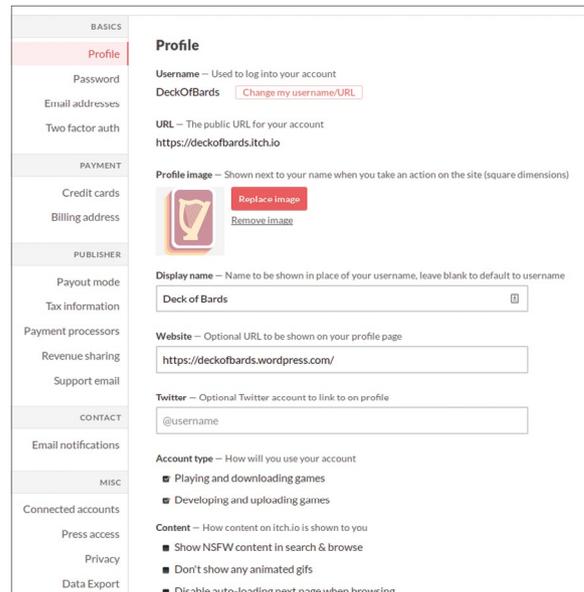
it's worth bearing this feature in mind when testing your games.

There's also a command line tool and plug-ins for development tools, including Unity – to help you easily push out updates to your games without having to use the developer web interface every time.

“A few minutes’ extra work at the beginning can spare you a great deal of untangling in the future”



▲ Your profile URL is based on your account name, and you can't change one without the other.



◀ If you already have an itch.io account, you can activate the developer dashboard instead of creating a new one.

GETTING STARTED

Creating a developer account on itch.io is gratifyingly simple: visit the site, click Register, and fill in your details. Tick the 'About you' box that says 'I'm interested in distributing content on itch.io' to ensure that you're immediately shown all the relevant developer tools. Once you've created an account, you'll be logged in and a verification email will be sent to the address you've registered.

If you already have an itch.io account, you can add the developer dashboard by going to Settings and ticking the 'Developing and uploading games' box under Account type. You can also update your username, profile and linked social media accounts so your account properly represents your status as an itch.io games developer and publisher.

Your username should ideally reflect the name you or your company puts out games under. If you're a business – particularly if you operate as anything other than a sole trader – you should register a separate business itch.io account, rather than using the same one you buy games for yourself on.

A few minutes' extra work at the beginning can spare you a great deal of legally complex untangling in the future, particularly if you start making money from your games.

SHOW YOURSELF

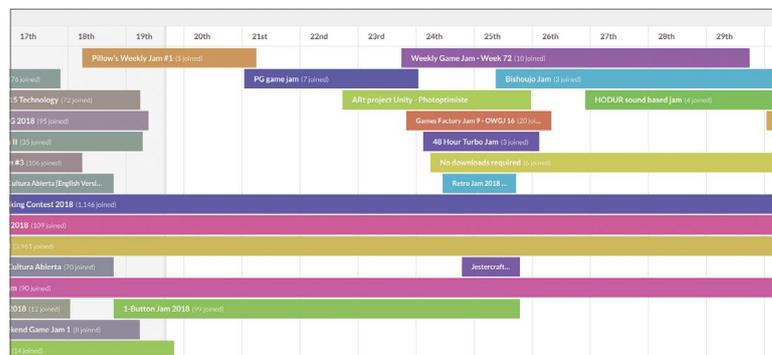
When you first log in as a developer, you'll be taken to the Dashboard and invited to create a new project. But even if you've got a complete game ready to go, it's a good idea to spend a bit of time personalising your profile first.

To do that, click on the downward-pointing arrow next to your username and select Settings. At a minimum, set a profile image, add links to any external website you might have, associate your Twitter account if it's relevant to your development work, and fill in the Profile section.

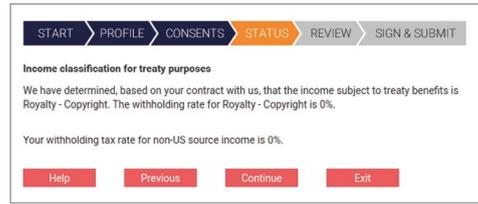
Add an appropriate profile image – a clear, uncomplicated logo is best, given that it'll have to be distinctive at a small size. That said, ➡

GAME JAMS

itch.io is known for game jams – game-making events with a fixed time limit and often a theme. To participate, just find a jam you like the look of and click 'join jam'. There's also a full set of tools to help you run your own jam.
itch.io/jams



◀ At any given point, you'll be able to find a dozen or more active game jams to participate in.



▲ If you live anywhere in the EU, reciprocal withholding agreements mean that you won't have to pay US taxes on your earnings.

anything is better than nothing when it comes to making your account look polished and active. itch.io uses square profile images but doesn't restrict you to a low pixel count, so you can upload a high-resolution image to ensure that the end result looks as clean and sharp as possible.

Set a display name if your account name needs spaces to make it more readable – in our example, our development collective wants to be displayed as Deck of Bards, rather than DeckofBards. Spaces are handy like that.

When it comes to filling out your profile, remember that you can – and probably should – embed images, videos and external links where appropriate. Any games you release will be displayed along the right-hand side of your profile.

MONEY, MONEY, MONEY

On the Settings screen, you'll find more publisher features along the left-hand tab bar. Click 'Get started' under the Publisher section to read and agree to the terms and conditions for content published on itch.io's platform.

You'll then be invited to select how you want to handle payments. If you already manage payments and tax via a commercial payment processor, then the 'Direct to you' option is probably what you want. Currently, the service supports PayPal and Stripe.

For most people, it's easier to have payments collected by itch.io and then paid to you on request. Helpfully, itch.io will even collect and file VAT MOSS (Mini One Stop Shop) – mandatory for sales within the EU – which means less administrative work for you to worry about.

Before you can collect payments, you'll have to complete a 'tax interview' form so the company can file US tax declarations on your behalf. The only unusual bit of information you'll need here is a Tax Identification Number (TIN) so that less tax will be deducted from your sales.

In the UK, that'll be your National Insurance number if you're an individual, or your business's Unique Taxpayer Reference (UTR)

Revenue Sharing

itch.io is a marketplace for creators of all kind. It's our goal to support creators by giving them the tools to sell and market their work. As a way of saying thanks to those using itch.io, we utilize an open revenue sharing model.

You can decide what percentage of your sales will go towards itch.io. All money collected is used directly for running servers, paying for bandwidth, and supporting the development of new functionality. You can read more about itch.io's mission on our [About page](#).

[Learn more about how revenue share is applied to transactions](#) →

What percentage do you want to give to support itch.io? 10% of each transaction

Choose a preset: [itch.io default \(10%\)](#) [Industry standard \(30%\)](#)

[Save revenue split](#)

▲ While most digital distribution platforms charge a fixed rate to use their services, you decide how much itch.io gets from every sale.

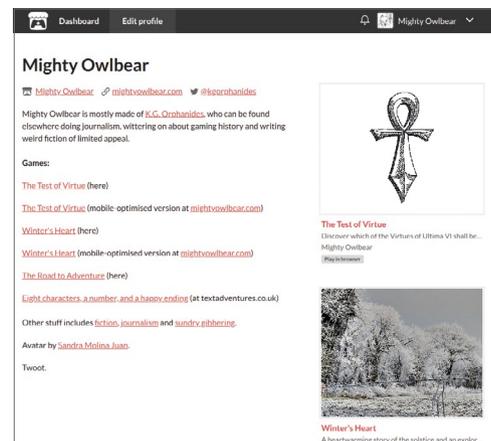
from HMRC. Enter this and, if there's a relevant treaty between the US and your country of residence, your sales will be subject to a 0% tax withholding rate, rather than a 30% rate.

By default, itch.io takes 10% of every sale you make, with the funds used to keep the service running to fund its development. However, you can change that on the 'Revenue sharing' tab to give itch.io anything between 0% and 100% of your sales income.

CONTACT AND COMMUNICATION

Make sure you're set up to communicate with your players, the press, and anyone else who needs to get hold of you. Set a support email address under the Publisher settings, if that differs from the personal or business address you used to create your account. You should monitor both this and your account address to keep up with queries and bug reports.

Make sure your email notifications are set to your satisfaction – by default you'll be told about

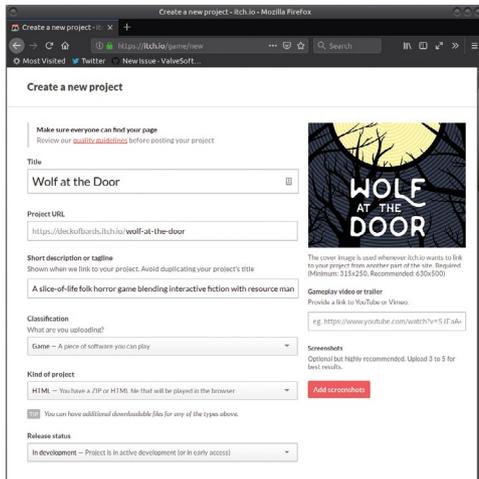


▲ Once you've released some games, they'll appear on your profile page. It's also worth linking to your work elsewhere on the web.

BUTLER

Cross-platform command utility butler is an itch.io developer tool to upload updates to your game. Unlike the Edit game page's uploader, it can make incremental changes, so it'll only upload new or altered files, saving you time and bandwidth.

Download: wfmag.cc/QrGiHi
Documentation: wfmag.cc/FXH



▲ Unlike account profiles, game page URLs can be customised and may differ from the game's title.

anything that happens involving your account. For developers, the important notifications are generally post replies, which include comments on your game releases, sales and comments on game jam submissions.

There's also a Press access section, where you can sign up to automatically give keys for your paid-for games to itch.io's approved list of journalists and streamers. You'll also be able to select review quotes by those journalists to appear on your game pages. It's no substitute for having a proper PR campaign, but it's another way of helping your games get traction and making sure it's easily available if an outlet wants to review it.

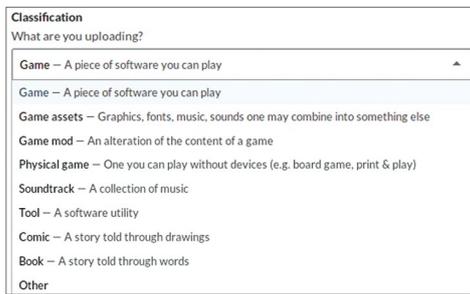
itch.io provides pretty comprehensive analytics, but you can also connect third-party tracking for integration with Google, Facebook and Twitter, which can be useful if you already use those for marketing.

By default, accounts are limited to 20 project pages, with 10 files – such as executables, manuals or compressed game files – on each page, at a maximum size of 1GB each. It's an anti-abuse measure and you can just contact support for extra capacity when you need it.

UPLOADING YOUR GAME

Now you've established your presence on itch.io, it's time to actually publish a game. Log in and click the 'Create new project' button on your Dashboard.

There's plenty of helpful documentation and the project creation tool makes it easy to avoid any critical mistakes. The most important thing



▲ The classification you choose will reflect the search results your release appears in, so think carefully before going for anything non-standard.

is to avoid publishing your game's page before it's ready – all pages are set as drafts by default to avoid this happening.

Your game will need a title, a short tagline to describe it, and a cover image with a recommended size of 630 × 500px – this will appear in itch.io's search results and all external links to your game, so make sure it's eye-catching and clear even at a small size. You can

use an animated GIF if your game has particularly eye-catching graphics.

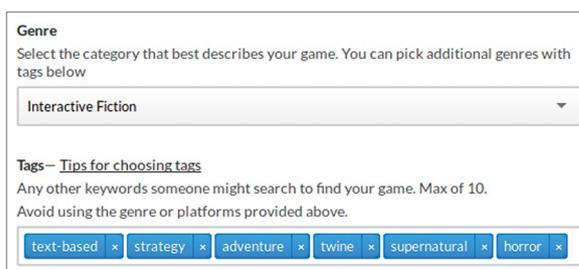
You can also add screenshots and embed a YouTube or Vimeo trailer,

which can have a major impact when people are choosing whether or not to play your game.

CLASSIFIED AND SORTED

Next comes a series of pull-down options to help determine how your release will be handled by itch.io's systems. The default classification for releases is 'Game', but there are also categories for game assets, mods, tools, soundtracks, books and more, as well as an 'Other' option that lets you define your release in any way you please.

Next, you'll choose what kind of project you'll be uploading. Options include standard downloadable files and a variety of browser game formats, including HTML, Flash, Java and Unity 3D files generated by version 5.3 and ➔



PROMOTING YOUR GAME

You can make the best game in the world, but no one will play it if you don't promote it. Write developer blogs, talk about your game on social media, and apply to have it featured at industry conventions and event showcases. Write a press release and use download codes and itch.io's press access feature to get it in front of as many writers and streamers as possible, even if they're niche.

◀ It's important to select an appropriate genre and keywords for your release so that people searching itch.io will be able to find it.

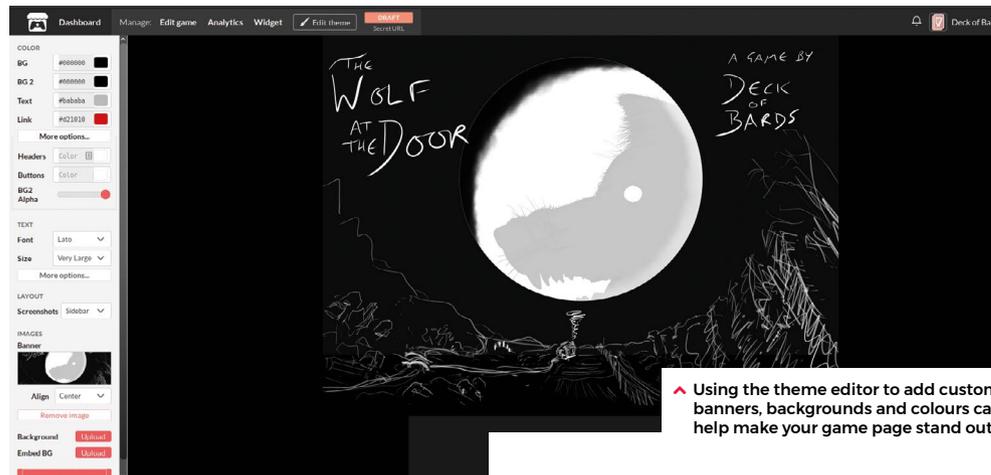
Toolbox

Publish and sell your games on itch.io

LINK OUT

You can link your game and account to a wide range of other services. Your game page can direct users to other stores, including Steam, Google Play and the Apple App Store. Linking your Patreon account lets you give patrons exclusive access to your work, while Kickstarter and Indiegogo backers can be imported in CSV format to help you issue keys.

▼ If you contact support to enable full CSS editing on your page, you can implement spectacular themes as Nathalie Lawhead did for Everything is Going to be OK.



▲ Using the theme editor to add custom banners, backgrounds and colours can help make your game page stand out.

below. Current versions of Unity export games in HTML5 format, as do many other popular engines including Twine, PICO-8 and Bitsy.

In our example (see above), Deck of Bards' game *Wolf at the Door* is a browser-playable text-and-graphics adventure, built using the Twine game engine, that exists as an HTML file with accompanying extra sound and graphics assets.

We'll be uploading a zip file of a directory containing the HTML file and its associated audio and graphics files. itch.io will present it as a browser game and we can configure exactly how we'd like it to appear further down. For both downloadable and browser games, you can add extra downloadable files, such as PDF lorebooks and maps, or MP3 soundtracks for your players to download.

You could also use these extra downloadable files to provide offline builds of a browser game. However, that's not strictly necessary as the itch.io desktop client can download HTML

games for local play on Windows, Linux and macOS computers.

Next, choose your release status. Default is Released, for completed games. *Wolf at the Door* is currently in development, and there's an option for that. You can also set your release status to cancelled, on hold, or prototype.

FREE, DONORWARE OR COMMERCIAL?

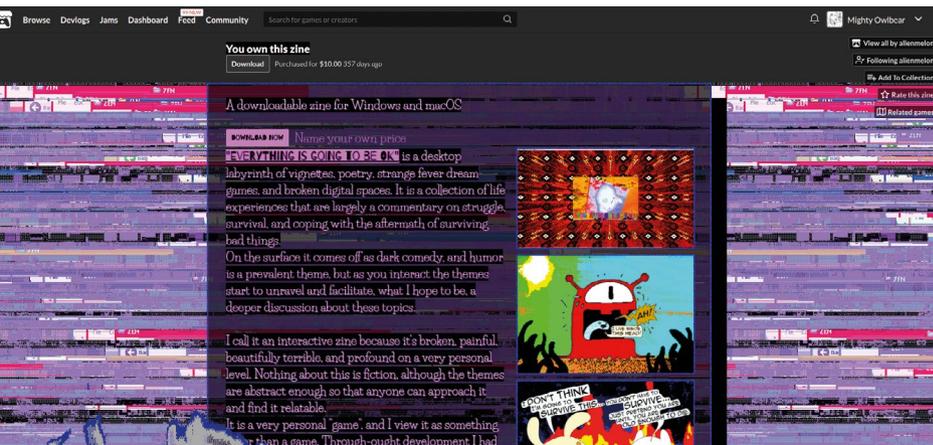
itch.io's standard pricing model is free (\$0) with a pay-what-you-like donation at a suggested rate of \$2. You can change the suggested donation amount, make your release a paid game with no option of getting it for free, or select 'No payments' if you'd rather not solicit donations for your work. Note that you can't sell browser games, only provide a donation box to allow fans to support them.

If you're publishing an HTML game, you'll have to select how it's displayed on your project page. You can embed it in the page, or have a button to run it in full-screen mode. If you go with an embedded game, make sure you provide viewport dimensions large enough to fit your game, particularly if you have any fixed-width elements.

Enabling a full-screen option and scrollbars can also help ensure a good experience for online players. If at all possible, enable support for mobile devices, although it's worth noting that itch.io's embedded browser player doesn't always do a great job on smartphones.

If your game is reasonably small, you can have it start automatically as soon as its page loads, but if it's more than a couple of megabytes, it's more sociable to let players choose whether to load it or not.

You'll want to test all these settings on a variety of browsers and devices before you set your game live.



USE YOUR WORDS

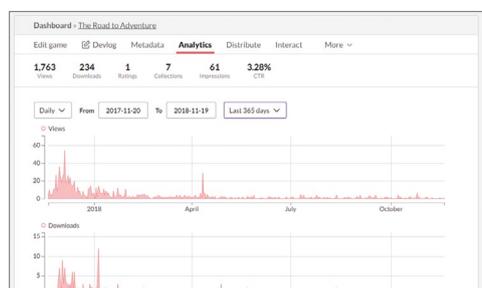
We're on the home straight now, and it's time to describe your masterpiece. Make a good job of this, as it'll be doing the heavy lifting when it comes to selling your game. Proof, edit and have test readers look at your copy on the game page before you set it live.

Select the most appropriate genre from the pull-down menu below – *Wolf at the Door* is a mixture of adventure and strategy, but it's first and foremost a work of interactive fiction, so that's the primary audience we want to appeal to. We've also added tags to make sure it appears for people who are looking for strategy games, adventures or anything supernatural.

Under the Community settings, you'll probably want to enable comments, to help communicate with and get feedback from your players. If your game is a major release that's likely to get plenty of attention, or if you're going to do most of your audience communication via itch.io, it's worth opting for a dedicated discussion board with topics and threads, instead of the default comments section.

The last setting is probably the most important: Visibility & access. Projects start out in Draft mode, and it's a very good idea to keep them there until you've made sure everything works properly and looks good on every device your audience is likely to try and view it on.

In draft mode, only people you give the link to will be able to view the page. itch.io won't even let you put a page public until you've saved and previewed it at least once. As soon as you do set your game's page public, it'll appear on the new releases list, so make sure you're ready to capitalise on that exposure when it goes live.



▲ Analytics and inbound link data makes it easy to see how effective your launch and marketing are, as well as sales over time.

Public projects can also be set to Unlisted mode at any point in case you need to take a step back and fix something but don't want to suspend access entirely. You can also set it to 'Restricted view' mode, with an optional password, which is handy if you just want to use itch.io to distribute downloads, for example, to Patreon backers.

CUSTOMISE YOUR GAME'S PAGE

Once you've saved your game page, you can view its draft, go back and edit your page configuration, and edit its theme to match the look and tone of your masterpiece.

The default black, white and red colour scheme looks neat and tidy, but something as simple as setting a custom background, banner or colour palette can help immerse your players in your game's world from the very start.

If you want to make even more dramatic changes, you can contact support to enable the custom CSS feature for your account. You'll need to tell them

what you plan to do, though, as the feature is still experimental.

LAUNCH, DASHBOARD, AND ANALYTICS

Once you and your QA testers are entirely happy with the look, text and functionality of your game's page, it's time to publish and be damned.

Return to the 'Edit game' page, scroll all the way down to Visibility & access, select Public, and click Save.

Congratulations! You've published a game!

Your dashboard will let you know how well it's doing with graphs showing page clicks and downloads, and details of where your visitors are coming from, helping you to assess the success of your external publicity campaigns.

There's a lot more you can do with itch.io, from providing dedicated access to Patreon patrons and Kickstarter backers to supplying Steam keys, adding your game to bundles and site-wide sales, and participating in game jams.

Although it's a relatively new service, itch.io is one of the most powerful tools in an indie developer's arsenal, whether you're releasing your first hobby project or putting out a fully-fledged commercial game. 🎮

A DESIGN FOR LIFE

The theme editor lets you customise your page and you can even implement full custom CSS if you ask the support team to activate the feature.

Page quality guidelines:
wfmag.cc/EhpLeO

Theme editor instructions:
wfmag.cc/Arqkqe

Custom page examples:
wfmag.cc/CHyidc
wfmag.cc/wzaqNZ

Breaking into the games industry

The games industry can seem daunting to get into, but writer Rebecca Haigh has some useful advice



AUTHOR
REBECCA HAIGH

Rebecca Haigh is a freelance writer for games, most notably Salix Games' *Du Lac & Fey: Dance of Death* and *Atone* by Wildboy Studios. rebeccaigh.com

When I was studying games development at university, there was a prevailing belief that game developers were a strange, rare breed of human being. I've found that an odd metamorphosis appears to happen when we migrate from game consumers to wannabe game developers, resulting in students or amateurs wanting to become the people they idolise, but are seemingly unable to take the first steps to reach out and integrate.

Breaking into the industry can, therefore, seem like a daunting process – and it is. The community, especially in the United Kingdom, is an incredibly small, close-knit circle of developers who have more than likely worked with one another and, if not, know someone who knows someone who has. 'Breaking in' is also

an odd way to put it, though it seems to be the term used most often. 'Breaking' implies some force, but you'll likely find that most of us wound up in our current roles through a concoction of hard work and sheer luck.

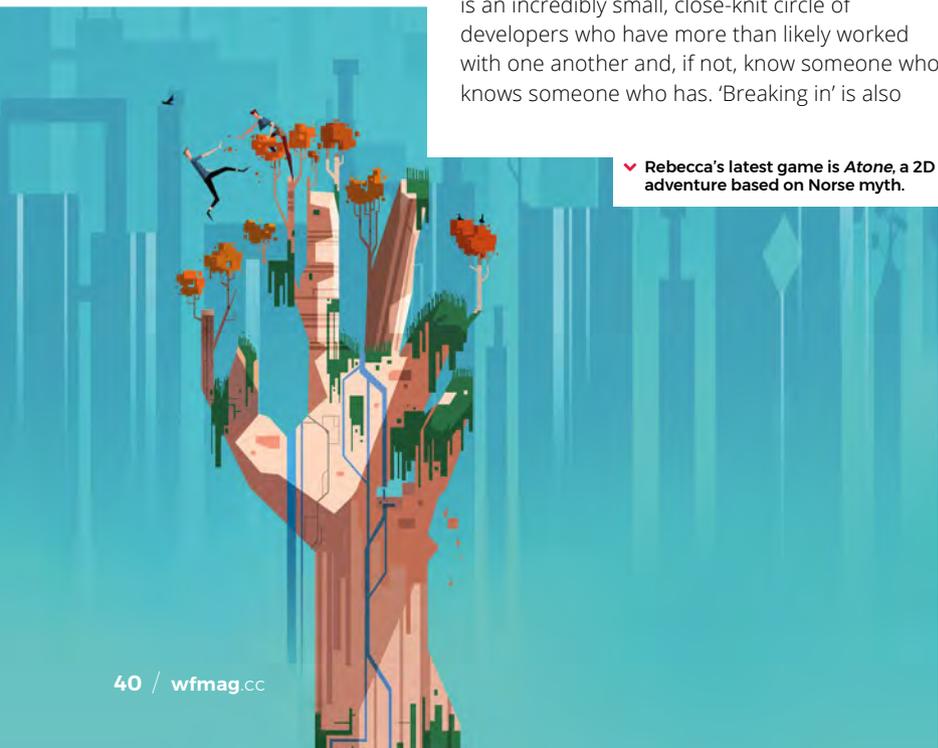
Luck is something I can't offer advice on, and sadly it all relies on being in the right place at the right time. But here are a few tips I've found useful to remember; mantras that have come about through trial, error and a lot of listening.

REMEMBER TO BE HUMAN

This is surprisingly difficult. Even the best of us become awkward and nervous in uncomfortable or unfamiliar situations, but it's about being aware of that and compensating a little for the inevitable. Going back to what I previously mentioned about game developers being strange human beings – they're really not. They're incredibly boring, average people. But meeting folks for the first time, especially when you admire their work and you sort-of-might-really want their job in the future, means that the stakes are a little bit raised. I remember meeting my literary hero in my late teens and crying. Just crying. I promise you it happens to all of us.

The best advice I have to give here is for you to be understanding. Have empathy. The latter is vital to your future in the game industry, and will hold you in great stead for your career. Understand that the people you are speaking to, whether that be at an event or via Twitter, are human too; they have lives, they may be tired after work because, after all, this is work for them, or they may just be busy. Perhaps the

♥ Rebecca's latest game is *Atone*, a 2D adventure based on Norse myth.





▲ Indie adventure *Du Lac & Fey: Dance of Death* is another game Rebecca's currently working on.

person you just sent a speculative application to has a newborn child you don't know about, and perhaps they haven't slept in a few nights. Or weeks. Or months. There's a difference between showing passion and pestering.

So: empathy. It's difficult to remain totally cool when you're at an event and you want to brave slipping a business card into the right hand. Don't take for granted the time people offer you free of charge, but don't be afraid to make yourself known. Have a genuine interest in the work people are doing – don't simply speak to someone seeking an opportunity. Be understanding, be cordial, and be patient.

NETWORKING IS WORKING

Showing your face and being an active member of the industry community is almost as important as being good at what you do. I can't speak for others across the world, but the UK developer scene is incredibly social, so keep that in mind when you're planning ahead. There's always an event on somewhere, and the UK plays host to some of the best game conferences going, so get in on that action and attend in person. One thing I want to drill home is that no one is going to come to you. You have to go to them. Simply be that friendly face who appears often and contributes. It does wonders!

Make sure your social media is up to scratch and that you're active. Social media plays a huge part in game development (especially Twitter) and you can usually find what you're looking for just by observing other developers online. Do give as much as you take; adding to positive discussion and sharing work makes for a good online presence.

“There's a difference between showing passion and pestering”

BE THE BEST YOU CAN BE

This one will be short and sweet, as I'm sure it's rather self-explanatory. It doesn't matter if you want to animate the protagonist's flowing locks or 3D model the most beautiful shrub the world of gaming has ever seen, you need to know what you're doing inside and out. This takes time and practice, and that's okay. You need to be open to learning new things, you need to be flexible, and you need to show willing. Don't be afraid to ask questions, but do your homework before asking them.

YOU HAVE WORTH

Ignoring the motivational poster undertones, remembering that both your work and time have worth is something you should cement before you start building your foundations. Where all of my other tips have come from trial, this particular one has come from personal error. The ever-present weight of an empty portfolio can lead you to people who may not have your career at heart. Please, when searching for opportunities, take your time to weigh up the pros and cons. What are the benefits you'd get for working for free versus what they will get from your free labour? If there is a gross imbalance and you come off worse in that equation – just don't.

Note that I'm not warning you away from free work. One of my best projects came from working collaboratively with a group of like-minded people to make something amazing. If you're looking to build a portfolio and your skills, those are the projects you should throw yourself at. Learn from those above you, take every opportunity you can, and soak up experience like a sponge and then use it to further yourself. Find a balance. Be brave. Take a chance. 🍀

Indie to triple-A

I've found that it's nearly impossible to land yourself a coveted and elusive triple-A position without prior experience. Before you let your dreams deflate, though, this doesn't necessarily mean prior 'industry' experience; it means experience in game development, an understanding of development processes, or work in a similar field. There are parallels to be drawn between animation in film and animation in games, as well as writing 'about' games and writing 'for' games – and those are just two examples. Practical experience in your chosen field is the key.



GET INVOLVED

Do you have an online tutorial you'd like to share with readers? Have you created an online resource that other game developers might find useful? Maybe you have a local code club you'd like to promote? If you have something you'd like to see featured in the Directory, get in touch with us at wfmag.cc/hello

▼ Learn how to sync audio with animation in Tommy Tran's Unreal Engine 4 tutorial. Yes, that is a sentient muffin.



DISCLAIMER:
Raspberry Pi Trading Ltd accepts no responsibility for the interactions that might arise from the use of the directory.

Directory

Audio: online courses and resources

If you need a hand making your game's music sparkle, then this selection of online resources should help

> Game music composition

Karleen Heong's affordable online course takes you through the process of writing your own game soundtracks, whether it's boss battle themes or warbling 8-bit overtures.

wfmag.cc/zfnb1f

> Music and sound design for games

A five-hour online course that shows you how to use ambient sound effects and music to create a distinct and immersive atmosphere in your games.

wfmag.cc/cnSzbl

> Editing audio for games

Using the free-to-download Audacity as a basis, this introductory course shows you how to edit and implement sound effects in your video games, with lots of pew-pew lasers as examples.

wfmag.cc/lKAxzO

> Sound effects and scripting in Unity

If you're getting started in Unity, then its website's Learn section offers a wealth of free tutorials on audio, from adding music and effects to mixing.

wfmag.cc/jbzlgT

> Audio in Unreal Engine 4

Aimed at beginners, Tommy Tran's online tutorial shows you how to sync sound effects to a character model's movements, and how to use spatialisation to create the illusion of sound in a 3D space.

wfmag.cc/ACapYM

> freesound.org

Founded in 2005, Freesound offers a library of sound samples and audio snippets that are free to use under a Creative Commons licence. Looking for the sound of birds chirping or a crack of thunder? You'll find those and plenty more here.

> freeSFX.co.uk

Another archive of sound effects, but this one includes royalty-free music, too, from folk to drum and bass.

> joshwoodward.com

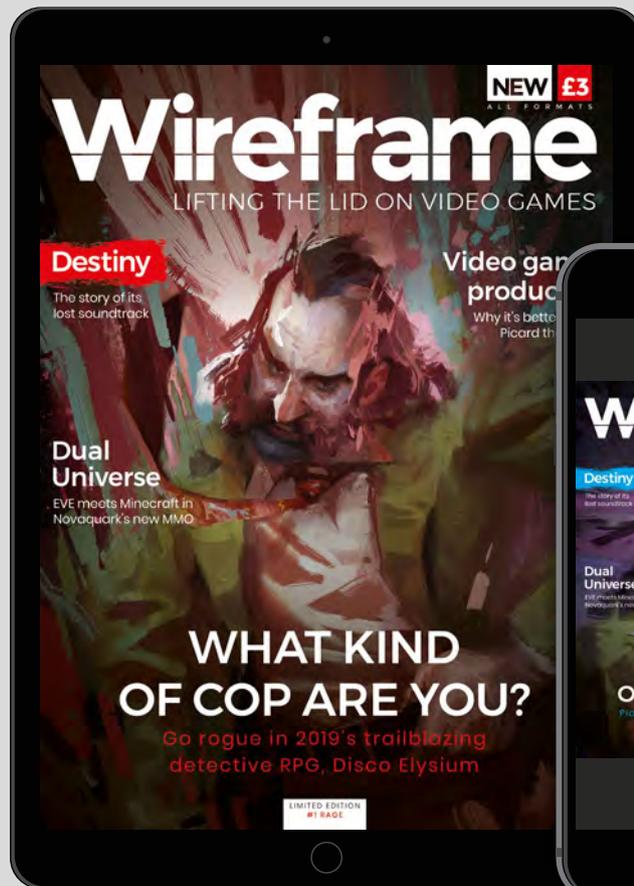
Michigan-based musician Josh Woodward has compiled an archive of his own rock songs and acoustic tunes that are free to download and use in your own projects. You can also send a donation his way if you like what you hear.

Wireframe

LIFTING THE LID ON VIDEO GAMES

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Game producers: what do they actually do?

We talk to two UK game producers about what their job entails, plus their tips for anyone who wants to follow their career path

WRITTEN BY
HARRY SLATER

▼ *RuneScape* has been running for almost two decades. Its latest update involves a murder mystery that players need to solve together.

Have you seen the popular internet meme, 'This is fine'? If you're not familiar, it's a comic strip that shows a dog sitting at a table while a fire rages around it. In the second panel, the punchline – a close-up of the dog's zoned-out eyes, accompanied by those three little words in a speech bubble: "This is fine."

When Wireframe asks Auroch Digital's Peter Willington what being a producer means to him, he simply says, "Producers are the living

embodiment of the 'This is fine' meme." With three years as an indie developer under his belt, Willington knows a thing or two about remaining calm in the midst of a busy situation: as Creative Producer at the Bristol-based Auroch, he's overseen such games as *Achtung! Cthulhu Tactics* and the upcoming *Dark Future: Blood Red States* – both projects that have involved working with multiple departments over a lengthy development process.

In the simplest terms, a producer's job is to ensure that a project is running smoothly. What that means in reality, though, can vary from project to project and from day to day. For Willington, the core part of his role is pinning down exactly what it is his studio is trying to make. "The game I'm working on at the moment is a car combat game with Games Workshop – *Dark Future* – and with that there's clearly an intellectual property involved," Willington says. "So you have to make sure that game feels like that IP. The fiction of the world is really weird, it's close to ours but it's removed. We have to keep that in mind when we're making the product."

Beyond the property itself, Willington's job as a producer also covers other practical questions, from the content of the game to the platform on which it'll eventually appear. "It extends out into 'what does the player want?'," Willington says. "What does the car combat community want, what does the strategy game audience want from this? Should this be on PC? Should this be on console? Should it be on touchscreens?"





▲ Auroch's upcoming slate includes *Dark Future: Blood Red States*, a car combat game based on the Games Workshop tabletop game.

DAWN OF THE PRODUCERS

The role of video game producer first appeared in the early 1980s. It was Trip Hawkins who created the position, or at least named it, when he started EA. In an interview with *Byte* magazine back in 1983, Hawkins said, "Producers basically manage the relationship with the artist... they're a little like book editors, a little bit like film producers, and a lot like product managers."

In the early days of producers, some in the press and the wider industry thought it was an example of Hollywood-isation; taking concepts from the film business and trying to fit them into a gaming world that didn't need them. But even at the start, the producer's role in gaming was very different from the role of the film producer – partly because a producer role can vary so much between films.

"With producers, the term is such a broad one that it can mean a lot of different things to different studios,"

Willington says. "At Auroch Digital, the role is very much hands-on in terms of guiding the vision for the project.

You have to keep that vision in your head, and that all goes into what that tone is. How inclusive should our story be? Is this a game for 12–16-year-old boys? Is this a game for everyone? Because that's an audience too, albeit a difficult one to hit. Is the audience for this 500 people, ultra-hardcore turn-based strategy players who just want to do the Battle of the Somme over 90 hours in excruciating strategy detail?"

WEBMASTER

One useful way of thinking of a producer is as a spider sitting in the middle of a web – the web being a video game project, and the strands being the dozens of coders and artists working on it. During production, Willington sits in the middle of the web, reading the vibrations that come down to him, respinning threads when necessary, and ensuring that the tension and

strength in every single strand is going in the right direction. And he's there from the very start of a project.

"I'd be working with the people who hold the money," Willington says, when we ask him what occurs on day one of a given production. "It might be a publisher if they're funding the thing, but more likely the boss of the company, asking them what they want. We're making this game, which direction do you want us to take it in?"

Where do you see the opening in the market? Or it could be – we want to do this project because for the company it's strategically useful."

After that initial phase of decision making, the next step for Willington is all about how the studio will deliver on its initial ideas and concepts.

"A little bit later on, we'd talk with our artists and our coders. We'll tell them the designers have this idea for a game, so what does the art look like, what does the code look like, what could we achieve from these things, what are the technical risks that this project runs? Do we have the capacity at the studio to actually do this? Do we have the skills within the team to do this? It's all well and good saying we need four artists, but if the game is entirely 2D and you've only got 3D environmental artists, you're never going to make that game."

INFORMATION

Already, the threads are being spun. But it's not the threads themselves that are important ▶

"Producers are the living embodiment of the 'This is fine' meme"

PILLAR TALK

One of the key things at the start of development for Willington is figuring out the pillars that hold up the game. "Mech games are all about you being the hero, so a pillar for this game is heroism. And any design decision that we make has to be focused around that. If I include this in the game, does it make me feel more like a hero? Then it's probably a good idea to get it in there. Does it make me feel less like a hero? Then it's probably not going to get added to the game."



▲ Peter Willington is Creative Producer at Auroch Digital, where he's worked for three years.



▲ Auroch's latest release is *Achtung! Cthulhu Tactics*. The studio knows turn-based tactics, and that connection to the genre can make a producer's job easier.

at this point – it's the information that's being relayed down them to the producer.

"We make sure we're connecting with other projects that are in flight," Willington says. "Our lead artist is an incredible UI artist. His skills cross every project and are in high demand, so we need to work out how much of his time we get on a project, and when. A little bit later on, when the pre-production phase is ready and sorted, we come to the first day of development."

It's here that some of the big decisions that are really going to affect the final game start to be taken.

"You've not actually made any of the game yet. You might have made prototypes or have some nice concept art. You begin full development with the design for the game up-front. You plan out what the project actually looks like, what all the tasks are to get to the end of the project, and what the critical path is. A producer is very much involved in the dependencies of the project – that's the work."

Even when a project moves into the development phase, that's no marker of whether it'll make it onto shop shelves or digital marketplaces. There are even times, Willington tells us, when a studio has to decide whether it will proceed with a project at all – there are some projects, he says, that are simply too large for a studio of Auroch's size to handle.

"The start of a project is kind of odd," explains Willington. "When you're making video games, you realise that there are a dozen games that are started before the [finished version] actually comes out. We were working on a game with a massive IP, and we worked on it for about a week. But we realised that if we took that project on with our current budget and capacity, it would take us six years. And there was no funding for it, so we'd have to fund it ourselves. We were at this point within that first week where we decided not to sign up for it. It would have been huge for us, but we decided against it because we went through this and realised – there's no way we can do this."

Over at the Cambridge-based studio Jagex, Jamie Brooks has worked his way up from the role of QA tester when he first started eleven years ago, to his current position of senior producer on its long-running fantasy MMO, *RuneScape*.

"I spend my days ensuring the wheel keeps on turning and everyone is kept up-to-date with progress," Brooks tells us. "The first hour of the day involves reading through emails, reading through community feedback and attending stand-ups with key stakeholders and my production team. We update *RuneScape* every Monday, so there's always a project being released, another one nearing completion, another starting up, another needing review."

▼ With a game that's been running as long as *RuneScape*, dealing with change can be challenging for both the dev team and players.





^ "With *RuneScape* being a seventeen-plus-year-old game, we've had to pivot many times over," says Brooks.

TYPES OF INTERFERENCE

A producer spends an inordinate amount of time working with different studio departments, and it's here, Willington reveals, that three kinds of interference come into play. The first kind, he says, is positive interference. "It might be, the designers have these incredibly wild ideas about what they want to make, and you talk with them and you make sure members of the code team come in and interrogate that design before we commit to it. That makes the designers a bit more conservative in their ideas, and they realise they need to bring the scope down. And that's a very positive interference. They want to make the best, most creative game they possibly can, and that's their goal. And the coders want to make the best game as well, but their goal is to reduce that scope down, ensuring that it's a cleaner, simpler project to make. Because that's the idea of all code."

Positive interference, then, is a way to ensure that a game is delivered on time and on budget. Neutral interference, on the other hand, is about providing a guiding hand for a game's production, and ensuring that the team isn't getting distracted and wandering off course. "That just happens if you don't have production,"

"I spend my days ensuring the wheel keeps on turning and everyone's kept up to date on progress"

Willington says. "We know what we're going to make, but we all have a vision of what that game looks like and we're all also making, individually, that game [in our head]. The producer has to keep up these small course corrections to make sure the project is heading in the right direction."

Finally, there's the ominous-sounding negative interference: that is, dealing with the stresses – whether from within the team or from without – that sometimes accompany the making of a video game. While Willington's at pains to point out that it's not something he's encountered himself, it is something that can arise in the industry, and it's a producer's job to deal with it.

"At other companies, that interference can come from publishers, for example. It's possible for a company to have negative interference from a publisher or someone who controls the money. Or a negative interference from someone within the company – somebody who

doesn't like process and skips over certain elements. That process is in there because that's how you make better games. It is possible for those things to happen,

and a producer's role theoretically is to be involved in running the interference for that."

Back at Jagex, Brooks has learned that one of the most difficult things for a producer to get to grips with is change.

"The most difficult part about being a producer is probably knowing when to pivot and doing it effectively," Brooks says. "With *RuneScape* being a seventeen-plus-year-old game, we've had to pivot many times over →

THE CUTTING ROOM

Inevitably, there are occasions when a seemingly great idea doesn't make it into a game. In those instances, it's often the producer who has to make the tough decisions – even if, like the choice of what kind of dice to use in an adaptation of a tabletop game, they might not sound like a big deal to an onlooker. "One of our designers might have an idea, for example, and suggest that instead of six-sided dice we should use 20-sided dice," Willington says. "They could make that decision, and as the owner of that project, as the producer, you have to say, 'Well no, we wanted to make an authentic digital adaptation so it has to use a six-sided dice.'"

▼ Because *Ogre* was a direct port of the tabletop game, Peter and the team at Auroch had to keep it as authentic as possible.





^ You'll need to build up an understanding of most parts of the development process if you want to be a producer.

DREAM CRUSHERS?

Sometimes people, especially those outside of the video game industry, don't quite get what being a producer means. "I had someone who didn't work in the games industry say to me, 'So you crush dreams, then?'" Willington says. "What that person was probably trying to convey was that you have to rein people in." It's probably best not to add dream-crusher to your CV if you're looking to become a producer, then.

the years to remain competitive. This has often meant big changes for the full team, and we haven't always got it right. You need to make sure when you do so that you set yourselves up for the best chance of success. You need to get everyone aligned, you need the right people in the right roles, and you need to drive it forward, because change can be tough and scary."

This brings us to the topic of leadership: is the producer's role really that of a benign spider sitting calmly in the middle of a web, or are they more of a puppet master, pulling the strings like a despot? In a fine display of geek knowledge, Willington compares a producer's role to that of a captain in *Star Trek*.

"I always say that you want to be a leader in the way that Captain Picard is a leader, and not a leader in the way that Captain Kirk is a leader," Willington tells us. "In the original *Star Trek*, Kirk's like, 'We're going to go over there,' and everybody on his bridge crew says, 'I really advise against that, captain,' or, 'I don't have the power to do that, this is really dangerous.' And Kirk doesn't really care, he does it anyway. Whereas Picard is more, 'I think we should go over there,' and then consults everyone. There are whole episodes where Data basically turns round to Picard and says, 'I strongly advise we don't do this,' and gives Picard a look.

"The point is that you're leading the project but you're not the boss of the team. You don't have to know, and you never will, everything

about coding. Or everything about art and design. You need to know you can trust the individuals that are on that project and who are responsible for those things – let them do their best work but make sure they have all of the tools, all of the time, and all of the skills that they actually need to do the thing that you need them to do – what we collectively want them to do as a company."

The life of a producer might seem like one that's made up of many different elements, but it's that variety for Willington that keeps things interesting, and in turn, makes being a producer such a rewarding career choice.

"Producers and coders are the highest paid members of the video game industry," he says. "It's because they're the roles that require technical skills, or soft skills, or they're just the jobs that people don't want. For me, though,

"The thing we as a studio are interested in is, do you care about making video games?"



^ Despite its age, *RuneScape* is still going strong 17 years later.

they're really fun roles. It's so exciting being a producer; you get so passionate. When the first game I worked on came out, I had to leave the room because I was welling up. We actually released something and it felt incredible. It's a wonderful, wonderful experience."

EXPERIENCE

Anyone who wants to break into producing needs to understand two key things: how a team works, and how video game development works. When asked what they'd say to anyone looking to become a producer, Willington and Brooks' answers tally pretty closely with one another: it's about experience.

"Talking about experiences is better than talking about what articles and books you've read," Willington says. "Several times while I was at university, and in my first QA job, I took the initiative to put together teams with the goal of creating games in our spare time. You learn a lot working in a team, learning what works, where you need to make changes, and how best to communicate with the group."

"The thing we as a studio are interested in is, do you care about making video games?" Brooks concurs. "When you go through uni or you're just looking around for a job and you

apply, the first thing we'll ask in an interview, or the first thing we'll look at on a CV, is where is the work you did outside education. The number of times we've hired people who've never made their own projects is minimal. The reason is because it shows you care. Go and use Twine or one of these really easy game-making programs like Adventure Game Studio."

Aside from all that, there's a certain kind of person who works well as a producer: the kind who can keep their cool even when, to return to the 'This is fine' meme we were going on about at the top of this article, there are hints of fires gathering around the edges of a project.

"It's about getting the best from people, and making sure that people feel confident in the project," Willington explains. "A bad producer is a producer that's slamming their hand against the table and shouting 'This is terrible! It's all going wrong.' The best producer is the one that's the calm in the middle of the storm." 🧘



^ Jamie Brooks has been with Jagex for eleven years, working his way up from a QA tester to Senior Producer.



^ Producing a game isn't just about how it looks, it's about making sure that it feels right as well. A lot of that comes down to the producer simply test driving it.



Developer Profile

Capybara Games

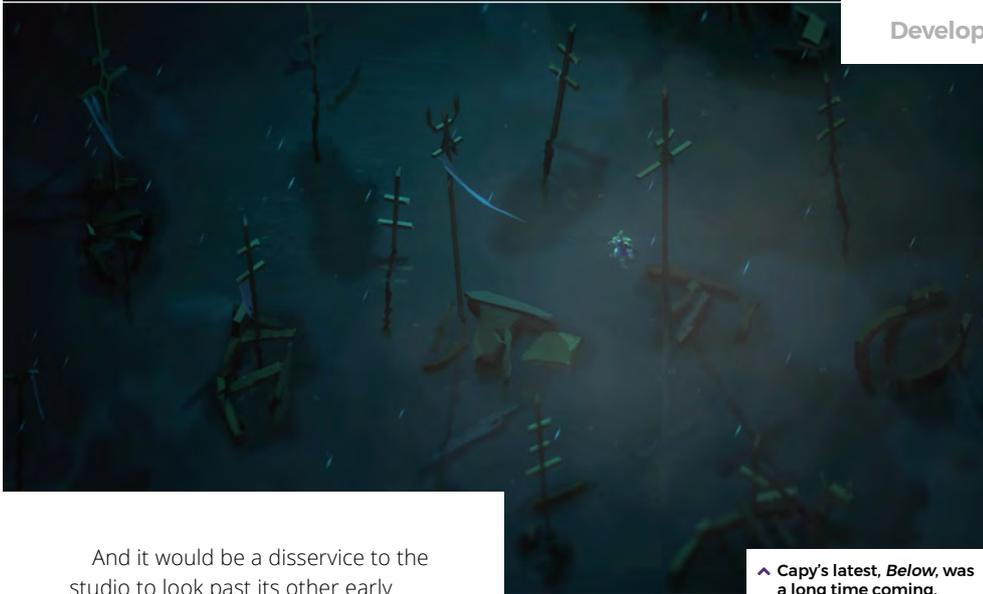
The indie darling and its surprising start with Disney and Warner

You look at Capybara Games' output and see critically acclaimed; you see a bunch of games like *Superbrothers: Sword & Sworcery EP* and the more recent *Below*, and you think 'this is an indie studio with indie chops, releasing games that appeal to the highbrow, not like that shovelled-out rubbish from other studios.'

Except, Canadian-based Capy has always had its fingers in the licensed games pie – a smart move for any independent studio looking to remain financially viable. It began on pre-smartphone mobile, with games based on Disney and Warner Bros projects like *Pirates of the Caribbean: At World's End* and *Happy Feet*. By no means should you think these were bad games – they weren't anything like the worst of the licensed tie-ins we've seen over the years, and in the case of *Happy Feet* were actually decent fun. It's just a surprising point to note for a studio known for making gorgeous, deep and involving indie titles.



^ *Super Time Force*: yes Shuhei Yoshida was in it.



^ Capy's latest, *Below*, was a long time coming.



And it would be a disservice to the studio to look past its other early offerings on mobile – it's all too easy to dismiss mobile games as somewhat 'unworthy', but Capy's early attempts like *Super Shove It!* and *Monkey On Your Back* did set some things on track for the team. That being: they were fun, and they looked great – a simple formula the studio still sticks to.

It wasn't until 2007 that Capybara saw its real breakthrough – and its first game coming to consoles, iOS and PC. *Critter Crunch* launched on mobile initially, but when it made the move to the PS3 it became a minor revelation as a gorgeous, fun indie puzzler available only in digital form. By no means was it the first game to tick all those boxes on Sony's machine, but it was certainly an early hit for the then-still-growing PlayStation Network.

The team followed up its smart take on puzzling and strategy by going back to the world of licensed games, this time with *Might & Magic: Clash of Heroes*. The 2009 Nintendo DS title (later re-released on console, PC and mobile) was an involving and very clever little number, riffing on those puzzle/strategy elements seen in *Critter Crunch* and ending up as one of the absolute best games on Nintendo's handheld.

2011 was a marquee year for the studio, though, with the release of *Superbrothers: Swords and Sworcery EP*. This haunting, melodic journey through a mystical, mysterious world ignited discussions surrounding Art In Games and – handily – sold over a million copies for Capy across iOS, Android, PC, and

(eventually) Switch. It's not surprising to see a studio's reputation centre on one of its titles, but for the existing Capybara fan it might have conjured up a few chuckles to see them lumped in with the abstract-art-game scene. *Critter Crunch* had rainbow vomit, you see.

But it's testament to a studio that has always been on the move – unafraid of trying new things, while at the same time keeping an eye on the books and bringing in the guaranteed money of the licensed games. Cartoon Network's *OK*

K.O.! Let's Be Heroes tie-in arrived in 2018 as if to hammer home that point.

Capybara Games has consistently impressed with its output over the past 15 years, and its willingness to change tack with each project – this is a studio that has never released a sequel – shows a form of bravery you just don't get with many dev teams. Having said that, we wouldn't say no to a *Critter Crunch 2* – isn't it about time? 🐾

“Capy's early games were fun, and they looked great – a simple formula the studio still sticks to”

Humble (frustrated) beginnings

Capy's formation came from one main factor that's sure to be understood by many in the industry: frustration. Back in the early 2000s there were few development studios in Toronto, Canada, so every job opening up was immediately oversubscribed. Frustration turned into a forum thread asking if anyone in the area would be interested in forming a studio, which led to a dozen or so employees, and the decision (second choice, no less) to name this new company Capybara. From humble, frustrated beginnings come great things.

▼ There's always been a sense of humour at Capy.



Capy Collection

10 Steps to Greatness

It's not every game, but these represent 15 years of progress



01 **SMABU: Earth Wars**

Mobile – 2003

It's a hard one to evaluate, really, as *SMABU* was never released. All the same, this into-the-screen shooter saw players controlling a monkey – it was 2003, monkeys were all the rage – in something of an homage to *Operation Wolf/Thunderbolt*. *Operation Monkey*, if you will. A decent start for the team, but an actual release was required.



02 **Monkey On Your Back**

Mobile – 2005

A couple of well-received mobile games later, *Monkey On Your Back* hit and... featured more monkeys. Your psychic main character was able to control enemies in a manner not too dissimilar to the likes of *Second Sight* and *Psi-Ops*. Inventive and fun, it was nonetheless pretty much overlooked back in the earlier days of 'proper' games on mobile.



03 **Warner Bros' Happy Feet**

Mobile – 2006

Even though Capy's early output didn't break through to the mainstream, it got the team in front of the license holders. *Happy Feet* was the studio's second tie-in after one for Disney/Pixar's *Cars*, but the penguin-platformer-dancer was the more notable, for the mere fact it was – say it slowly – actually quite good. Just like the George 'Mad Max' Miller-directed film.



04 **Pirates of the Caribbean: At World's End**

Mobile – 2007

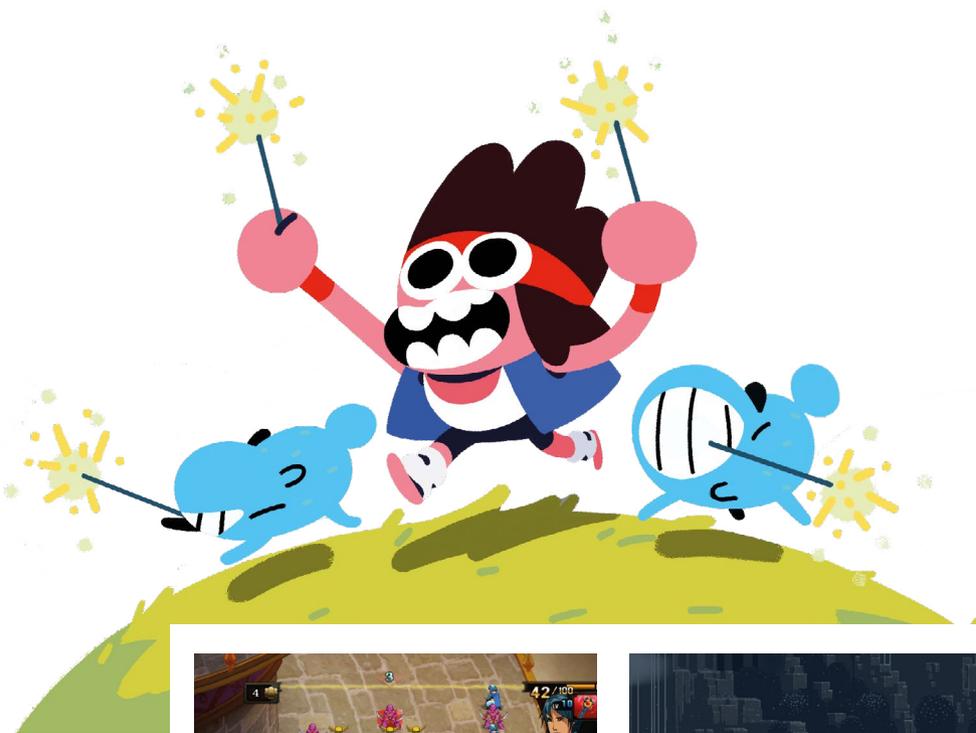
Back in the thrall of Disney, *At World's End* was a less impressive, somewhat more formulaic take on the movie tie-in game. Nonetheless, it served as a solid training exercise for Capy and showed them what the team was capable of. That was: making a platformer that's better than all the other *PotC* games on the home consoles.



05 **Critter Crunch**

Mobile / iOS / PS3 / PC – 2007

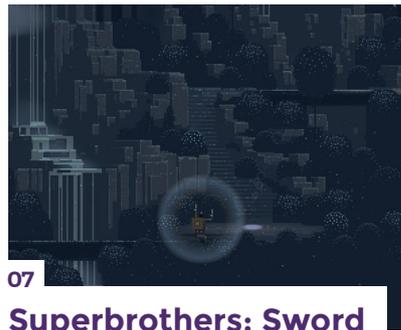
The breakthrough game was a puzzler with a surprising sense of humour and a superb food chain-related take on solving it. Medium eats small, big eats medium, feed the critters other critters, make them pop, eat the cash and gems that fall, vomit into your children's mouths. Alright, that sounds awful. It was, and is, brilliant.



06 **Might & Magic: Clash of Heroes**

NDS / X360 / PS3 / PC – 2009

It was at this point Capy was firmly established as a solid, dependable studio able to pump out games that were fun as well as trustworthy with a license. Ubisoft trusted the team with its *Might & Magic* franchise, and what it got was a masterclass in puzzle/strategy, and a game that's still phenomenally good fun today.



07 **Superbrothers: Sword and Sworcery EP**

iOS / Android / PC / Switch – 2011

The shift from bright-and-airy silliness – and licensed games – to *Sword and Sworcery* couldn't have been more pronounced, but it was a gamble that paid off for Capy. This artistic adventure captured the spirit of what games could be on iOS, and forged itself an audience in the millions. A true smartphone classic.



08 **Super Time Force**

XBO / PS4 / X360 / PS3 / PC / Vita – 2014

And what do you follow up the deep-and-meaningful art game with? An homage to *Contra*, obviously. *Super Time Force* was a raucous, side-scrolling shooter riddled with time-bending special powers and a host of characters – including Sony chief Shuhei Yoshida – to tackle enemies with. Again, it was superb.



09 **OK K.O.! Let's Play Heroes**

XBO / PS4 / PC / Switch – 2018

As if to remind us Capy has never been averse to licensed tie-ins, early 2018 saw this effort based on the Cartoon Network show of (almost) the same name. A mix of adventure and beat-'em-up, it might have been aimed at a) fans of the show and b) younger players, but *Let's Play Heroes* was a surprisingly competent, enjoyable brawler.



10 **Below**

XBO / PC – 2018

All roads led to *Below* – the next great hope from Capy. Revealed five years ago, the game's status was uncertain as of 2016, but it turned out the team just wanted to focus on *OK K.O.!* and not rush out this spiritual follow-up to *Sword and Sworcery*. Gorgeous, haunting, evocative – it's a fine reminder from Capy that this is a team with many a hat to wear.



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Just Cause 4

A train wreck. And not the cool, Just Cause style of train wreck

Info

GENRE
Action/Open World

FORMAT
PC (tested) / PS4 / XBO

DEVELOPER
Avalanche Studios

PUBLISHER
Square Enix

PRICE
£44.99

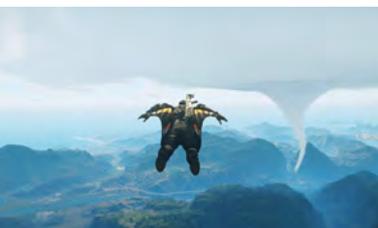
RELEASE
Out now

REVIEWED BY
Joe Parlock

HIGHLIGHT

The new grappling gadgets are an entertaining distraction. Latching balloons and rockets onto a bus to make your own *Fortnite* battle vehicle, and then driving it straight into a gigantic satellite dish is lots of fun – for a few minutes, at least.

Once you've seen one tornado, you've seen them all.



In some ways, *Just Cause 4* is a great educational experience. How do you make a game where you can grapple a car, send it up into the air with balloons, attach rockets to it and crash it into a plane, causing a huge explosion in the sky so boring? *Just Cause 4* has the answer. It's a dull, messy low point for a series that usually does what it does, so, so right.

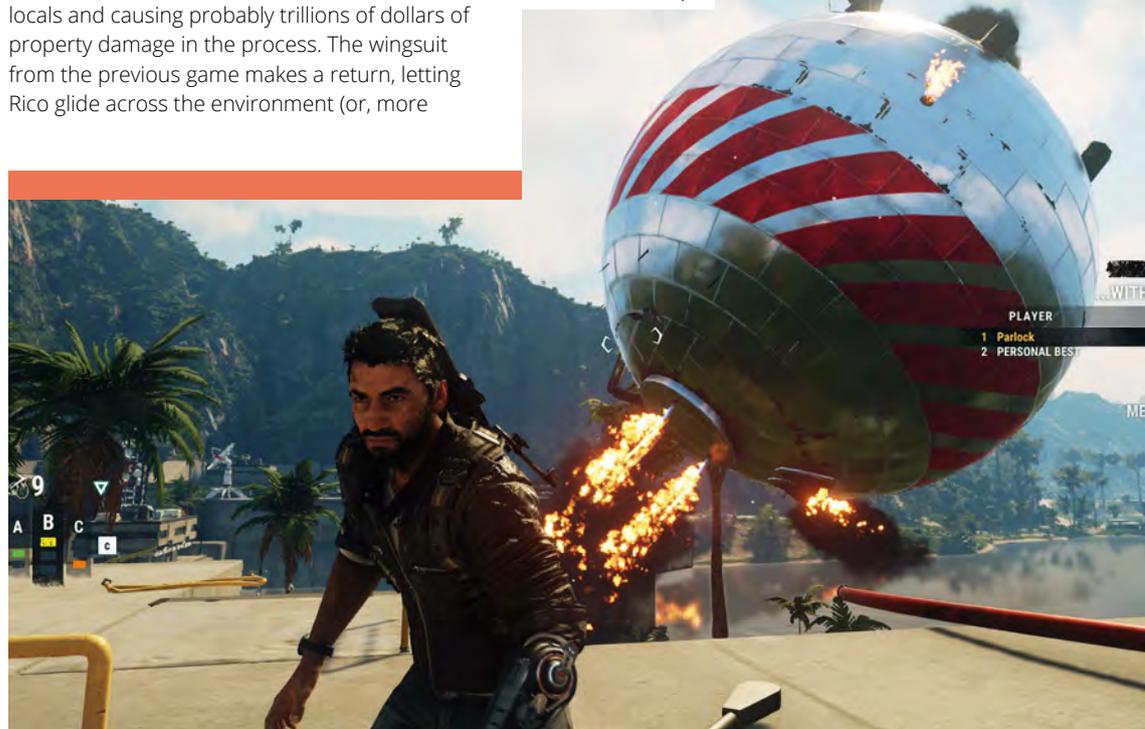
Just Cause 4 follows almost immediately on from the previous game. Suave lead Rico Rodriguez has long since left the Agency, a secret branch of the CIA, and now deposes tyrants on his own dime through grassroots rebellion. After learning his father may have been involved in the development of weapons that manipulate the weather, Rico heads to the island of Solís to take down the local dictator and his army of mercenaries.

If you've played any previous *Just Cause*, you already know the general flow of play in *Just Cause 4*. Rico flies, drives, and grapples his way around the country, completing missions for the locals and causing probably trillions of dollars of property damage in the process. The wingsuit from the previous game makes a return, letting Rico glide across the environment (or, more

often than not, crash headfirst into a tree and kill himself), but there are a few new toys added into the mix as well. The first is the balloon attachment, which lets you launch enemies and objects into the air by latching them onto quickly deploying inflatables. The second is a rocket gadget, which will propel whatever it's stuck to away with immense force.

These two new goodies are where the sole bit of fun comes into *Just Cause 4*. The grappling has always been the highlight of the series, but these new ways of interacting with the world can result in some fantastic emergent scenarios. Need cover in a gunfight? Lift up a car with the balloons and hook onto the top of it, giving you both a bird's-eye view of the fight and some excellent cover to boot. Want to shift a gigantic, spherical gas tank over a group of baddies? Balloon it into the sky, attach a few rockets, guide it gently over them, and then detach everything

Fly, my pretty, fly!
And then blow up.





^ Weapons still feel meaty, though grenades and C4 explosives are curiously absent.



^ Hope you like muddy, war-torn fields, because this is full of them.

and drop your impromptu bomb onto it. For a series built around mayhem and silliness, these new tools fit seamlessly into Rico's repertoire, and making the most of them requires quick and creative thinking.

Of course, they're just two mechanics attached to an entire game that otherwise seems to actively avoid fun. The physics are an utter mess, with nothing having any real sense of weight – something that is very important when ripping up and throwing structures around is part of the main appeal. Rico might as well be hitting enemies with Styrofoam a lot of the time. Vehicles seem to constantly glitch out, especially when prodded with a grapple, and seeing everything from the smallest car to the biggest airship shooting off into the sky in a glitchy tailspin is a far too common occurrence. *Just Cause* is a silly series, but there is a difference between the physics being bent for the sake of an action movie-like stunt, and it being torn in half and placed in a shredder because of a bug.

The environment isn't a patch on the previous games, and it feels like an early development version of the last game's Medici. Full of empty grass fields, some small and uninteresting cities, and incredibly ugly and barren mountains, it's a far cry from the mind-bogglingly large and varied sprawl of *Just Cause 2*'s Panau.

The enemy bases Rico has to carefully deconstruct (read: explode the heck out of) are all broadly the same, with the same environmental objects all exploding identically. Remember the flying nightclub in *Just Cause 2*, which was just one highlight in a world full of amazing views? Avalanche doesn't, apparently.

In a series as focused on spectacle as *Just Cause*, bringing up visual shortcomings feels important, and it's difficult to deny that *Just Cause 4* just doesn't look as good as its predecessors. *Just Cause 2* in particular was well-known at the time for its gorgeous graphics that still hold up to this day, and *Just Cause 3* also looks just great. *Just Cause 4*, meanwhile,

“The worst-looking instalment since the 2006 debut”

regularly suffers from a muddy colour palette, flat lighting, blurry textures, poor character models, and janky animations, making it the worst-looking instalment since the 2006 debut – which was on the original Xbox.

The story campaigns have never been the primary focus of the series, often just giving a bit of structure to the sandbox chaos, but *Just Cause 4* somehow manages to make even these an absolute slog. Missions are unlocked

by pushing Espinosa's forces back, with the map covered in a 'frontline' where rebels and the Black Hand mercenaries are always waging war. It can

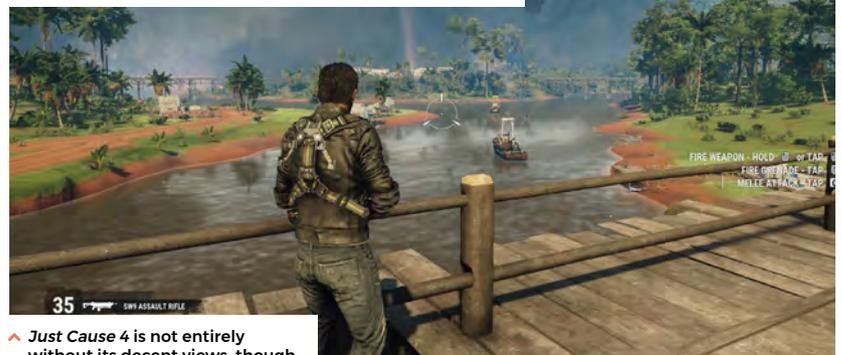
be impressive seeing the smoke of explosions billow over a hill in the distance, but having to unlock areas before you can complete story missions in them can be a pain. If you want to just get to the intense weather sections of the story, having to mess around completing wingsuit stunts or finding an ancient relic to gain enough support to capture an area is a needless hindrance.

Just Cause 4 is a lot like a burning car on the side of the road: the flaming spectacle looks mighty impressive at first, but once the novelty wears off, it's just the burned-out husk of what was once a perfectly good vehicle. *Just Cause 4* is a single fun mechanic built on top of a fundamentally flawed foundation, and no fancy tornado or balloon is going to fix that. 🗯

VERDICT

Just Cause 4 is a broken and ugly experience that takes the freedom and chaos of its predecessors and replaces it with mundane missions, buggy physics, and a rubbish world. This is the worst the series has been in years.

40%



^ *Just Cause 4* is not entirely without its decent views, though.



HIGHLIGHT

Wandering into a new settlement and getting your bearings – before rooting through every single dresser table you can find – is always a fun voyage of discovery in any *Fallout*, and it's no different here. Bethesda still knows how to do some solid environmental storytelling, too, so there are times when you don't even miss the human non-player characters.

DISASTER REPORT

Fallout 76

Digging through the embers of Bethesda's DOA MMO

There's no denying that, even as clunky and jury-rigged as it is, *Fallout 76* can look pretty.

Info

GENRE
MMO

FORMAT
XBO (tested) /
PC / PS4

DEVELOPER
Bethesda
Game Studios

PUBLISHER
Bethesda
Softworks

PRICE
£49.99

RELEASE
Out now

WRITTEN BY
Ian Dransfield

VERDICT

This empty, soulless husk of a non-game will make you want to set the world on fire.

There's just so much that's difficult to understand here. Why Bethesda chose to use its single player-focused engine for a massively multiplayer online game.

Why it opted for bizarre instanced worlds of about 100 players max per session. Why there's such a reliance on crafting in a game that doesn't actually handle the act of crafting very well.

But the biggest question surrounding *Fallout 76* is: why does it even exist? There are plenty of theories, some verging on libellous, but the general theme is the same – nobody really understands it. On paper, a multiplayer *Fallout* makes sense – bands of survivors coming together after the bombs have dropped, trying to make their way, survive, and even thrive in the wasteland the Earth has become. That's a captivating scenario.

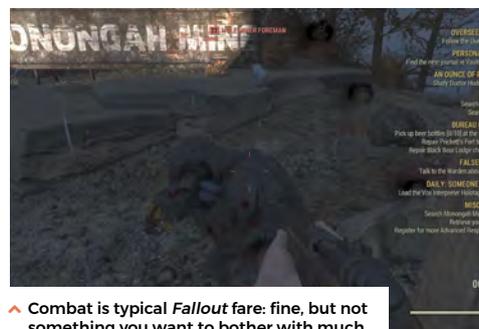
Fallout 76 has you collecting rubbish. Not only does it tacitly encourage the collection of garbage from the moment you emerge into the world, with the crafting system relying as it does on junk being converted to useful materials, but at one point you are literally tasked with going to pick up ten beer bottles. That is, putting a finer point on it, not fun.

And all of this ignores the technical issues consistently rearing their many heads. The most egregious faults were patched out soon enough post-launch – though they did launch with them – but still there are issues, glitches, bugs, hangs and problems of a more design-based aspect (enemy mobs respawning way too quickly, for example). As well as being bored and

underwhelmed, you're also consistently annoyed by *Fallout 76*'s myriad mechanical faults... but mainly you *will* be bored and underwhelmed.

You'll note there's no score here. This isn't a review in a traditional sense, as I'm of the firm belief it's nigh-on impossible to offer any kind of definitive opinion on an MMO – they by their very nature change, sometimes fundamentally, from one month to the next. *Fallout 76* could very well be a different game by the time this magazine is in your hands (unlikely), and it definitely will be very different in a year's time.

Maybe I'll keep half an eye on it and come back to it when things have changed. Maybe I'll give it another go if the tweaks and changes are made – as they were with *The Elder Scrolls Online* – to make it more of a fun experience and less of an exercise in mind-numbing futility. But for the here and now, this is not a good game, it's not a good experience, and it's utterly bewildering why and how it exists in this state. *Fallout 76* is, in short, a nuclear disaster. ☹



Combat is typical *Fallout* fare: fine, but not something you want to bother with much.

HIGHLIGHT

Enough can't be said about the *Katamari Damacy's* eclectic and eccentric music. From the catchy 'na na na' of its opening theme, its genres range from J-pop and funky electronica to the unexpected influences of mambo, samba, jazz and even English vocals, giving an international flavour to an inherently Japanese soundtrack.

^ The humans don't pay any mind to your antics, at least not until your Katamari is big enough to engulf them.

Review

Katamari Damacy Reroll

A Japanese cult classic returns to roll over all of life's junk

One of the finest examples of quirky Japanese games developed in the PS2 era, *Katamari Damacy's* influence can be found in the most leftfield of indies today, from the philosophical *Everything* to the comical anti-capitalist *Donut County*. Certainly, when you think of the world leaders creating chaos then abdicating responsibility, the King of All Cosmos resonates more than ever. Of course, *Katamari* is quite happy with keeping any subtext wrapped under many cute and ridiculous layers.

Sent to Earth to remake the stars your father – the King – smashed up during an intergalactic bender, your ant-sized prince is tasked with using the ball-like katamari to gather up everyday objects to be turned into replacement stars, transforming trash into treasure. Your katamari begins as small as the prince himself, rolling up household items, and growing bigger in the process, which in turn allows larger objects to stick to you. Eventually, you realise that nothing is off the table, including the proverbial table itself. From rolling up coins, bottles, and biscuits, you'll later find street signs, post boxes and the world's blocky humans sticking to you, as the latter scream in protest.

If there's any fault, it's that this rule isn't always consistent. There's been times my towering katamari has crashed to an abrupt halt to an over-sized melon but snagged a passer-by without a problem. Loss of momentum isn't the only frustration as it can also cause some objects to break off, slightly reducing the katamari size.

The peculiar twin stick control scheme for rolling the katamari also takes time getting used to. The remaster does include simplified controls where you can just use the left stick to move, though the right stick still doesn't behave quite like you'd expect a modern third-person game to, while motion control options for Switch are a nice idea but still unwieldy. Ultimately, both options made me appreciate the default setting even more when it comes to manoeuvring around and controlling your speed.

But once you're on a roll, it's essentially one absurd idea drawn out for ten levels, though there are also additional challenges, each with their own

theme, tasking you to collect something specific. Despite you apparently travelling all around the world from Russia to the Arabian Peninsula, it's also

apparent that most environments and palettes remain the same with distinctly Japanese objects in view. Nonetheless, the absolute abundance of things that you can roll up is still ridiculously enjoyable to behold. You might occasionally run into hostile cats or aggressive bulls that will happily bounce your katamari around, but it's hard to stay mad in this colourful playground when you can come back and roll them over later.

Having only previously been released in Japan and the US, this is effectively the first time Keita Takahashi's cult debut has been rolled out worldwide. Frankly, when the real world is filled with plenty of calamitous nonsense that needs to be shot into space, it couldn't have come at a better time. 🌍

"It's hard to stay mad in this colourful playground"

Info

GENRE
Puzzle

FORMAT
Switch (tested) / PC

DEVELOPER
Bandai Namco

PUBLISHER
Bandai Namco

PRICE
£15.99

RELEASE
Out now

REVIEWED BY
Alan Wen

VERDICT

Brief, bizarre, and utterly beguiling, *Katamari Damacy* will put a smile on your face.

84%

Rated
Review

HIGHLIGHT

The dynamic soundtrack and how it responds to the block movements is fantastic, turning what was already an amazing soundtrack into a jam session between the game and the player. If you've played *Chime*, you'll appreciate what *Tetris Effect* does.

Review

Each stage is a dreamlike display of colour, music and puzzles.

Tetris Effect

The classic puzzler with rhythm-action elements? Mesmerising

Info

GENRE

Puzzle

FORMAT

PS4 (tested) /
PSVR

DEVELOPER

Resonair

PUBLISHER

Enhance, Inc.

PRICE

£34.99

RELEASE

Out now

REVIEWED BY

Joe Parlock

VERDICT

A stellar audio-visual feast, *Tetris Effect* is so much more than just a new *Tetris* game.

90%

For a lot of people, *Tetris* is meditation gamified. The steady flow of blocks falling and slotting together, to the point where the focus on patterns bleeds into other parts of life thanks to a psychological phenomenon known, funnily enough, as the Tetris effect. It's this trance-like state people slip into while playing that *Tetris Effect* leans heavily on in a masterful blend of play, music, and visuals. Describing *Tetris Effect* as 'just *Tetris*' would be a bit like describing a cake as 'just flour and eggs'.

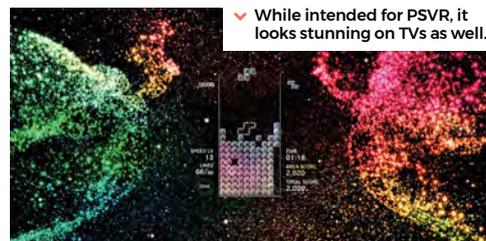
The meat of the game is the Journey mode, a collection of playlists featuring everything from abstract points of light dancing along with gentle electronic music, to endless skies full of floating windmills. The music is often dynamic, relying on the movements of the blocks to turn you into a conductor, and *Tetris* your orchestra. It isn't particularly long, at just over an hour, but that is the perfect amount of time to sink into the rhythm of the game and take in the sights and sounds. Despite it being primarily marketed as a PlayStation VR game, *Tetris Effect* can be played perfectly fine on a standard TV without losing much of the immersion. In fact, not having a bulky headset on your face may offer even less resistance to entering the flow of *Tetris*.

For players seeking more of a challenge, the aptly named Challenge mode makes it abundantly clear that the *Tetris* foundations under all the bells and whistles of *Tetris Effect* are as strong as they've always been. Alongside the dreamscape stages, Challenge Mode adds in a number of modifiers and new objectives,

such as clearing 140 lines, full-speed, planning around a predetermined piece drop for a maximum score, and, of course, meditation modes where failure isn't the end. It all shows how satisfying and responsive the game's stacking is without lowering the skill ceiling to accommodate newcomers.

There is one new addition to the *Tetris* mechanics, and that is 'the Zone'. Once a meter has been filled, it's possible to entirely stop the onward march of the blocks while the music and colour wash away. It allows you to rack up massive combos as completed lines shoot to the bottom of the board rather than disappear – a seamless new introduction to the *Tetris* playbook that avoids feeling too overpowered.

It's always *Tetris* at its core, but seeing how many ways an idea we've been playing with since 1984 can be twisted to fit into these stunning, entrancing scenes is unfalteringly impressive. *Tetris Effect* shows a true understanding not only of the intricacies of *Tetris*, but also how people feel while playing it, and capitalises on both to make one of the most mesmerising iterations of the classic to date. 🎮



While intended for PSVR, it looks stunning on TVs as well.



HIGHLIGHT

The maps are stunning and feel more alive than in any of the earlier games. You could spend hours just wandering around and taking in the sights while hired help handle your farm for you. It's one of the most relaxing experiences you can find in gaming today.

Review

Farming Simulator 19

▲ Fully rideable horses are new for FS19. Sadly, you can't ride the cows.

Out here in the fields, we fight for our meals

W

hether it's train-spotting, bird-watching or stamp-collecting, revelling in your inner anorak and enjoying the 'uncool' is important. For many people,

including myself, that outlet is farming simulators, and with *Farming Simulator 19*, Giants Software has managed to improve upon the simulation masterpiece that was *FS17* (the 2018 edition was an offshoot for mobile and handheld devices), while also injecting a bit of much-needed levity into the mix.

Farming Simulator 19 recreates life on a modern working farm in either the US or Germany. Managing vehicles and equipment, livestock, crops and fields to pull in bigger and bigger profits is the aim, and *FS19* improves upon its predecessors by giving you more of all of them to work with. The roster of vehicles available now includes more of the bigger names in farming thanks to the introduction of John Deere, and they're all rendered in impressive detail. Everything from a forklift to an imposing combine harvester looks, sounds and acts exactly how farming aficionados would expect, while the simulation isn't too complex for those who just want to be out on the fields and not knee-deep in lubricant.

The maps are massive, and feel much more detailed than *FS17*, which at times felt as if the surrounding towns and landscapes were an afterthought. Lighthouses and mysterious whale

bones, restaurants, dams, factories, windmills and more fill in the world, creating the picturesque vistas and calming atmosphere that the series is so good at.

Where *FS17* and *FS18* were straight-laced simulators for taking farming seriously, *FS19* sees Giants lighten up a little – and to great effect. The world features everything from hidden caverns and trick ramps for launching tractors off, to the ability to play fetch with your pet dog. It never gets close to *Goat Simulator* levels of silliness, thankfully, but the lighter tone does wonders for the worlds you're spending hours in.

The biggest addition is Farm Management mode, which starts you off with an obscene amount of money but no vehicles, equipment or land. From there, it's up to you to design the farm, complete with barns, houses and other decorations in a level of personalisation the series hasn't had before. This feels like a meaningful step

“The simulation isn't too complex for those who just want to be out on the fields and not knee-deep in lubricant”

forward for the series, especially for more casual players who want other things to do besides taking in the scenery and driving tractors around.

Farming Simulator 19 isn't a massive upgrade from *FS17*, but it didn't need to be. It took one of the finest simulators around and gave it more character. It's bigger and better for the sim fans looking for a realistic experience, while also effortlessly catering to those who want to just relax and live the pastoral farming fantasy. This is farming simulation at its best. 🐾

Info

- GENRE**
Simulation
- FORMAT**
PC (tested) / XBO / PS4
- DEVELOPER**
Giants Software
- PUBLISHER**
Focus Home Interactive
- PRICE**
£29.99
- RELEASE**
Out now

REVIEWED BY
Joe Parlock

VERDICT

Farming Simulator 19 is a deep simulator that isn't inaccessible or intimidating to newcomers, and now reigns supreme as the king of all fields. Also, you can play with dogs.

79%

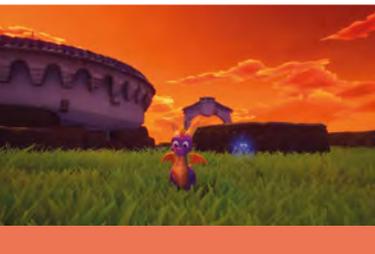
Rated
Review



HIGHLIGHT

Developer Toys for Bob's HD presentation is a delight. With more detailed animation and expressive movement, the characters in *Spyro* have more personality than ever.

▼ Sparx is Spyro's dragonfly pal who represents your health. Once he disappears, you know you're in trouble.



Review

▲ Spyro's enemies may not look like a threat, but some of them can be surprisingly difficult to finish off.

Spyro: Reignited Trilogy

Here be (cute, purple) dragons

Info

GENRE
Platformer

FORMAT
PS4 (tested) /
XBO

DEVELOPER
Toys for Bob

PUBLISHER
Activision

PRICE
£29.99

RELEASE
Out now

REVIEWED BY
Fraser Overington

VERDICT

Despite some minor camera issues, *Spyro Reignited Trilogy* still offers a fiery blast of platforming nostalgia.

73%

As its name implies, *Spyro: Reignited Trilogy* gathers three of the purple dragon's PlayStation outings: *Spyro the Dragon*, *Ripto's Rage* (previously *Gateway to Glimmer* in Europe), and *Year of the Dragon* and gives them a sharper HD overhaul for a new generation of consoles.

First appearing at the height of the genre's boom in the late nineties, the games in *Spyro Trilogy* are 3D platformers, which means you get to explore lush areas, collect stuff and fight a varied menagerie of angry foes. Through each game you'll be hunting down gems and orbs, or freeing fellow dragons who've been trapped by an evil force, so while the challenge isn't hugely steep, there's still plenty for players to dig their claws into. Completionists will find that it'll take around six to nine hours to collect everything in each game; even having spent a good chunk of time with the *Reignited Trilogy*, I still have plenty of gems to track down.

If you are committed to finding all those items, then you'll have to learn how to use Spyro's moves with almost millimetre-perfect precision. You'll often see groups of gems huddled together on a platform that at first glance look impossible to reach – and getting to them will require a careful exploration and usage of the environment to find just the right path.

Accessing these hard to reach areas usually takes a bit of time and thought, but in a set of otherwise simple games, they provide some of the most satisfying challenges.

With the chunky polygons of old replaced by smooth character models and a deeper colour palette, all three *Spyro* games look fresh and inviting, and whether it's scorching the grass with your flame or smashing down a wall with a headbutt, the world remains as fun to interact with as it was all those years ago. But while the

trilogy looks more up to date, it has to be said that some of the frustrations of the original games still remain. Controlling Spyro can prove difficult at times, especially when there's a lot going on or you have to

rush to make it to the next platform; this is mainly due to the wayward camera, which can have a mind of its own at times, even after spending some time fiddling with the settings. All too often, Spyro will slam his head into a wall or fall off a platform, which in most cases is a minor issue, but can cause some joypad-gnawing frustration in later areas.

If you're a fan of that bygone age of 3D platform games, though, or maybe you're just looking for a relaxing game to play, the *Spyro Reignited Trilogy* is well worth considering. Spyro may be getting a bit long in the tooth now, but there's still life in the old dragon yet. 🐉

“All three Spyro games look fresh and inviting – the world is as fun to interact with as it was all those years ago”

HIGHLIGHT

The magic system is one of the few bits of interesting design. Runes serve as a language that is learned and combined to cast various spells, with experimentation and investigation becoming a core part of the magic system. Some spells can backfire, making becoming a powerful mage a risky proposition.

< The hub is one of few areas that feels like a world and not a video game level.

Review

Underworld Ascendant

Maybe the series should've stayed buried if this is what we get

The *Ultima Underworld* series helped birth the entire immersive simulator genre: *System Shock*, *Thief*, *Deus Ex*, *BioShock* and *Dishonored* all owe their existence to it. With the pedigree of its cousins considered, it's almost impressive how *Underworld Ascendant*, the first *Underworld* game since 1993, manages to drop the ball in practically every single way.

Ascendant returns to the Stygian Abyss of its predecessors: an underground fantasy world inhabited by various elves, dwarves, undead and lizard-people. When the immensely powerful demon Typhon wakes up and threatens the existence of both the Abyss and the world above it, it's up to you – the Ascendant – to unite the factions against impending doom.

To do that, various contracts need to be carried out on behalf of the factions, usually mundane stuff like 'find X amount of Y object'. The game tries to spice things up with extra challenges, like avoiding detection or playing non-lethally, but it feels redundant when there's already a rewards system in each mission assessing how you play.

In theory, mixing up magic, combat, stealth and using the environment (fire burning wood, water quenching fire, and so on) all increase your rewards much more than completing an arbitrary side-mission would.

In practice, the levels are set up in a way that there are one or two very obvious solutions to an encounter. Whether it's a wooden wall with a nearby flaming torch or an enemy stood next to a trap which you can conveniently trigger with a carefully aimed arrow, *Underworld Ascendant* commits the cardinal sin of constantly insulting your intelligence.

Ultima Underworld, and even its spiritual successor, *Arx Fatalis*, built worlds that were claustrophobic, yet (mostly) freely explorable. *Ascendant* does the complete opposite, and puts each mission into small, self-contained levels that turn it into more of a generic dungeon crawler. The Stygian Abyss feels boring and lifeless; a series of tunnels with only brief hints of a world happening everywhere but where you are.

Worst of all, it's broken – movement is impeded by invisible snags; holes in walls reveal the untextured void; performance grinds to a halt; and menu feature placeholder text. It's not finished, but *Underworld Ascendant's* biggest sin isn't that it's buggy. It's that it's boring.

When plenty of immersive sims made on lower budgets do infinitely more interesting things (*Eldritch*, *Neon Struct*), for *Ascendant* to stand in the same family as *Ultima Underworld* is thoroughly depressing. ☹️

Info

GENRE
First-person RPG / Adventure / Stealth

FORMAT
PC (tested) / Linux / macOS

DEVELOPER
OtherSide Entertainment

PUBLISHER
505 Games

PRICE
£24.99

RELEASE
Out now

REVIEWED BY
Joe Parlock

VERDICT

A boring, buggy, narrow experience that doesn't deserve the *Underworld* name.

25%

▼ The AI is idiotic, even for an undead soldier.



HIGHLIGHT

Seeing an area you can't access, unlocking a new power, then being able to go back and access it... it's such a simple concept, it's been done so many times before, but it's another part of *Darksiders III* that's handled well. The satisfaction of burning down cobwebs is... unexpected, let's say.



▼ *Darksiders III* sees Horseman of the Apocalypse Fury on a mission to capture the Seven Deadly Sins. Naturally.



Review

Darksiders III

An apocalyptic vision returns, but lacks clarity

Info

GENRE
Action-adventure
FORMAT
PS4 (tested) / XBO / PC
DEVELOPER
Gunfire Games
PUBLISHER
THQ Nordic
PRICE
£49.99
RELEASE
Out now

REVIEWED BY
Ian Dransfield

VERDICT

Not quite the apocalypse we expected, in more ways than one.

68%

▲ Fury's special power, you'll be surprised to hear, involves harnessing her fury.

There are a couple of things to bear in mind with *Darksiders III*, depending on where you're coming to it from. Those familiar with the series may expect a production of similar vastness to the first two games – it is not that. Horseman of the Apocalypse Fury's quest is more streamlined, less open, and shorter than both War and Death's were, and that's to be expected with a lower-key approach to things.

Those who are fresh to the *Darksiders* series, though, need to know another thing: it's better than you might think. *Darksiders III* snuck out without much fanfare, almost ignored before and after release, which most right-thinking members of society would think means it's rubbish. It is not rubbish at all – in fact, it's capable of being really good fun, and plugs the mid-range gaming gap admirably; the 'single-A' style of game we saw the death of alongside *Darksiders'* initial publisher, (the original) THQ.

Mixing third-person action with elements of exploration is a standard approach, but it's handled well enough here. Combat is swift and responsive, satisfying those primal urges to be able to tap a dodge button *just* at the right time. And the storyline is vastly overblown comic book nonsense, but delivered with such conviction it's hard not to be engaged.

Darksiders III falters in a few ways – some a case of your mileage may vary, others a clearer-cut failing on the game's part. Your views on the

game so nakedly aping *Dark Souls* may be less critical than mine, but I find it difficult to get past the fact that this is a vague facsimile of that from which it draws inspiration, rather than a tight, mechanically sound project simply pulling in ideas from elsewhere. On the other hand, elements like an obstructive camera work entirely against the game and render some fights seemingly unwinnable. When you take as much damage as you do and enemies can fly in from any direction

– even with warning markers on-screen – it's a bit much to have a camera not even trying to track things.

There's also that general feeling of a lack of polish. Again, it's understandable given that *Darksiders III* is

so clearly made with a smaller budget than its forebears, and special credit is reserved for the team at Gunfire Games nailing a sometimes-gorgeous art style in the most part. But glitches – graphical and otherwise – and other such rough around the edge bumps in the road continually pop up and take you out of the experience. It's jarring rather than ruinous, but it's worth noting.

That's the general theme for *Darksiders III* – it has obvious flaws, but none are ruinous even if they sometimes try to be. The fact is this is a solid, fun, and surprisingly rewarding title that can keep you engaged for upwards of a dozen hours should you let it get its claws in. It might not be how *Darksiders* fans wanted things to continue, but it's better than the oblivion the series was facing. 🗨

“Fury's quest is more streamlined, less open, and shorter than both War and Death's were”



76 reasons to play...

^ Hours of new single-player RPG-ing, for free, done really well? This is what mods are all about.

When the main games fail you, turn to the mods like *Fallout: New California*

There's no beating around any bushes here: this is a self-defence mechanism employed to deflect any lingering negative impact *Fallout 76* might cause. When the mainstream game lets you down, you turn to the modders – and *Fallout: New California* is modding done right.

This is actually the second instalment in what began life as *Project Brazil*, with the first part coming all the way back in 2013. Five years later we saw the first full beta release, back in October, and since then there's been a few updates pumped out to fix the issues that are certain to be present in something so big, varied and ambitious.

And... it feels like a professional project. *New California* is based on *Fallout: New Vegas*, so it doesn't look particularly special and is very much limited by the engine on show from the 2010 game, but it still feels almost entirely like its own thing. It's engaging and enthralling in equal measure, and the temptation to play a proper single-player *Fallout* – even one not officially endorsed by Bethesda – has proven too much for us in recent weeks, what with that certain other let-down we don't want to speak any more of.

So *New California* is just plugging a gap, right? That's certainly how it started, but this is a well-crafted adventure, full of genuinely good writing, interesting missions to take on, many choices to be made, and skills that actually have an

effect on your experience. Want to solve it with smarts rather than by shooting everything? You often can!

There's also the fact that this being an offline experience, you can play at your own leisure without feeling like you're missing out on anything – or that anybody's getting too far ahead of you. This is an issue with MMOs in general, not just *The One That Shall Not Be Named Again*, but it does still matter: time is a concern for many of us, and having a game that can be incredibly engrossing, while at the same

time respectful of the fact that sometimes you actually need to stop playing... well, it's how games should be, you know?

Plus, because it's a mod of an existing, near-decade-old game, it can be had for a song. *New Vegas* costs very little these days, and *New California* itself – as you'd expect – is completely free. Free, for the best *Fallout* game since *New Vegas* itself? What exciting times we live in.

Nobody can claim it always goes this way – there are plenty of ambitious mods that never see the light of a nuclear winter, and plenty of others that do release and aren't all that great. But *New California* is special; not just because the time it arrived coincided with the worst of the new generation of *Fallout* games, but because it is, entirely separate from any other concerns, a game that's absolutely worth your time. And that's why it's been taking up plenty of ours. 🌐

“New California feels almost entirely like its own thing”

Wireframe Recommends



Slipstream

PC

Taking that classic arcade racing game style – the likes of *OutRun* and *Lotus Esprit Turbo Challenge* – *Slipstream* still manages to be its own thing. A modern take on an unforgettable era.



Moonlighter

PC, PS4, XBO

The adventuring's been done, as has the shopkeeping, but making you the adventurer who runs the shop – so raids dungeons for stock – is a novelty we can't get enough of. *Moonlighter* is superb fun.



Kerbal Space Program

PC, PS4, XBO

NASA's Insight Lander mission spurred us on to get back into *Kerbal*. If you haven't tried this utterly glorious space sim/management title, now's as good a time as any. And failed launches can be fun!

Killer Feature

Tetris



Tetris

The fear – and the triumph – felt through careful use of one simple directional input: down

ALEXEY PAJITNOV / 1984 / ALL FORMATS

A

swift tap, a firm hold – an impatient rat-at-tat – however you use it, there's always an immediate impact. Sometimes it's what you want; other times it drags things out of your control and brings about a swift demise.

Whatever the case may be, the fact remains: pressing down in *Tetris* is playing with fire.

Stripped of this particular Killer Feature, Pajitnov's legendary puzzle game would be a more sedate, less risky game.

It would plod along, with tetrominoes dropping as they see fit, simply shunted right or left by the player in the hopes of dropping that straight block in the straight block-shaped hole they'd made.

It would still be good, of course – there's an absolute purity of design about *Tetris* that would make it gaming royalty even without one specific mechanic being present. But the fact you *can* harness the Power Of Down as you see fit lifts the entire game up into the realms of gaming deities.

At first glance it seems to just be a way to speed things up – you've got a good thing going, you're lined up fine, might as well hold down to expedite this whole line-eliminating process. But it's when the pressure's on and the temptation to hurry things up rears its head again that the Cult Of Down really has its impact.

You see, it's easy – some might say intentionally so – to hold down a bit too long in *Tetris*, causing the next block to fall

what can be a key few lines too far. Suddenly it can't be placed where you wanted it to go, and the pressure ratchets up to as-yet-unseen levels. By hurrying things along, you've placed yourself in mortal (well, mortal-*Tetris*) danger.

And from there the whole thing snowballs. As the shift in mood hits and the veneer of calm blows away, mild panic starts to form. You over-drop one tetromino, then to try and make up for this mistake you take your time lining up the next, before holding down again to drop it in place. But your concentration has taken a hit, and you haven't quite lined it up properly.

Too late: the Might Of Down has made it so you can't get those three lines below until you clear out this misplaced couple of lines above. And it just gets worse, all because you wanted to speed

up the game of dropping some blocks onto some other blocks to make some lines.

A puzzle game from 1984 made by a Soviet computer engineer, which can be played on a scientific calculator, can make you sweat bullets just by pressing down. Video games are truly special things.

It's one of those features that feels so utterly natural – so correct and immediately perfect – that you hardly realise it's even there. At the same time, if you couldn't alter a tetromino's speed by pressing (and releasing) down, *Tetris* wouldn't be half the game it is. It is pure, mechanical perfection and the absolute gold standard of a Killer Feature. 🎮

“It's one of those things that feels so utterly natural – so immediately perfect – you hardly realise it's there”

Next Issue

ON SALE 17 JAN



TUNIC

We meet the creator of an adorable action adventure

Also

- ▶ Suda51 on his unique games and career
- ▶ The remaking of Crash Bandicoot
- ▶ My Friend Pedro, 2019's wildest shooter
- ▶ Making an FPS in Unity: part 2

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