FIVE FOUNDATIONS FOR SUCCESSFUL MULTIPLATFORM GAMES

Learn how to prepare for next steps and chart a path toward better gameplay

INTRODUCTION

With unparalleled access to engines, plug-ins, DevOps solutions, and monetization techniques, there's never been a better time to pursue your passion for game development. In the United States alone, nearly 227 million people play video games on a weekly basis.

That's not a temporary blip: 90% of that audience intends to stay gaming into the future, emphasizing the growing demand for fun new interactive experiences.

Gamers love to hear that they can play a title on a system they already own. Exclusivity is often restrictive, limiting a game's release due to third-party proprietary partnerships or other complications.

It doesn't have to be this way.

If you're building the Next Big Thing,™ you should consider bringing your game to a wide range of platforms. This e-book arms you with insights from industry veterans about the processes you will encounter along your journey.

Award-winning Unity developers share why it's best to target gamers wherever they play with these five foundations for multiplatform success.

UNDERSTAND THE POTENTIAL COSTS AND OBSTACLES

The reason experienced developers bring their games to multiple systems is simple: They want to expand their audience. It's no coincidence that the majority of 2021's best-selling console video games in terms of dollar sales are playable across multiple consoles or desktop systems, since they often reach larger available user bases.

More than just reaching new players, you're also allowing your most dedicated fans to reengage, both at launch and later down the line as their own hardware preferences change and grow. As players increasingly own multiple consoles, there's a growing demand for engrossing titles.

Deciding to go multiplatform is easy, but it's even easier to underestimate the costs of taking your project to new horizons. Light Brick Studio's Mobile Game of the Year-winning *LEGO Builder's Journey* was exclusive to Apple (with iOS, Mac, and TVOS) when it was first released. At the time, building the title for just the Apple ecosystem made it easier for the development team to anticipate budget costs and gear toward the multiple platforms.

Creative director Karsten Lund oversaw production as the game grew from its December 2019 Apple origins to branch out on separate launches for PC and Nintendo Switch™ in June 2021, Xbox One and Series X|S in November 2021, and finally the PlayStation S4 and PS5 in April 2022. With over 15 years of history creating games from past and current generations, he knows that "the whole logistics around a new platform" can be a potential obstacle for newcomers.

"You're going to need to address different kinds of hardware that can do different things, so you need to have a broad spectrum of abilities in terms of bringing the best you can," Lund said. "From mobile to PC, it's a different beast. If that's what you want, you need that expertise, that rendering width of knowledge of how to make things look good at each end of the spectrum, which is equally hard."

LEGO Builder's Journey by Light Brick Studio – Made with Unity

"I CAN'T SAY HOW THE PROCESS WOULD HAVE LOOKED IF WE HAD NOT HAD THAT SUPPORT IN PLACE. THAT'S SOMETHING THAT HELPED US TRY OUT MORE OPTIONS AND TAKE MORE RISKS."

— Johan Fröhlander, Thunderful Development (previously Zoink Games)

Launching on one platform before expanding to others post-launch is just one strategy, and it allows your team to adapt and react to each creative challenge per platform as they come. *Lost in Random*, however, took a more comprehensive approach, launching simultaneously for the PC, Nintendo Switch, PS5, Xbox Series X|S, PS4, and Xbox One.

The breadth of platforms served wasn't always set in stone, since the Thunderful Development team was initially pushing the graphical limits of higher-spec systems with Unity's High Definition Render Pipeline (HDRP).

After working with Unity to support their project, the developers eventually chose the Universal Render Pipeline (URP) to get their game optimized and running as beautifully as possible. They could efficiently create and scale graphics, gameplay, and features across a range of platforms.

"We were in a lot of contact with Unity to see, 'How can we go about doing this? Is it even possible?,' and did a lot of experiments and tests with that," technical director Johan Fröhlander remembers. "I can't say how the process would have looked if we had not had Unity Integrated Success Services in place. That's something that helped us try out more options and take more risks."

Thunderful Development took the lessons from the transition by randomly testing screenshots rendered through URP with HDRP, which served as a higher-quality benchmark with greater graphical realism. Eventually, they refined their precision with the art style to match their newfound engineering prowess to the point where the URP version surpassed their benchmark.

Securing the Best Indie Game award for *Lost in Random* at gamescom confirmed the idea that adaptability and quality can happen together. It's a much more cost-effective lesson to learn before starting from scratch mid-development.

Lost in Random by Thunderful Development – Made with Unity

PREEMPT DEVELOPMENT ROADBLOCKS

It's impossible to predict everything that can trip you and your team up throughout the production stages of your game, especially if you're looking to target multiple platforms for the first time. You should know that stumbles will occur and prepare yourself for unforeseen challenges. Implementing systems to codify checks and balances allows you to be flexible and reactive on the road ahead.

Mimimi Games had a firm idea of which systems to target when conceptualizing *Desperados III*, the studio's most recent (and long-awaited) entry in the *Desperados* stealth strategy franchise. They kicked off development as a lean group of six, starting with a prototype running on targeted systems early to find any issues they didn't have the resources to handle.

"When we start a project, we usually have in mind which platforms we are going to be targeting," says head of development Frieder Mielke. "We then try to get the game running on those platforms as soon as possible so that we can actually see if we will have any problems that we didn't encounter before or didn't think of. It's probably the best thing to do: Assess potential risks and unknown factors early on and work on minimizing them as soon as possible."

It may seem like a simple idea, but you can never truly predict the tiny wrinkles that arise when working on each platform, some of which might change during production. Control schemes are common sources of release platform complications since these are unique to each platform. Even on PC, you could find yourself stripping out code allocated for achievements depending on whether the storefronts you're targeting support them.

When digging in to identify production stages, documentation will be more important than you could possibly imagine. It's easy to keep a handful of people on the same page for the needs of multiple consoles when you can talk it over in a matter of seconds; it becomes much harder as you scale up development and add more friendly faces to your project.

Desperados III by Mimimi Games –
Made with Unity

"THE GAME YOU WANT TO MAKE WHEN YOU START ISN'T GOING TO BE WHAT COMES OUT THE DOOR; THE GAME COMING OUT THE DOOR ISN'T EVEN WHAT IT WAS THREE MONTHS AGO."

— Bruce Slater, Radical Forge

Bright Paw by Radical Forge –
Made with Unity

When the team at Radical Forge began work on *Bright Paw*, they were a tight-knit group of four juggling work on external projects alongside a game to call their own. With a laidback, collaborative approach to the creative process, they could stay up to date with their tasks simply by using sticky notes on a gigantic wall in their offices to monitor progress.

However, as the project gathered acclaim with a second-place finish at *Pocket Gamer*'s "Very Big Indie Pitch," their team started to grow larger and larger. Radical Forge found that a sense of oversight and balanced development progress was significant, noting that maintaining good standards across all of the platforms you're targeting will be better than approaching different platforms unevenly.

To track progress on a game headed to multiple platforms with a much larger workforce, the team beefed up their documentation with spreadsheets that kept everyone informed of the criteria needed for project progress.

"If most of the game is at 100% quality, but there's a bit that's at 60%, it doesn't even out nicely to a clean 80% — it lowers the whole game down to 60%," creative director Bruce Slater explains.

Perfect is the enemy of good. Their team found that it was better to operate and standardize at an equal measure across platforms, roll with the punches, and move on to the following stages. That way, they could prioritize efficiency and productivity across the board and avoid stalling out on one of their platforms.

PRIORITIZE THE SKILLS YOUR TEAM NEEDS TO SUCCEED

As you plot out the launch of a multiplatform game, one word should come to mind: versatility. Early on, when your game is being developed by a smaller core group, you will notice that people who can touch upon multiple aspects of the creative process in a collaborative fashion will become the rockstars of your team. Once you have those key roles in place, knowing how to scale up the game's scope and balancing team resources for pre- and post-launch will be easier to process.

"The main thing you'll need is a C# coder that can take care of all the technical requirements for the different platforms, like integration into the store APIs and achievements," Mimimi's Mielke says. "Often this includes working with first- or third-party plug-ins, especially for more complex operations like saving storage and user handling."

Those are just some of the troubleshooting pain points these coders should be prepared to encounter, and their foundational knowledge will help serve as a guiding voice that can speak to various focuses.

From there, you might be surprised to hear about how critical a good UI designer can be to your team's success. "Press Square to attack" will look out of place if you're not playing on a PlayStation 5, let alone playing with a French localization option.

"Consoles have pretty strict regulations on what you can show and how you have to handle communication of information to the player," Mielke continues. "You probably have to do lots of tweaks to the UI to accommodate that. Localization is usually a big part of that, which in turn is pretty tied into the UI."
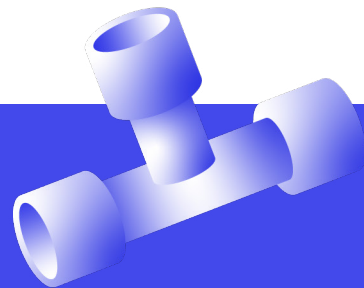

Desperados III by Mimimi Games – Made with Unity
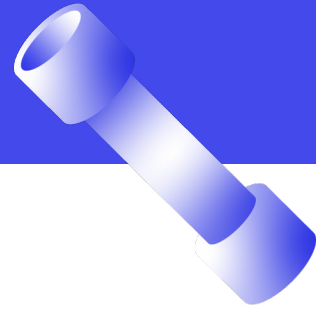
"**THERE NEEDS TO BE AT LEAST ONE PERSON PER PLATFORM THAT UNDERSTANDS THAT PLATFORM AND HOW THEIR PIPELINE WORKS, IN ORDER TO UNDERSTAND IF A PROBLEM ARISES, WHY IT APPEARS ON ONE PLATFORM AND NOT THE OTHERS.**"

— Johan Fröhlander, Thunderful Development

Of course, you can't have a video game without artists' work to provide a visual representation of your ideals. *Lost in Random* technical director Johan Fröhlander makes the case that technical artists with proficiency across multiple media are required to operate as a throughline between those who only create art and others who specialize in engineering prowess.

"An important part is that on the tech side, there needs to be someone to understand, 'Okay, so if we want to support different versions with different visual fidelities for the different platforms, if they're not equally strong, then what would that mean for the product?'" Fröhlander explains. "'What kind of tools do we need? And what pipelines do we need in order to adhere to that?'"

He says, "There needs to be at least one person per platform that understands that platform and how their pipeline works, in order to understand if a problem arises, why it appears on one platform and not the others."

It's important to prioritize the right type of experience that can not only manage tasks, but also lead into the future. As Radical Forge continues to staff up into their future work, they focus on looking for senior members who can manage team units working in tandem within their larger group.

With newly joining staffers placed in a position to add their input within their team units and collaborate on their tasks, Radical Forge is able to maintain the collaborative spirit of the studio from the pre-launch era well beyond their post-launch phase.

Lost in Random by Thunderful Development – Made with Unity

OPTIMIZE THE PLAYER EXPERIENCE ON EACH PLATFORM

There's nothing more disappointing for a single-platform gamer than to read a review about an exciting new game – only to be warned against playing it on the only platform they own. When building a multiplatform title, many factors such as design, optimization, and testing are essential to maintain a base level of standards, no matter where people play.

The process begins as early as the design stages. *Bright Paw* design director Red Freeman knew that the level design format could be flexible for players on mobile and elsewhere. "A lot of the levels were short and sweet, and we kind of maintained that throughout because we were thinking of it as a mobile game," he explains.

"The kind of long-term energy comes from the fact that it's got a consistent narrative throughout. If I'm on mobile on the train, I can play through three levels, or if I'm playing on a console, I can play through an act."

"THE COMMON MYTH OF 'JUST PRESS THE BUTTON AND EXPORT TO PLATFORM X' IS NOT TRUE, OBVIOUSLY."

— Frieder Mielke, Mimimi Games

That mobile-first mentality is pivotal for games aiming to reach smartphones as well as other platforms. When it comes to hardware specifications, Slater advises, "Go to the lowest common denominator and scale up from that. Make sure if you're scaling up, you've got separate branches per console or platform you're going on."

Backup branches will save you more times than you can count, on both the front and back ends. You might already know the differences in lead time for separate storefronts, with console certification more stringent than on mobile. However, it's those last-second surprises (like manual achievement uploading versus a batch process or sudden feature conflicts) that might see you reverting to a previous build version to ensure consistency across all platforms.

Bright Paw by Radical Forge –
Made with Unity
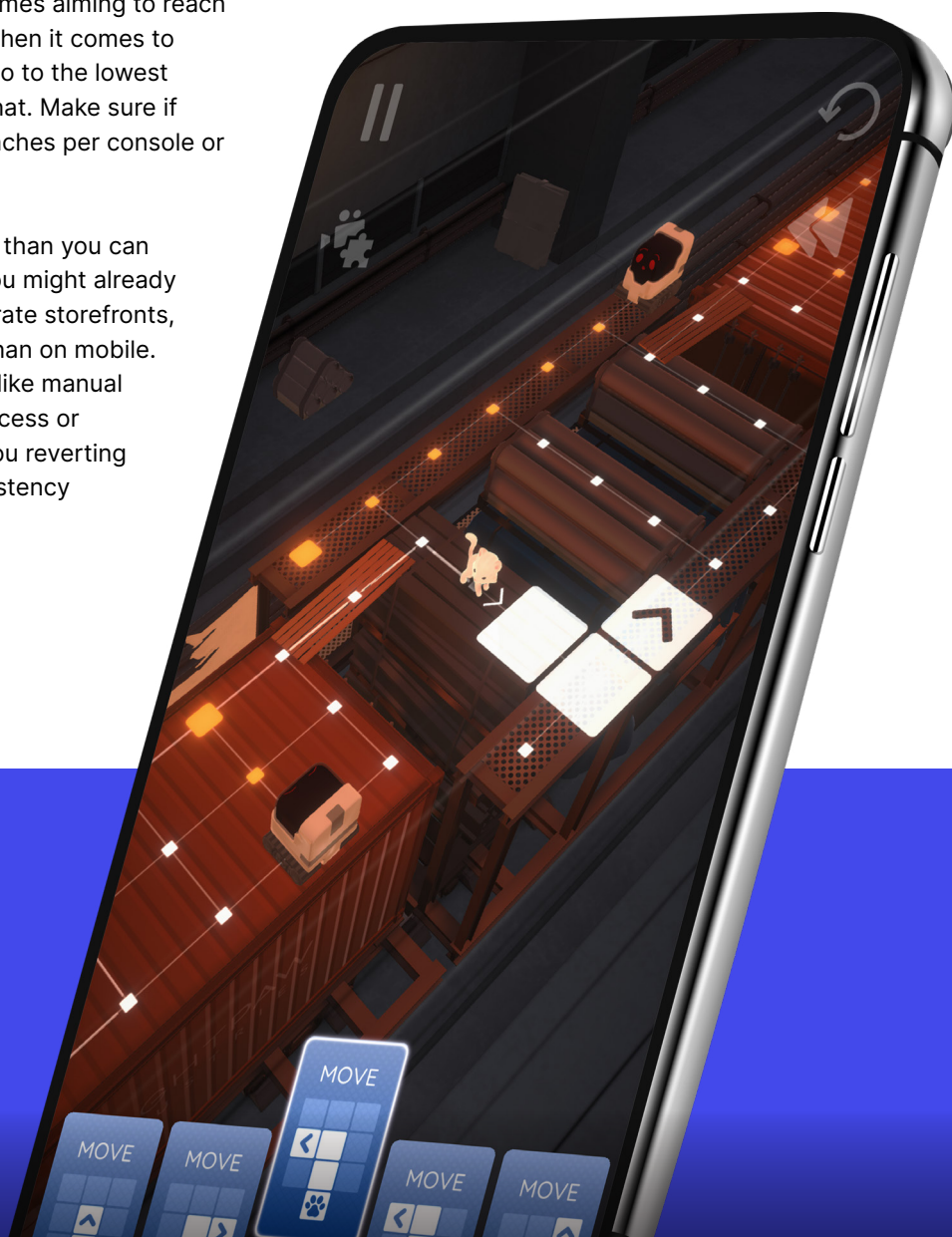
Desperados III by Mimimi Games –
Made with Unity

With *Desperados III*, testing visual fidelity on desktop platforms alongside consoles and without mobile support, Mielke's team aims to go with the greatest common factor instead.

"Get your game running on desktop or your main target platform first," he suggests. "Then, as soon as you have that, test it on your other platforms. That's probably the best first step you can do."

Once those things are established, the focus on gameplay optimization reverts to the biggest feature needs for your core loop. For example, with Mimimi developing stealth strategy games, prototyping how the player, characters, and enemy AI interact at scale becomes top priority.

One of the benefits of building *Lost in Random* in the Unity engine was that the flexibility of tools like the Unity Profiler helped the Thunderful Development team monitor and investigate issues shared across all platforms more easily. This meant that in-depth knowledge of corresponding platform-specific tools were not necessary, especially in the early stages.
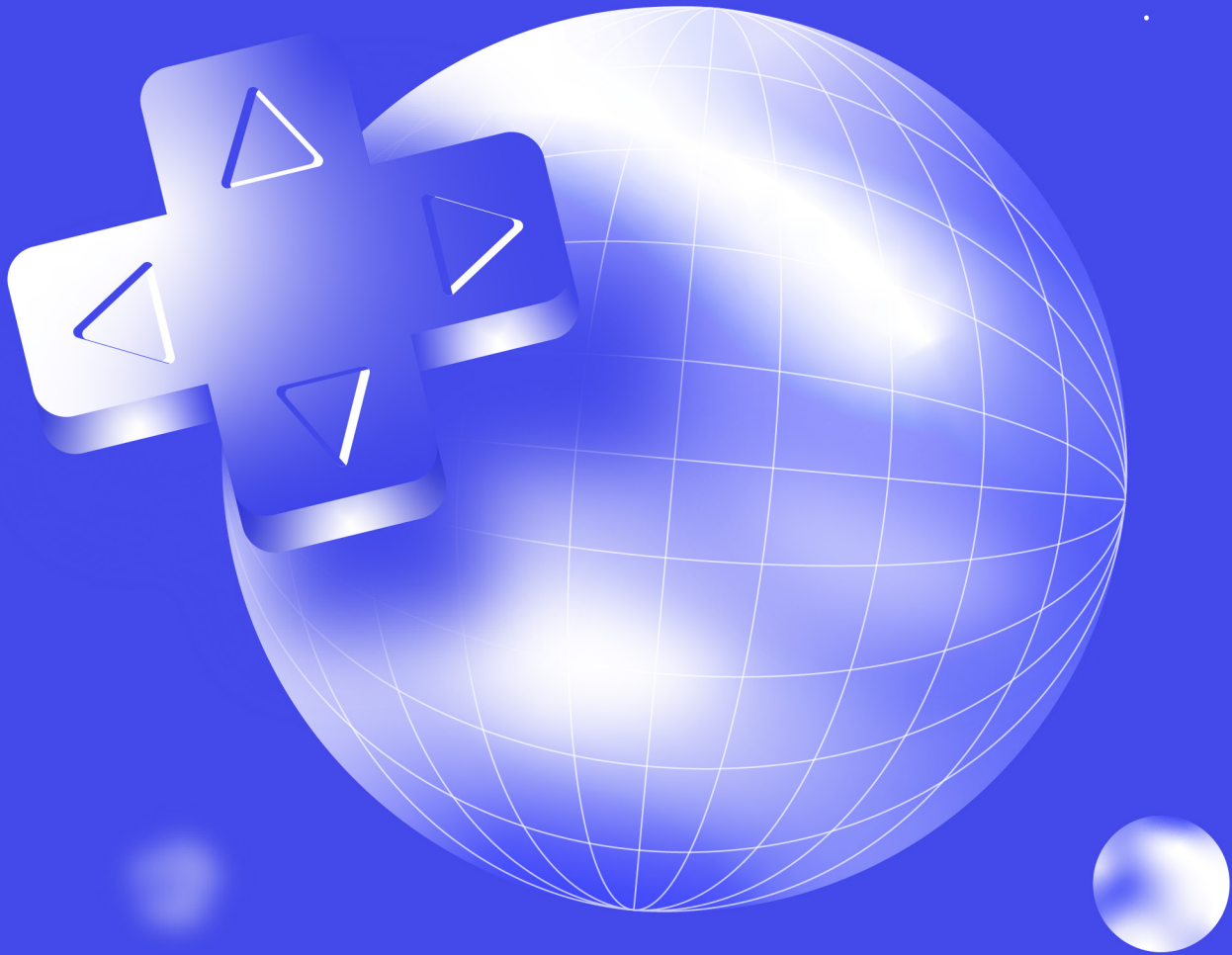
MAXIMIZE MARKET POTENTIAL ACROSS ALL AVAILABLE PLATFORMS

It's not enough these days to create an excellent video game. Building excitement for the game is just as important.

With a 64% increase in the number of games released in 2021 over 2020, there's never been more competition in the marketplace. In addition to broadening your release platforms, you need to create a marketing strategy that provides a multifaceted showcase for the game on each system.

Even if it feels too presumptuous, it's crucial in the early game design stages to think about how your project will fit into the bigger picture of the industry at large. "Try to have an awareness of what your market space is and where you think you'll fit in," Radical Forge's Red Freeman explains.

"You don't necessarily need to enter into it with a full marketing plan, because that's asking a lot for a small indie studio that's just getting off the ground. But it's worth thinking about because if you don't, you're gonna get caught short when people start asking you those questions."

Being able to describe your game in under 60 seconds is one simple way to identify the highlights that make your game stand out from the crowd. That succinct summary will be important for promotional purposes, whether it's to pitch yourself to a publisher or to market yourself as a fully independent studio.

Each platform has a distinctive draw to what it offers players. A player swiping across their smartphone's screen a few feet away from their face to navigate down a foreboding hallway will experience something different than the same person pushing on an analog stick with a controller.

"GO FOR THE UNIQUE ANGLE; MAKE SOMETHING YOU CAN'T GET ANYWHERE ELSE."

— Karsten Lund, Light Brick Studio

Thankfully, those differences can turn into marketing opportunities, as the team behind *LEGO Builder's Journey* found in their later launches. The tactile feel of moving LEGO blocks to build structures and solve clever stage puzzles was a huge selling point on iOS, enough to draw attention on its own.

Ahead of the PC launch 18 months later, the influx of ray tracing in video games gave Light Brick another opportunity to attract more eyeballs. The team worked with the LEGO group to collaborate with hardware partners such as NVIDIA in order to implement this super-innovative technology and add hyperrealism to their lifelike LEGO bricks, to great success.

"We created a lot of buzz around our ray tracing version on Steam that sort of drove a lot of attention to the game in general," Lund recalls. "It really gave a good push with a lot of impressions. People really wanted to see what that was all about. That was a good angle that enhanced the quality of the game, as well as generated a little bit of buzz around it."

Sometimes, all it takes to get a good marketing campaign going is to find a unique aspect of gaming and illustrate it to the industry with your project. At other times, the stars align and allow you to become an early face of a burgeoning new trend.

TAKE THE GUIDED PATH TO MULTIPLATFORM SUCCESS

The principles above will help you lay the groundwork to mitigate common gamedev challenges and are fundamental for multiplatform success.

Thunderful Development navigated roadblocks by migrating from Unity's powerful HDRP to URP, which better supported their production needs. This allowed them to easily create, scale and optimize graphics and features across multiple platforms. Leo Brynielsson, an environmental artist at Thunderful Development, says, "Unity is very extendable and adjustable, so it was fairly easy for us to quickly adapt some of our original HDRP work for the URP."

Radical Forge's CTO Freddie Babord says that the team was able to preempt development missteps by "having an open mind about what might happen." They used constant systems checks, oversight, upgraded documentation, and close teamwork to target being good, rather than obsessively perfect.

With small- and medium-sized teams needing to develop for multiple platforms, "making sure everyone has the capacity to be a bit self-directed" became a priority for Radical Forge's Bruce Slater as they built out a team with the skills necessary to cover as many bases on technical, creative, and management sides.

Light Brick maximized their multiple launch cycles by working with third-party partners to highlight different features in marketing campaigns. As Lund notes, "It helps to make something that stands out," even when you're releasing an existing game to a new audience.

In addition to these fundamentals, the keys to multiplatform success are having the right partner and the optimal tools.

While the decision to take your next game to multiple platforms might seem daunting, Unity can help guide you through the process with a multitude of solutions.

With Unity, you can build once, reach billions. Access a wider audience and feel confident that your IP is ready for the future, no matter how the industry evolves or where your imagination takes you. Build your content once and deploy across more than 20 platforms to captivate players across formats.