



DEVELOPER	High Voltage Software
PUBLISHER	LEGO® Media International
RELEASE	1999-31-07
PLATFORMS	PC, Playstation, and Nintendo 64

BACKGROUND

PETE MCLENNON

Pete McLennon is a concept/texture artist and game designer who worked on LEGO® Racers during his time at High Voltage Software.

TRANSCRIPT

(PETE'S DISCLAIMER: The accuracy of all information recalled here is subject to the 25 year old memories of a 50 year old man, so if I misremember, or miscredit anyone, I apologize and am fully open to correction.)

HOW DID YOU BECOME INVOLVED WITH HIGH VOLTAGE SOFTWARE?

In college I had intended on becoming a comic book illustrator. While attending various local sci-fi, fantasy and comic book conventions, I befriended a musician named Eric Nofsinger. Fast forward a year or two later and I bumped into him at another convention only to find out that he had been looking for me to tell me about a job opportunity. He had started doing music for a little startup game company in the area and thought my art could be perfect for it. I was working as a night manager at a Subway at the time, so any opportunity to do something art related was welcome. (Being a "Certified Sandwich Artist" doesn't count.) After the convention I went in to meet the High Voltage team with some hastily drawn Joust art (a game they were currently working on) and a couple days later I would be working in video game development for about the next three decades.

CAN YOU DESCRIBE YOUR ROLE/RESPONSIBILITIES FOR LEGO RACERS?

When I started at HVS (High Voltage Software) I mostly did concept art and lot's of pixel pushing work on sprites for a Mortal Kombat knock off that was ultimately never released. Then I was paired in an office with the lone company game designer, Pat Dolan (Who I had also known from comic conventions) to pick up and learn game design from. Pat was writing a first

draft general concept game design document for the LEGO Racers idea while the rest of the company, under Rich Fiore's art direction were going to all kinds of great lengths to catch LEGO's attention and convince them to give us this game opportunity. We even went as far as to construct and paint huge physical scale models of fantastic track ideas in the office kitchen, like a track built around and even through a giant asteroid, and an island track around and over an active volcano, complete with little tiny polymer sculpted LEGO cars that I made. For our sparky little team of rookie game developers it was extraordinarily ambitious and creative and cool, yet also kinda pointless in terms of actual game development, However, the models and effort did make enough impact to keep us in the minds of the LEGO people that came out to see our pitch for the next year or two till they were finally ready to green light a videogame project for their brand. In retrospect, I think we pitched the idea of LEGO Racers to them for almost as long as we spent actually making the game once they signed off on it.

We pitched the video game idea to LEGO at a sort of pivotal time in LEGO's company history. As a casual bystander witness, and after all the years that have passed, I only have a vague recollection of the details, but the situation was something like this; When we first pitched the idea of LEGO Racers in 1995, LEGO was in the midst of an internal identity and financial crisis. They had apparently had their first significant profit loss in the realm of toys, losing out presumably to the growth of other entertainment mediums like video games. They were scrambling to adapt and figure out new ideas and ways to renew interest in their brand. Licensing (Star Wars, specifically) was the first step to reinvigorating sales and brand relevance, but branching out into the video games that were luring a chunk of their target demographic away would be the next. They were initially reluctant about making the unproven gamble of a commitment to LEGO as a digital medium, and still had yet to test the waters with LEGO Island, so we had to wait for what felt like a really long time before they built up the confidence in our idea to put LEGO Racers not only on PC, but consoles as well. If we hadn't been pitching LEGO so early before their leap into games, our little studio would've probably been shuffled to the back of a long line of other better established studios stepping in. I feel like it was all a very luckily well timed head start.

After the project was eventually green lit, Pat Dolan left the company for a period of time, leaving me as the primary dedicated game designer for LEGO Racers, although it was always really a full team collaborative design effort led by Rich Fiore, which I'm thankful for since it was the first real full game designing responsibility of my career, and I felt like a total novice making it up as I went and faking my way through it all. After that I really was given free rein to expand beyond the basic concept of kart racing with cars you can build out of LEGO yourself, and come up with and design just about every nook and cranny of the game world how I thought would be best. It was an overwhelming responsibility in a scope I had never tackled before, but in the best, most creatively thrilling way possible. I would design tracks, environments, themes, characters, cut scenes, animation, "dialogue", power-ups, shortcuts, car designs, obstacles and just anything and everything that came up and needed to be made. The more granular it got, the more obsessively I could dive into LEGO research. What more could a LEGO fan and artist hope for? By the end, I was so immersed in LEGO research that I could cite LEGO sets by their box numbers off the top of my head.

WHAT CAN YOU REMEMBER ABOUT THE INITIAL SALE PITCH VIDEO?

I remember Rich Fiore coming up with the video idea to pitch character animation as a behind the scenes voice actor audition, which we all thought was very clever and funny ...even if the Toy Story movie outtakes had just done pretty much the same thing a year or two before. If I remember right, I think it was just kind of a proof of concept for animating a LEGO minifig, which really hadn't had an established official look or feel yet at that point.

ARE THERE ANY ANECDOTES/MEMORIES THAT COME FROM DEVELOPING THE TRACKS?

Looking back at how we did things on the LEGO project I'm kinda stunned at how amateur so much of the process seemed to feel, but this was the first game project of this scope for a lot of people and there were a bunch of unique things about it with no established precedent, so we had to adapt and make up our own solutions and methods on the fly as we went.

One amusingly "high tech" solution as to how I determined an appropriate track length was when we made a blank test track that was modeled in 3D, and we raced a car on it, scaling it up and down to lengthen or shorten the track until the timing felt about right for a good three lap race. Setting that as the default length and track width scale, I printed out a top down render of the map, and proceeded to cut a piece of string to match its length. For the rest of the track designs I would just use that string to lay out the track shape on paper and then once I was happy with the shape, I would trace the string path knowing that the track was a good length as long as the modelers adhered to the established scale. Here we have 3D modeling technology and computers, and I'm over at my desk tracing string in place of doing math. What can I say, I was an artist, not a programmer. One of the modelers refused to work off of my map directly as reference, preferring to "eyeball" the building of the track, and as a result that track goes on almost twice as long as the rest and feels quite barren and empty since the landmarks and props didn't accommodate an environment to that scale. Still not a bad track, it just stands out to me as feeling different.

All the tracks have at least one shortcut, except I think Knight-Marathon. That track DID have a couple big shortcut sections that for some reason didn't get finished. Rather than edit them out, they just covered the entrances with an extra piece of geometry. I've seen that with some special tools, people have been able to access the wireframes and see the remnants of the missing shortcut paths. This was pointed out to me when my current company brought on a young intern, who began excitedly asking me all kinds of questions when he found out I did most of the LEGO Racers design.

For almost the entirety of development the tracks had pretty lengthy load times. To help make the boring wait more palatable, I made maps stylized to the LEGO themes of each track, complete with hints to the shortcuts, for a player to look at while it loads before the race starts. I was pretty happy with this problem solving extra feature. Then right at the end of production one of the programmers (Dwight Luetscher I think) went ahead and came up with a fix that eliminated most of the load time, so in the final product all the maps I made typically only flash on the screen for a moment or two. It was a bummer for me, but still better than waiting for loading.

HOW DID YOU COME UP WITH IDEAS FOR THE POWER UP SYSTEM?

There was a lot of internal debate about the power-up system. It was a different concept that no other game had done (to our knowledge) and sounded confusing for people to wrap their heads around at first explanation. There was worry that it would be too complex a concept for a high speed reactionary racing game, especially for the child-centric player base that made up a majority of our target audience. Once it was implemented and tried out though, people realized that it was easily understood, and quickly became second nature, so the debate ended there. I wish I remembered who to give credit for coming up with the brick stacking power up system, but I don't.

There was also a lot of back and forth talk about how to implement and show the time travel teleportation power up idea if it was even feasible. I think the talented Artist/Animator/Modeler/jack of all trades, Joe Stinchcomb, (who was also new to the job fresh out of college) took the initiative to create the final time travel teleportation power up effect himself. He played it for everyone once, and the matter was instantly settled. It was easily one of the coolest aspects completely unique to this game, and everyone knew it right away. Joe would go on to work on other AAA titles including the 2013 Tomb Raider reboot.

At the beginning the power up system was pretty typical to the average kart racing games out there. They were going to be straightforward LEGO item representations (like a LEGO magic wand, or cannonball, or grappling hook, or magnet) that you would pick up for a correlating single use power. The placeholders while designing these items were simple LEGO diamond gems that we just color coded. For consistent recognizability and the treasure-like appeal, these gems just became accepted as the final power ups and remained in the game until the brick stacking power up system was implemented. They were in the game long enough to still be seen in some early previews and promotional screen shots of the game to make it into the press.

WHAT CAN YOU REMEMBER ABOUT THE CREATION OF THE CAR DESIGNS AND CAR BUILDER?

I built all the car designs in the game with actual LEGOs before they were translated into the ones you finally see in the game. Minor tweaks were made to accommodate the in-game building system, but they otherwise stayed true to their original concepts. Only Rocket Racer's car went through LEGO for rounds of revisions and refinements, since that car was essentially part of the mascot for the face of the game, and was even considered for production of a physical boxed LEGO set.

Most of the default racer/car combos you can scroll through and pick when you don't feel like building one, were quickly created in the builder as placeholders without much thought or the expectation that they'd remain in the final game. At the tail end of development we never prioritized time to dedicate to changing them, and so when the clock ran out, there they were in the final game forever. Like I said before, looking back, so much of the work I did on LEGO Racers seems exceptionally amateur to me now. One stellar example of this that still baffles me to this day was how I chose to go about making the lists of bricks that would be in every unlockable themed set in the game that the modelers needed to build in 3D. We had an entire room filled with just about every LEGO in existence, so the easy logical thing would've been

just to collect the LEGOs for each set in a baggie or something, and give that to the modelers, but no,...for some inexplicable reason I ended up DRAWING every LEGO brick in every collection on sheets of paper which I scanned and colored in Photoshop to then give to the 3D artists for modeling? What a truly infuriatingly pointless waste of time!

For the car builder itself, I think all credit has to go to the programmers for taking on that monumental task and achieving it to the successful degree they did. I feel like any input I could've offered wouldn't do much beyond hindering or distracting their efforts, so I left myself out of it and just let them do what they know best. I'll leave any programmer pestering to the producers, and just play with the tool the programmers created afterwards like a new toy.

HOW DID YOU HANDLE DESIGNING CHARACTERS?

I handmade most of the character textures and all the faces in the game. For fun I also made secret faces of the entire development team and a bunch of fun custom faces. We wanted to have them be a hidden secret easter egg that could be unlocked in some obscure way, but LEGO shot the idea of any easter eggs down because in their words "It's not beneficial to the consumer.". We felt like LEGO didn't quite understand the nuances of current gaming trends, but were eventually able to convince them that at that time secret codes and easter eggs were a good way to get mentions in magazine publications and websites, and so we were able to include some secret code stuff that allowed things like perpetual rocket flying power, invisible wheels and little things like that, but no custom content that didn't exist as a product. I'll find the sheet of the Dev team heads and send it your way.

I started drawing up character gesture guides for animators to get a feel of how to animate the different LEGO personalities. If I'm totally honest I was more doing it just because I enjoyed spending my time drawing the different LEGO people. LEGO ended up using them as an example of their animating standards in the 1999 LEGO Design Values Manual, which is kinda like an internal design bible they created for anyone working with the LEGO brand. I know it's not terribly interesting, but I felt proud of my work being used as their example of what to strive for, and am taking the egotistical opportunity to indulge in showing off a little. The funny thing is, looking back, I'm not particularly proud of the drawings themselves.

ARE THERE ANY DETAILS YOU CAN REMEMBER ABOUT THE CREATION AND ORIGINS OF ROCKET RACER AND VERONICA VOLTAGE?

That's a hard one to pin down, when Rocket and Veronica came into the picture... I know Rocket Racer was always planned early on since we needed our game mascot character, and I know the name Rocket Racer came pretty early and easily stuck. His design on the other hand was in flux all the way up to around the final third of development I would say. Veronica came a little later and had way less thought and effort put in than Rocket. She initially was named something else, like Vivian or something, but it got changed to Veronica and I gave her the last name Voltage as an obvious nod to the company name...also giving her the theme of having matching double initials. Her design felt like it only had two or three passes, and everything was just kinda stamped and approved with little comment. Initially she was going to be dressed in a technician lab coat, since she was the genius behind all of Rocket's Equipment and time travel stuff, but when it came to her being the one you race in the time trials she needed a

proper racing outfit, and the two designs kinda got amalgamated into a lab coat racing jumpsuit.

An original early design of Rocket Racer, Veronica Voltage and the final race world/track were almost steampunk themed. Since I was provided a thematic blank slate for the main characters and their final race track world, I thought it would be really interesting to create a retro-future look kind of like the Rocketeer, and LEGO seemed to lend itself well to a steampunk aesthetic. As much as I was into the idea of this direction, I am glad we went with the more appropriately playful, clean and colorful track theme we did in the end. I would later get the wish fulfillment of seeing LEGO fans post really amazing steampunk LEGO builds online anyway.

For a while there was the intention of packaging all the games with an exclusive Rocket Racer minifig, however this idea was scrapped by LEGO close to the end of the project. I don't know why, probably budgetary reasons, or manufacturing time reasons. The producer, who was the primary contact between us and LEGO, gave me a prototype minifig of my Rocket Racer character on one of his visits. It was one of only a small handful that existed (Just like 3-5 I think he said). He owned one other, and according to him another was in some LEGO archive back in Denmark. I had the minifig tucked away in my desk area, and found a morning soon after that someone had looted my desk space and stolen the figure. I have suspicions who, and want my figure back! Hahaha, just kidding, ...but I do wish I had my figure.

WHAT CAN YOU REMEMBER ABOUT THE DEVELOPMENT OF GAME'S ART STYLE? IT'S ALWAYS HAD A CERTAIN CHARM TO ME.

I felt like most of the in-game style was pretty much set from the beginning in that we just had to make it look as accurate to LEGO as possible, with the exception of stretching the physical boundaries of the rigid plastic for animation and character. The rest of the game's style and identity would have to come through in the U.I. presentation and the environment design.

The U.I. was really collectively designed by a number of people working on different elements like the fonts, backgrounds, buttons, animations, etc. Everyone looking at them and commenting on opinions throughout the constant iterations kept the design cohesive.

The worlds the tracks were built on couldn't all completely be built out of LEGO. The constraints were too limiting, and the polygons required would be unsustainable. We had to come up with environmental settings we could place LEGO playset landmarks in naturally. Thankfully I already had a reference for all that. The box art and LEGO catalog pictures all portrayed sets with elaborate non-LEGO environments and backgrounds to fill out the image and give it the sense of a whole world, so I just copied each theme's background style according to the marketing materials, and then had them recreated in a polished 3D style in which they would all match. These environments also gave me ideas for track specific hazards and obstacles when it came to designing the tracks, like the magma spewing craters on the Magma Moon Marathon track.

WERE THERE ANY GUIDELINES YOU HAD TO ADHERE TO FROM LEGO?

We had a laundry list of stringent guidelines and rules to abide by, handed down by LEGO. Most of this list was a direct result of their experience with LEGO Island, and that game was often used as the "Don't do this." example. Don't have LEGO people take their heads off and play volleyball with them. Don't depict anyone eating or choking on LEGO pieces highlighting them as a safety hazard. Don't put an emphasis on racial stereotypes, etc. and other mostly obvious stuff really. I can't remember all the examples, but there were a whole lot of "don'ts", which really made it clear that LEGO Island was their initial testing ground to discover how developers might work with their product, and how they needed to refine control over that process.

One specific guideline that I do remember unexpectedly becoming a problematic big deal that we had to push back on was the accurate scale of all the LEGO elements in the game. It sounds like a no-brainer idea that the size of all the LEGO stuff in the game should be consistent and matching, except we quickly discovered an issue when playing and testing tracks. The camera was always focused on the car zooming along the track, and we wanted to highlight the LEGO sets all along the way, but when you put a LEGO set that is scale matched to the car moving at a high speed in perspective two things happen. 1: The set at that distance from the car in perspective looks very tiny and unimpressive, and 2: the smaller the background elements zooming by are, the more it lessens the sense of speed. So at scale we had the feel of cars slowly driving by tiny LEGO sets in a sparse environment. We had to fight back and forth with LEGO a bit to convince them that breaking that rule and doubling the scale of the LEGO scenery was imperative to making the racing gameplay feel and look right. They relented, and as far as I know noone has ever pointed out the size discrepancy.

WHAT CAN YOU REMEMBER ABOUT THE DEVELOPMENT OF LEGO PUZZLE?

The LEGO Puzzle concept didn't get far at all. It was just like this surprise obligation that they threw at us [to do first] in order to secure getting LEGO Racers for some reason. We had to scramble to come up with something and a brick stacking Tetris game just seemed to make sense. We began brainstorming ideas to shake up the puzzle game formula just enough to set it apart from the current puzzle games out there by using special bricks and power ups inspired by LEGO themes and brick styles. I did a couple concept sketches to show that an emphasis would be on it being highly animated, bouncy and playful, and not just a sterile flat puzzle game. The puzzle took place inside a kind of mad scientist machine. Whatever contract or agreement stipulating we had to make the other game first was pulled, canceled or changed shortly thereafter, and we immediately abandoned the project. There was no real passion or drive to make it in the first place other than to fill a contractual obligation. I've got the only sketches of it in my files....I think there were like two sketches, and that's about it. It didn't even really make it past the elevator pitch to the document phase.

IN 2000 AN ARCADE VERSION OF LEGO RACERS, ROCKET RACERS, RELEASED IN LEGOLAND WINDSOR, WHAT WAS HIGH VOLTAGE'S INVOLVEMENT?

I saw a video of the final game, but it was not the version I recognized. Work on that felt like more of an afterthought, like we were mostly preparing the stuff to be handed off to the other entities that would ultimately put it in the arcade machines for the theme parks, so at that

point it was out of our hands for the most part. I don't remember who was actively working on it on our end. It was primarily programming and code changes, and the company kept the programmers and artists pretty well separated, for some reason.

WHAT CAN YOU REMEMBER ABOUT THE DEVELOPMENT OF THE PLAYSTATION VERSION?

When the game was getting released with the Christmas shopping season counting down, we were all anxious to find out if the Playstation version would be released in time to catch those holiday sales (PC and Nintendo versions already came out), because we had a royalties agreement with LEGO that we would all benefit from reaching and surpassing a certain quota. As the days got closer and closer to Christmas, we emailed a producer asking to find out if the Playstation version would actually be released before Christmas or not. His answer was that "The Playstation version of LEGO Racers will be released either before or after Christmas." This completely ridiculous non-answer became a running joke around the office after that. It did eventually release but only a matter of days before the holiday, so not making the best of the sales opportunity.

WERE THERE ANY OTHER SCRAPPED PORTIONS OF THE GAME THAT COME TO MIND?

The original design of the game drew heavily from and incorporated the Time Cruisers theme for its whole time traveling element giving us an easy convenient set up to race on tracks of all different LEGO themes from different eras. Time Cruisers was a current LEGO theme on store shelves during early development, but I think LEGO was ending the theme and didn't want to waste time and money supporting and advertising a retired theme in their shiny new product, so they told us to cut all references.

We knew that LEGO was planning an "Adventure" theme that we were going to put in the game, but had no reference at that stage. Having to just predict what it would all consist of, I made cut scene storyboards and designs shamelessly "inspired" by the Indiana Jones movies, but translated into LEGO form. It was a lot of fun to do. All the designs and art got updated and modified to match the actual Adventure reference and images as they trickled in to us. One of the final Adventure tracks is still clearly an obvious reference to the three original Indiana Jones movies. The Adventure LEGO theme was released in the late 90's not terribly long before the game was released. Fast forward about another 8 years and LEGO introduced a LEGO Indiana Jones theme. Looking back at my old Indy inspired storyboards and stuff, I feel like my interpretation of LEGO Indy was pretty spot on to what they eventually did officially.

The original idea was to have the way the player built their car impact the physics and properties of the car, but this idea was thrown out in favor of a simpler more controlled method of car stats that didn't punish a player for their creativity. Another aspect of the car mechanics that stuck around for a while was losing bricks and having the car fall apart as it took damage from hitting things. Theoretically this was a cool mechanic, but no one really liked having the car they just spent a lot of time building get broken, so we ditched this harsh gameplay element.

CAN YOU REMEMBER ANY OTHER FOND/AMUSING MOMENTS FROM THE DEVELOPMENT OF THE GAME?

One of the big crazy highlights of working on LEGO Racers was when LEGO sent us boxes on top of boxes of every LEGO set currently in production or available on store shelves for reference. We had a whole room dedicated to housing just LEGO sets, and I would spend hours sitting in there, building every set till my fingers were raw and loving every second of it. We even got LEGO sets that were early prototypes for themes not released yet, like LEGO Ninjas, which would go on to be recalled due to a symbol that was offensive in some regions, and now the owner of the company has all those rare prototype sets. I got some pictures of some of the team goofing around in the LEGO build room. After the project, I took all the LEGO monkeys from all the sets home, and to this day have a big LEGO tree full of monkeys. I like monkeys. Another employee who left the company sifted through and took all the black LEGO pieces for some reason, which always makes me giggle.

The opponent racing AI is basically made up of path recordings of various HVS employees playing the game. Me and Cary Penczek played it so much that I think we were the best in the office, so when you're playing the late game levels you're essentially racing against us.

I know it's purely opinion and provides nothing revolutionary or revealing to say, but I think Eric Nofsinger's musical score for the game should be counted up there with the great classics of game music. It is infectiously catchy, and shares rent free headspace right alongside things like the Mario theme and Zelda for me. I still frequently find myself humming it to this day. Although, playing LEGO Racers every day for like 4 years might have something to do with that. He might not appreciate me saying it, but I think it's the best music he's ever done.

One of the more questionable things I was given to work on at the end of the project was font work for the language globalization. It should have been Paul Russel, who had created the original game font. Unfortunately for us he had left to work at Bungie on some little game project they were doing called Halo. I had no issue with doing the work, but the stressful thing about it was that I don't speak any other languages, so...you can see how making complete font sets for languages I know nothing about might be a stressful blind gamble to hope I'm getting things right,...right?

LASTLY, YOU WORKED ON LEGO RACERS: AIR STOMPERS AT CHEWY SOFTWARE. HOW WAS THAT EXPERIENCE FOR YOU?

Many years later my LEGO Racers experience kind of came full circle when LEGO tapped my new/current company, Chewy Software, to make a LEGO Racers game. This time it was just a small, quick turnaround, simple web game called LEGO Racers: Air Stompers. It was nothing at all like the original LEGO Racers, but still an amusing coincidence. What I remember about that the most was when we had conferences with some young new LEGO executives who went on to explain the heart and soul of the LEGO Racers brand to us. I just quietly smirked and listened as they unknowingly explained the "legacy" of LEGO Racers to one of the people who created it in the first place. We never did tell them, we just happily did the job.