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### ***Quake: 3-D is Just the Beginning***

When references are made to revolutionary games, often many people are quick to think of *Wolfenstein 3-D* and the *Doom* series when it comes to first person shooters. During the early 1990's, both games presented seemingly 3-D environments and redefined what it meant to be in the driver's seat of a first person adventure. They also held one very particular thing in common; both games were the creation of a small company called id Software. Located near Mesquite, Texas, id is the result of the combined talent of a unique team of programmers and artists, led by John and Adrian Carmack. Throughout the 90's, id has continually redefined what is popular in the gaming community by producing top end games which are technologically ahead of their time, easy to purchase, realistic and fun. Though *Doom* was a great success, it was by no means the final measure of id's innovative capabilities. By building upon their already existent technology, id subsequently went on to produce a far superior game which has revolutionized action games forever and been recognized by many as the best first person shooter ever. *Quake* is the name and killing is the game. Breaking barriers with its advanced design, online player communities and end-user customization,<sup>1</sup> *Quake* presented new technology which attracted a huge fan base and has subsequently spawned *Quake II* and *Quake III Arena*. id has become a renowned industry leader and one of the world's leading developers of best selling computer games. The company's road to success and the popularity of *Quake* were the result of great game design, artistic innovation and intense desires to push the envelope on the technological capabilities of the day by producing graphically intense games filled with mind blowing adventure.

In 1990, the masterminds behind id Software were employed at Softdisk Publishing. *Invasion of the Vorticons* ( part of the Commander Keen series) was the first collaborative effort of John Carmack, Adrian Carmack and John Romero and it did not take long soon thereafter for the three men to leave Softdisk with dreams of starting their

own company. In February of 1991, id Software was the result. 1992 and 1993 proved to be stellar years for the young company as their popularity soared with the releases of their first games, *Wolfenstein 3-D* and *Doom*. id simultaneously introduced players to unbelievable 3-D graphics and new technology which would soon become pervasive in the world of first person shooters and adventures. Their unprecedented success and dominance in this genre was highlighted by *Doom*, which was particularly popular and is classified by some fans as the best 3-D action game ever. “*Doom* is recognized as the catalyst and inspiration of what we know now as 3-D action gaming.”<sup>2</sup> The game received rave reviews and won several prestigious awards, including PC Gamer and Computer Gaming’s “Game of the Year” and PC Magazine’s “Award for Technical Excellence”. Not bad accolades for only the second game that id produced. They went on to produce a follow up sequel, *Doom II: Hell on Earth*, which when released on October 10, 1994, proved to be just as popular as the classic and maintained id’s new stronghold on the industry. After the completion of the *Doom* series, id decided to direct their efforts in an alternate direction and chose to focus on what they deemed to be the most interesting aspect of these games, specifically their multiplayer feature. The importance of this feature would have to be stressed more in the future because in id’s opinion, “nothing is more compelling than interacting with another player.”<sup>3</sup> By targeting their efforts towards improving their games’ multiplayer capabilities and programming a new engine, id was preparing to give people a surprise. *Quake* was the result of their efforts and successfully took gaming to new heights with play that would elevate computer games to a level never before imagined.

The video game industry was rocked in 1996 as *Quake*’s release set new precedents in the world of video gaming. id had now developed a legacy of great games which people loved, bringing the company’s popularity to an all time high. The multiplayer aspects of the new game, along with a fully 3-D environment unlike the one used in *Doom*, exposed players to truly realistic game play which they had yet to encounter. *Quake*’s popularity compounded itself with id’s addition of two *Quake*

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<sup>1</sup> [www.zdnet.com/gamespot/features/pc/most\\_influential/p16.html](http://www.zdnet.com/gamespot/features/pc/most_influential/p16.html)

<sup>2</sup> [www.idsoftware.com/corporate/index.html](http://www.idsoftware.com/corporate/index.html)

<sup>3</sup> [www.idsoftware.com/corporate/index.html](http://www.idsoftware.com/corporate/index.html)

Mission Packs, *Scourge of Armagon* and *Dissolution of Eternity*. A year later, *Quake II* quickly followed in its predecessor's footsteps and introduced even more multiplayer options, allowing groups of people to play simultaneously online. The game's sound quality was improved as well, making battles between players all the more realistic. With stunning 16-bit graphics and real time lighting effects made possible through the use of an OpenGL 3-D accelerator<sup>4</sup>, *QuakeII* brought gaming into a whole new arena.

Present day, id Software staffs around ten employees, the majority of which have been around since the early 90's. id's website describes the company as follows:

Just off the freeway exit to downtown Mesquite, TX, you'll find id Software. In their black glass building with Ferraris and Porches parked out front, the wizards that are id have created one sensational action game after another and have single handedly raised the standard of excellence in gaming technology.<sup>5</sup>

id Software has evolved from a small software company into an industry leader who continually creates games at the forefront of the technological divide. John and Adrian Carmack are still the co-founders, owners and lead programmers at id. The mission statement John has developed for himself is stated on their website as "to develop core technology for all id titles." He is essentially the brains behind the operation and Carmack describes his view of game design as creating a virtual "amusement park"<sup>6</sup>. His titles do just that, but he is in no way solely responsible for their success. Other staff members include Robert Duffy, a lead programmer who works on improving id's present and future technology. The CEO, Todd Hollenshead, has been with the company since 1996, and has experience as a public accounting expert at Arthur Anderson. Tim Willits, Kenneth Scott and Paul Jaquays are all artists and designers who aid in the development and visual performance of each game. In a January 23, 1998 interview with id's Kevin Cloud, Gamasutra's Alex Dunne was able to question the game artist, project director and co-owner of id Software. When referring to the popularity and attention of the engines in id's games, he states that the "primary reason for id's extraordinary success is John Carmack's technology. Without a doubt, he is a genius programmer. And in an industry

<sup>4</sup> [www.idsoftware.com/corporate/index.html](http://www.idsoftware.com/corporate/index.html)

<sup>5</sup> [www.idsoftware.com/corporate/index.html](http://www.idsoftware.com/corporate/index.html)

<sup>6</sup> [http://www.gamasutra.com/features/20000413/kreimeier\\_pfv.htm](http://www.gamasutra.com/features/20000413/kreimeier_pfv.htm)

driven by technological advancements, new technology is the big story."<sup>7</sup> What bothers Kevin is that too often id gets characterized as a tech company, but when in reality there is so much more to id. He states that while many people see the artistic, technological and design related sides of gaming as unrelated aspects, they are all extremely integral aspects of creating a good game. "Game design, art and technology are all equal parts of the same equation. Even that is an understatement because each element is so dependent on the other."<sup>8</sup>

Kevin Cloud confirms the fact that fun is the primary goal behind all of id's games. Without that essential aspect, a game can be incredibly well designed, well rendered and visually stunning, but will never sell and never attract attention. "All the ambient effects, special events and story line in the world won't help an action game if it isn't fun to move and shoot,"<sup>9</sup> claims Kevin. Behind this central and necessary desire to make their games enjoyable, Cloud mentions the necessity of having a good team that is committed to making the best games possible. When it comes to developing games, focus needs to be continually maintained and emphasized to produce quality titles. Desires for money cannot be allowed to interfere and id tries to strictly adhere to this guideline, despite their collection of fancy cars. Cloud's advice is to focus first on making a good game and only after that will money start to appear. "Games need to have new discoveries if they are going to appeal to your core audience. Also, experimentation is healthy for the team. The thrill of creating is what makes game development so exciting."<sup>10</sup> *Quake* definitely went where no game had gone before and blazed a path in gaming history. When *Quake II* was being developed at id they had acquired several new team members, and when the pressure mounted towards its release date Kevin commented on the experience of working with a team of developers when designing a game:

We set our goals both in terms of game play and scheduling and did everything we could to achieve them. The last few months wasn't a matter of proper scheduling, but pure

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<sup>7</sup> [http://www.gamasutra.com/features/visual\\_arts/19980123/kcloud.htm](http://www.gamasutra.com/features/visual_arts/19980123/kcloud.htm)

<sup>8</sup> [http://www.gamasutra.com/features/visual\\_arts/19980123/kcloud.htm](http://www.gamasutra.com/features/visual_arts/19980123/kcloud.htm)

<sup>9</sup> [http://www.gamasutra.com/features/visual\\_arts/19980123/kcloud.htm](http://www.gamasutra.com/features/visual_arts/19980123/kcloud.htm)

<sup>10</sup> [http://www.gamasutra.com/features/visual\\_arts/19980123/kcloud.htm](http://www.gamasutra.com/features/visual_arts/19980123/kcloud.htm)

human effort. Carmack once said that people are at their best working in a pressure cooker. I think that *Quake II* was proof of that.<sup>11</sup>

The fact that id's games have achieved widespread popularity and made such a mark in the world of video gaming is a true testament to the efforts of everyone at id Software who deserve recognition for their ingenuity and dedication to making the best games possible.

*Quake's* impact in the world of computer gaming has been felt on several different levels. Not only was the technology behind the game design new and unprecedented, but the manner in which the game was released broke boundaries as well. Software development is one part of their package for success; the other is in how id revolutionizes the way computer games are marketed and sold in today's economy. By using unorthodox product distribution tactics when *Quake* was released, such as online services, the Internet and shareware channels, id was able to market their games to a very widespread audience rather effortlessly. As the popularity of the internet and online gaming has increased, id games have reached a new level of accessibility. The company's website boasts that "id's products have managed to consistently break shareware and retail sales records at home and abroad while becoming the torch bearer of what's hot in the game industry – immersive, frenetic and instantly gratifying games that push user involvement to a whole new level."<sup>12</sup> Other developers have observed this successful approach to sales and jumped on this bandwagon as well.

The list of accolades which attests to the superior game design behind *Quake* is extensive and the recognition id has received pays great homage to their work. id was labeled number thirty on the list of the one-hundred most influential computer games in PC Magazine(1997). Red Herring's list of 1997's top 100 computer games in the Digital Universe also featured id Software. *Quake* has been honored as the "Best Action Game" and "Best Multiplayer Game" by Gamespot's Special Achievement awards for 1996. Their opinions on the game's significance were as follows:

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<sup>11</sup> [http://www.gamasutra.com/features/visual\\_arts/19980123/kcloud.htm](http://www.gamasutra.com/features/visual_arts/19980123/kcloud.htm)

<sup>12</sup> [www.idsoftware.com/corporate/index.html](http://www.idsoftware.com/corporate/index.html)

While many games made great strides this year towards implementing multi-user environments... no one came close to *Quake*... The most important testament to *Quake*'s multiplayer prowess is the level of fanaticism which surrounds it."<sup>13</sup>

Computer Gaming World acknowledged *Quake* as the "Action Game of the Year", winning their "Special Award for Technological Achievement." Computer Gaming gave their vote for "Best Game of the Year" and "Best Action/ Adventure Game of the Year" to *Quake* as well. At the Computer Game Developer's Conference(CGDC) of 1997, the Spotlight Awards for the "Best Online/ Internet Game" was given to *Quake*. This list continues on, but *Quake II* has fared even better than it's predecessor and PC Gamer named it the "Best Action Game" and "Best Multiplayer Game" of the year. The 1998 CGDC Spotlight Awards honored it yet again with "Best Use of Graphics", "Best Online Game" and "Best Action Game." The Academy of Interactive Arts and Sciences gave *Quake II* the "Action Game of the Year" award at the Electronics Expo and it also won the prestigious Golden Anubis. The Golden Anubis recognizes 3-D developers who have optimized titles using Voodoo Graphics and it was awarded with "Best Use of Technology" and "Best Use of OpenGL" for it's outstanding design of *Quake II*.

The technology and design innovation behind "id's advanced *Quake* engine has led a revolution in 3-D interactive games with both single and multiplayer technology."<sup>14</sup> *Quake* was responsible for the introduction of truly three dimensional environments whereby players could look 360 degrees around themselves, both vertically and horizontally. While *Doom* looked very much like it was 3-D, players didn't have the ability to look either up or down, making it essentially a 2-D game with its axis aligned vertically to make it appear 3-D. The world of *Quake* is completely 3-D and provides a much more immersive and realistic environment, containing entirely 3-D models and characters as well. Along with this new style of gaming came special adaptations on the parts of the players. Techniques have been adopted by people which enhance play in the 3-D environment. One such tactic is called the "rocket jump" and it has become a classic among *Quakers*. It can be accomplished by shooting a rocket into the ground in order to propel yourself higher than normal when jumping which can aid in avoiding enemies and

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<sup>13</sup> [www.gamespot.com/features/bestworst96/multiplayer.html](http://www.gamespot.com/features/bestworst96/multiplayer.html)

<sup>14</sup> [www.idsoftware.com/corporate/index.html](http://www.idsoftware.com/corporate/index.html)

reaching high places. Many shooters today now incorporate this feature into their games, but it's origin stems from *Quake*. Along with *Quake*'s advances in graphics and speed came new desires for better hardware on the behalf of gamers who wished to improve their systems. People soon wanted better computers to enhance their playing experience and "partly responsible for this was the addition of hardware accelerators in *Quake*. Owners of the latest video cards could run *GLQuake* which ran the game using the OpenGL API instead of software rendering mode."<sup>15</sup> This created a huge demand for new video cards which would make the playing environment all the more engaging and realistic. *Quake*'s sales increased while simultaneously boosting sales in hardware enhancements as people became enthralled with the capabilities of the technology behind the game.

*Quake*'s multiplayer features have also been a large factor in the game's incredible success. The underlying networking code allowed for changes to be made to the game and one result of that was TCP/IP connections and client/server networks which could unite large groups of people in a single computer environment for an enormous real-time experience.<sup>16</sup> LAN parties were a direct off shoot of this as groups of people could all play together and interact with each other simultaneously. The popularity of large-scale competitive gaming and gaming communities can also be attributed to *Quake* as well. "This was most likely the most influential aspect of *Quake*. It began a community of gamers never before seen."<sup>17</sup> *Quake* communities have sprung from the classic game and two such ones are *Quake* Clans and *Quake* World. *Quake* tournaments have been sponsored by id software and specific gamers are beginning to attract attention. One player, Dennis Fong (known by his player name, Thresh, in *Quake* circles) won a Ferrari at a national championship and is known for his legendary playing abilities.<sup>18</sup> "id believes that by focusing on the multiplayer capabilities of its games and pushing communication technologies to their limits" they will strive to develop "the next true revolution in three-dimensional interactive gaming."<sup>19</sup> Another part of the multiplayer

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<sup>15</sup> [www.zdnet.com/gamespot/features/pc/most\\_influential/p16.html](http://www.zdnet.com/gamespot/features/pc/most_influential/p16.html)

<sup>16</sup> [www.zdnet.com/gamespot/features/pc/most\\_influential/p16.html](http://www.zdnet.com/gamespot/features/pc/most_influential/p16.html)

<sup>17</sup> [www.zdnet.com/gamespot/features/pc/most\\_influential/p16.html](http://www.zdnet.com/gamespot/features/pc/most_influential/p16.html)

<sup>18</sup> [www.gamespot.com/features/thresh/page2.html](http://www.gamespot.com/features/thresh/page2.html)

<sup>19</sup> [www.idsoftware.com/corporate/index.html](http://www.idsoftware.com/corporate/index.html)

experience involves the addition of AI opponents who can enter game play at any time during a match and take on the roles of opponents. They are called bots and can be brought about in *Quake* by placing an AI file in the *Quake* directory. Since then, they have become an integrated part of the *Quake III Arena* experience and can be added in any level whenever gamers choose. Often it is hard to tell the difference between humans and bots and it takes a very experienced gamer to distinguish between the two. This feature adds an entirely new dimension to first person shooters and players can have experiences with bots which exactly resemble playing with another human. As id continues to develop the multiplayer capabilities of their games, it will be interesting to see what the future holds for online and competitive gaming.

Another increasingly popular advantage behind *Quake*'s design is the ability to use conversions, which are add on programs that provide artistic variety and reconfiguration to the characters in *Quake*. The same engine is used, but the characters and the entire playing experience can be reinvented by the person who designs them. Your locale can change as well and players can be located in seemingly different worlds by configuring their own maps or downloading them free off the internet. User friendly map building programs such as Worldcraft and Deathmatch Maker provide simple graphic interfaces which make creating new levels a relatively easy task. Id stays in contact with groups of their fans and gets feedback regarding their games, patches and things which need improvement. Variations on the style of play in *Quake* have also sprung forth from the original game and they abandon the original death match scenario. Mods such as *Action Quake*(AQ), *Capture the Flag* (CTF), *Team Fortress*(TF) and *Rocket Arena* (RA) are several examples based around the original game framework, but involve the players in different environments with different strategies in mind. Players can be defending fortresses or trying to steal flags from their opponent, and in addition to developing your killing skills, the games stress team building communication skills and add a whole new dimension to the game as a result. The popularity of these mods has “has influenced companies to encourage and offer support for mods because they

increase sales and the longevity of a game.”<sup>20</sup> Proving once again that id pioneers new game designs which are adaptable, enjoyable and out of this world.

In the twenty first century, *Quake* has evolved into id’s latest release, *Quake III Arena*. Equipped with a new enhanced graphics engine, it displays realistic 3-D environments using advanced features such as curved surface rendering and high detail textures.<sup>21</sup> Visual effects such as a moody and atmospheric fog grace the game, and spectacular lighting enhances game play in each level. *Quake III Arena* is the living evolution of the original classic and though different, retains many of it’s classic characteristics. In regards to the game, John Carmack states that "if we were willing to wed ourselves completely to the Windows platform, we might have pushed ahead, but I want *Quake III Arena* running on every platform that has hardware-accelerated OpenGL and an Internet connection."<sup>22</sup> id wants their games to be available for play on every platform as the original idea behind *Quake* continues to expand and manifest itself in different forms. Because of *Quake*’s phenomenal success, it has been ported to virtually every gaming and computer platform, and is now reaching over to home consoles as well. *Quake III Revolution* has just been released for the Play Station 2. Published by EA and developed by Bullfrog Productions, it will include even more improvements on id Software’s acclaimed first-person shooter than any other version, with new maps, enhanced player models and environments and brand new models.<sup>23</sup> Other developers besides Bullfrog have taken advantage of id’s technology and *Quake* has led to a generation of games that are powered by id’s 3-D engine technology, such as *Hexen II* and *Half-Life*, which have been licensed by other developers for a significant sum of money.<sup>24</sup> With such ingenious minds in the driver’s seat at id Software, who knows what the future will hold for *Quake* and the subsequent other titles they plan to release. Rumors have spread about a game titled *Trinity*, which will supposedly redefine computer gaming technology yet again with id’s classic formula for success: “a combination of superior gaming technology, rendering titles with the latest in intense,

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<sup>20</sup> [www.zdnet.com/gamespot/features/pc/most\\_influential/p16.html](http://www.zdnet.com/gamespot/features/pc/most_influential/p16.html)

<sup>21</sup> [www.idsoftware.com/corporate/index.html](http://www.idsoftware.com/corporate/index.html)

<sup>22</sup> [www.gamasutra.com/features/19990611/java\\_13.htm](http://www.gamasutra.com/features/19990611/java_13.htm)

<sup>23</sup> [www.zdnet.com/gamespot/stories/previews/0,10869,2691143,00.html](http://www.zdnet.com/gamespot/stories/previews/0,10869,2691143,00.html)

<sup>24</sup> [www.zdnet.com/gamespot/stories/previews/0,10869,2691143,00.html](http://www.zdnet.com/gamespot/stories/previews/0,10869,2691143,00.html)

interactive environments, and surrounding players with incredibly sharp, defined graphics<sup>25</sup> resulting in fun, frightening and brilliant games. I can't wait.

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<sup>25</sup> [www.idsoftware.com/corporate/index.html](http://www.idsoftware.com/corporate/index.html)