

Triton Productions: The Origin of Starbreeze

July 23, 2019 by [Martin Lindell](#)



Starbreeze is undoubtedly one of the most prominent Swedish game developers. The old guard at the studio left and founded MachineGames, which modernized and took the Wolfenstein series to new heights. The new Starbreeze, which was formed through a reverse acquisition of Overkill, had a spectacular success story with the PayDay series. But how did Starbreeze start? The origins of Starbreeze can be found in Triton...

In northern Sweden, the winter is often long. It's a cliché, but true, the long winter means that many young people stay indoors, which is why computer interests are perfectly suited to the cold latitudes. When Magnus Högdahl was 12 years old, he begged his parents to give him a Commodore 64 in the mid-1980s. He started with simple programs and routines in Basic and a year or so later he learned assembler and got into demos.

– I actually wanted to make games, but I couldn't really do it, so I tried to create demos instead, he says.

Högdahl joins the small demo group Reaction. At best, the group places fourth in a demo competition at a party in Värby. For a period, the 64 is exchanged for an Amiga 500, but Högdahl slips back to the Commodore 64 when he is in high school in the early 90s and continues to knock out demos under the pseudonym Vogue and the group name

Phenomena. He is successful and wins, among other things, both the music and demo competition at the demo party Hackerence IV in Härnösand in 1991. In the victory interview with Svenska Hemdatornytt he says he wants to create games and preferably something like Lemmings or Pipemania. At the same time, interest in the PC that is available at school is growing. The family buys a 386 at home.

– Then we discovered that it is a hell of a lot faster than the Amiga 500. I started programming with Turbo Pascal. It was a really nice environment that increased productivity because it's easy to mix Pascal and assembler. I started coding software rendering which led to demos on PC.

Further south in Östergötland, Mikko Tähtinen and his younger brother Jukka had a similar upbringing with a strong interest in computers. For Mikko, the interest grew and led him to start drawing graphics on the Amiga 500. At high school in Finspång, he met a friend who coded and created music. Together they made several smaller releases under the group name Enigma towards the end of the 80s. He calls himself Alt in the demo scene.

– It wasn't anything that went viral or got any attention, but it was fun. We went to demo parties and I got to know other graphic designers. I met people from groups like The Silents and Phenomena, Mikko says about how he got into the demo scene. Jukka's godmother and godfather, who live in Finland, have two sons: Mika Tuomi and Kai Tuomi. The Tähtinen brothers visit them every summer during high school. The Tuomi brothers are interested in electronics. Mika is a particularly good programmer, but specializes in hardware. Mika cracked games and made intros under the stage name Trug. This led to him ending up in the demo group Future Crew, a group that started out with PCs early on. When Mikko saw what could be achieved on PCs, he was impressed.

– I had an Amiga, he [Mika] had an Amiga. But one summer he showed me what you can do with a PC. Then I thought this will be the future, the Amiga will die, says Mikko. Magnus Högdahl from Phenomena together with Fredrik Huss (Mr. H) and Anders Aldengård (Loot) from The Physical Crew form the group Triton in 1992. Högdahl and Huss had attended the same high school and both chose to study technical physics at Linköping University. Their first demo is Crystal Dream which is shown at the demo party Assembly in Finland in the summer of that year. On their home turf, however, it is Future Crew who takes first place in the PC class with their demo Unreal. In Sweden things go better and Triton wins the demo competition at Hackerence in Härnösand. Mika Tuomi is impressed by Triton and believes they will have a great future, and he recommends Mikko Tähtinen to contact them. In the autumn, Mikko writes to Magnus and Fredrik to ask if he can join their demo group.

– I had just finished my apprenticeship and was living in Skärblacka outside Norrköping. I went to Linköping and met them. Magnus was impressed by my technical understanding even though I wasn't the best graphic designer in the world. Mikko brings with him his friend Joachim Bartoll (Thorax) with whom he created a demo on the Amiga scene. Triton continues to grow in 1993 and recruits musician Gustaf Grefberg (Lizardking) who Högdahl has known since high school. Grefberg is a successful musician in the demo scene who has won prizes at several parties such as Hackerence V in Härnösand in 1992 where the prize consisted of a case of Coca Cola and promotional items such as t-shirts. Lizardking continues to work in Razor 1911 at the same time as he is in Triton. Their second demo was briefly named Crystal Dream II.

Success was not long in coming. In May 1993 they took home first place at Sweden's largest demo party The Computer Crossroads in Gothenburg.

– Hackerance wasn't really a scene party, it was a bit more casual and we didn't get that much exposure. It was the runner-up [Crystal Dream II] that made a big impression. A lot of people saw it at Computer Crossroads and then PC demos got a lot of credit because we were technically starting to overtake Amiga demos in what was possible to do, says Högdahl.

In the same year, Triton also released its own music program for PC called Fasttracker, which can load and save MOD files, a popular music format on the Amiga that is widely used in the demo scene. Huss had already started working on it during high school, but did not release it publicly until 1993. With [Fasttracker 2](#), they introduced their own music format called XM in 1994. This version gained great popularity and spread outside the demo scene. Musician Simon Viklund uses Fasttracker 2 when he works on Grin and makes music for [Ballistics](#) (2001) and [Bandits: Phoenix Rising](#) (2002). Several other major games such as [Unreal](#) (1998) and [Deus Ex](#) (2000) use the XM format. The success of the demo scene led Canadian company Gravis, which manufactures accessories such as controllers and sound cards for PCs, to order a demo of Triton. It was to be used to market the Gravis Ultrasound sound card. In the early 90s, sound cards had a major breakthrough. A PC only had a built-in squeaky speaker that made a beeping sound, which was not good enough if you wanted a good gaming experience. There was fierce competition between manufacturers such as AdLib, Creative Labs and Gravis itself, who were trying to capitalize on the trend. Högdahl and Huss wrote their own 3D engine, which was used in the demo. This increased Triton's status and made them even more famous.

Shortly after production at Gravis towards the end of 1993, a letter drops from the USA. It is a company called Scavenger Inc that is looking for new developers. The CEO of the company is Daniel Small who has been in the games industry for several years and made a name for himself by converting [Qbert](#) to Atari's 8-bit computers in the early 80s. The fact that his uncle was famous and made music videos for Madonna, among others, helped Small accelerate his career. With him at Scavenger he has Christian Laursen who previously worked with David Perry at Virgin and worked on games such as [Aladdin](#) (1993) and [Cool Spot](#) (1993) for the Mega Drive. Laursen, who is Danish, knows all the talent that exists in the demo scene. He knows that those who work with demos can program assembler and optimize, which are qualities that make them hot prey to recruit in the growing games industry. The demo scene does not exist in the same way in the USA as in parts of Europe. Therefore, Scavenger contacts several demo groups in primarily Denmark, such as the Danish branch of The Silents (whose Swedish part forms the basis of DICE), but also Sweden with Triton.

– Magnus asked us, “Do you want to make games?” and showed us the letter. We shouted yes right away. It was time to forget about demos and take the next step, says Tähtinen.

Magnus and Mikko soon went down to Denmark to meet Laursen. Scavenger had had success during the year with [Sub-Terrania](#) (1993) for the Mega Drive, a game developed by the Danish group Zyrinx. This meant that they now had the opportunity to expand and pick up more talent from more demo groups. Mikko Tähtinen is studying electrical

engineering at the University of Norrköping, but wants to drop out when the offer from Scavenger comes.

– I was a little worried about how my parents would react. But they took it well. They encouraged me and said that otherwise I might regret it and that I could always study further later. So I moved to Linköping.

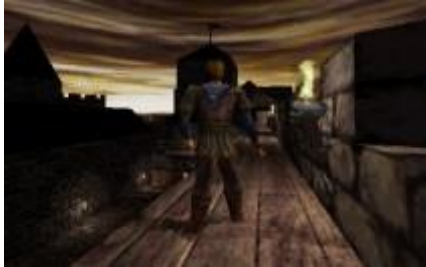
Magnus Högdahl stopped studying at LiU shortly after and moved into Mikko's apartment. Eventually, Fredrik Huss also joined in living and working in the apartment, but he prioritizes his studies and mainly helps with the code base that builds on the infrastructure from Fasttracker and Crystal Dream II. A fourth guy named Jens Schmidt, who Högdahl knows from Timrå, joins the gang and works when he has time creating levels. Schmidt also gradually moves down to Linköping.

Scavenger wants to replace Mikko as graphic designer because they considered him good enough, but Magnus stands up for him and says that if Triton doesn't get to keep Mikko, nothing will happen.

– Thanks to Magnus, I was able to keep my job. Right after that conversation, he set me to start pixelating and practicing. "Prove them wrong," he said. So I got started, day and night I pixelated images and textures and had to prove that I was good. It's something I'll never forget. What Magnus did for me and got me back into the gang, Mikko says. Triton begins working on a project called **HuntDown**, which revolves around a moon base. The game uses voxel landscapes. The player can drive vehicles on the ground, fly in ships and even get around with a rocket engine on his back. An important feature is the ability to play in a network with each other. Six months into the project, it is clear that this is not enough for Scavenger, who believes that the game does not have a strong enough identity or character. Despite intensive discussions that took place at night due to the time difference between Sweden and the American west coast, Scavenger is not prepared to invest in HuntDown.

Instead of giving up, Triton thinks again and tests a new concept. In a short time, they build a fantasy environment. Magnus and Fredrik code, while Mikko draws textures and Jens builds a castle. They pre-render the lighting in the form of lightmaps that are combined with textures that are rendered in real time. The figures get stencil shadows. The prototype emulates fighting in different rooms and shows advanced camera movement for its time when the player's character moves between different rooms. The idea is that the result will be an adventure in the style of [Alone in the Dark](#) (1992) but spiced up with fighting and in a Dungeon & Dragons environment. To avoid being classified as a [Doom](#) clone, which Scavenger believed all FPSs were, they choose to use a third-person perspective where you see the character you control on the screen instead of seeing it from the character's eyes (as in a first-person perspective).





“It looked really cool. We sent it over to the US via modem and they were blown away and said we had to go there,” says Tähtinen.

Högdahl, Tähtinen and Schmidt start applying for visas while continuing to work from home in Sweden. The process takes time and it is not until January 1995 that all the paperwork is in place and they fly over to Los Angeles. Scavenger has its office in a black skyscraper on the border of Beverly Hills, not far from the Beverly Center shopping mall. They get right into the thick of things with Hollywood celebrities and meet Will Smith in the elevator, who was dating a girl who worked on the floor below Scavenger's office. The gang settles into a small shared collective on Burton Way, barely a kilometer from the office. Fredrik Huss and Gustaf Grefberg visit them during the summer holidays.







Already on site at Scavenger are the Danish teams Zyrinx and Lemon. Zyrinx includes musician Jesper Kyd and graphic designer Mikael Balle, who after Sub-Terrania had developed the Mega Drive game [Red Zone](#) (1994), but has now taken the step to Saturn and worked on [Scorcher](#) (1996). Lemon, consisting of Sören Hannibal, Jacob Andersen and Martin Pollas, is working on a game called [Amok](#) (1997).

Triton's prototype changes name from Hunt down to **Into the Shadows** in the US. They take inspiration from Sega's [Virtua Fighter](#) (1993) which with 3D characters made the gaming world drop their jaws. To achieve natural movements they decide to use mocap, motion capture which is a technique where you perform movements in front of a camera that saves it as data which can be used for animations in games.





– We put magnets on the whole body that the camera registered. I think we were among the first to have mocap on PC. When we got the set up, there was no documentation, so we had to use the raw data to figure out what happens when you move and which coordinators come out, says Mikko.

Equipped with the magnets, Högdahl frantically taps the floor and pretends to kill rats. The mocap data is used for a knight who walks around and chases animated rats in a couple of rooms in a large 3D castle. They also use the mocap data to show how to give different enemies such as skeletons and monsters unique movement patterns and make them feel more alive.

The office is visited by curious Hollywood figures and musicians like Garth Brooks. They get there through Daniel Small's uncle Jon. Director Renny Harlin is impressed by Into the Shadows and thinks they should turn it into a pirate game. It turns out that Harlin has a thing for pirates because he was working on the film Cutthroat Island, which is set to premiere towards the end of 1995.

While Triton is busy during the spring, the gaming industry is getting ready for E3, which stands for Electronic Entertainment Expo and takes place May 11-13 in Los Angeles. Previously, the gaming industry has been part of the electronics trade show CES, but now it believes it has grown so large that it deserves its own trade show. E3 will be a gigantic event with gaming news on 65,000 square meters, which is equivalent to nine football fields.

A total of 38,000 visitors make the pilgrimage from all over the world to Los Angeles to enjoy the bright screens indoors rather than the spring sunshine. Expectations are high when the new Saturn and PlayStation consoles are unveiled.

Scavenger is at E3 and is making a large stand in the form of an industrial factory with games on the ground level and an upper floor for meetings.

“It was pretty cool, but way too expensive for their budget. Scavenger was still just a handful of people, so they had a knack for looking bigger than they really were,” says Högdahl.

– It was Christian Laursen and Daniel Small who had the vision that if you want to be seen, you have to have a stand that everyone likes. If you want to have t-shirts, they have to look good. All of this will give an overall impression that everyone will talk about and they were right about many things, says Mikko.





The booth features Triton's demo of Into the Shadows. The timing is perfect for them with the new consoles and 3D graphics being considered the future of the gaming industry. Several visitors are amazed by their display. Companies like Westwood and Blizzard try to offer the Triton guys jobs, but they were cocky and turned them down out of hand. A guy visiting Scavenger's booth and contemplating Into the Shadows upstairs is acting a bit funny and looking very closely at the screen. He comes back shortly with his long-haired colleague.

Their eyes are three centimeters from the screen and trying to count pixels. Jens Schmidt recognizes them, they are Jay Wilbur and John Carmack from id Software, who are behind Doom. They are impressed by what Triton has achieved with Into the Shadows and invite them to see [Quake](#) behind closed doors.



Fredrik Huss, Jens Schmidt, Jay Wilbur and Shawn Green at E3 1995.

– In the first version of Quake, the old man was a sprite in the form of feet in 2D that you saw in front of you. It took place in a castle similar to Dungeons & Dragons with a knight and a dragon flying around. Wilbur said that after they saw Into the Shadows, id Software will go the other way instead and make Quake a science fiction game, says Mikko.

Quake is released just over a year later in full 3D and with music by Trent Raznor from Nine Inch Nails. It is indeed a futuristic action game, but large parts of the medieval theme remain. Quake becomes groundbreaking and a great success.



Articles in Edge and Next Generation show the medieval style of Quake and the article says that there were plans for three classes in the game: fighter, cleric and mage.

Into the Shadows came onto the media's radar after E3 1995 and the articles continued to roll in afterwards. The American magazine GamePro called Into the Shadows "a breathtaking visual experience" and wittily concluded that this is the game that can bring Scavenger out of the shadows and into the light, alluding to the game's title. The American Next Generation has a similar angle in its article about Scavenger as a promising game publisher and highlights Into the Shadows as "the most impressive

game of the pack ". The work with motion capture is taken up by the British magazine Maximum, which also compares the game to Quake. Mikko Tähtinen is interviewed by the reputable British magazine Edge, which devotes a feature to the game and writes: " The scenery is incredibly detailed and atmospheric with slimy dungeon walls and flaming torches that are crisp and beautifully drawn. Most impressive is the game's cast of characters: elves, wizards, etc who look gorgeous and exhibit and unparalleled fluidity of motion ."



“The booth was extremely cool. It spread to practically the entire industry. Everyone knew who Scavenger was. Trade fair visitors often came just to see the booth,” Mikko recalls.





Into the Shadows is well received by the media. After E3, the game received a lot of attention with several articles. Maximum compares the game to Quake: “ *What was seen at the E3, it had to be said, looked even better than id's latest effort in visual terms.* ” and believes that it is also impressive in terms of gameplay: “ *Into the Shadows is best described as a very clever mixture of Resident Evil, Soul Edge and Fade to Black .* ” Edge describes the game as a 3D version of the classic Double Dragon with weapons and seems to have also lost his jaw after seeing the graphics: “ *To accompany the impressive characters, the backgrounds are highly detailed and complex, with some gorgeous realtime lighting provided by flickering wall-mounted torches.* ”



It was the latest event where games hungry PC owners could check out one of the most eagerly awaited releases: the much vaunted Into the Shadows. Scavenger appears to have a certain winner on their hands with this original product, and the latest batch of screenshots released reveal an even more incredible story MAXIMUM investigates further.

Into the Shadows takes PC gaming into a new level of 3D excitement. Quake is very clearly the standard bearer of 3D, stunningly realistic 3D environments and yet Scavenger's Into the Shadows just looks better and better whenever it makes an appearance at a videogames showcase. What was seen at the E3, in fact, is so good, looked even better than id's latest effort in visual terms.



SCAVENGER'S 3D FIGHT TEST LOOKS MORE AMAZING STILL IN THESE STUNNING NEW PICTURES!
CAN THE GAMEPLAY POSSIBLY MATCH THESE UNBEATABLE VISUALS?

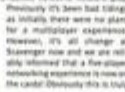
The version of the game on show on both the Scavenger and E3 booths was frankly astounding. Into the Shadows is best described as a very clever mixture of Resident Evil, Soul Edge and Fade to Black. The game is all the fighting variety, using third person perspective to depict the action. The player's task is to explore the dark environments, taking on enemies in combat and searching for a kidnapped child of royal blood.



AWESOME GRAPHICAL CAPABILITIES ARE ON SHOW WITH INTO THE SHADOWS!

With the quality of these results you may think that into the Shadows must be pretty slow. Well, if you're a nuttoid using the game in high-resolution mode on an old-fashioned PC, you can expect some pretty low frame rates. Keep the game on a lower resolution setting on a pretty decent PC and you should have no problem whatsoever keeping the game running at 30 frames per second - the same as Virtua Fighter and Soul Edge in the arcade.

The big news about into the Shadows concerns network play. Previously it's been bad things as initially there were no plans for a multiplayer experience. However, it's all changed at Scavenger now and we are reliably informed that a five player networking experience is now on the cards. Obviously this is truly





Despite a dazzling performance at two E3 trade shows, things are getting worse for Into the Shadows. Scavenger is starting to have financial problems. According to reports, they have used the games as bank guarantees to get loans and finance development. In addition to Into the Shadows, Scavenger has eight other projects underway: the 32X games Heavy Machinery and X-Men, the Saturn titles Angel, Aqua and Spearhead, and the multi-format games Terminus, Tarantula and Mudkicker. When more games start to be delayed, Scavenger finds itself in a tough spot. It becomes a stressful situation that begins to characterize daily work.

– It was a terrible stress 24/7. I had no memory of us having fun. It was all about work and how we were going to get through this. Naturally, there were tensions in the group. Several people, mainly the Danes, wanted to leave [Scavenger]. I couldn't take it anymore at that time and wanted a change of environment, so I wanted to move on and work with the Danes, Mikko says.



Graphic designer Mikael Balle at Zyrinx is helped by Mikko Tähtinen, who is sitting and working in front of the computer.

Magnus and Jens are working to try to finish *Into the Shadows* while Mikko is on vacation in Norrköping during the summer. The idea is that he is actually going to go to New York to join Jacob Andersen's gang who have moved there after they left *Scavenger*. But in Norrköping he meets Peter Zetterberg at UDS who gives him an offer to start working with them. Mikko accepts and does not return to the USA.

The situation for *Scavenger* is not improved by Sega being overtaken by Sony with their PlayStation, which already in 1996 emerged as the clear winner in the console war.

Scavenger also works with PlayStation, but a large part of the games are developed specifically for the 32X and Saturn because they already have a close relationship with Sega and were given access to development kits long before the outside world knew that there was a PlayStation. The teams developing the games are also very small.

– Most were between two and four people, which was small even for the time. Actually, only Zyrinx, with up to ten people, was sized to get games finished. The prospects of finishing *Into the Shadows* in a reasonable time are not that good with just me and Jens left after Mikko dropped out, says Högdahl.



Into the Shadows finds itself in the eye of the storm when Scavenger and GT Interactive disagree and sue each other. Scavenger had signed a contract with GT for four games, of which Amok and Scorchers have been delivered, but Mudkicker and Into the Shadows have been delayed. GT therefore withholds payments from the released games due to the delayed games. It becomes a protracted process for Scavenger, during 1997 several projects are closed due to financial difficulties and then goes bankrupt in 1998. Finally and far too late, Scavenger is found guilty and in February 2000 GT is ordered to pay them \$1.9 million in lost revenue.

Scavenger's developers are already divided. Team Fetus, which makes Terminus, is formed at Shiny Entertainment with David Perry at the helm and the game becomes [Messiah](#) (2000). From Scavenger and Team Fetus come, among others, the Danes Sören Hannibal and Michael Saxs Persson, and the Swede Klaus Lynged is recruited to work on [Sacrifice](#) (2001). The music for Messiah is made by Jesper Kyd together with the metal band Fear Factory. Jacob Andersen and Martin Pollas head back to Denmark and start IO Interactive, which becomes successful with [the Hitman](#) series. They later leave IO and found the studio Reto Moto in 2008.



Top row: Jacob Andersen and Sören Hannibal. Bottom row: Michael Saxs Persson and his wife, opera singer Maja.

– When things started to go downhill, we looked around and visited Blizzard in Irvine, where we got to see an early build of Diablo. But it wasn't more than a visit, says Högdahl.

Magnus and Jens instead move back home to Sweden and try to finish *Into the Shadows* remotely. They give Scavenger a plan and a proposed budget to complete it, but suddenly there was no one on the other end of the phone. According to the contract, GT Interactive has the rights to sell and distribute *Into the Shadows*, so Magnus and Jens start a new project instead.

– Overall, the trip was absolutely worth it. We got to see the industry, be at E3 and all that. I developed a lot technically during this period. It was fun working at Scavenger and having the Danes around me who were very competent.

Even Mikko Tähtinen describes it as a learning period.

– Thanks to Daniel Small, we actually learned a lot about the industry. He used to take teams by teams and have personal meetings over dinner at some nice restaurant, where he basically went through all the numbers, told us who did what, how to handle the press and how to contact different people. Basically how the industry worked at that time. Incredibly educational and eye-opening.

Back home in Sweden, Triton Productions is liquidated when Scavenger collapses. Magnus Högdahl and Jens Schmidt form a new company together with Jens' friend Daniel Hansson. The name is Frozen Moose Entertainment. Högdahl quickly realizes that he would rather do something of his own and leaves the company.

– We agreed that both could use the code that Daniel and I produced, it wasn't much, but there were remnants of Daniel's code in our code base for a long time, says Högdahl. On his own, Högdahl continues working on a game engine in Sundsvall in 1997. When it has reached the point where you can get objects on the screen, Gustaf Grefberg starts playing with the engine. In October 1997, Högdahl makes the first website for his new studio, which he calls Starbreeze, and the following month the first images from the game, which goes by the project name Sorcery, are published. The website attracts many curious talents and even the former Triton colleague Mikko reunites with his old colleagues and starts working for Starbreeze.

Sorcery never materializes, but Starbreeze shocks the world with [The Chronicles of Riddick: Escape from Butcher Bay](#) (2004), which has a [weighted average score of 90 out of 100 on Metacritic](#). But that 's a story for another time.

Källor:

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[United States District Court, Southern District of New York](#)

[Wikipedia](#)

Photo by: Mikko Tähtinen, Jens Schmidt, Gustaf Grefberg and Stacy Roberts DeLaurier.



If you are interested in game history, we recommend the book [Svensk Videospelsutveckling](#) written by Thomas "Sol" Sunhede and Martin Lindell. In the book you can read more about, among other things, UDS where Mikko Tähtinen worked after Triton's adventures in LA.

When the book was written, a complete ludography was also created, as well as continuous coverage of new games, which can be found at bit.ly/svenskavideospel. Input on new titles to include in the ludography is appreciated.