



**cArn pwns the world.
And EIZO helps.**



Patrik 'cArn' Sättermon came to EIZO headquarters in Japan to see how monitors are built and to share his insights into what features and functions gamers want.

In two simple words, Patrik Sättermon's calling card says it all: Professional Gamer. The twenty-six year old Swede is a star in the rising world of international e-sports; he makes his living playing games. Patrik's game is Counter-Strike. His handle is cArn, as in carnage. His team is Fnatic, one of the world's best-known professional electronic sports organizations. The Counter-Strike team has won more prize money than any team in e-sports history.

Patrik is the Godfather; Fnatic is fanatic

"I started playing when I was about 13. I loved the competition. I loved winning." Plus, his skills were awesome. He drew the attention of Fnatic in 2006. With his quick strategic thinking and intuitive grasp of the big picture, he soon became the team leader. Fnatic themselves say, if the team were characters from "The Godfather," Patrik would be Vito Corleone.

Besides understanding games, he understands the gaming business.

He's now the chief gaming officer at Fnatic, helping them promote their teams, gain support from manufacturers, and hone Fnatic's competitive edge.

And Fnatic is, well, fanatic about providing the best equipment for its players. Started in 2004, Fnatic has fought its way to the center of the e-sports arena. The team and its players have fans around the world. They compete non-stop in tournaments like DreamHack, North American Star League (NASL), Electronic Sports World Cup (ESWC),

and Electronic Sports League (ESL). Besides Counter-Strike, Fnatic also competes in StarCraft II, QuakeLive, Heroes of Newerth, League of Legends, Call of Duty, and Halo. Prize money has gone into the millions of dollars, and keeps going higher. They have made EIZO their monitor of choice.

EIZO Gets in the Game

EIZO is unique among monitor makers. They are the last brand of LCD desktop monitors still designed, built, and manufactured in Japan. They meet the most exacting standards; their quality is renowned. As they get into gaming, expectations are high. Patrik says:

"We already knew how good they are in graphics and the medical sector; they're the top-notch monitor. I'm sure that the gaming series will be just as successful."

EIZO initially expected that FORIS monitors would mostly appeal to console gamers. Then they sponsored the StarCraft II tournament at DreamHack Winter 2010 where their FORIS monitors were used exclusively. The feedback was extremely positive. Keisuke Akiba, product manager of EIZO's FORIS line for overseas sales says, "The

huge scale of the event and the enthusiasm of the attendees convinced us to really go after the PC gaming market and go deeper into e-sports."

EIZO now sponsors season two of the North American Star league (NASL), the largest StarCraft II league outside of South Korea, with over \$100,000 in prize money at stake. They also co-sponsor all of DreamHack's StarCraft II tournaments for 2011.

EIZO Goes Fnatic

When EIZO monitors appeared at DreamHack, Fnatic took note. Fnatic approached EIZO in April of 2011, wanting the best possible monitor for their teams to practice with. Patrik recalls why they chose EIZO:

"We wanted to work with a company that is dedicated to gaming and we knew that EIZO had a new line of gaming monitors. We want our gamers to practice on the best equipment; as a high-end monitor manufacturer, EIZO is the perfect choice."

Fnatic is the perfect choice for EIZO as well. Not only is Fnatic a consistent winner at the world's biggest e-sports tournaments, they

also have a serious on-line presence. "It was clear from looking at Fnatic's web site and their social media pages that they have built a large and loyal fan base," says Mark Gorsuch, assistant manager of marketing communications. "Working with Fnatic gives us a way to get the EIZO name out to a global audience of gamers."

EIZO has been sponsoring Fnatic and supplying FORIS monitors for the Fnatic teams since June. Patrik says the players love them:

"They say the image quality is really amazing, and that they don't get tired playing on it. Other monitor brands don't seem to make an effort to make the monitor good for long-term use. But I'm convinced that EIZO does after seeing how they are made and how much testing they go through before getting packaged and shipped."

cArn Gets the Call

To make a monitor that gamers will love, you have to listen to the top gamers. EIZO asked to listen to the best, and Fnatic recommended cArn. Patrik extended an upcoming tour of Asia, and was soon on his way to Japan. The plan was to spend a day looking at how EIZO



First night in Japan, what else for a gamer to do but go to the local arcade.

monitors are built, evaluating the new FORIS FS2332, and giving his insights into the kind of features and functions gamers want in their monitors.

Such are the perks of being a professional gamer.



Patrik plays Counter-Strike on a FORIS FS2332. EIZO has been sponsoring Fnatic and supplying FORIS monitors for the Fnatic teams since June.

The FORIS FS2332, EIZO's premier entry into the gaming market.



A Day at EIZO

Assembly, Adjustment, Testing

Patrik weaves his way through a maze of hallways, staircases, and elevators — no, he's not playing Counter-Strike, he's just being led to the EIZO factory. Inside, countless FORIS monitors are being assembled and tested. A row of LCD panels take their turn being mounted in hard plastic shells. Then, sophisticated electronics — the stuff that makes EIZO's monitors different from all others — are dropped in and wired up.

Once the last screws are in place, the unit takes its place among long rows of glowing monitors. This is the aging stage, a process that ensures the display and electronics are stable before the next step: adjustment.

A technician fires up a FORIS FS2332. Patrik watches her measure and then precisely adjust the color temperature, gamma, white



Taking in some of the fine points of the EIZO production process.

balance, and brightness. Once everything is perfect, it goes to the testing station.

This is the monitor's final evaluation — gray levels must be precise, color response must be even across the screen. If anything looks wrong, the monitor is pulled off the line.

The unit then joins a line of monitors that travel up a ramp and disappear into the next room, where they are fitted into protective styrofoam grips and finally eased into sturdy cardboard boxes.

In another part of the building, Patrik is drawn to a small sealed

room with dozens of working monitors inside. These are the monitors that get sacrificed for longevity tests. They sweat it out in the 35°C room, where brightness reduction or color changes due to aging can quickly be discovered.

An Anechoic Portrait

The tour heads down the hall and into an elevator. When it arrives at the first floor its doors open to the anechoic chamber, a giant room insulated from the outside world. Safety is as much an EIZO hallmark as reliability, and this is where its monitors are tested for compliance with stringent international EMC (electromagnetic) regulations. Being able to do this internally means EIZO can cut down on lead times. Patrik likes the square panels that cover the walls, and has a shot of himself taken. He takes a look and grins. "That's to use on Facebook."

Setting up Camp

Back in the main building, Patrik unpacks his gear and sets up in front of a FORIS FS2332 monitor. His left hand flies over the keyboard, his right hand shoves the mouse in precise bursts. It looks like he's just killing bad guys, but in fact he's checking out how quickly and smoothly the monitor responds to his actions.

He seems particularly pleased with the response time. Even though the monitor's specs clock in at 6 ms, it feels faster than other monitors that boast 5 ms. In fact, it compares pretty well to monitors with much shorter response times:

"We can tell if a monitor is fast or not by how well it responds to shooting. You can see the difference in delay by how fast the cross hair changes; with a shorter delay time you're ready to shoot again faster. It's harder to precisely shoot with longer delay times. This monitor seems fast for 6 ms, I guess it must be EIZO technology."

Standing in the anechoic chamber, where monitors are tested for compliance with stringent international EMC (electromagnetic) regulations.



Checking out monitors undergoing the aging process, which insures that the display and electronics are stable before they are adjusted.



Advice from a Pro

Before Patrik arrived in Japan, EIZO and Fnatic held an "Ask cArn" contest for fans on Twitter; winners got free Fnatic t-shirts. These were the winning questions (and cArn's answers).

Q: Hey cArn, what would be your best tip on how to get into professional e-sports?

A: You have to start out of passion. You have to like the game; you have to love the game. You have to practice a lot. Next, get the proper gaming gear — a good keyboard, mouse, mouse pad. You want to have a good computer, and you want to have a good monitor to ensure you can perform as good as possible.

Q: To cArn: How much does the monitor play a role in having the perfect set-up for gaming?

A: I think it's really wise to have a monitor that is very easy on your eyes, so that you can play the game for the 10 hours a day it takes to become a professional. The image quality is also important; you want the right colors to stick out at the right time. The next thing is to have a wide viewing angle, so you can sit next to your teammates and they can see what's going on on your monitor.



The EIZO Research and Development team watch Patrik put the FORIS FS2332 through its paces.

cArn takes on the EIZO R&D team

After lunch, the EIZO research and development team comes in, about a dozen engineers in all. They have notebooks. They have pens. They have questions.

But first things first: the department presents Patrik with a special Fnatic Orange-colored stripe to put on the front panel of his FORIS monitor. It's a perfect match to his giant Fnatic Orange-colored mouse pad.

Patrik demonstrates some of the finer points of Counter-Strike, and while doing so, evaluates how the monitor responds. The notebooks come out, the questions begin.



EIZO presented Patrik with a special Fnatic-Orange stripe for his FORIS monitor.

Vivid Color, Wide Viewing Angles

They start with the basics: Does the game look good on the FORIS FS2332? Patrik says that the color is more vivid than most LCD gaming monitors. And that the wide viewing angles make a big difference in a multi-monitor setup:

"From my position in the middle of a row of five monitors I can see what's happening on my teammates screens clearly; they don't look washed-out. I think this must be because of the IPS panel."



Panel with narrow viewing angle



IPS panel

FORIS monitors have 178° viewing angles so they exhibit minimal change in contrast and hue when viewed from off center, making them ideal for multi-monitor setups.

He's right. IPS panel technology is known for its excellent color, and is the reason behind the monitor's wide 178° viewing angles. There's hardly any change in contrast and hue when viewed from off center — even if you're sitting two seats away.

23" Screen Size, Full HD resolution

Next up, the engineers want to know what Patrik thinks of the screen size.

"For a widescreen monitor, I think 23" is really good. Because if you have a 19" monitor and you play at 4:3, it might be too tiny. Also, at all the tournaments, 23" seems to be the standard size."

Asked if he ever uses full HD resolution, 1920 x 1080, Patrik says, "Not for professional gaming. But if you want to watch a movie or something, you want to have the full screen."

AutoEco View

This leads to a question about eye fatigue. The engineers wonder if gamers, who play for so many hours a day, are looking for a monitor that is easy on the eyes?

"I never really thought about it, but if I were buying a monitor and the company had scientific research

that showed that their monitor was easy on the eyes, that would be a great selling point for me. We all know that kids today spend a lot of time playing video games, so I think parents would like this, too."

EIZO engineers make a priority of reducing eye fatigue, and ergonomic features like AutoEco View — which automatically adjusts the brightness of the monitor when the surroundings get lighter or darker — are part of the reason that the gamers at Fnatic can play on the FS2332 for hours without getting tired.



Auto EcoView Sensor

Auto EcoView measures the ambient light and automatically adjusts the screen's brightness accordingly.

Power Gamma

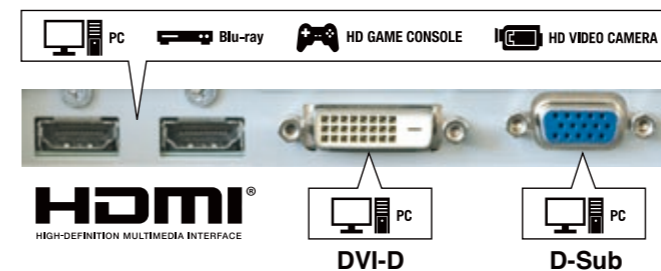
Getting deeper into screen brightness, the engineers zero in on another of their concerns: keeping details in dark areas. What does Patrik think?

"It's all about the dark areas. It would be great if the monitor could make the dark areas brighter."

In fact, the FORIS FS2332 has a Game mode with a Power Gamma setting that brings out subtle difference in the low tones for better clarity in the dark areas.

Inputs and Outputs

Back in the physical realm, attention turns to input/output connectors. Patrik says gamers need a monitor with HDMI, DVI, and VGA connectors, since most notebook PCs for gaming come with at least VGA and HDMI outputs. The FORIS FS2332 has all of those as well as a second HDMI input.



HDMI HIGH-DEFINITION MULTIMEDIA INTERFACE

DVI-D

D-Sub

Relaxing after the Q&A session, Patrik says he's excited to see what's going to come out next from EIZO.



Final Impressions

Asked what he thinks about the FORIS FS2332 overall, Patrik says that it's awesome for real-time strategy games like StarCraft II, and looks forward to what EIZO will come up with for first-person shooter games like Counter-Strike.

"I am totally impressed with the dedication and knowledge of the EIZO staff. They are really keen to hear from us gamers, to hear what we expect from our gaming monitor. I'm excited to see what's going to come out next from EIZO in terms of gaming monitors."

So what does Patrik think after spending a day at EIZO?

"From watching the production process to talking with the development team, the thing I'm most impressed with is the professionalism. I'm very happy that I had the opportunity to come here, and I look forward to a great collaboration between Fnatic and EIZO. Hopefully we can provide feedback and they can give us the best gaming monitor out there, to practice and win more tournaments."

EIZO too has learned a lot, and benefitted especially from Patrik's insights into what gamers want in a monitor.

Back on the Road

And that wraps it up. Patrik heads to the airport to catch a plane for Tokyo, where he'll spend a few days checking things out (more of the perks of being a Professional Gamer).

Then it's back to pwn'ing the world. With EIZO's help.



Outside EIZO headquarters, where a Swedish flag was hoisted in honor of Patrik's visit.



EIZO Supports E-Sports Events

EIZO is a sponsor of DreamHack 2011 StarCraft II tournaments and Season 2 of the NASL.

Photos and images courtesy of DreamHack and NASL.



NORTH AMERICAN
STAR LEAGUE

FORIS FS2332



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