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SPACE INVADERS

NASA is calling on games developers for a new era of interstellar exploration

Big in Japan

If you thought the ambitions of Japanese middleware providers stopped at the country's borders, think again. Silicon Studio is taking Yebis 2 to a global audience. **Will Freeman** asks the outfit what it has planned

Silicon Studio's Colin Magne and Mike Haruki Yamazaki (above, left-to-right) are intent on making their middleware a success in the West

MIDDLEWARE FROM JAPAN is often off the radar of developers in the US and Europe, with preconceptions about the country's business culture painting a picture of insular studios and closely guarded tech.

But among the numerous Western technology companies announcing support for the PS4 in recent weeks, Japanese middleware specialist Silicon Studio confirmed that its real-time post-processing graphics solution Yebis 2 is now available for developers working on games for the console.

And Silicon Studio isn't stopping with support for Sony's coming platform. The company is intent on bucking convention and sharing its technology with studios across the globe.

Already a stalwart of the Japanese sector, it's now focusing on showing developers that middleware made for Eastern needs can bring a unique flavor of game technology to the West.

Develop caught up with Silicon Studio general manager Colin Magne and the company's international relations man Mike Haruki Yamazaki to learn more about Yebis 2 and the company's Western ambitions.

For our reader's who aren't aware, what is Silicon Studio's story, and what kind of tech do you provide?

Colin Magne: The company was established in the year 2000 and since it has been concentrating on creating middleware for many platforms for the entertainment industry, and mostly for video games.

> ***"We started working on Yebis ten years ago to meet Japanese developers' needs, studying how lenses in real cameras worked."***
>
> Colin Magne, Silicon Studio

We have a strong history creating middleware for consoles, but now we basically cover every platform.

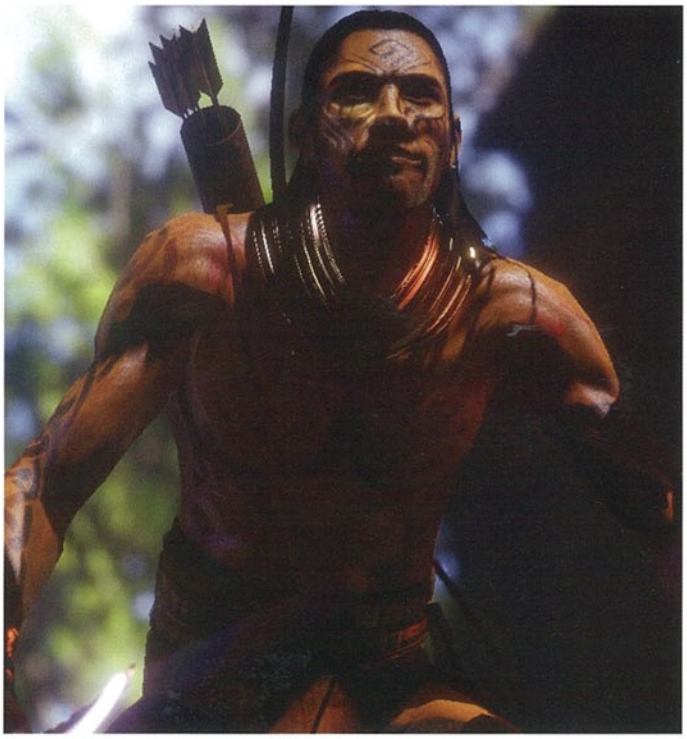
Our middleware is for computer graphics, either just libraries or full engines. We try to be in a wide part of the video games middleware business. Until now we have concentrated on the Japanese market; we're 100 per cent a Japanese company, and now we're trying to broaden our products' visibility to provide them abroad.

We believe that some of our products, such as our post-processing library Yebis 2 are so easy to use and adaptable it would be suited to the European or American markets.

Considering the middleware needs of Japanese developers, do you feel you've developed a product that will be particularly distinct in the West?

Magne: I would say that each middleware has it's own story, and that's very true with Yebis 2. Japan, as a country, has always had developers that, among other aspects, are concerned with deep details and a perfection for graphics; the kind of thing you see in game cut-scenes from Japan. They want that realism of detail. I saw that straight away when I joined the company almost ten years ago, after working in France and the US.

In Japan, even the games engineers who are not artists have a sense of the importance of the quality of the graphics in terms of those realistic details. So we started working on Yebis ten years ago to meet Japanese



WHAT IS YEBIS 2?

YEBIS 2 IS a real-time post-processing middleware that introduces 'physically-based' optics simulation and high-end lens effects to current and next-generation development. Yebis 2 is a foundational middleware solution for triple-A next-generation gaming.

Available as a library, it offers studios access to the likes of multi-colour customisable glare effects, depth of field effects, motion blur and HDR rendering effects. Designed to be easy to install, Yebis 2 supports DirectX 11, and is built around a proprietary algorithm that strives to balance quality, speed and performance. A free trial is available via **www.siliconstudio.co.jp/middleware/yebis/en/trial.**

developers' needs, studying how lenses in real cameras worked, looking at things like how light is diffracted and lens effects, and getting a lot of knowhow before making this 'physically-based' system that mirrors what real cameras and the human eye does. And now we can take that to other countries away from Japan.

And as you take this technology from Japan to the rest of the world, what kind of studio are you targeting? Who is the technology for?
Magne: We are still investigating this and figuring things out, but our first feeling is that Yebis would be perfect for medium-to-large sized studios. That's because we have proved ourselves in that space in the Japanese market, working with some very big studios, who have figured out they can save themselves a lot of time working with our products.

Mike Haruki Yamazaki: And we just released Yebis 2 for PlayStation 4, so on one hand we are focusing on serving next generation developers that are working on their triple-A titles with bigger budgets and the resource to invest in post-processing effects.

But on the other hand we are also targeting mobile developers as well, because that market is so huge. So this year we'll be releasing a mobile version of our Yebis lens effects library. So that's another target audience; our tools are suitable for a lot of different developers.

Beyond that focus on mimicking light's role in the way we see the real world, what are Yebis' most unique or distinct features?
Magne: I've never seen on the market anything comparable to our Yebis middleware. Some of the big engines like Unreal or Frostbite have their own technological post-processing, but it is kind of a subset of what Yebis 2 does.

The post-processing in those engines is very good quality and powerful, and made for the needs of what they want, but as Yebis 2 is a library it fits everybody's way, and it is very flexible, so we can balance performance and quality very easily. In that sense as a post-processing middleware we don't see any competitors yet.

There's a stereotype in the West that Japanese games businesses are very private. Is there a truth to that, and if so, why is Silicon Studio bucking that trend?
Magne: The fact is that Japan has a very distinct culture compared to America or Europe. Of course, within Europe there are many business cultures, but still they are in a way similar, at least compared to Japan. The way of thinking in Japan is very different, which makes understanding each other more difficult, and it means people need to be more open and understanding. There is a lot of misunderstanding around that, so we try to be very open. We are a very international company in terms of our staff, and we have a wide range of those from outside Japan at the company.

Haruki Yamazaki: And because our CEO and our chairman are people that have lots of business experience in the States and Europe, they know those cultural differences very well. That makes our company very flexible and able to adapt to different standards and practices. We can take what we know about fitting business for non-Japanese partners because of our senior team's experience, and because of the variety of nationalities we have in our team. We are an international company in our mindset, but we happen to be in Japan with the knowledge of that market.

What studios in Japan have you worked with through your middleware?
Magne: We have worked with all the major Japanese studios, and many other game studios. We know the business in Japan very well and have adapted to the customers in that sense.

Haruki Yamazaki: Our middleware was used in the *Agni's Philosophy* demo from Square Enix, which they used to show the possibilities of the next generation, and they integrated Yebis 2 into the Luminous engine. We are also working with one Western company now with Yebis 2, but for now the company and what they are working on remains confidential.

And what would you say to a developer trying to decide if Yebis 2 is for them?
Magne: Firstly, Yebis 2 is very easy to integrate, so the process of fully integrating and then tuning with the artists is very, very quick, and would take just a day.

But there is something else. It changes the atmosphere of a game's graphics; it transforms those very clear, sharp visuals that are clearly made by a computer, and makes them more analogue in their feeling.

So it makes your graphics more realistic in that way, even when you start with a relatively low-capacity rendering engine. It is not too demanding in that regard, because we can take any image and treat it in post-processing. ■
www.siliconstudio.co.jp

Yebis 2 can give games, via post-processing, a wealth of details such as lens flare and depth-of-field focus (above, left)