

Understanding people's unspoken needs and envisioning the perfect product to meet them—this is how Casio creates new demand. Beginning with the QV-10, which created a whole new market for digital cameras, the concept of going from “0” to “1” has guided Casio in every step it has taken to innovate in that field. We asked Jin Nakayama, a key developer of the QV-10, about the history of Casio digital cameras, which have now embarked on a third generation in 2009.

Casting off old notions, reappraising accepted values

The QV-10, which created a new market for LCD digital cameras for the consumer, first hit the stores in 1995. Getting it to market was no simple matter, of course. A lot of trial and error was involved in the process.

When we first set out to develop a digital camera, our initial idea was to make more than just a camera. What we had in mind was an LCD television that incorporated the functions of a camera. But as we moved ahead with development, we decided to make a pure camera that would provide a truly new kind of value to users. We eventually got rid of the television functions altogether and focused on enabling the camera to transfer images to a personal computer, which by that time was becoming a household item. The QV-10 emerged as a tool ahead of its time, ushering in the multimedia age.

I think Casio was able to come out with such an innovative product because we didn't simply see it as a variant of the traditional film camera. The QV-10 had a fixed-focus lens, no flash, and produced images of 250,000 pixels. This meant that the QV-10's specs did not actually compare all that well against those of a

traditional film camera, but we were looking to create a totally new kind of value that film cameras could not hope to offer. The idea was for the user to be able to snap a photo and see the image right away, which was an unprecedented convenience. And we wanted to provide a convenient link to the personal computer, thereby creating a new “image culture” from scratch. The whole process was a manifestation of the “0” to “1” concept that has always been the Casio hallmark.

Pursuing the convenience that only a digital camera can provide

In launching the EXILIM EX-S1 in June 2002, Casio proposed to the world the new concept of the “wearable card camera.” Many different makers had entered the digital camera market by that time, and all competed fiercely to provide the best performance. Customers getting ready to make a purchase had a clear tendency to compare cameras on the basis of number of pixels, which is an easily understood measuring stick, but again, Casio was not content to be just another maker competing for the same old turf.

One clue to the development of the EX-S1 was that its design was not at all limited by film camera design. People left home with a traditional camera only when they knew they would be taking photos, but with the filmless digital camera, people could just carry it with them everywhere, always ready for a photo opportunity. It was this line of thinking that led to the first-generation EXILIM camera, which fit easily into the user's shirt pocket. What is more, the stylish compactness of the EXILIM has since become the mainstream look in the digital camera market.

Refusing to be satisfied, in spring 2003, Casio introduced the EXILIM ZOOM EX-Z3, which featured the most advanced specs on the market at that time. Casio's quest for new technologies and better functionality simply could not be stopped. I think this attitude has propelled the continuing evolution of the EXILIM series.

High speed: the third breakthrough

In 2008, Casio kicked off a third generation of value creation in the digital camera market with a breakthrough in high-speed technology. Product development at Casio does not rely on merely extending what we are already doing. Ideas are inspired by a creative vision of what products ought to look like 10 and 20 years down the line. These days, we're thinking that the camera of the future ought to be shutterless.

The incorporation of electronics in cameras has led to a lot of automation, including auto exposure and auto focus, but the shutter still has to be pressed by the user. Unfortunately, however, the act of pressing the shutter often makes the subject feel self-conscious, or the person taking the photo may not have a steady hand. Also, many magic moments go unphotographed due to delay in pressing the shutter.

“You'll have to settle for less. Cameras do have limitations.” Others may feel that way, but at Casio we don't think so. We came up with high-speed photography as the new answer to problems that many thought simply couldn't be addressed. By making shutter-pressing electronic, we allow the user to enjoy high-speed burst photography to capture fast-moving photographic subjects at 30 frames per second. Then, among the photos shot in burst

mode, the camera can automatically select the best-looking photos, without blur or anyone's eyes shut.

With a high-speed camera, you can catch a fleeting expression on a child's face, for example, or capture details that happen so fast that the unaided human eye cannot even see them. Casio sees this as just another quiet revolution, and we plan to make it a standard feature of all of our digital cameras.

Moving images bring entirely new creative fun to the digital camera

Dynamic Photo is another new Casio function that allows the user to cut and paste moving images onto a still background image. We hope to see both everyday folks and professional photographers using Dynamic Photo to create an entirely new type of photographic culture.

Digital cameras have greatly enhanced people's ability to take photographs and view them, but creative features have stagnated a bit. People generally do little more than take a still photo and process it, but with Dynamic Photo a moving subject can be captured using high-speed burst shooting, then cut out of the original photos and pasted against a different background from a still photo. The creative possibilities are endless!

We look forward to seeing the Dynamic Photo function create a whole new world of visual expression. Parents could take moving images of their kids, and paste them onto photos of overseas locations, for example. New modes of communication could emerge. Imaginative new ideas and technologies could be combined to create new things that will be used by ordinary people. New markets could spring up. Therein lies the creative power of Casio's “0” to “1” philosophy.

Highlight 1

Going from “0” to “1” to Create New Value in the Digital Camera Market



EXILIM ZOOM EX-Z400

This camera comes with the Dynamic Photo function, which allows the user to cut and paste moving images onto a still background, thanks to the high-speed image processing of EXILIM Engine 4.0.



HIGH SPEED EXILIM EX-FC100

High-speed burst shooting at 30 fps, high-speed movies at up to 1,000 fps, and downsizing of the circuitry and sensor unit could easily put this camera in the palm of your hand.

Jin Nakayama

General Manager, Product Development Unit, QV Digital Camera Division

Responsible for Casio QV-10 product planning, has been a leading member of Casio's digital camera development team ever since.