

Image Processing Technology Creates New Value

Casio does its utmost to leverage its core competencies to help build sustainable societies. Where can Casio R&D make an entirely unique contribution? One answer is in the area of digital image processing technology, where Casio possesses industry-leading expertise.

Business Shot feature

The image is automatically straightened out



At Casio, CSR Starts with R&D

Everyone in research and development at Casio understands that R&D is the source of Casio's ability to fulfill its social responsibilities. The devotion of Casio researchers to CSR is reflected in the following statements from the Charter of Creativity for Casio: "We will value creativity, and ensure that our products meet universal needs," and "We will strive to be of service to society, providing customers with delight, happiness, and pleasure."

■ R&D supports corporate strength and consumer confidence

The work of Casio's R&D departments energizes Casio as a whole by improving corporate and brand strength to secure and maintain competitive superiority and sustainability for the company. Externally, R&D efforts also aim to secure and increase public trust and confidence in Casio through product and technology development.

■ R&D focused on earning trust

The key to building trust is improving customer confidence and satisfaction. Casio R&D works at this by interacting with consumers, asking them to help identify aspects of products that may have caused the slightest dissatisfaction or discomfort, and then resolving these issues by developing better functions and services. In essence, Casio R&D is the unending quest to make more reliable products that represent exactly what consumers want and society needs. This quest is the key to CSR at Casio.

Developing Sustainable Technologies

Casio's commitment to delivering high-quality products that conserve resources and save energy is the same everywhere in the world. This is why Casio products have demonstrated their universal value in many different cultures, nations, and languages. Today, the natural extension of Casio's R&D tradition is the development of advanced sustainable technologies. This effort is at the heart of Casio's drive to offer the world environmentally friendly products that inspire new cultural phenomena. Simply put, this is how Casio sees its mission as a manufacturer. One of Casio's leading sustainable technologies is its image processing technology, which is featured here.

■ New image processing technology

Casio's image processing technology is at the core of its digital camera production. Casio's digital technologies—which users of conventional film cameras could never have dreamed of—have not only made cameras easier to use, but also created many new ways to use them. To name just a few, Casio has cutting-edge technologies for compression, editing, and image detection that work with both still images and movies.

● Making photography easier than ever

Conventional cameras required all sorts of effort to master the various techniques needed to avoid problems such as bad focus, shaky hands, and dark faces in photos when there was bright light behind the subject.

Casio has applied its proprietary image detection technology to develop a host of useful functions such as an auto-tracking Auto Focus (AF) system that automatically focuses on a subject and then keeps it in focus even if it moves. Another is Auto Framing, which tracks a moving subject to

ensure it will appear in the center of the photograph. Casio's digital cameras also feature blur reduction technologies, as well as the unique Business Shot and Revive Shot functions. Casio's revolutionary image detection and blur reduction technologies have made high-quality photography accessible to everyone.

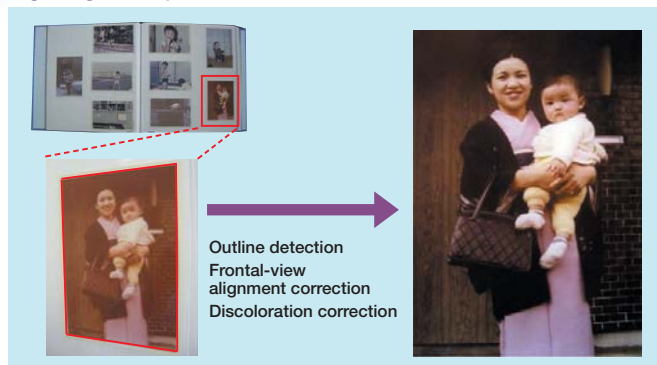
● Enabling innovative new applications

One reason that the camera has become so important to people is that it is an optimal tool for capturing special events and memories. But image processing technology has evolved beyond the role of recording only everyday moments of beauty and wonder. Its benefits are now being utilized in business and other settings, in combination with communication technologies, to facilitate image transmission, information gathering, and edit processing. Casio R&D has made major contributions to the advance of image processing technology, creating many new and valuable functions for the camera, and improving both the quality and efficiency of user performance.

● Creating technologies and then transferring them to new fields

One of the keys to the originality of Casio's products, such as its timepieces and musical instruments, is the company's set of powerful technologies for digitizing numbers, time, music, text, and images. Casio first developed image processing technologies for its cameras, and then helped to make them a standard function of cellular phones. By adding image processing technology and camera features to an everyday device like a phone, which had always been seen as single-function, Casio's digitization of still images and movies has provided completely new forms of value, and even created whole new device categories.

Digitizing album photos with Revive Shot



Take a photo of an album page, and Revive Shot automatically recognizes the outline of the photo subject, adjusting the perspective to a full frontal view. It also revives faded older photographs.



Auto-tracking AF and Auto Framing

Employee Pride

In our R&D organization, we don't limit ourselves to product-by-product development. Rather, we try to create whole new uses for our technologies. The fascinating thing about our image processing work is that it impacts Casio's digital cameras, cellular phones, handy terminals, and all kinds of other imaging applications in industries from plant automation to automobiles.



Tetsuji Makino
Development Department-2
Development Center