

## **New APS-C Vol.4**

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## Product Stories of New APS-C Vol.4?Wakashiro?

Hi everyone! I'm Shigeru Wakashiro, in charge of the planning and development of new PENTAX digital SLR camera products. For users to fully enjoy the process of picture-taking, it's important for us to provide a user interface that accurately and swiftly conveys the photographer's creative intentions to the camera. At the same time, we believe that we must design a user interface that causes no discomfort during camera operations.

New APS-C 4

The camera grip shape can't be determined just by the ease of hold. If the photographer grabs the grip too firmly, the fingers may freeze in place, hindering the smooth operation of the camera. During the camera grip design process, we also pay careful attention to control parts — the buttons and dials — carefully checking their shape and positioning to assure smooth operation, as well as provide maximum holding comfort and maneuverability.

The most important element in the design process is finding the positioning of the middle finger. Once we figure out the best position, we use a trial-and-error process to verify that this position will provide smooth, flawless operation of all control parts. We check camera operation from many angles: whether the index finger can be extended smoothly in relation to the middle finger when it presses any of the control buttons; and whether any discomfort is caused by the index finger rubbing against the middle finger when it operates the electronic dial. Since the middle finger has the most important role in holding the camera body firmly, we continue to make fine adjustments to the grip design until we get it just right, and ensure comfort as the middle finger contacts and holds the grip.

After increasing or decreasing the overall size of the grip (in units of onehundredth of a millimeter!), we input the dimensions into a computer to obtain three-dimensional data for evaluation. After repeating this process many times, we come to the grip design that provides the best possible camera hold and maneuverability.

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The back of the grip is supported by the base of the thumb. If this part is too angular, it can be uncomfortable for the hand. So we round it off to widen a surface area where the thumb makes a contact. But if the edge is too round, it can be difficult for the base of the thumb to firmly hold the grip, and making the user hold it more firmly than necessary. The grip optimization process helps us avoid this problem. The section where the thumb comes in contact with the grip stretches to the camera's upper end (which has nothing to do with the camera hold). We gave it this design so the user never contacts sharp, angular edges when operating the dials positioned on the camera's upper panel with the thumb.

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The joystick positioned on the camera's back panel is the focus point lever. The shape is designed for secure, fail-free thumb operation that prevents the thumb from slipping off. If we were to focus solely on the thumb catch action, however, the joystick might protrude too much and sink too deeply into the thumb, causing discomfort. That's why we changed the shape of the protrusion between the central lever and the encircling ring. The result is a joystick that provides both excellent finger catch and comfortable operation.

The shape of the grip, as well as the shape and position of control parts, has been optimized through a trial-and-error process that also accommodates the physical differences of many users, such as the size of the hand and the length and thickness of the fingers. These components have been evaluated using strict standards aimed at reducing hand and finger discomfort when holding the grip and operating the camera, while assuring stress- and discomfort-free camera operations. This is all because we want our users to fully enjoy the picture-taking process, and want them to focus constantly on the subject and interact closely with it during photo shooting, without feeling any discomfort or distraction in camera operations. We believe it's our mission to deliver cameras that operate comfortably, flawlessly and unfailingly to our users.