Porsche 4D Chassis Control: Networked chassis systems on the new Panamera

Porsche has developed an innovative, centrally networked control system for the chassis of the new Panamera known as 4D Chassis Control. Previously, the chassis systems worked largely independently of each other, used their own sensors and responded to the other systems. Porsche 4D Chassis Control analyses the current driving situation centrally in all three dimensions (longitudinal, lateral and vertical acceleration), uses these findings to calculate optimum information about the driving status, and makes this information available to all chassis systems uniformly and in real time – a fourth dimension in chassis control. As a result, the systems are able to respond to the imminent driving situation in an integrated manner.

For example, when steering dynamically into a bend, the electronic damper control system PASM, the adaptive air suspension, rear-axle steering, PTV Plus and PDCC Sport systems – depending on the vehicle equipment – work together to ensure optimum steering behaviour, maximum agility and stability. The Porsche 4D Chassis Control issues a pulse to the chassis systems as soon as the driver steers the vehicle. This means that the systems are able to respond promptly and ensure maximum performance around bends. The new and enhanced individual systems falling under the umbrella of Porsche 4D Chassis Control result in significantly improved performance and comfort alike on the second-generation Panamera.