

Software and hardware solutions



Sierra-CP Engineering

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Sierra-CP can meet a wide range of testing requirements with its highly flexible, customized software and hardware solutions

Thirty years of successfully meeting tough customer challenges has taught Sierra-CP that the concept of 'one solution fits all' just doesn't work in the automotive testing industry. The company works hard to create an open atmosphere for client interaction, which embraces the critical role that flexibility plays at every stage of design and development.

Whether upgrading existing test cells or planning new installations, Sierra can develop custom products and systems or provide complete turnkey solutions. It also matches the customer requirements of today with tomorrow's needs to guarantee a solution that can expand with the test of time.

To help meet the challenges of a rapidly changing industry, Sierra has developed advanced hardware and software solutions that cover the complete scope of test applications. Open design and a common, easy-to-use interface enable them to integrate seamlessly with existing instrumentation and other manufacturers' equipment, or build turnkey systems designed for specific requirements.

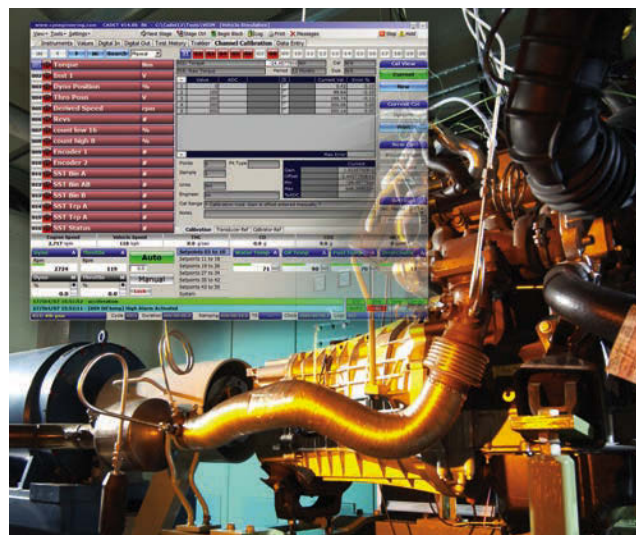
At the heart of Sierra's solutions is its proprietary Cadet V14 test automation software, which combines accurate multichannel control with high-speed data acquisition. Cadet V14 is the basic platform for all Sierra's

solutions because of its great application flexibility and scalability. Because it develops the software in-house, Sierra has the ability to do rapid customization for clients no matter how complex the testing demands may be.

From upgrading existing facilities to custom end-to-end solutions, Sierra-CP provides the most advanced tools available for engine and vehicle testing. Applications include emissions, endurance, motorsport, performance development, climatic, calibration, NVH, production and quality audit.

With its Eddy-current and high-performance AC dynamometers, tests can be configured for steady-state, transient and dynamic operation. It also manufactures specialized equipment to precisely control the engine's environmental conditions. Driven by the Cadet V14 CDS test automation software, Sierra's chassis dynamometers cover all certification, research and development requirements for cars, trucks, motorcycles, three-wheelers, off-road and treaded vehicles.

By combining Sierra-CP's design expertise with specialty products, it is able to deliver advanced solutions for powertrain and transmission testing applications suitable for conventional motive power units, e-motor and hybrid variations. Solutions include a wide range of applications, from durability and key life



ABOVE: The multichannel Cadet V14 test software in a test scenario

testing, to NVH and performance development.

Sierra-CP manufactures a wide variety of emissions measurement solutions to meet nearly any engine and vehicle testing application. It specializes in particulate matter partial flow dilution sampling with its BG3 technology. It offers seamless integration and control of devices such as CVS and gaseous analysis via its flagship Cadet V14 test automation software. Working in tandem with the BG3, its SootTrak instrumentation measures real-time engine soot particle mass emissions and performs characterization of average soot agglomerate particle size, number and surface area.

Sierra-CP offers global support, with technical support locations in the USA, the UK, China, India and Malaysia. ◀