



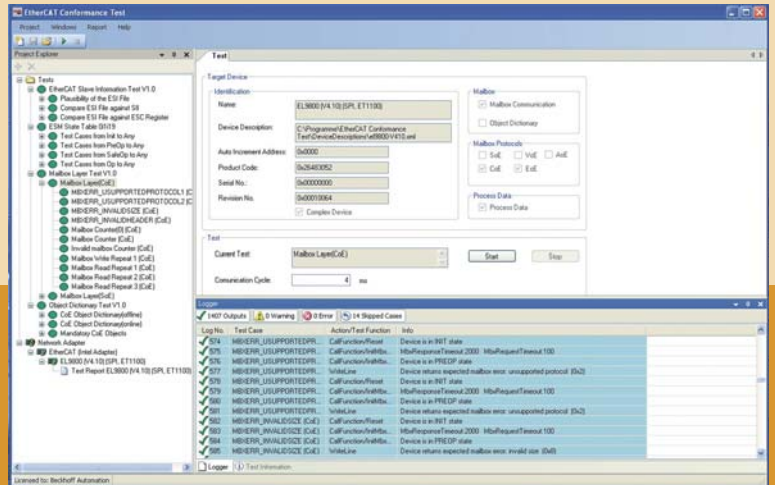
→ ETG at SPS/IPC/DRIVES



To date, 40 vendors have readily available or publicly announced high-performance EtherCAT servo drives. This support from drive vendors is clear evidence that EtherCAT has taken the leading role in motion control: no other Industrial Ethernet technology has such a variety of products from various drives vendors. This fact is underlined by the dynamic, new multi-vendor demo at the EtherCAT Technology Group booth that will debut at the 2008 SPS/IPC/Drives show in Nuremberg, Germany.

With 40 servo drive vendors from 13 countries, EtherCAT even leaves special motion control fieldbus systems that have been around for decades behind – EtherCAT is on its way to becoming the world's leading motion control standard. Even more vendors are currently developing their EtherCAT servo drives, but have yet to announce these new products publicly.

At the EtherCAT Technology Group's cooperative booth at the SPS/IPC/DRIVES show in Nuremberg, Germany, (Hall 6, Booth 208)



there will be a multi-vendor demo with servo drives from a multitude of companies networked with one EtherCAT system. Altogether the booth will feature more than 170 EtherCAT products from 59 vendors.

EtherCAT conformance test tool available

In order to ensure the compatibility of device implementations, numerous efforts are being made within the EtherCAT Technology Group. Among other things, the Plugfest (see page 52) is aimed towards the interoperability of the devices. In order to now also test the compatibility of devices to the EtherCAT standard, a conformance test tool has been developed that automatically tests the EtherCAT slave devices.

The test tool sends correct and deliberately incorrect telegrams and the device's response is compared to the expected response. Besides the EtherCAT state machine, the behavior of the mailbox layer (necessary for asynchronous communication) and the implementation of the object directory can also be tested.

The test tool is informed of which functions the device supports by the included device description file, the so-called ESI (EtherCAT Slave Information). Unsupported functions are excluded from the test, while supported functions are tested intensively. The validity and the consistency of the device and of the ESI file itself are checked. The test results are available to the manufacturer in a comprehensive test report which, along with information about the device description and the test environment, includes the test cases performed and their results.

The conformance test tool provides the device manufacturers an in-house tool that supports development and can be used for the prompt compatibility testing of EtherCAT implementations. The licensing of the test tool is based on a 'subscription,' which is updated annually. This ensures that the manufacturer always uses the latest version of the tool. Manufacturer-specific test cases can also be supplemented on the basis of an XML schema.

A certificate of conformance is issued by the ETG if the test has been performed in an official EtherCAT Test Center (ETC) and has been passed. The first ETC has already been opened at the ETG head office in Nuremberg, Germany. Further laboratories are planned in Europe, the United States and Asia. All users of EtherCAT technology are called upon to request an official certificate of conformance from the device manufacturer in order to secure the compatibility of the devices available on the market. Certified devices are permitted to bear the logo 'EtherCAT conformance tested,' assuring the quality of the implementation.