

## **Electronic Data Sheets in practical use – benefits and drawbacks**

Jena-Optronik is one of the key suppliers, when it comes to Attitude and Orbit Control System (AOCS) sensors. One of our latest products is the ASTRO APS autonomous star sensor based on the most advanced radiation hard CMOS Active Pixel Sensor.

The ASTRO APS is a highly versatile and modular design in hard- and software, which allows adapting it to our customer needs. Our customers have the ability to choose from various protocol stacks, operating interfaces, supply voltages, detector types and time synchronization options. The latest addition to this modular design was a gyroscope which created a completely new product the ASTROgyro.

But this highly modular design also created challenges in the manufacturing assembly integration and test process of this product. In order to overcome these challenges Jena-Optronik created a modular ground support equipment around XML-based electronic datasheets - the unit tester next generation or shortly UT-NG.

During practical use the UT-NG evolved from a test system created for star sensors at the beginning to a test system that today is not only capable to support the production of those. Due to the electronic data sheets and the versatility allowed by them, the UT-NG now also assists in the MAIT process of the Visual Sensor Suite a multi-head camera system and various other non-star sensor related projects.

During the evolution of the test system we not only got the confirmation for various benefits of the electronic data sheets but we also discovered some pitfalls. This short presentation will introduce you to both the benefits and the drawbacks.