

QuILS: The ASD/AIA S1000D Retrieval System

Effective documentation research, combined with logistical functionality, is one of our specialist areas at ESG. We have already developed retrieval software in the third generation, and now present our latest product, the QuILS retrieval component. It is the output medium for data which has, as a rule, been produced using our comprehensive tool set for generating Interactive Electronic Technical Publications (IETP). The individual components of the tool set are:

- ▶ APART for generating IPD data modules (Illustrated Parts Data)
- ▶ The QuILS editing component with integrated WSDB (weapon system database)
- ▶ The QuILS publication component for preparing the data modules for electronic display

QuILS stands for Qualified Integrated Logistics System and this requirement is met to a particularly high standard by the retrieval component.

Maintenance costs are also reduced

As technical systems become more complex, their technical documentation increases in size accordingly. Short-lived technology makes continuous adaptations and updates necessary. The scope of the documentation and the modification service make it impossible to manage these updates in the traditional way. The solution used in all fields of industry and in the military environment is called "Interactive Electronic Technical Publication". As well as saving space, making searching easy and intelligently linking information units, this technology also offers digital

interfaces for simple integration into upstream or downstream logistical processes. This saves costs through effective maintenance.

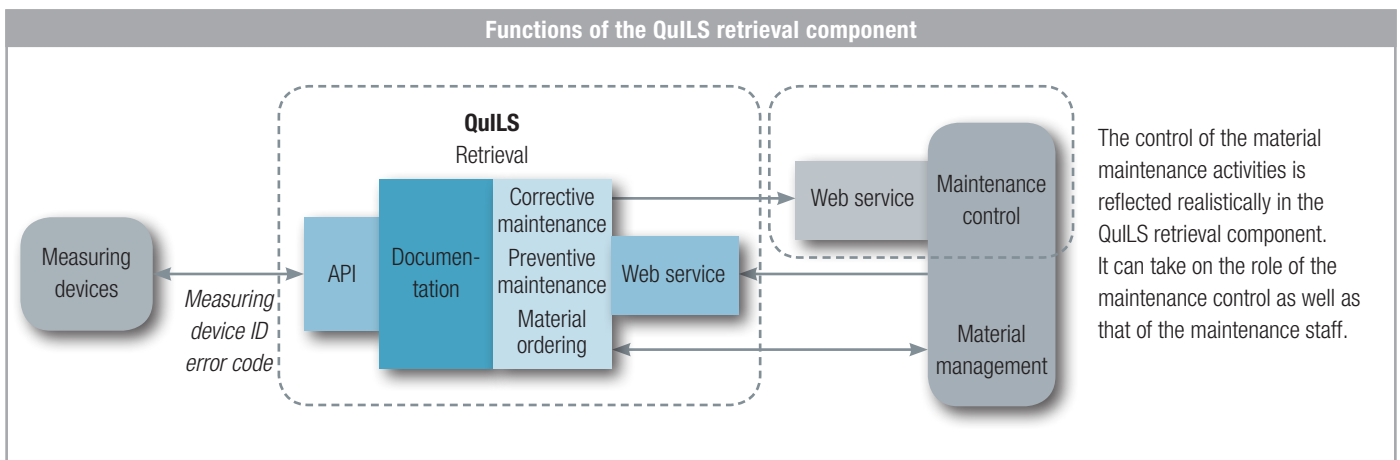
The QuILS retrieval component in the process chain

The data modules, as information carriers for system descriptions such as material maintenance activities and spare parts catalogues, are based on the ASD/AIA S1000D (previously the AECMA SPEC 1000D).

The potential for optimisation is created from the integration into upstream, supplementary and downstream logistical processes, bringing additional advantages.

ADVANTAGES

- ▶ Central control and decentralised processing of material maintenance activities
- ▶ Entry into the error analysis via the measuring device identification and error code
- ▶ The formation and evaluation of "data module chains" for all necessary maintenance procedures
- ▶ Reduction in preventive maintenance work through links to corrective maintenance activities
- ▶ Ordering of spare parts and status query via an XML interface
- ▶ Reports of completed repairs with the acquired administrative and technical data



Document research begins with data storage

The data for the data modules is stored in an XML database. This technology is used to support extensive research functions. A further special feature is that the data can be stored on an external data carrier, such as a CD or DVD.

The n-tier architecture makes it possible to operate the retrieval component in a stand-alone operation or in a network cluster. This is possible without additional costs arising, since the licence model only takes into account the number of users.

The ability to transfer rights is a real advantage, particularly for user groups with a high rate of fluctuation.

Installation without special knowledge ensures usability

Almost all the necessary software components are provided on the programme CD. Only certain freeware programs such as ACROBAT Reader are the exception.

Thanks to a clever installation routine with a limited number of user decisions involved, the programme can be installed in around 30 minutes.

Since the QuILS publication delivery includes information on the data module code structure, the retrieval component is open for determining project-specific data module codes. No manual intervention is required.

