

The system and software house ...



DEDICATED TO SOLUTIONS.

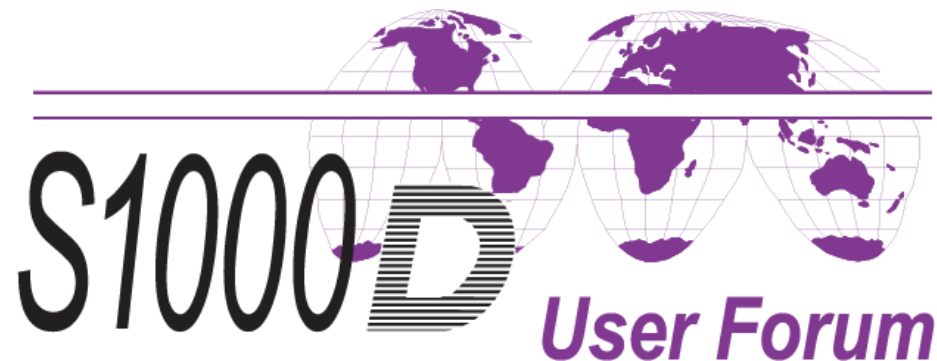
... for development and service processes of software-intensive, complex, technologically advanced and security-critical products



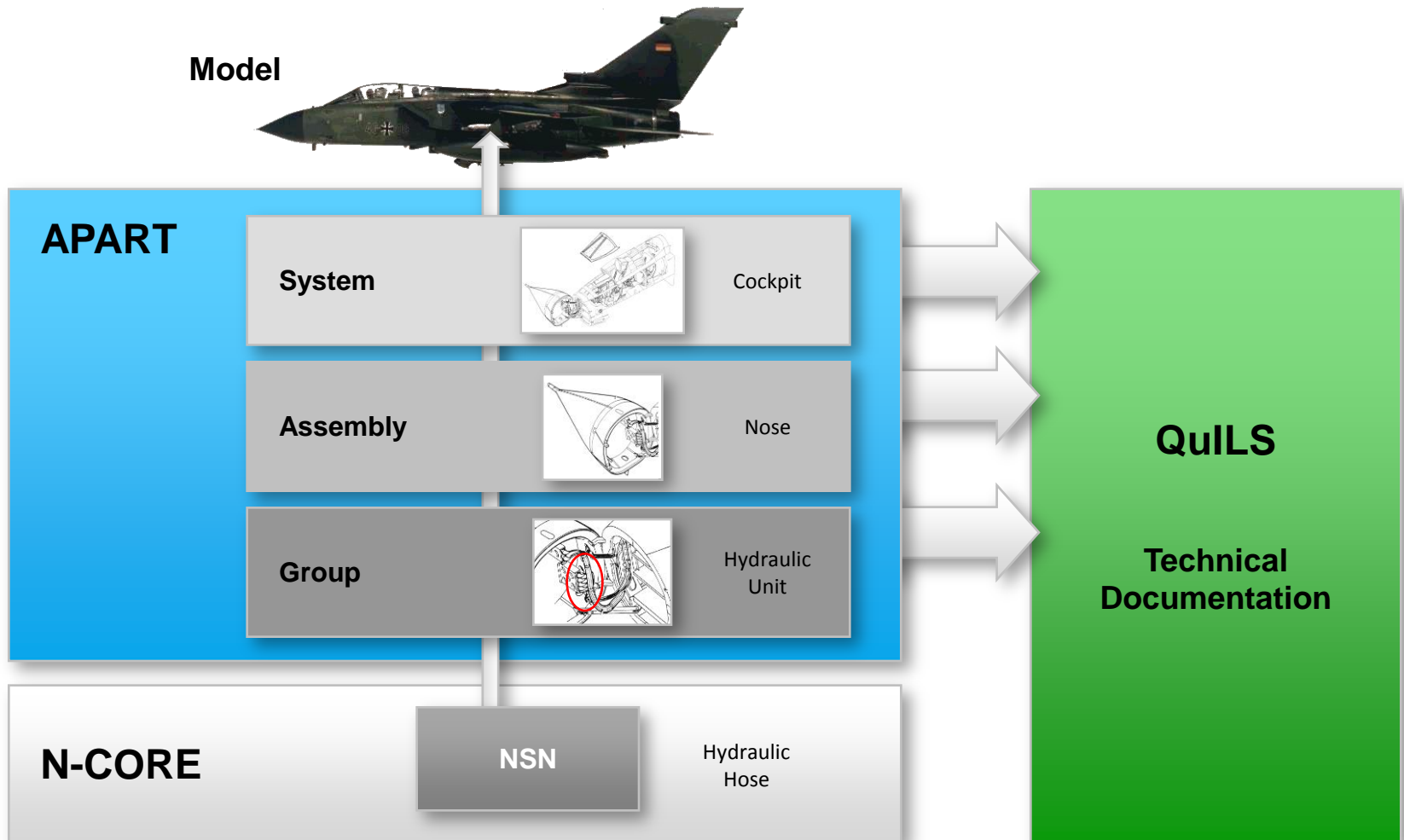
ESG Solutions for IETP

Vienna, September 18, 2013

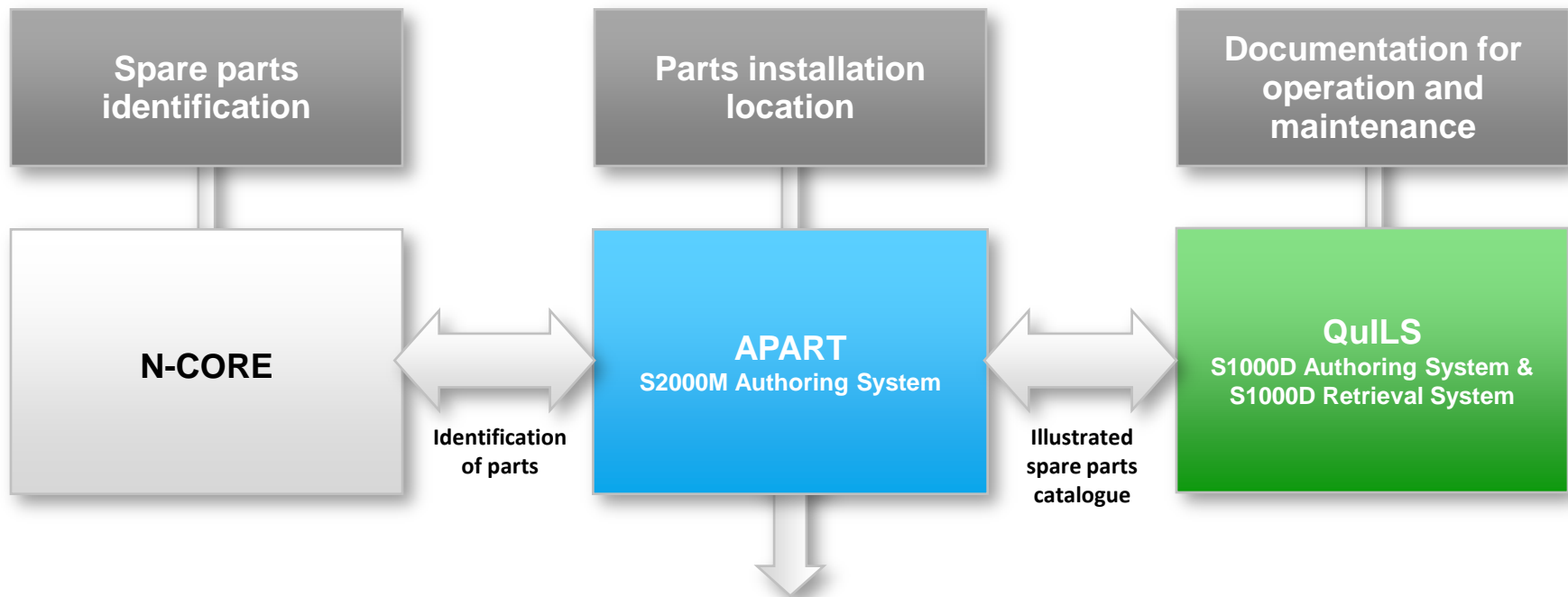
Uwe Schäfer



Target-oriented maintenance information systems



Our solutions for Interactive Electronic Technical Publications (IETP) are part of ESG's Integrated Logistic Support System (ILS)

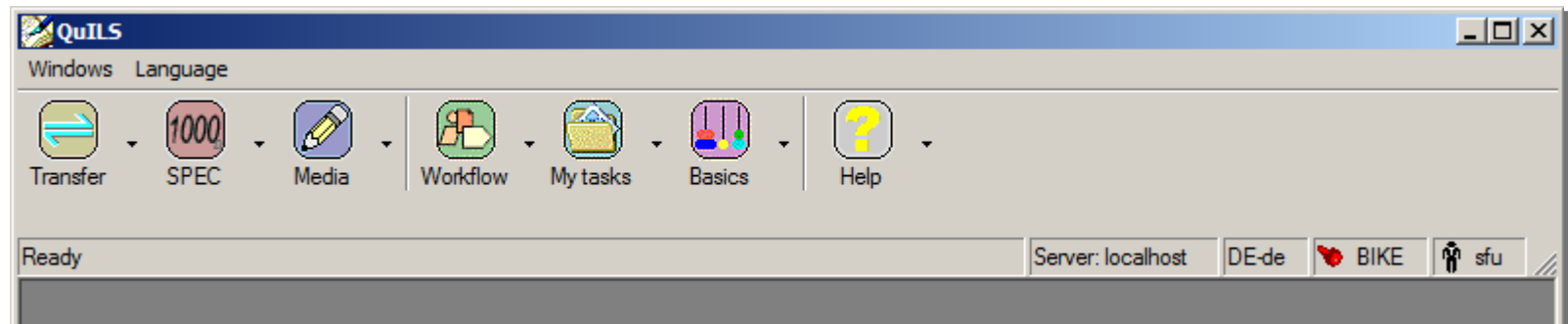


Centralized control and decentralized processing for material maintenance

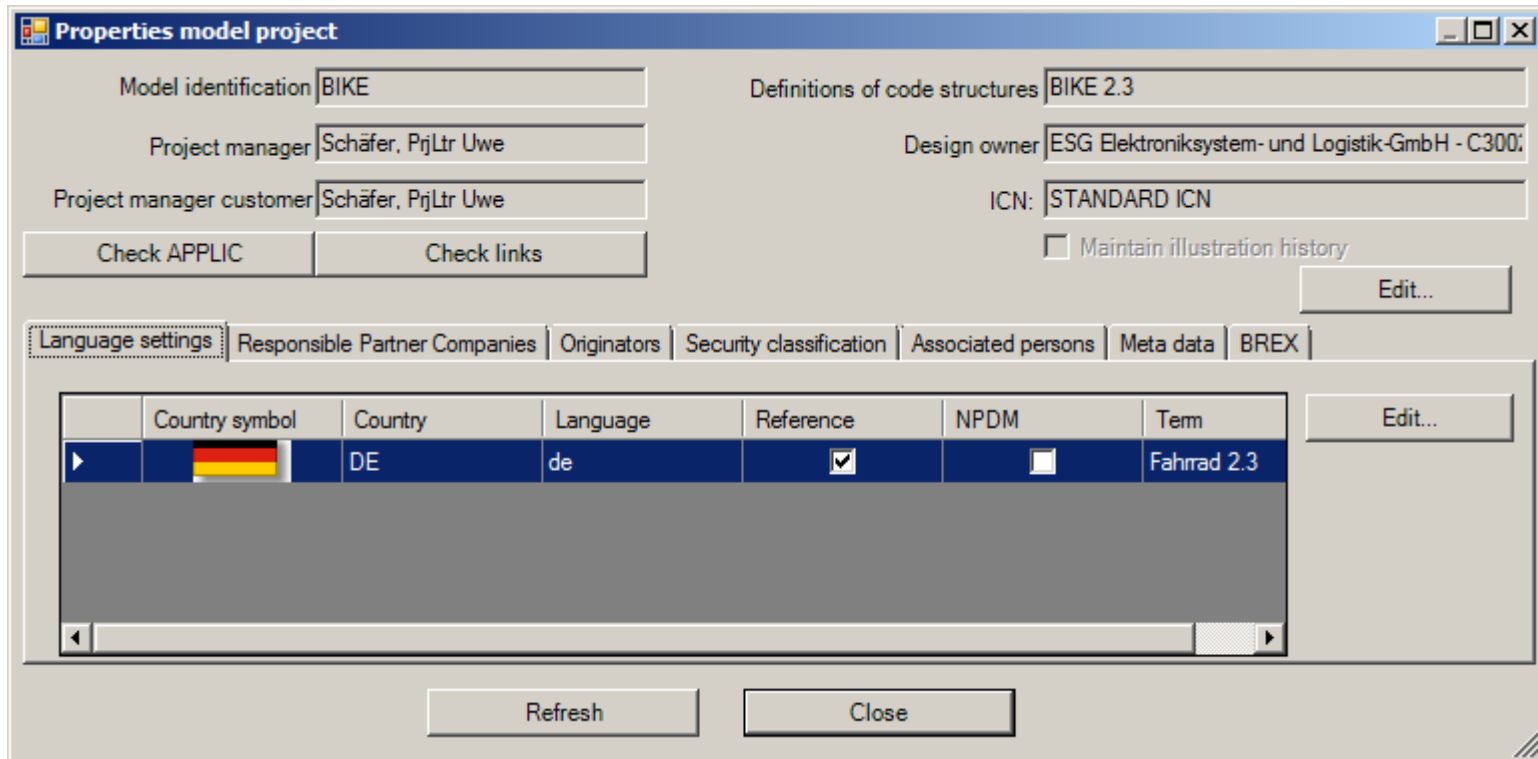
- ▶ Structuring of available basic data
- ▶ Specific maintenance-oriented information systems

How to

- ▶ create a project
- ▶ structure information
- ▶ use DMLs for project management
- ▶ define a work flow
- ▶ create a data transfer package
- ▶ verify data – Quality Assurance
- ▶ define a publication



How to create a project



Properties model project

Model identification:

Project manager:

Project manager customer:

Check APPLIC


Definitions of code structures:

Design owner:

ICN:

☐ Maintain illustration history

Language settings | Responsible Partner Companies | Originators | Security classification | Associated persons | Meta data | BREX

	Country symbol	Country	Language	Reference	NPDM	Term
▶		DE	de	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Fahrad 2.3

How to structure information

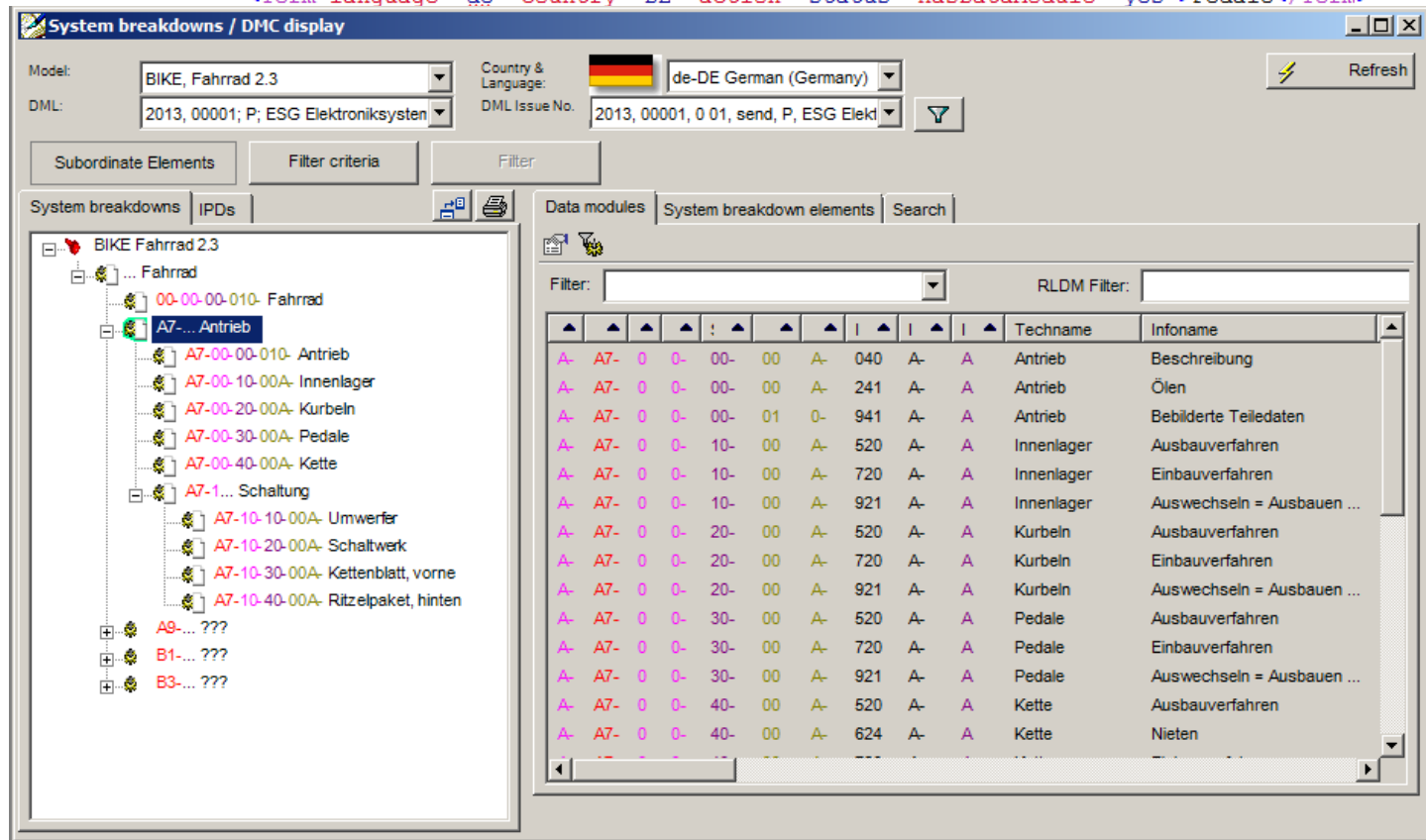
create SNS structure from

- ▶ GAPI
- ▶ maintained SNS
- ▶ ...

via XML import

Or from DML

```
<Entry value="A-A7-00-10-00A">
  <Term language="de" country="DE" action="status" hasDataModule="yes">Innenlager</Term>
</Entry>
<Entry value="A-A7-00-20-00A">
  <Term language="de" country="DE" action="status" hasDataModule="yes">Kurbeln</Term>
</Entry>
<Entry value="A-A7-00-30-00A">
  <Term language="de" country="DE" action="status" hasDataModule="yes">Pedale</Term>
```



The screenshot displays the 'System breakdowns / DMC display' window. The top section contains filters for Model (BIKE, Fahrrad 2.3), Country & Language (de-DE German (Germany)), and DML (2013, 00001; P; ESG Elektroniksystem). Below these are buttons for 'Subordinate Elements', 'Filter criteria', and 'Filter'. The main area is divided into two panes. The left pane shows a hierarchical tree structure of system breakdowns, including 'BIKE Fahrrad 2.3', 'Fahrrad', '00-00-00-010- Fahrrad', 'A7-... Antrieb', 'A7-00-00-010- Antrieb', 'A7-00-10-00A- Innenlager', 'A7-00-20-00A- Kurbeln', 'A7-00-30-00A- Pedale', 'A7-00-40-00A- Kette', 'A7-1... Schaltung', 'A7-10-10-00A- Umwerfer', 'A7-10-20-00A- Schaltwerk', 'A7-10-30-00A- Kettenblatt, vorne', 'A7-10-40-00A- Ritzelpaket, hinten', 'A9-... ???', 'B1-... ???', and 'B3-... ???'. The right pane shows a table of data modules with columns for 'Techname' and 'Infoname'. The table contains 15 rows of data, including entries for 'Antrieb', 'Innenlager', 'Kurbeln', 'Pedale', and 'Kette' with their respective descriptions and codes.

Techname	Infoname
A7- 0 0- 00- 00 A- 040 A- A	Antrieb Beschreibung
A7- 0 0- 00- 00 A- 241 A- A	Antrieb Ölen
A7- 0 0- 00- 01 0- 941 A- A	Antrieb Bebilderte Teiledaten
A7- 0 0- 10- 00 A- 520 A- A	Innenlager Ausbauverfahren
A7- 0 0- 10- 00 A- 720 A- A	Innenlager Einbauverfahren
A7- 0 0- 10- 00 A- 921 A- A	Innenlager Auswechseln = Ausbauen ...
A7- 0 0- 20- 00 A- 520 A- A	Kurbeln Ausbauverfahren
A7- 0 0- 20- 00 A- 720 A- A	Kurbeln Einbauverfahren
A7- 0 0- 20- 00 A- 921 A- A	Kurbeln Auswechseln = Ausbauen ...
A7- 0 0- 30- 00 A- 520 A- A	Pedale Ausbauverfahren
A7- 0 0- 30- 00 A- 720 A- A	Pedale Einbauverfahren
A7- 0 0- 30- 00 A- 921 A- A	Pedale Auswechseln = Ausbauen ...
A7- 0 0- 40- 00 A- 520 A- A	Kette Ausbauverfahren
A7- 0 0- 40- 00 A- 624 A- A	Kette Nieten


How to structure information

Create IC from

- ▶ SPEC
- ▶ NSG
- ▶ ...

via XML import,
optional with
assignment of
doctype

Or from DML



	Infoname	Assigned public identifier
105-	A- Verzeichnis der Bodendienst- und Prüfgeräte und Werkzeuge f...	--AECMA/DTD AECMA 1000D Description 2...
106-	A- Verzeichnis der Software für den Betrieb	--AECMA/DTD AECMA 1000D Description 2...
107-	A- Verzeichnis der Teile für den Betrieb	--AECMA/DTD AECMA 1000D Description 2...
110-	A- Bedienelemente und Anzeigen	--AECMA/DTD AECMA 1000D Description 2...
111-	A- Bedienelemente und Anzeigen (Besatzung)	--AECMA/DTD AECMA 1000D AirCrew 200...
112-	A- Betriebsarten, Besatzung	--AECMA/DTD AECMA 1000D AirCrew 200...
120-	A- Verfahren vor dem Betrieb	--AECMA/DTD AECMA 1000D Procedural 2...
121-	A- Verfahren vor dem Betrieb (Besatzung)	--AECMA/DTD AECMA 1000D AirCrew 200...
122-	A- Anforderungen an die Standortwahl	--AECMA/DTD AECMA 1000D Description 2...
123-	A- Unterstelleinrichtungen	--AECMA/DTD AECMA 1000D Description 2...
125-	A- Checkliste für Verfahren vor dem Betrieb (Besatzung)	--AECMA/DTD AECMA 1000D AirCrew 200...
130-	A- Normalbetrieb	--AECMA/DTD AECMA 1000D AirCrew 200...
131-	A- Verfahren im Normalbetrieb	--AECMA/DTD AECMA 1000D AirCrew 200...

How to use DMLs for project management

- ▶ Create DM entries
 - Different ways how to generate DM entries
- ▶ Compare DML
- ▶ Combine DML
- ▶ Comment/answer DML
- ▶ other features
 - View techname structure
 - Check uniqueness of SNS<->techname

DMLs can be used throughout the application for

- ▶ Data module creation
- ▶ Filtering
- ▶ Defining work flows

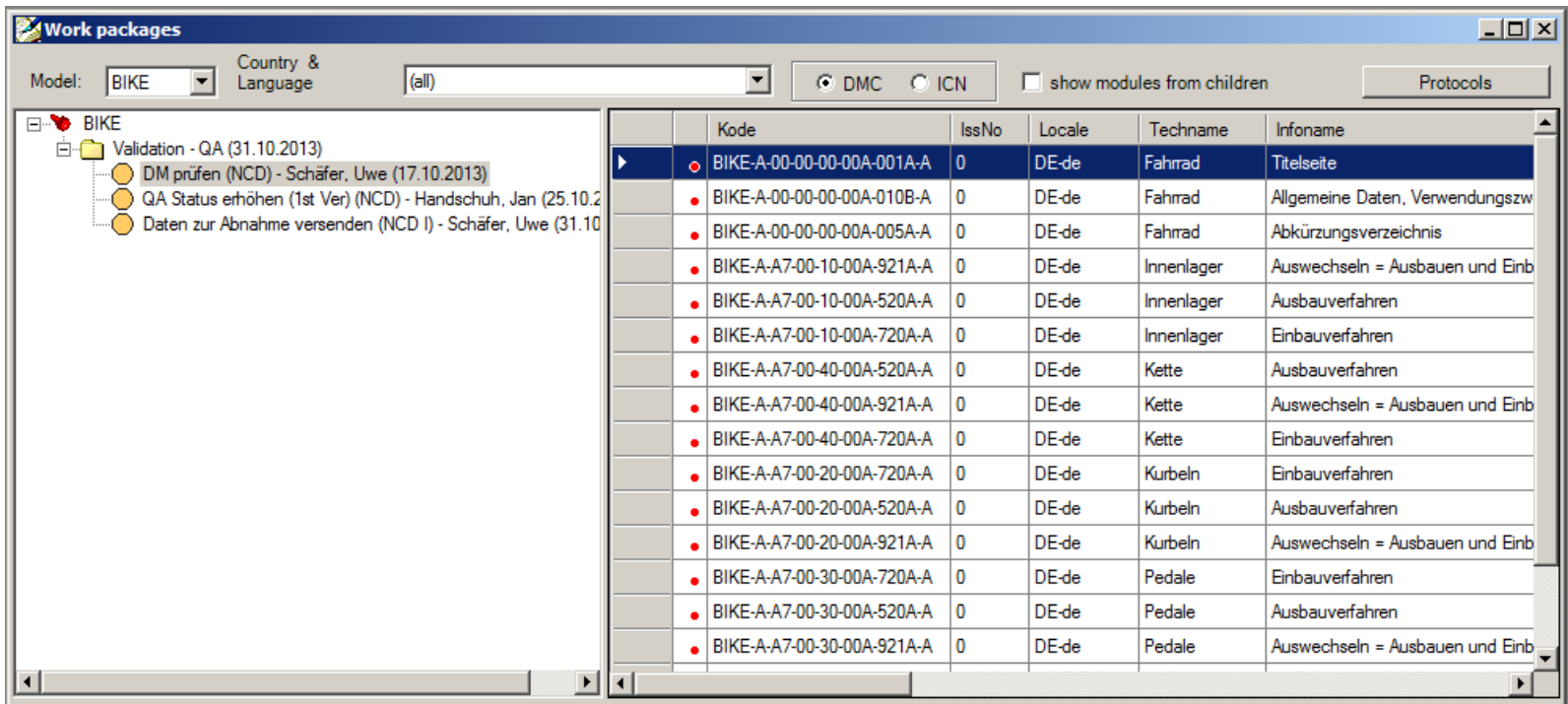
How to define a work flow

A workflow consists of

- ▶ tasks,
- ▶ persons,
- ▶ sequences,
- ▶ Due dates

QuILS offers

- ▶ flexible workflow
- ▶ free task definitions
- ▶ work progress tracking



The screenshot shows the 'Work packages' window in the QuILS Authoring System. It features a tree view on the left for the 'BIKE' model, showing a 'Validation - QA (31.10.2013)' folder with tasks like 'DM prüfen (NCD) - Schäfer, Uwe (17.10.2013)'. The main table lists work packages with columns for Kode, IssNo, Locale, Techname, and Infoname. The first row is highlighted.

Kode	IssNo	Locale	Techname	Infoname
BIKE-A-00-00-00-00A-001A-A	0	DE-de	Fahrrad	Titelseite
BIKE-A-00-00-00-00A-010B-A	0	DE-de	Fahrrad	Allgemeine Daten, Verwendungszw
BIKE-A-00-00-00-00A-005A-A	0	DE-de	Fahrrad	Abkürzungsverzeichnis
BIKE-A-A7-00-10-00A-921A-A	0	DE-de	Innenlager	Auswechseln = Ausbauen und Einb
BIKE-A-A7-00-10-00A-520A-A	0	DE-de	Innenlager	Ausbauverfahren
BIKE-A-A7-00-10-00A-720A-A	0	DE-de	Innenlager	Einbauverfahren
BIKE-A-A7-00-40-00A-520A-A	0	DE-de	Kette	Ausbauverfahren
BIKE-A-A7-00-40-00A-921A-A	0	DE-de	Kette	Auswechseln = Ausbauen und Einb
BIKE-A-A7-00-40-00A-720A-A	0	DE-de	Kette	Einbauverfahren
BIKE-A-A7-00-20-00A-720A-A	0	DE-de	Kurbeln	Einbauverfahren
BIKE-A-A7-00-20-00A-520A-A	0	DE-de	Kurbeln	Ausbauverfahren
BIKE-A-A7-00-20-00A-921A-A	0	DE-de	Kurbeln	Auswechseln = Ausbauen und Einb
BIKE-A-A7-00-30-00A-720A-A	0	DE-de	Pedale	Einbauverfahren
BIKE-A-A7-00-30-00A-520A-A	0	DE-de	Pedale	Ausbauverfahren
BIKE-A-A7-00-30-00A-921A-A	0	DE-de	Pedale	Auswechseln = Ausbauen und Einb

How to create a data transfer package

DDN Export

Data module lists | Data modules | S1000D comments | Publication

Model: BIKE, Fahrrad 2.3 Country & Language: de-DE German (Germany)
DML: 2013, 00001; P; ESG Elektroniksystem DML Issue No. 2013, 00001, 0 01, send, P, ESG Elektri

☐ Filter data modules in work package

Filter: NOT DELETED RLDN Filter: Filter criteria

Model	Country & Language	DML	DML Issue No.	Techn...	Infoname	S10...	Is Checked...	User					
A-	00-	0	0-	00-	00	A-	001	A-	A	Fahrrad	Titelseite	No	
A-	00-	0	0-	00-	00	A-	002	A-	A	Fahrrad	Verzeichnis der Seiten oder Datenmo...	No	
A-	00-	0	0-	00-	00	A-	003	A-	A	Fahrrad	Verzeichnis der Änderungen und Bes...	No	
A-	00-	0	0-	00-	00	A-	004	A-	A	Fahrrad	Zugang über bildliche Darstellung	No	
A-	00-	0	0-	00-	00	A-	005	A-	A	Fahrrad	Abkürzungsverzeichnis	No	
A-	00-	0	0-	00-	00	A-	006	A-	A	Fahrrad	Begriffsbestimmungen	No	
A-	00-	0	0-	00-	00	A-	007	A-	A	Fahrrad	Verzeichnis der Symbole	No	
A-	00-	0	0-	00-	00	A-	008	A-	A	Fahrrad	Verzeichnis der technischen Standards	No	

Options ... Add this data modules to the DDN

Data Dispatch Note (DDN)

Model: BIKE, Fahrrad 2.3 DTD Public ID http://www.s1000d.org/S1000D
☐ DDN - IETP-X Bw conformable ☐ ICN-Sources Export
Issue date 05/09/2013 00
Year 2013 Security 1, offen
Address (From) ENT-NAME: ESG Elektroniksystem ENT-UNIT: München JOB-TITLE: PjLtr
Address (To) ENT-NAME: WORLD ENT-UNIT: WORLD COUNTRY: everywhere

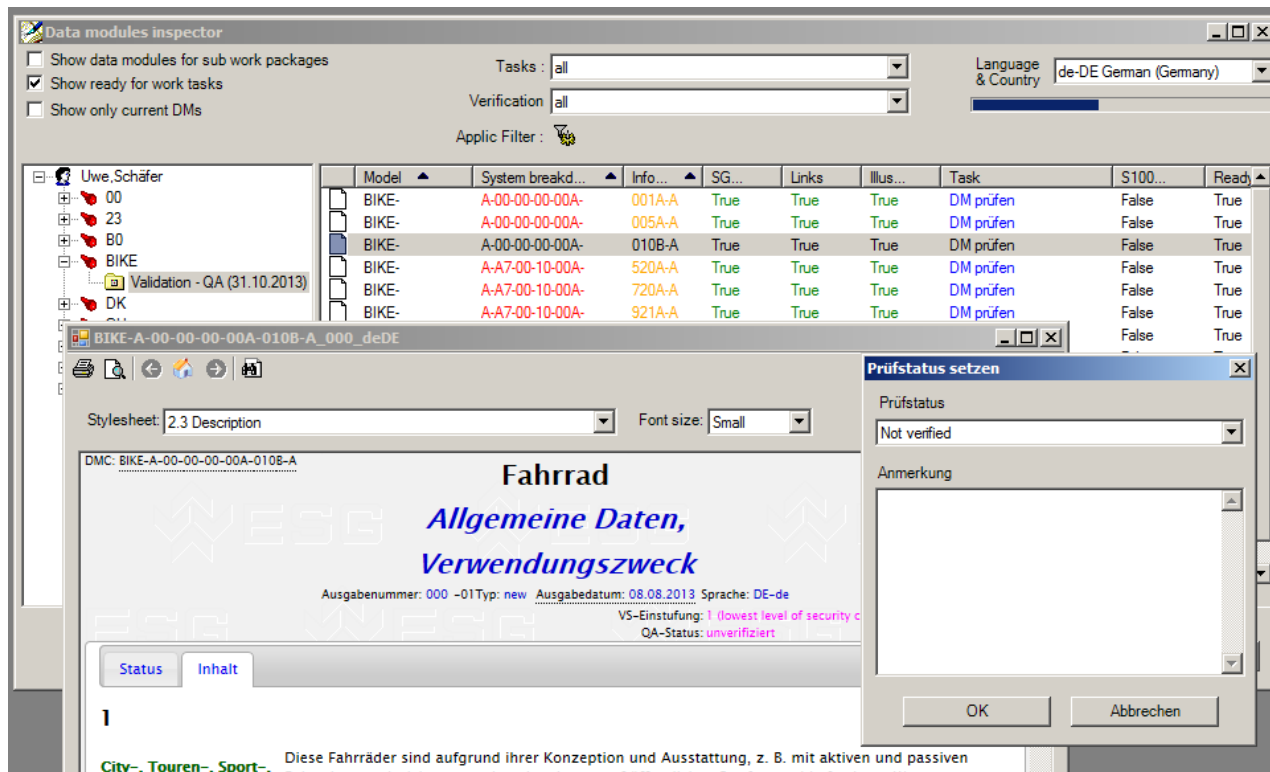
List of files included in DDN

Files	Type
-------	------

Delete Export

How to verify data – Quality Assurance

- ▶ Work flow driven quality assurance
- ▶ verification with
 - interactive preview,
 - code display
- ▶ creation of internal comments
- ▶ harmonizing different internal comments,
- ▶ automatic creation of IPRF/comment from consolidated internal comments
- ▶ Sending/receiving comments
- ▶ Linking comments to CSDB objects



The screenshot shows the 'Data modules inspector' window with a table of data modules and a 'Prüfstatus setzen' dialog box.

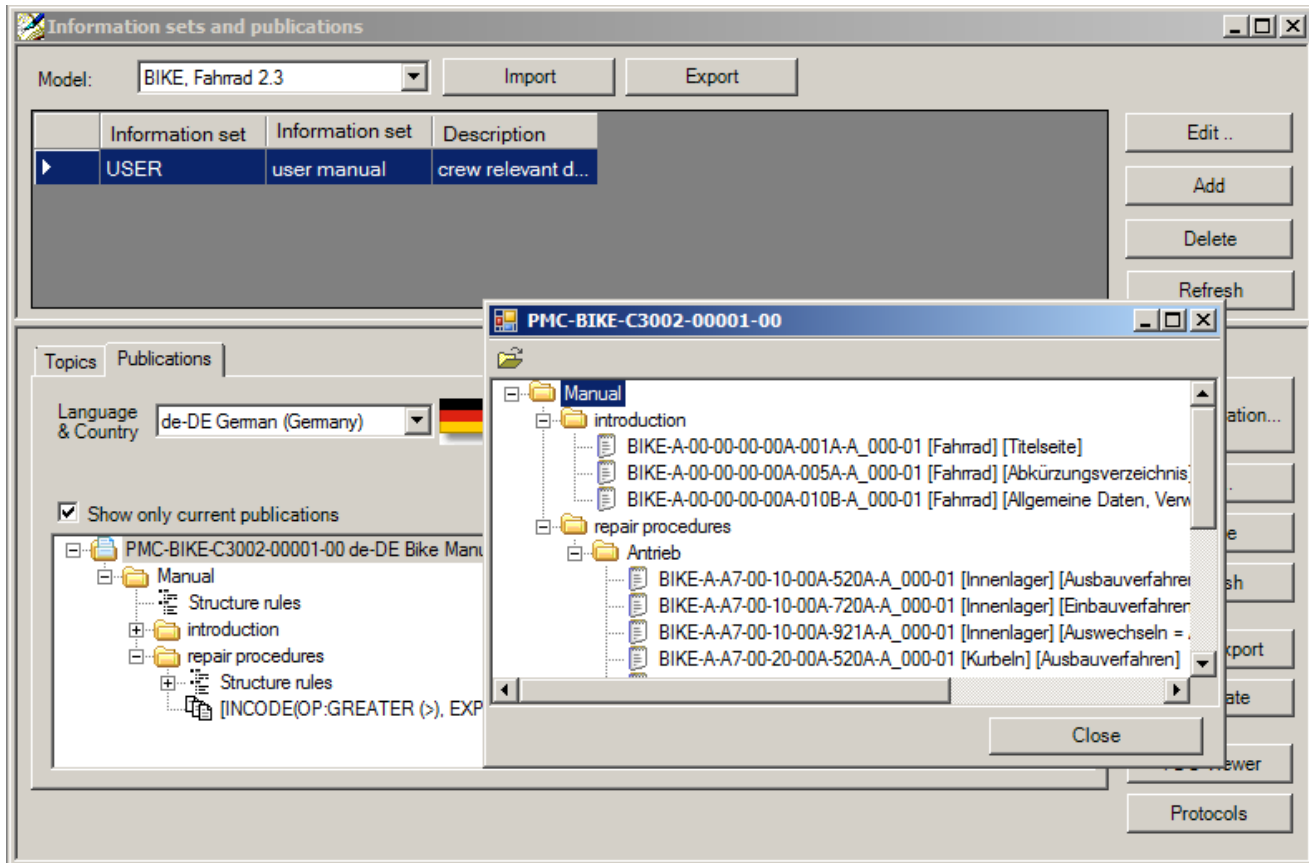
Model	System breakd...	Info...	SG...	Links	Illus...	Task	S100...	Read
BIKE-	A-00-00-00-00A-	001A-A	True	True	True	DM prüfen	False	True
BIKE-	A-00-00-00-00A-	005A-A	True	True	True	DM prüfen	False	True
BIKE-	A-00-00-00-00A-	010B-A	True	True	True	DM prüfen	False	True
BIKE-	A-A7-00-10-00A-	520A-A	True	True	True	DM prüfen	False	True
BIKE-	A-A7-00-10-00A-	720A-A	True	True	True	DM prüfen	False	True
BIKE-	A-A7-00-10-00A-	921A-A	True	True	True	DM prüfen	False	True

The 'Prüfstatus setzen' dialog box shows 'Prüfstatus' set to 'Not verified' and 'Anmerkung' as an empty text area.

The document preview window shows the title 'Fahrrad' and subtitle 'Allgemeine Daten, Verwendungszweck'. It also displays metadata: 'Ausgabenummer: 000 -01Typ: new Ausgabedatum: 08.08.2013 Sprache: DE-de' and 'VS-Einstufung: 1 (lowest level of security c QA-Status: unverifiziert)'. The main content area shows the text 'City-, Touren-, Sport-, Diese Fahrräder sind aufgrund ihrer Konzeption und Ausstattung, z. B. mit aktiven und passiven'.

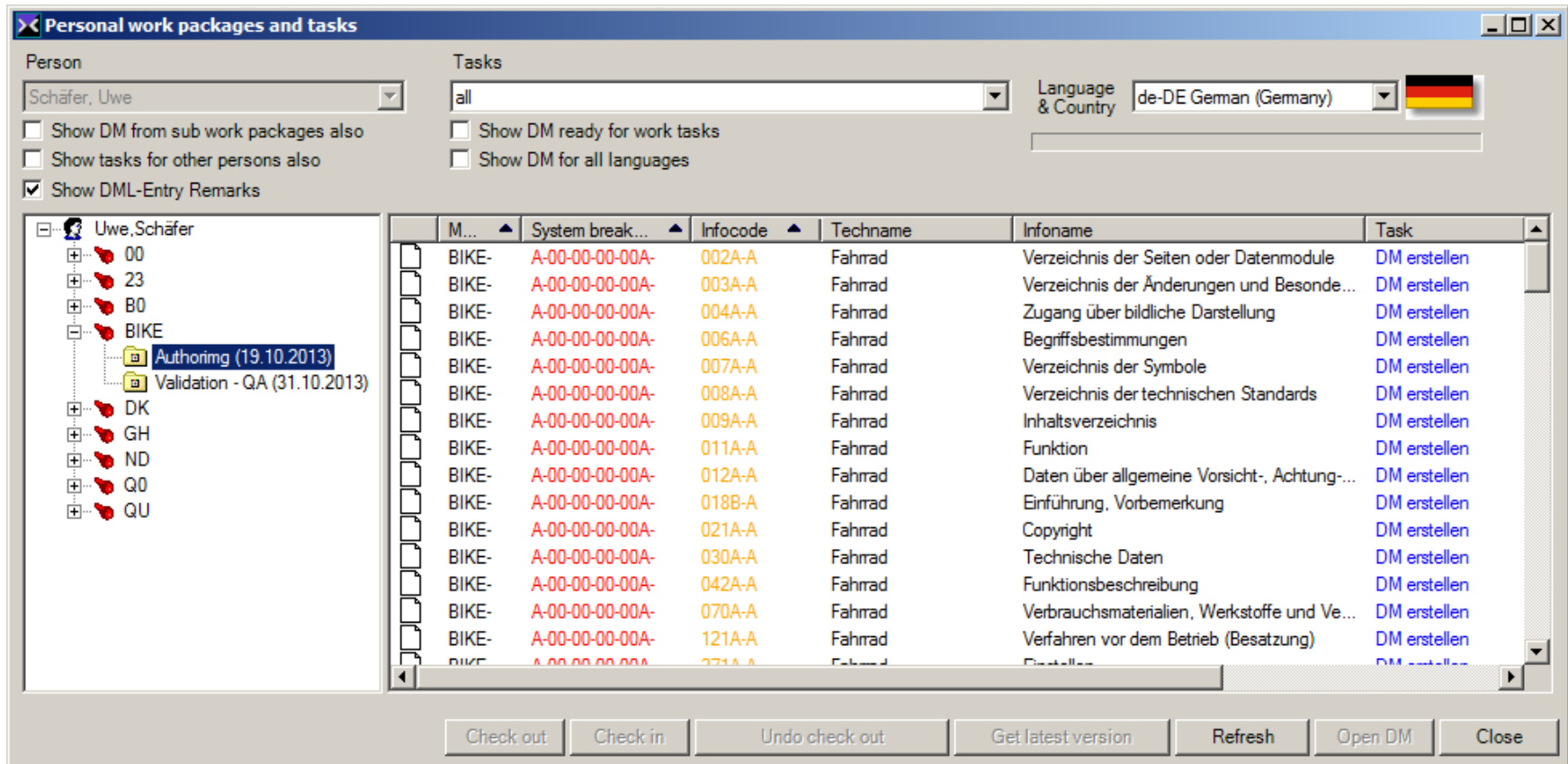
How to define a publication

- ▶ rule based structuring,
 - by breakdown,
 - information coding
 - or other
- ▶ preview of calculated structure
- ▶ output according to IETP-X for further use



How to author data modules

- ▶ work package view
- ▶ editing aids
- ▶ preview
- ▶ BREX check



Personal work packages and tasks

Person: Schäfer, Uwe

Tasks: all

Language & Country: de-DE German (Germany)

☐ Show DM from sub work packages also

☐ Show tasks for other persons also

☒ Show DML-Entry Remarks

☐ Show DM ready for work tasks

☐ Show DM for all languages

Uwe, Schäfer

- 00
- 23
- B0
- BIKE
 - Authorimg (19.10.2013)
 - Validation - QA (31.10.2013)
- DK
- GH
- ND
- Q0
- QU

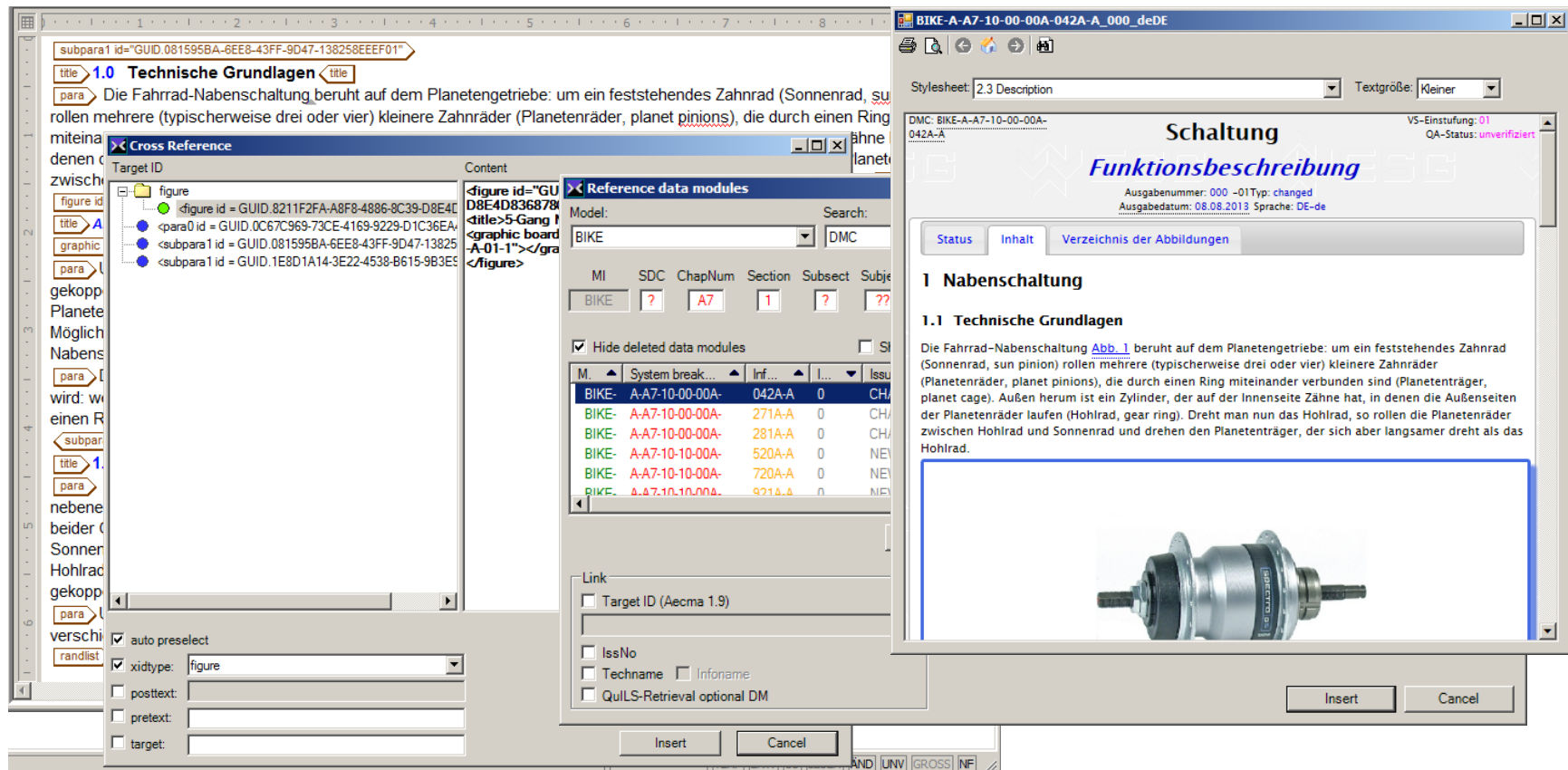
M...	System break...	Infocode	Techname	Infoname	Task
BIKE-	A-00-00-00-00A-	002A-A	Fahrrad	Verzeichnis der Seiten oder Datenmodule	DM erstellen
BIKE-	A-00-00-00-00A-	003A-A	Fahrrad	Verzeichnis der Änderungen und Besonde...	DM erstellen
BIKE-	A-00-00-00-00A-	004A-A	Fahrrad	Zugang über bildliche Darstellung	DM erstellen
BIKE-	A-00-00-00-00A-	006A-A	Fahrrad	Begriffsbestimmungen	DM erstellen
BIKE-	A-00-00-00-00A-	007A-A	Fahrrad	Verzeichnis der Symbole	DM erstellen
BIKE-	A-00-00-00-00A-	008A-A	Fahrrad	Verzeichnis der technischen Standards	DM erstellen
BIKE-	A-00-00-00-00A-	009A-A	Fahrrad	Inhaltsverzeichnis	DM erstellen
BIKE-	A-00-00-00-00A-	011A-A	Fahrrad	Funktion	DM erstellen
BIKE-	A-00-00-00-00A-	012A-A	Fahrrad	Daten über allgemeine Vorsicht-, Achtung-...	DM erstellen
BIKE-	A-00-00-00-00A-	018B-A	Fahrrad	Einführung, Vorbemerkung	DM erstellen
BIKE-	A-00-00-00-00A-	021A-A	Fahrrad	Copyright	DM erstellen
BIKE-	A-00-00-00-00A-	030A-A	Fahrrad	Technische Daten	DM erstellen
BIKE-	A-00-00-00-00A-	042A-A	Fahrrad	Funktionsbeschreibung	DM erstellen
BIKE-	A-00-00-00-00A-	070A-A	Fahrrad	Verbrauchsmaterialien, Werkstoffe und Ve...	DM erstellen
BIKE-	A-00-00-00-00A-	121A-A	Fahrrad	Verfahren vor dem Betrieb (Besatzung)	DM erstellen
BIKE-	A-00-00-00-00A-	271A-A	Fahrrad	Einstellung	DM erstellen

Check out Check in Undo check out Get latest version Refresh Open DM Close

How to author data modules

- ▶ work package view
- ▶ editing aids

- ▶ Preview
- ▶ BREX check



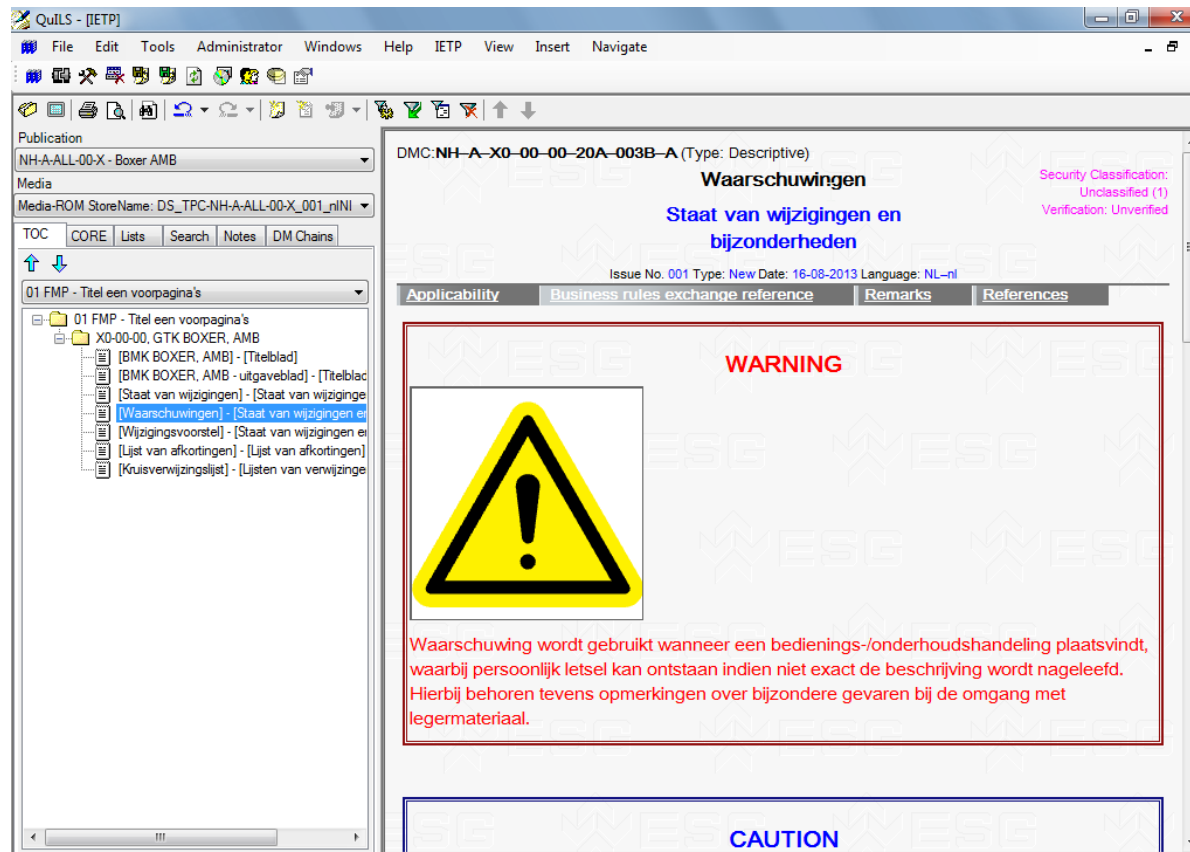
The screenshot displays the QuLS Authoring Workplace interface. On the left, a sidebar shows a tree view of the document structure, including sections like '1.0 Technische Grundlagen' and '1.1 Nabenschaltung'. The main window is titled 'BIKE-A-A7-10-00-00A-042A-A_000_deDE' and shows a preview of the 'Schaltung' (Gearbox) data module. The preview includes a title 'Schaltung', a subtitle 'Funktionsbeschreibung', and a table of contents. The table of contents lists sections like '1 Nabenschaltung' and '1.1 Technische Grundlagen'. The main content area shows a detailed description of the gearbox, including a paragraph about its operation and a photograph of the gearbox assembly. The interface also includes a 'Cross Reference' panel on the left and a 'Reference data modules' panel on the right, which lists various data modules and their relationships.

QuILS S1000D Retrieval System



How to present the information

- ▶ registers CD/DVD as ROM store
- ▶ supports multiple languages
- ▶ supports logistics processes
- ▶ calculates maintenance chains



How to get more information

Visit us at **B11**

Thank you for your attention!