

S1000D in Russia

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AeroSpace and Defence
Industries Association of Europe



Air Transport Association

Agenda

- Main Players
- Projects
- Software
- Standards
- Other

Main Players in Russian Aircraft Industry

- Russian United Aircraft Corporation  UNITED AIRCRAFT CORPORATION
 - “Russian Helicopters” Corporation
 - Russian Motor Building Corporation
 - Component Producers
- ↓
- National Aircraft Industry Association

Other Important Player

➤ Rosoboronexport

- Sole supplier of the whole range of armaments and military equipment nomenclature produced by Russian defense enterprises and authorized for export
- Supported by the Russian state providing governmental guarantees for all its export operations
- One of world's leading arms exporters



S1000D Projects performed

- Tupolev: TU204, TU214 (Civil)
- Sukhoi: SU-30MK fighters family (Mil)
- MiG: MiG-29K/KUB carrier-based fighter (Mil)
- Antonov: AN-148 (Civil, Russia/Ukraine cooperation)
- PS-90 aircraft engines family (Civil)
- Mil helicopters: MI-171, MI-17V5 (Civil/Mil)
- VK-2500 helicopter engines (Civil/Mil)
- T-72S, T-90S battle tanks (Mil)
- K36D ejection seat for aircrafts (Mil)
- Documentation of component suppliers...

The Latest Projects

➤ Tupolev: TU-204/TU-214

Twin-engined medium range airliner

- 5294 data modules (19711 A4 pages)
- 3897 figures
- about 50000 hyperlinks
- multilingual publications: Russian and English



➤ Mil helicopters: MI-17V5

Medium multi-purpose helicopter

- 2100 data modules
- about 900 figures

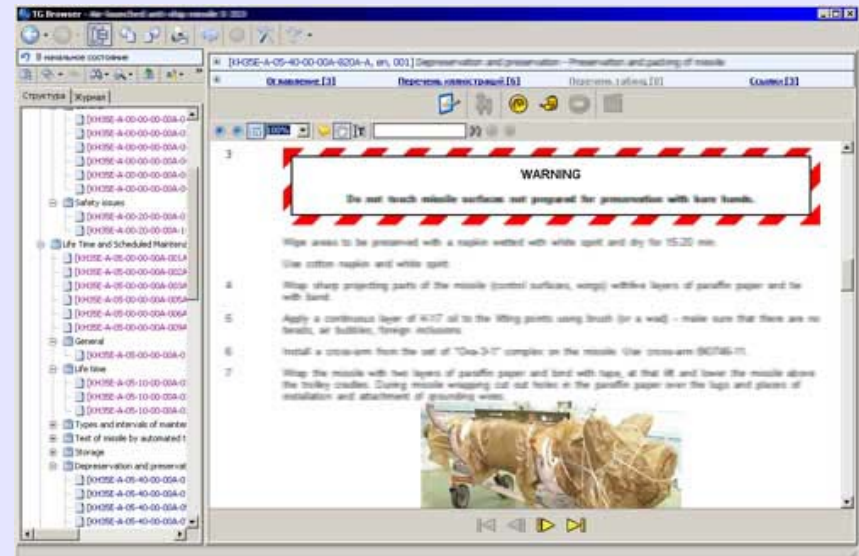
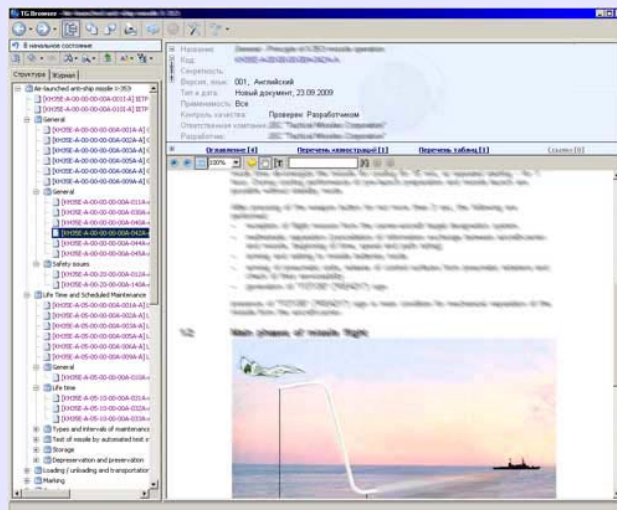


The Latest Projects (cont.)

➤ MiG: MiG-29K/KUB

Carrier-based fighter

- IETP + Paper publications for the aircraft and all components
- Multilingual publications: **Russian** and **English**
- Delivery to foreign customer



Developing Projects

- **Mil helicopters: MI-171**
Medium multi-purpose helicopter
 - Revised version of techpubs
 - over **2000** data modules
 - issue **2.3** base publications
- **Mil helicopters: MI-35M**
Large helicopter gunship
 - Initial phase
- **Tupolev: TU-214**
Twin-engined medium range airliner
 - Completely revised fault isolation procedures
 - about **800** data modules

Developing Issues

- Quality assurance
- Complete multilingual publications
- Incorporation of 3D models (developing API for 3D viewers, etc...)
- Tupolev: wide cooperation with component producers:
 - Over 40 enterprises
 - Harmonization of configuration management
 - Interaction via internet

Software - Background

- Delay of deployment of ILS software
- Analysis of existed solutions
- Shortcomings
 - Lack of support of Russian language
 - Disinterest of software vendors in updates for Russian industry
 - Very high cost of deployment

S1000D Software

➤ Technical Guide Builder™ – S1000D software suite

CSDB management

Projects, DMRL, Teamwork, Integration

CSDB analysis

More than 30 analysis types,
Batch modifications

Authoring tools

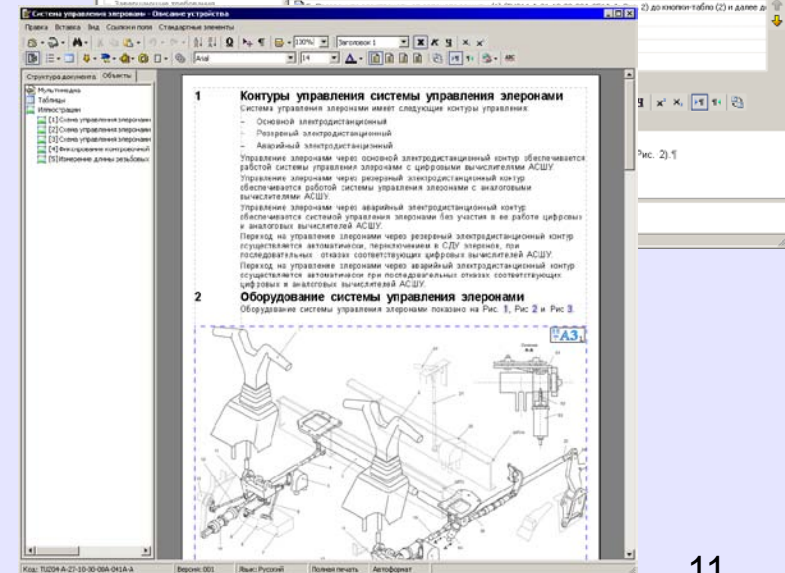
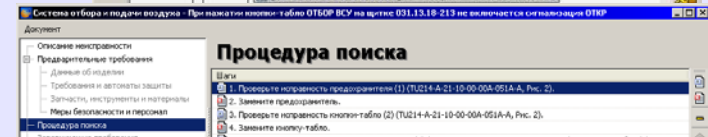
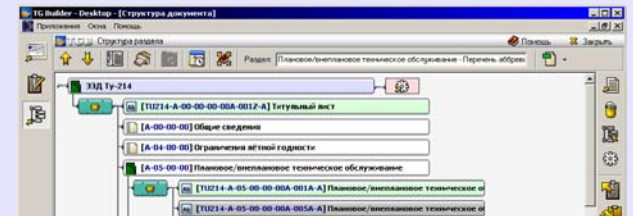
User-friendly interface,
Hide XML complexities

Paper and Interactive publications

PDF output,
Free Interactive Browser

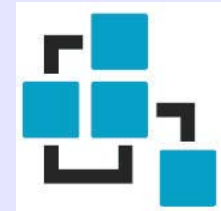
Publication security

IETP publication security
based on hardware encryption



Related Software

➤ LSS™ - Logistic Support Analysis Suite

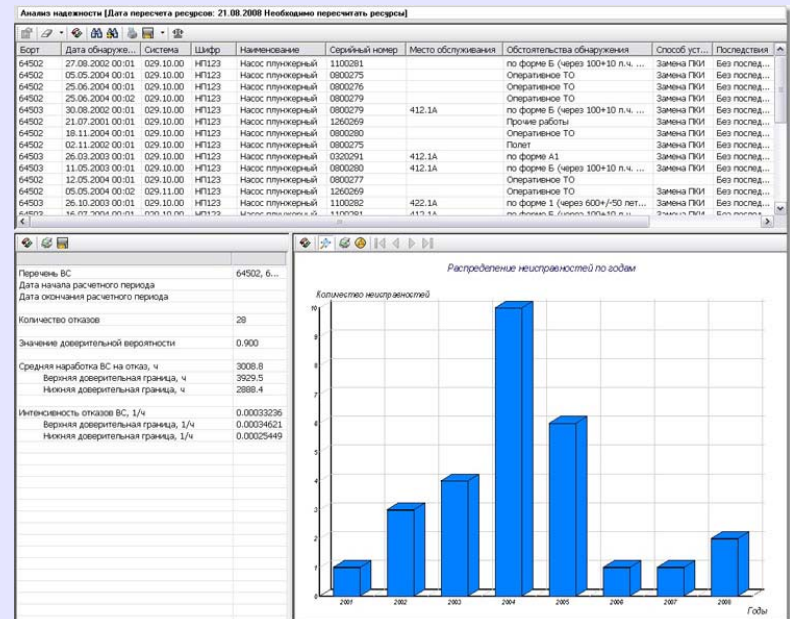
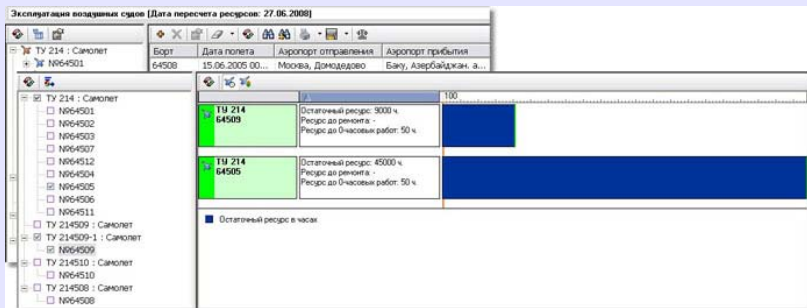


- Functional analysis of the Product.
- Development of the Logistic Structures.
- Failure Modes Effect and Criticality Analysis (FMECA).
- Calculation of recommended maintenance intervals.
- MSG3 analysis.
- Development of maintenance tasks and procedures.
- Provisioning planning.
- LSA reports and exchange files (DEF STAN 00-60).
- Generation of Illustration Parts Catalog (IPC) data for Tech Pubs development system.
- LSAR database compliant with DEF STAN 00-60.

Related Software (cont.)

➤ ATLAS™ - Aircraft Technical Logbook'n'Analysis Software

- Completeness
- Fault records
- Reliability analysis
- Operation log
- etc...



Integration

- Use the results of Logistic Support Analysis
 - Schedule DM
 - Procedural DM
 - IPD DM (for various levels of maintenance)
- Interchange data with Aircraft Technical Logbook and Analysis Software
 - Fault codes as initial data for fault isolation procedures
 - Providing information about required tasks and replaceable parts to Logbook software

National Specifications

- S1000DR – Official translation of S1000D Issue 2.3 to Russian (has status of aviation handbook).
- GOST 2.6xx series – supports modular structure
- GOST 18675 – Renewed national civil standard: “Operational and repair manuals for aircrafts and aircraft equipment” – based on S1000D specification.
- New military standard: “...manuals consist of data modules...”.

Naval Implementation

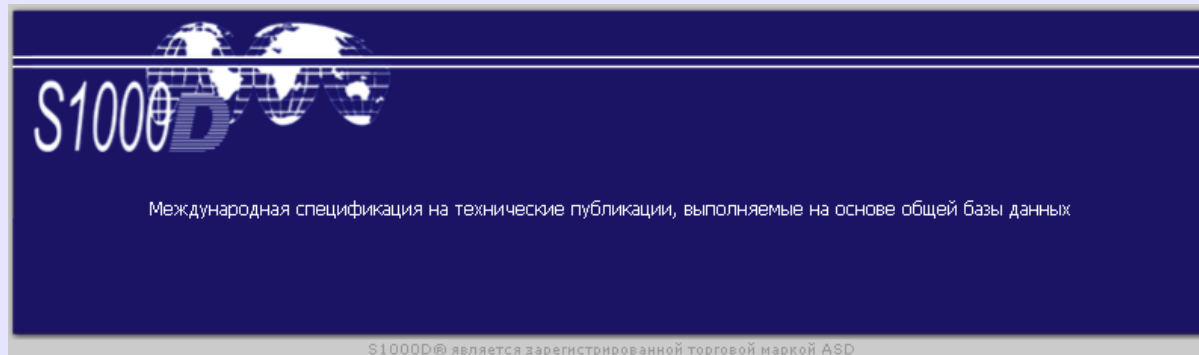
- Ship building enterprises try to form agreement with Indian side
 - Special naval implementation of S1000D has been created
 - “Common Russian-Indian requirements for technical documentation for ships, submarines and equipment”
 - Based on issue 2.3

Cataloging

- Host international conference (Sep 30 – Oct 1, 2009)
- Developed workbook: “Cataloging process of military equipment for export purposes” (approved by Rosoboronexport and Russian Ministry of Industry and Trade in July 2009)
- Work out the final rules of interaction with National Codification Bureau (based on extension of S1000D IPD DM)

National Website

- Reserved domain name **s1000d.ru**
- Current stage: preparing the materials
- Draft version at <http://www.cals.ru>





Thank you for listening!

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