

FIDES-Newsletter

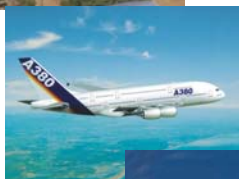
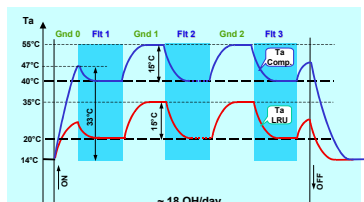
N°-1 – August 2007

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www.fides-reliability.org ?

= Some calculation tool presentations:

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WELCOME –

Here we are again with some news !

FIDES site is available about three months now (giving free access to the methodology, to a calculation tool, and many user information included).

People worldwide have been registered on the site. Every day, more and more new people consult the site and put on registration. Beginning of July, more than 200 people natives from different countries in Europe, North America and Asia are registered.

Since last few weeks, the site was enriched by the list containing the planned new models in development and models which are being improved.

The FAQ (Frequently Ask Questions) was also enriched with many additional answers and experiences?

A lot of questions, technical exchanges passed through the Forum interface and mostly through the “contact us”.

Don't hesitate to use it. But we insist on the fact that the best communication mode is the Forum that give the opportunity for everybody to debate and share its experience in FIDES. You are welcome to put on it any ideas, results, comments.


Presentation of Software tools for FIDES calculation.

In next pages of this paper, 3 software tool providers, which work on the development of FIDES calculation tools, present briefly their FIDES tool and the context of their use. Direct links to these providers could be found on FIDES web site for wider information relating to these tools and activities.

The FIDES webmaster...

...../.....

NORISKO

“FIABILITY” → An application developed by  for calculating the reliability prediction of electronic components

USE

On the basis of a product parts list and data components, **FIABILITY** calculates the reliability of a project with start hypotheses (temperature, environment). Once the project has been calculated, FIABILITY permit you easily:

To modify the calculation parameters: stress, quality factor, application, temperature, etc.

To observe: components and sub-assemblies failure rate, calculation parameters, data components,

To print result tables, graphs, sector diagrams, and histograms.

MAINS FAITURES

Presentation of calculation results in the form of a project tree structure: complex project management

Project creation: Addition / deletion, “Copy/paste” and “Save as” functions

Fast calculation using default parameters, re-calculation with real stress parameters of project and with new hypotheses (temperature and environment)

Tables results: simplified, detailed and decreasing / increasing failure rate calculations

Reliability breakdown by sub-assembly and component group

Generation of result files (TXT, XLS, HTML)

Component data base

Recently linked to the DEKRA Group in order to form the DEKRA NORISKO GROUP, the company is proud to join forces with a top European leader and has access to an extensive international network raising us to one of the world top position in our field of activity.

BQR Reliability Engineering Ltd

→ **HOT NEWS!!** Prediction Software by BQR:

BQR is happy to announce new developments! The finishing touches are being added to our standards based reliability prediction software, **FIDES-CARE**.

This software will take the MTBF analysis one step further by automatically calculating components stress thus delivering more accurate and realistic MTBF. The specificity of this new FIDES software is to simulate the applied value of the Voltage/Current/Power dissipated by components as part of the FIDES component methodology.

FIDES-CARE leverages broadest range of sophisticated algorithms and a unique approach allows designers not just to perform more accurate MTBF prediction but to alert of stressed components due to power dissipation, junction temperature and Current/Voltage violations. It compares circuit simulation results to a component's power safe operating limits and therefore identifies problematic components. It can also help designers to modify and define de-rate parameters.

Established in 1989, BQR Reliability Engineering Ltd. provides software tools and consulting services for Reliability, Availability, Maintenance and Safety (RAMS) and Integrated Logistic Support (ILS). Over the years BQR has successfully completed thousands of projects for major customers around the world.

ALD

FIDES Guide in RAM Commander by ALD

RAM Commander (nicknamed RAMCO by its users) has implemented FIDES Guide immediately with its release in 2004.

Working closely with FIDES Group on one side and with RAMCO users worldwide on the other – ALD developers succeeded in creation of an easy to use FIDES module. RAMCO FIDES module and ALD team contribute to fast dissemination of FIDES Guide worldwide. RAMCO FIDES has been successfully used by major customers whose remarks we have eagerly implemented to improve the module.

The screenshot displays the FIDES software interface. The main window is titled 'FIDES' and has tabs for 'Mission Profiles', 'Ruggedizing factor', and 'Process factor'. The 'Mission Profiles' tab is active, showing a table of mission profiles for 'Medium/long-range civil aeronautics profile of use, computer in the bay'. The table includes columns for phase name, calendar time, thermal and humidity conditions, thermal cycling parameters, and mechanical random vibration. An 'Application factor' dialog box is open, showing a table of criteria, weights, and levels.

#	Phase name	Calendar time (h)	On/Off	Amb. temp	Humidity rate	dI	Cycles/year	Cycle duration	Max temp	Random
1	Ground-operating-1	797	On	47.0	30.0	33.0	330.0	2.000	47.0	-
2	Ground-operating-2	1193	On	55.0	30.0	15.0	647.0	1.500	55.0	-
3	Ground-taxiing	84	On	47.0	5.0	-	-	-	-	5.0
4	Flight-operating	4083	On	40.0	5.0	-	-	-	-	0.6
5	Ground-dormant	2603	Off	14.0	70.0	10.0	108.0	24.000	19.0	-

#	Criteria	Weight	Levels
1	Type of user in the phase considered	20	medium level
2	User skill level in the phase considered	10	medium level
3	System mobility	4	low level
4	Product handling	15	low level
5	System power supply	4	low level
6	Product exposure to human activity	8	low level
7	Product exposure to machine interference	3	low level
8	Product exposure to bad weather	2	low level

About RAM Commander: First released by ALD Ltd. (www.aldservice.com) in 1990, RAM Commander covers the entire scope of tasks necessary for comprehensive Reliability and Safety Analysis of complex systems. (<http://www.aldservice.com/products/ramcom.html>).

About ALD Group:

ALD Group (since 1984) is a worldwide provider of Reliability and Safety Service, Software, and Training. Headquartered in Tel Aviv, Israel, A.L.D. Group has subsidiaries in USA and Israel and representatives in Europe, USA and Asia. For more info: support@ald.co.il

➔ Next FIDES-Newsletter (N° 2) will be published by November 2007

(End of News)