ASKM «Progress»

Breakthrough Integrated Modeling Technology
influence of external influencing factors
for aviation electronic equipment

2020

www.askm-progress.com

What is ASKM «Progress»?

- **ASKM "Progress"** is a replacement of KAREA electronics testing by computer simulation for external thermal, mechanical, electromagnetic and other influences even before its manufacture. This is a significant savings in money and a reduction in the time for creating equipment, while improving quality and reliability by reducing the number of tests.

- The modeling is carried out on the basis of the Automated System for Assuring the Reliability and Quality of the ASKM "Progress" Equipment (www.askm-progress.com)

What ASKM «Progress» does?

DEVELOPMENT stage

Technology "ASKM" Progress "
allows you to solve 3 main problems,
existing in the development of modern
Aviation radio-electronic equipment (KAREA):

1. the problem of preventing possible CAEA failures during operation at the early design stages;
2. the problem of reducing the time and costs for designing CAREA;
3. the problem of document flow automation and the creation of an electronic model of CAREA within the framework of CALS technologies

OPERATIONAL stage

Technology "ASKM" Progress "allows:

1. manage safety risks, including assessing risks and developing measures to reduce them;
2. optimize the system for collecting and processing BP data;
3. ensure data protection for the power supply;
4. analyze data on power supply and identify hazardous factors;
5. diagnose damaged equipment

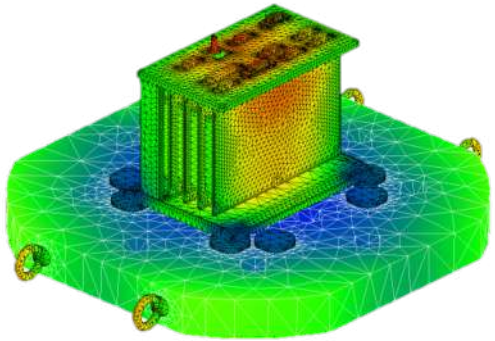
Save your money and a reduction in the time needed to create equipment while improving quality and reliability by reducing the number of tests

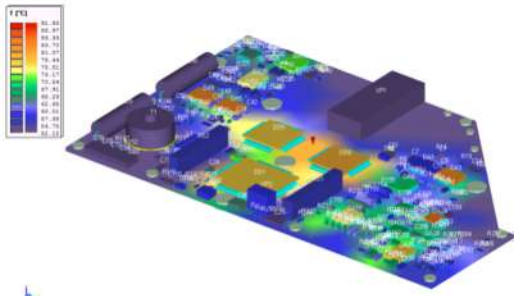
ASKM «Progress» components

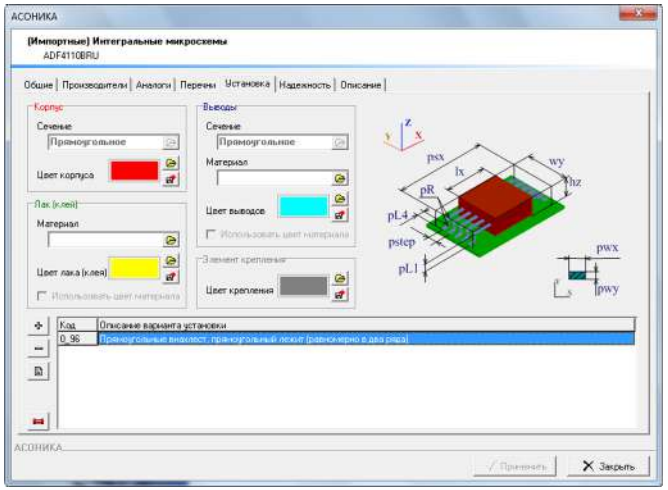
ASKM «Progress»

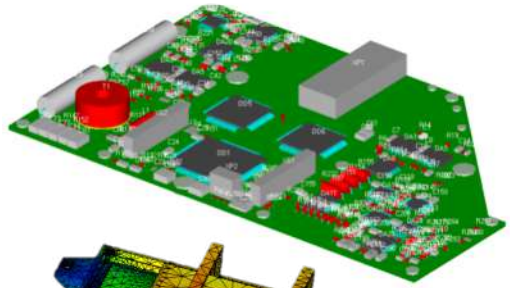
ASKM "Progress" includes:

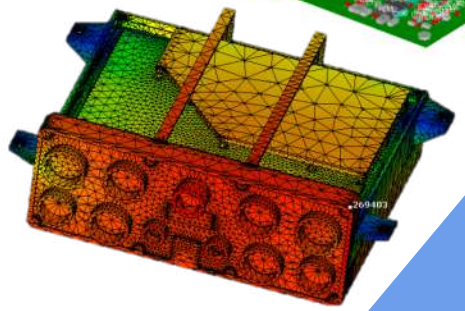
1. 13 interconnected subsystems of the ASKM "Progress" system;
2. modeling of mechanical, thermal, electromagnetic processes;
3. reliability calculation;
4. formation of maps of operating modes;
5. database.

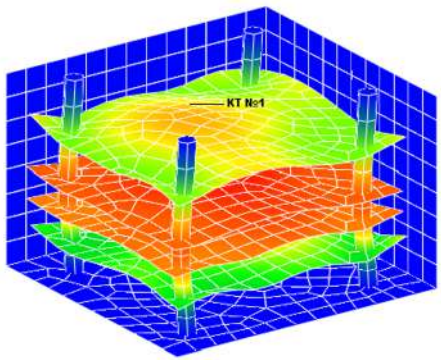


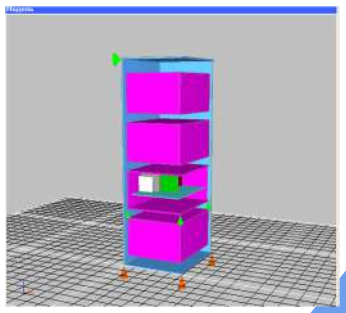








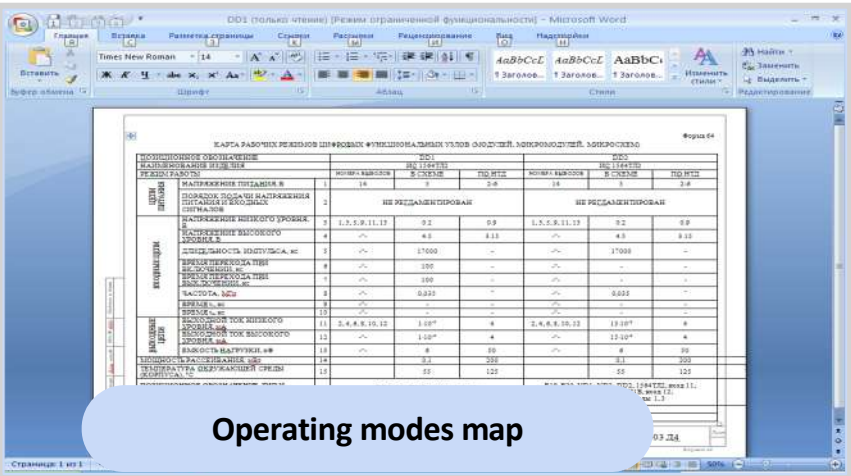




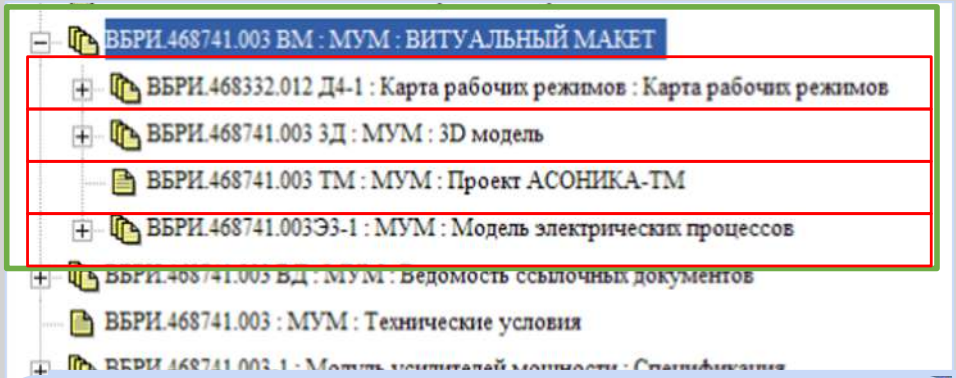
Technology "ASKM" Progress" consists of 13 components

1. **ASKM-T:** modeling of thermal characteristics with arbitrary design in SAREE
2. **ASKM-M:** modeling of typical structural blocks with mechanical effects design in SAREE
3. **ASKM-M-CABINET:** modeling of typical cabinets and racks with mechanical effects design in SAREE
4. **ASKM-M-3D:** modeling of arbitrary structures of SAREE and chips, created with ProEngineer, SolidWorks and other CAD-systems with formats of IGES, STEP and SAT, with mechanical and heat transfer designs, including cyclic effect and fatigue strength analysis
5. **ASKM-ID:** identification of physical and mechanical parameters of SAREE models
6. **ASKM-V:** modeling of mechanical characteristics of SAREE with vibration isolators
7. **ASKM-TM:** modeling of printed circuit boards with thermal and mechanical effects design in SAREE
8. **ASKM-R:** automated filling cards of electronic components operating modes
9. **ASKM-B:** analysis of reliability of SAREE based on real modes of electronic components
10. **ASKM-UST:** analysis of fatigue design of printed circuit boards and electronic components under mechanical effects
11. **ASKM-EMC:** modeling of electromagnetic compatibility in SAREE
12. **ASKM-DB:** electronic components and materials reference database on the geometrical, physical, mechanical, thermal, electrical, electromagnetic and reliability parameters
13. **ASKM-UM:** modeling management of the design in SAREE

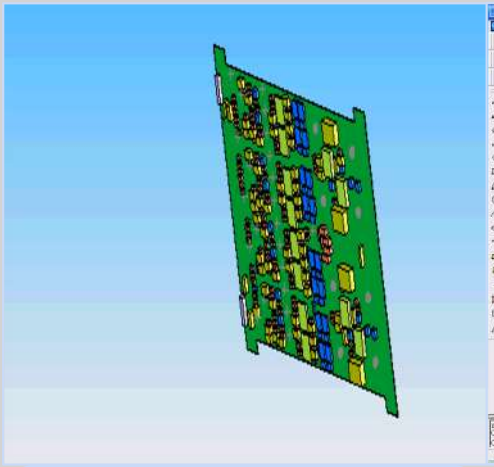
Example of a virtual model



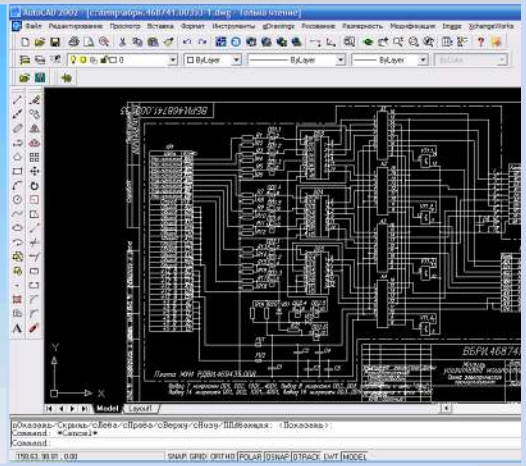
Operating modes map



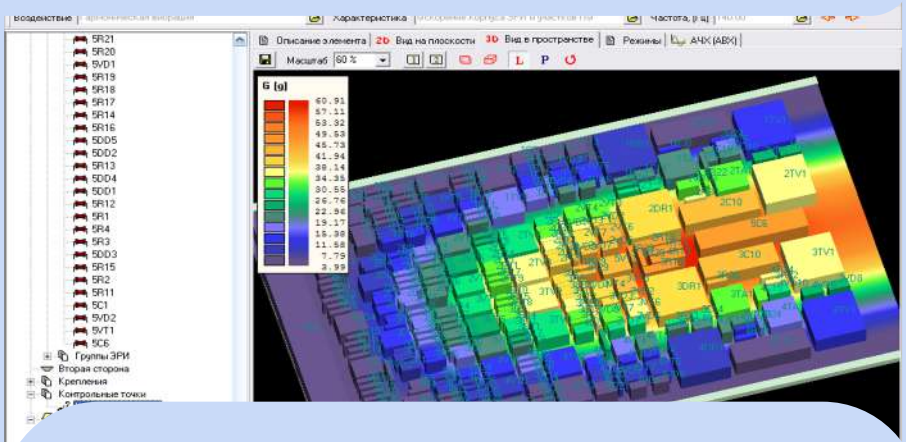
Project documentation in the PDM system



3D model



Model of electrical processes



The results of a comprehensive analysis of physical processes (part of the analysis of the field of mechanical accelerations is presented)

ASKM «Progress»

About company

Limited Liability Company "ASKM" Progress "(LLC" ASKM "Progress")
was created in 2016 to develop and promote the breakthrough technology "ASKM" Progress ".

LLC "ASKM" Progress "- winner of the competition" Aircraft Builder of the Year "
at the end of 2017 in the nomination "For contribution to the development of the regulatory framework in aviation and aircraft construction".

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General director
Ilyin Sergey Aleksandrovich

ASKM «Progress»

International development

ASKM «Progress» participates in the activities of international consortia:

1. Consortium NTS («National Technological Standards»)
President: Ilyin S. A. (Ilyin S.A. is the executive secretary of TC 165 of Rosstandart of the Russian Federation.)

2. Consortium ENAT
International Consortium for Ensuring the Reliability of Aviation Equipment in Civilian Industries
President: Ilyin S.A.

3. MNOC KVAZAR
Consortium «International Scientific and Educational Center «KVAZAR»
President: Vlasova I. N.

4. International Consortium for the development of robotic systems in civilian industries
President: Ilyin S. A.

In 2020, «ASKM «Progress» LTD became a supplier in the UNITED NATIONS Global Marketplace

ЭНАТ ENAT

МНОЦ КВАЗАР

UNITED NATIONS

How you can get ASKM «Progress»?

1. Connect with our representative office in your country and ask your questions
2. Choose method of education:

	Method 1	**Method 2**
Software	software license + key (free)	software license +key (free)
Type of education	online, distance (payed)	in your country, your place (payed)
Time	from 1 day (6-8 hours)	from 1 day (6-8 hours)
Price for 1 person	from 300 $	from 300$ (not incl. transfer expenses) + transfer expenses

3. Sign the contract with country manager or representative office
4. Get your knowledge

Also we can do special course for you!

Want to become our partner?

Open the training center - «International Scientific and Educational Center» or become our representative office in your country

and

develop education on breakthrough technology in your region

From our side:	**From your side:**
License on software + key Teachers Education process Helping in country strategy and all business-process	Office for training Clients Helping in organization visits of teachers if clients want to receive education on their territory