



## The new RAMSIS generation

### Trend-setting impetus for interior design

#### YOUR BUSINESS FIRST

##### The new route in automotive ergonomics

Thanks to RAMSIS Automotive, the industry has achieved greater efficiency and significant time savings. RAMSIS NextGen exceeds these values by far – with automation and much more flexibility for companies and users.

The technological quantum leap made by the RAMSIS software is based on a complete system core, user interface and infrastructure redevelopment, which has achieved an emphatic expansion of functionality and performance. This also has led to more flexibility and easier operation in the implementation of ergonomic studies. To facilitate the introduction, the model-related data of the existing RAMSIS installation can be transferred to RAMSIS NextGen for further use, so the introduction of the new version can therefore take place step-by-step, taking into account all the working processes.

Your advantages –

- > Up to 50% performance increase in analyses
- > Definition and selection of realistic test samples
- > Optimal cooperation in a project
- > Comparability of all results
- > Easy configuration and upgrade options

#### THE NEW RAMSIS GENERATION

##### More efficiency in interior design

With RAMSIS NextGen, all your relevant ergonomic studies can still be carried out precisely – like your space requirements for posture and movement in the vehicle, comfort in operation, view/mirror view, belt routing, the necessary force required for certain tasks, reachability of controls and visual perception of information.

There is one important difference, however: The new RAMSIS generation requires *less effort* to achieve the *same results*. This is made possible by the parallel processing and execution of analyses and the reusability of definitions and data – so far fewer interaction steps are needed for each study and examination. And there's another big advantage

too: Thanks to standardization, the results of different studies are directly comparable.

#### SYSTEM MODERNIZATION

##### Flexibility thanks to modular design

One key innovation of RAMSIS NextGen is its modular system structure which brings important advantages for users: Installations, for example, can be tailored to individual applications and additional content and functions, such as new posture or movement models can be integrated much more easily. Customer-specific developments can also be carried out flexibly and effortlessly integrated.

In addition to the four basic building blocks – Framework, Ergonomics, BodyBuilder and Project – a number of optional software modules are also available. These extend the use of RAMSIS to include additional applications like the simulation of belt run for real occupants and test devices ... so RAMSIS NextGen can create a whole new functional landscape.

##### New operating concept

The graphical user interface of RAMSIS NextGen is much clearer and more interactive – and it can be individually customized by companies and users alike. These individualizations include standards, such as user-defined toolbars, context-sensitive menus, working in up to four parallel views and the integration of geometries using drag and drop.

#### PROJECT SUPPORT

##### Optimal cooperation in a team

RAMSIS NextGen is a team player – and a total innovation has been developed to this end: the project module. It provides a project-oriented perspective into modern development and supports the individual configuration of studies. This is especially valuable in the introduction of new concepts: projects, test samples, test samples filters, studies and roles can be transferred and easily customized. So any external ergonomics documentation becomes almost superfluous, because all parameters are integrated into the company-specific process flow, directly and interactively.

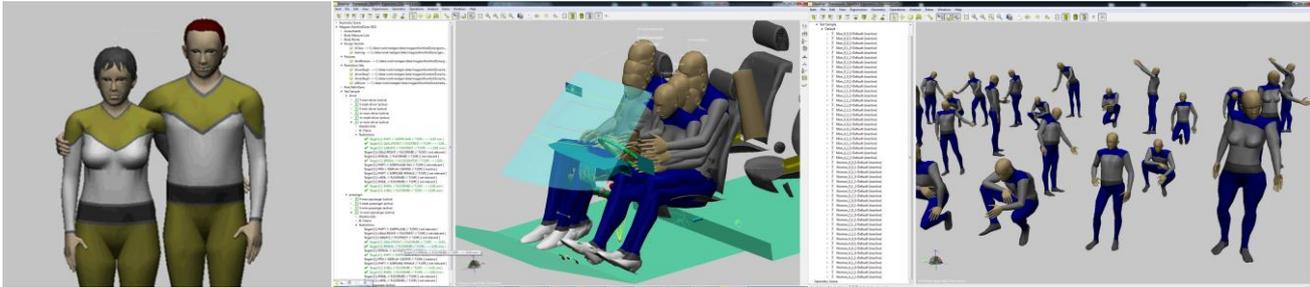


Fig. 1: Enhanced body shape and optics:

Fig. 2: Analyses for entire and partial test samples

Fig. 3: Test samples

## HUMAN MODELING

### Role-based attributes

The next revolutionary change in RAMSIS NextGen is the simultaneous deployment of a variety of manikins for one or more user areas. Instead of using only one model, a vehicle can be fully manned with test samples of drivers and passengers. Role combinations are also possible, such as men and women as drivers and passengers, as well as men, women and children as passengers in the second or third row of seats. Here each role knows its specific H-point position and its typical posture and motion models for the relevant tasks.

The operation also targets efficiency gains: Using Special Copy/Paste, specific definitions can be simply transferred from one manikin to several others.

### Enhanced body shape and optics

The male and female RAMSIS models in RAMSIS NextGen have been given an improved and extremely realistic body shape. The models were revised based on high-precision, whole-body scans from the SizeGERMANY serial measurement program. Combined with advanced visualization options like the texturing of the model, the results of ergonomic studies can be presented clearly and attractively – so building a RAMSIS model family is now possible!

### Advanced hand anthropometry

The additional body measurements of the SizeGERMANY serial measurements also allow a specific adaptation of hand geometry. It is designed for sheer efficiency, especially in reachability and usability analyses.

### Combination with iSize Automotive

Test sample pools can be specifically put together. In combination with the world's leading body dimension portal iSize. iSize Automotive integrates data from multiple serial measurement programs and ergonomic databases, providing 22 measurements for vehicle ergonomics in sitting and standing positions – in compliance with ISO 7250. 200,000 international test subjects from Germany, France, USA, China, Japan and Korea are already integrated – and Italy has now been added to that list. Here again there are comprehensive selec-

tion options – either by profiles or percentiles based on socio-demographic or ergonomic target groups, or by markets.

## ERGONOMIC ANALYSES

### Analyses for entire and partial test samples

Thanks to the simultaneous consideration of several manikins, RAMSIS NextGen enables full coverage of the population to be considered for the development at hand. In this way, all analyses for the ergonomic interior design of a vehicle model can be consistently applied to the entire test samples, or used for a specifically-targeted selection of manikins.

### Process orientation and automation

Standardized design optimization procedures can be automated by means of various mechanisms – either in the form of the study concept, through macros or by means of user-defined functions. This means that the creation of individual results is not only efficient and reproducible, but also comparable with other analyses in RAMSIS NextGen.

## USING RAMSIS NEXT GENERATION

### Switching to the new generation

RAMSIS NextGen supports the XP, 7 and 8 Windows platforms. To ensure workflow continuity, the model-related data from RAMSIS 3.8.X and RAMSIS in CATIA can be imported and used again when you switch to RAMSIS NextGen. The RAMSIS NextGen optimization – especially in the RAMSIS model itself – may result in slight deviations from the previous study findings.

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