



## RAMSIS VirtualAging Module

Optimal product design for older target groups – vision & movement

### YOUR BUSINESS FIRST

#### Seniors as a target group

The level of senior citizens' purchasing power is high. RAMSIS VirtualAging now supplements the existing analysis options in RAMSIS, and this important target group can now be better addressed in product development. The result is an optimal ergonomics package for Best Agers aged between 50 and 70.

Comfort and safety requirements change significantly with age. Vision and movement in particular are often restricted. The new RAMSIS VirtualAging module takes these restrictions into account in the ergonomic product design for the older generations. It shows the optimum adjustment ranges of the seat and steering wheel, for example, the arrangement of switches and displays and the operating forces required for pedals and levers. This module supplements the existing RAMSIS force and body dimension analysis options for the new 'Best Ager Generation.'

RAMSIS VirtualAging is based on scientific findings and field research from the VirtualAging research project. Humanetics Digital Europe GmbH carried out this project together with partners from the industry and research sectors to provide tools for age-appropriate work and product design.

#### Your advantages

- Ergonomic interior design, also for customers aged 50-70 years
- Expansion of the existing RAMSIS process
- Age-appropriate adjustment of operability and comfort

### AGE DEMOGRAPHY IN PRODUCT DESIGN

#### Simulating the movement of seniors

The results of research in the VirtualAging project showed that joint angle restrictions occur in older people. This affects reachability and the seating position. That's why RAMSIS VirtualAging has been designed to expand its existing mobility data by precisely these restrictions.

In the analysis, RAMSIS VirtualAging resolves this in a way that is clearly visible for the user: The reachability envelopes

of 'older' RAMSIS manikins become 'smaller', so controls that are further away are less easily reached. Changes in seating positions are also addressed.



Ergonomic vehicle design in the customer segment of 50-70 year-olds

#### Addressing changes in vision

Age-dependent differences in visual acuity and accommodative capacity can already be examined with RAMSIS. RAMSIS VirtualAging specifically expands the analysis functions to include age-related limitations in vision and the time required for optical focusing (gaze changes).

#### Determining the amount of age-related force required

Operating forces are also a critical point when using a vehicle or other products. The age-related calculation of the maximum forces that can be applied is already 100% possible in RAMSIS.

### RAMSIS VIRTUALAGING IN THE DEVELOPMENT PROCESS

The RAMSIS VirtualAging module is integrated into RAMSIS NextGen, the leading software for ergonomics simulation. It is also available for CATIA V5, 3DEXPERIENCE and Siemens NX.

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