Application Areas

Production Planning / Industrial Engineering
The holistic planning approach (combination of classic factory planning, time management, MTM/REFA, waste analyses, value added determination, simulation of automation, cycle time diagrams, etc.) enables the use of:

- Determination of optimal use of personnel and resources
- Virtual continuous improvement process (CIP)

Integrated Ergonomics
By means of a semi-automatic ergonomics evaluation with EAWS (further procedures such as OCRA and NIOSH in preparation), physical stress factors (posture, forces, loads) can already be taken into account in the planning phase and work processes can be ergonomically designed:

- Compliance with legal and operational requirements
- Through human-compatible workplace design
  Ensuring the value-adding deployment of employees for
- Highest quality and productivity
- Reduced absenteeism due to ergonomic workstations
  Ergonomic design of machines and plants considering different body sizes according to DIN EN 33402-2

Human-Robot Collaboration
The integration of (partial) automation, time management and occupational safety as well as features such as automatic collision detection and safety assessment, enable:

- Qualified predictions of economic efficiency in the concept phase
- Optimal planning of HRC stations under practical conditions
- Early protection against professional associations and works councils
- Reduction of commissioning costs

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**Digital Human Model** according to DIN EN 33402-2 including process and task editor

**Libraries** for objects, robots, tools and tasks,

**3D data compatibility** - Integration of data for products, layouts, objects and motion capture,

**Production planning**
- Standardized process description and process language
- Interpretation of commands “Pick up and place object” “Pull or push object”
- Automatic motion generation

**Visualization** of manual activities and HRC processes, Simulation of manufacturing and assembly processes

**Plausibility and process assurance**
Integrated task editor, Picture in picture egoperspektive

**Detailed presentation of valid planning results**
- Semi-automatic time analysis
- Virtual ergonomics evaluation
- Integrated value added determination
- Route, cycle time and dependency diagrams
- Export of motion and analysis data

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