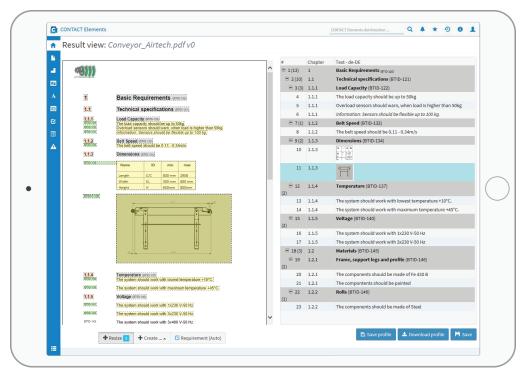
# Requirements engineering





Increasing numbers of variants, ever-faster changes, shorter product lifecycles and the growing proportion of software are giving rise to a continual increase in product complexity. In view of the large number of product requirements and the mutual dependencies between the components, systematic requirements management is crucial. With CONTACTRequirements Engineering, you can get to grips with even complex requirements: from reading out customer specifications to collaborative implementation and verification through to traceability and change control. Use requirements as a compass for product development and thus master the product lifecycle.



Even complex requirements structures can be imported directly from PDF documents for example

## Monitoring and documenting requirement lifecycles

Requirements Engineering, a standard component of the CON-TACT Elements platform, allows you to manage large requirement portfolios with ease. Record and monitor new requirements and changes during the development process the most efficient way possible. The integrated audit trail documents all changes automatically and allows them to be traced in detail.

#### Automatically reading out and processing requirements from Office and PDF documents

Record requirements – for example from your customers – by automatic importing them from MS Word, Excel, PDF or ReqIF sources. Use attractive, rich text layouts for your own or import-

ed data. Use your own templates, taken from departmental or company-wide libraries, to systematically structure and clearly present your requirements. You can also compare different versions much faster thanks to automatically highlighted differences.

#### Clearly displaying relationships between requirements in the virtual product model

Semantic Links enables you to easily link requirements to each other and to other objects such as components or tasks. The resulting link graph visualizes these interrelations and helps you recognize and evaluate the impact of changes in advance. Filters and navigation functions help keep track of complex projects in particular.



#### Monitoring the degree of fulfillment and taking corrective action

CONTACT Requirements Engineering allows you to plan and monitor requirements and the degree to which they are fulfilled, both as objects in their own right and in conjunction with tasks from the project schedule. Requirements that have been fulfilled can be recorded either manually or automatically – for example the proportion of certain materials for compliance with RoHS. Clearly structured charts indicate the degree to which requirements have been fulfilled. If there are any significant discrepancies, you can take countermeasures and keep track of their effectiveness without any need for separate additional tools.



### Providing practice-oriented support for systems engineering

Requirements Engineering supports development in accordance with the enhanced V model. End-to-end, requirements-driven development is a crucial lever for systems engineering and model-based systems engineering (MBSE). The result is transparency, traceability, compliance and reliably achieved objectives throughout the entire development process and across the individual disciplines such as mechanical engineering, E/E and software.

#### Advantages for enterprises and employees

- Automatically monitor and document requirement lifecycles
- Automatically read out Office and PDF documents and process requirements
- Clearly display relationships between requirements in the virtual product model
- Directly monitor the degree of fulfillment and corrective measures
- Implement systems engineering reliably according to the V-model and other methods

## energizing great minds