



## SAFETY TECHNOLOGY

# SAFEGRID 1.1

SAFEGRID is the grid-based parameterization tool for safety-relevant devices with fixed and predefined safety functionality.

### SAFETY-RELATED PARAMETERIZATION WITH SAFEGRID

Safety-related parameterization tasks are required in various applications, such as safe drives, safe fieldbus protocols, multi-functional safety relays or safe sensors. Here, the safe parameterization must fulfill all safety requirements reaching from user interface concerns up to the processing of the parameters. In these cases, KW-Software's SAFEGRID, already certified by TÜV Rheinland, presents itself as the suitable tool. SAFEGRID is approved as user interface for PC-based software applications according to IEC 61508 up to SIL 3. The following application cases are supported:

- Parameterization of several devices via one bus system
- Parameterization of an individual (standalone) device

Via a customer-specific adapter, SAFEGRID is integrated as ActiveX Control into a new or existing software application (.NET or Win32) and is used for the parameterization of safety functionality. Its contents are provided individually to SAFEGRID by means of customer-specific device descriptions in any format (preferably XML). This way, SAFEGRID can be expanded easily and independently from KW-Software by new safety modules, parameters or national languages.

### MODE OF OPERATION

In SAFEGRID, the user selects a safety function for a device and edits the related parameters. Then, SAFEGRID creates a parameter set (byte stream) in accordance with the definition given in the device description. This parameter set can be transferred to the safe module by the frame application, for example via an existing communication interface (e.g. TCP/IP). The parameter set activates the safety function that is firmly implemented and certified by the manufacturer. Due to the innovative multi-level safety concept of SAFEGRID according to IEC 61508 up to SIL3, a subsequent confirmation of the input data by the user is made superfluous.

### FEATURES

SAFEGRID provides a number of useful features that support the comfortable parameter input in a sensible way. The most important features are:

- All parameters can be divided into groups. Parameters can be displayed in groups or "group-spanning".
- A graphic can be assigned to each parameter group which is displayed when the group or a parameter belonging to the group is active.
- SAFEGRID is able to handle selection parameters (1 from n) as well as numeric values.
- Dependencies between parameters can be implemented. For example, a particular parameter is activated or deactivated when using another particular parameter.
- SAFEGRID distinguishes Standard, Advanced and Commissioning parameters. The classification can also be assigned to user groups.
- Tooltips for each parameter can be defined in the device description file.
- Immediate verification of entered values already during data input and display of validity by color marking of the affected parameter in the user interface.
- Import and export of individual parameter groups or all parameters for reuse.
- Reading back of created parameter sets from the safety-related automation device.
- SAFEGRID recognizes manipulated device descriptions.

## SAFEGRID SYSTEM SPECIFICATION

PC system	Processor	Min. Pentium 500 MHz (recommended: Pentium 1 GHz)	
	RAM	Min. 128 MB (recommended: 256 MB)	
	Hard disk	Min. 10 MB free memory	
	Operating systems	Windows® 2000 or Windows® XP	
	Mouse	required	
System limits	Max. number of parameters per device	300	
	Max. length of parameter set	4096 bits	

## SCOPE OF DELIVERY

- Software on CD ROM
- License agreement for SAFEGRID
- SAFEGRID Integration Guide
- Interface specifications
- Possible additional support for BGIA and/or TUEV certification

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