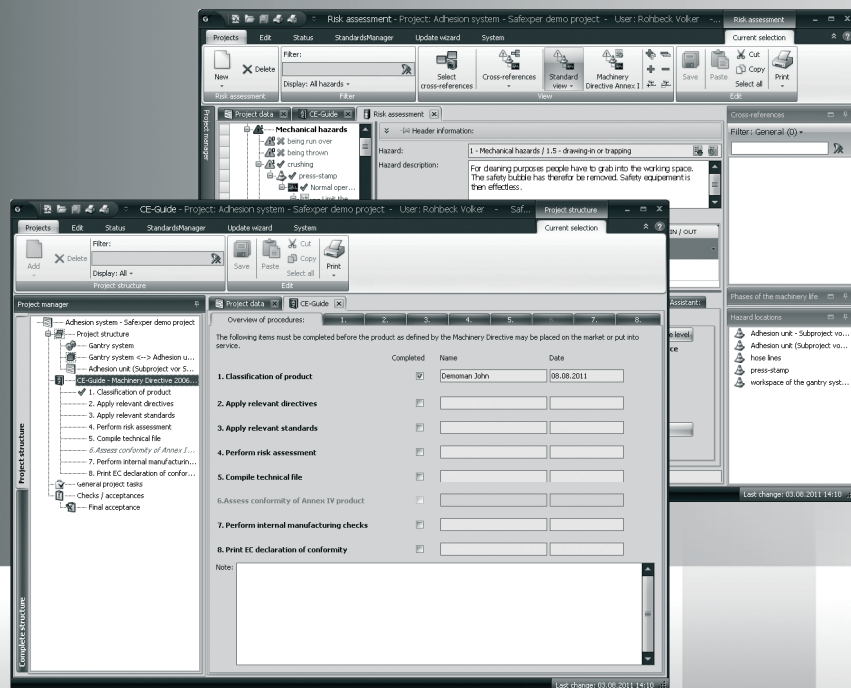


## Safexpert

Software safety engineering of machines and constructions



## **Imprint**

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# 1 User Notes

## 1.1 Structure and Content of this Manual

The structure of the manual is based on the program structure of Safexpert and provides an overview of applicability and functions of Safexpert.

To maintain a clearly arranged manual, every effort was made to omit the description of unnecessary details. Instead, efforts during the development concentrated on providing self-explanatory menu and function descriptions as well as an intuitive user interface.

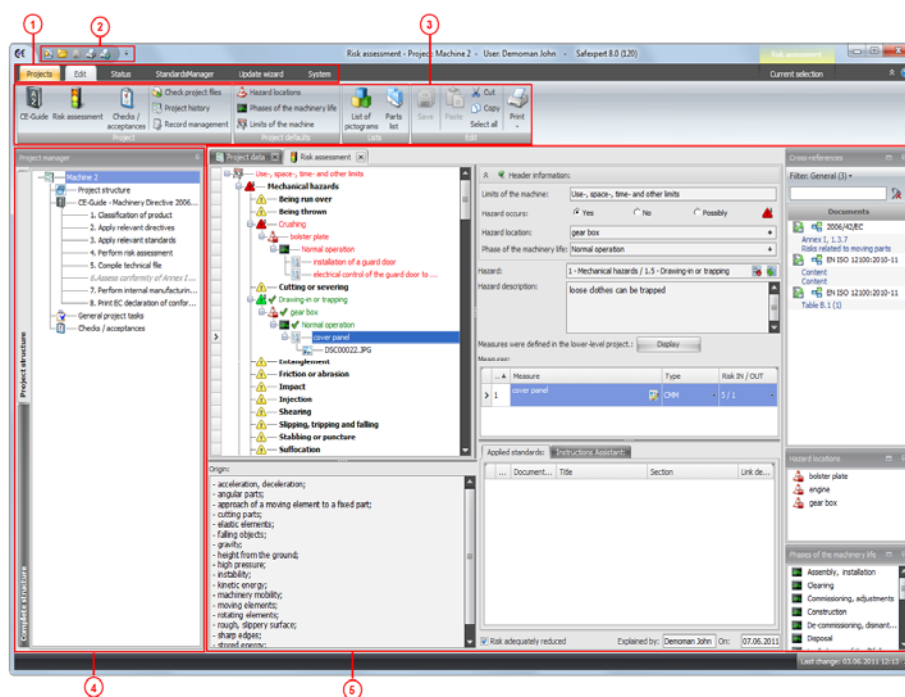
At various locations, the Safexpert information system  provides advanced information or links to standards or other text passages if you move the mouse pointer onto the symbol (see also 1.2.5).

In addition, Safexpert contains a context-dependent help system. Pressing the function key F1 calls up a corresponding section in this manual.

Please notify us if the information provided does not allow an efficient use of Safexpert.

## 1.2 User interface

To provide an operation that is as intuitive as possible, Safexpert features a state-of-the-art user interface with the following elements:



Safexpert user interface

- (1) **Main menu**
- (2) **Toolbar for quick access to certain functions**
- (3) **Multifunction bar:**  
Contains groups with commands or functions
- (4) **Project manager**  
Control centre and overview of the project status



- (5) Project tabs with various data for the opened project, e.g.:
- Project data
  - CE guide
  - Risk assessment
  - Check and acceptance assistant
  - Instructions assistant
  - List of pictograms
  - Detailed information about a "part" integrated in the structure
  - Protocol management

---

### 1.2.1 Toolbar for quick access

You can customise the **Toolbar for quick access** via the context menu.

The settings are stored user-based.



*Toolbar for quick access*

#### Adding functions

On the multifunction bar, right-click on the function to be added and select the option **Add to toolbar for quick access** from the context menu.

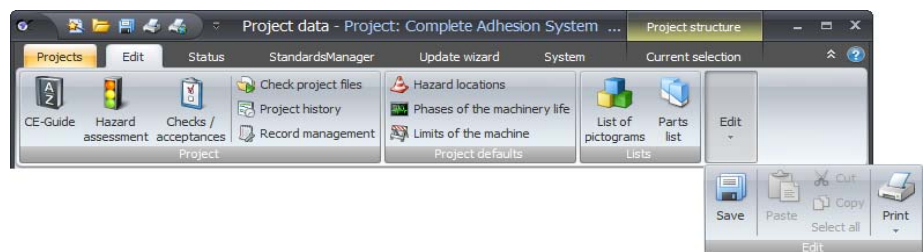
#### Removing functions

In the **Toolbar for quick access**, right-click on the function to be removed and select the option **Remove from toolbar for quick access** from the context menu.

---

### 1.2.2 Multifunction bar

Depending on the selected main menu or the selected object within a window, different multifunction bars are displayed.



*Example: multifunction bar for editing a project*

If a multifunction bar does not completely fit on the screen, it is compressed. Hidden symbols are accessible via the down arrows.

#### Hiding and showing a multifunction bar

Double-clicking on a menu item shows and hides the multifunction bar.

---

### 1.2.3 Context menus

Almost all windows display a context menu after right-clicking. The functions displayed in the context menu depend on the location of the screen where the context menu was opened.

In general, all functions are also part of the multifunction bar.

## 1.2.4 Filter functions

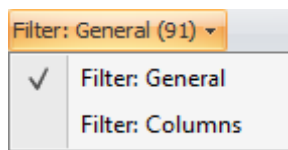
In windows in which the data are displayed in lists (e.g. in the Standards manager), two filter options are available:

- Filter: General
- Filter: Columns



Basic Safexpert filter functions

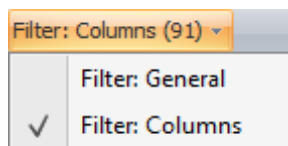
### Filter: General



A text entry in the Filter field leads to a search in all displayed columns of the table.

The number in parentheses indicates the number of hits that can be filtered again.

### Filter: Columns



An option allows entering a search text in every column heading. This allows restricting the filter to the respective column only in comparison to "Filter: General".

Click on the **Filter: General** button and select the **Filter: Columns** filter function.

### Delete filter



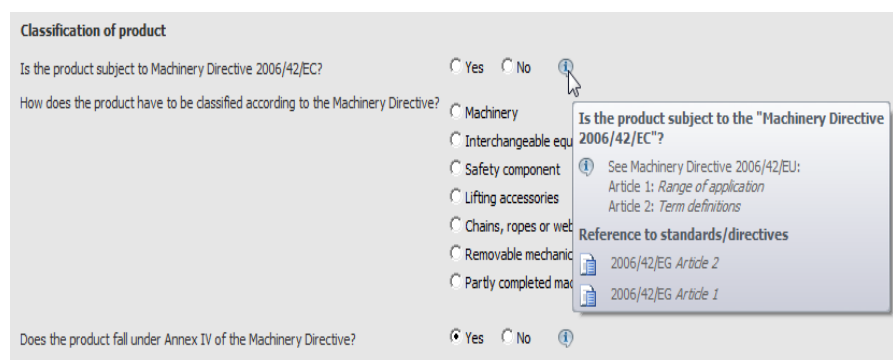
Deletes the text entry in the **Filter** field.

## 1.2.5 Safexpert information system



Safexpert offers compact information at various locations that could be of interest for processing the respective item.

To obtain this information, move the mouse pointer onto the information symbol.



Safexpert information system

The information contains explanations and/or references to text passages in standards, directives or other documents.

To jump to one of the indicated links, click on the information symbol and then on the desired link.

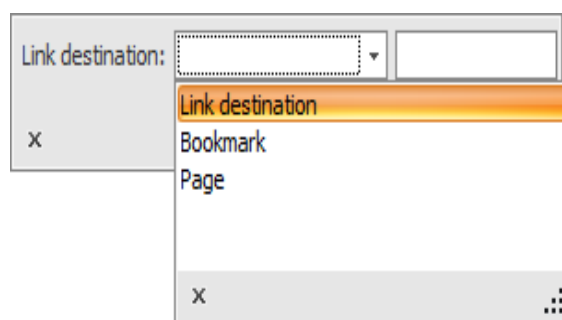
---

### 1.2.6 Link destinations to text positions in PDF documents

At various locations, Safexpert offers the option to jump to particularly important text positions within a defined document depending on selected objects. This provides users very quickly with targeted information.

For this purpose, a PDF file to be opened must be specified in Safexpert if the cross-reference is double-clicked.

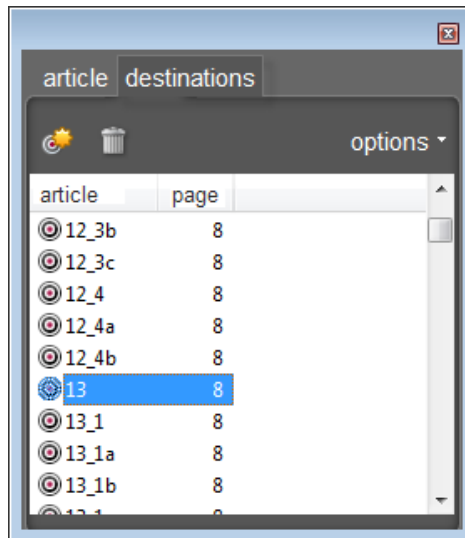
In addition, it must be defined at which position the file should be opened. Three variants can be selected for this purpose:



#### Link destination

To jump to a link destination, a named destination must be entered in the PDF file at the corresponding position.

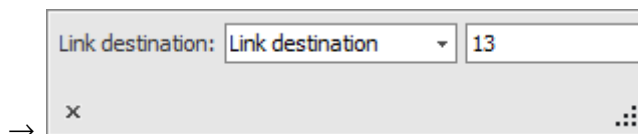
- 1 Open the PDF file.
- 2 Open the window in which destinations can be defined in the PDF document and add the desired destinations:



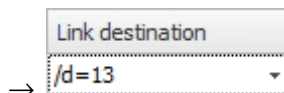
The pertinent information is located in the manual of your PDF browser (e.g. Acrobat).

**Note: This function is not available in the free version of Acrobat Reader!**

- 3 Save the PDF file.
- 4 In Safexpert, enter the same name in the Link destination field as in the PDF file:



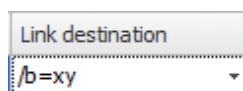
Safexpert automatically converts the entry into the format for a link destination "/d" (named destination) defined in Safexpert:



**Note: Various documents offered in conjunction with Safexpert already feature defined destinations. The links do no longer work if other PDF documents are used!**

## Bookmarks

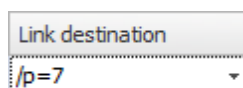
The "Bookmark" link destination can be selected if the PDF document to be jumped to contains bookmarks.



/b=bookmark

## Page

The "Page" link destination can be selected to open the PDF document on a certain page.



/p=page

Note: The link jumps to the page in the PDF file. Note that particularly European standards frequently feature national prefaces so that the page numbers in the document do not match the page numbers in the PDF.

---

## 1.2.7 Representation in tree structures

The following functions are displayed in the multifunction bar for all representations of tree structures:



This allows showing or hiding levels.

### View in the tree structure



#### Display all levels

Shows all sub-subject areas and sub-areas.



#### Hide all levels

Hides all sub-subject areas and sub-areas.



#### Expand level

Show the next sub-subject areas or sub-areas.



#### Reduce level

Hide the next sub-subject areas or sub-areas.



#### Show detail

Shows all sub-subject areas and sub-areas of the currently selected main subject area.



#### Hide detail

Hides all sub-subject areas and sub-areas of the currently selected main subject area.

---

## 1.2.8 Context-dependent help

Pressing the function key F1 calls up a corresponding section in this manual.

---

## 1.3 Abbreviations

### German

<b>GLI</b>	Gefährdungsliste
<b>QVL</b>	Querverweisliste
<b>KT</b>	Konvertierungstabelle
<b>PAA</b>	Prüf- und Abnahme-Assistent
<b>PLI</b>	Prüfliste
<b>PIK</b>	Piktogramm
<b>BTB</b>	Bauteilebibliothek

## English

<b>HLI</b>	Hazards list
<b>CRL</b>	Cross-reference list
<b>CT</b>	Conversion table
<b>CAA</b>	Check and Acceptance Assistant
<b>CLI</b>	Checklist
<b>PIC</b>	Pictogram
<b>CPL</b>	Components library

## French

<b>LR</b>	Liste de risques
<b>LRC</b>	Liste références croisées
<b>TC</b>	Tableau de conversion
<b>ACV</b>	Assistant de contrôle et validation
<b>LC</b>	Liste de contrôles
<b>PIC</b>	Pictogramme
<b>BDC</b>	Bibliothèque de composants

---

## 1.4 Safexpert Hotline

As the Safexpert administrator, you have access to our hotline. You can register by filling out your personal Safexpert CE InfoService form and mailing it to the address indicated on the form. The request form can be printed at any time:

### Hotline address

Hotline: +49 8141 5350-111

E-Mail: [service.schuetzen@leuze.de](mailto:service.schuetzen@leuze.de)

Please have the following information available before contacting the hotline:

- your license code "SPxyxyxyxy" (located in the "Safexpert Information").
- the most important data of your system: network operation or not, operating system, available main storage, available hard disk space.

### Note about the hotline use

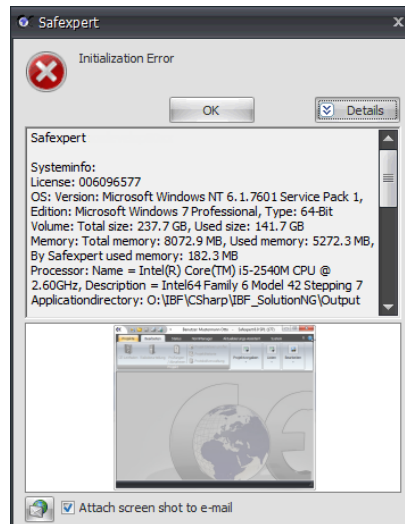
We kindly ask you to understand that the hotline cannot provide any training for Safexpert, CE marking, or the report designer. Please note our offers for seminars and special training.

---

## 1.5 Communicating possible errors in Safexpert

It is our firm goal to provide you with an absolutely error-free software. In reality, however, software errors are unavoidable.

To keep your effort for reporting any possible software errors as low as possible, Safexpert offers the function **Send to support as an e-mail**.



Safexpert automatically attaches a screenshot to the e-mail. Except for the screenshot data, no other project data are transmitted.

---

## 1.6 The most important innovations in Safexpert 8.0 or 8.1

### 1.6.1 New in Safexpert 8.1 compared to 8.0

- The Machinery Directive 2006/42/EC was changed by the Directive 2009/127/EG concerning machinery for distributing pesticides. The change takes effect on 15 December 2011. Safexpert 8.1 was adjusted accordingly.

---

### 1.6.2 New in Safexpert 8.0 compared to the previous version 7.1

#### The new generation

Until the predecessor version 7.1, Safexpert was developed using Visual FoxPro. Starting with version 8.0 Safexpert is a completely new generation and was developed exclusively on C# (DotNET).

This set up a new milestone for further development. In particular, it created a qualitatively relevant basis for the development of individual adaptations and interfaces.

The more than 15 years of experience of our entire consulting and development teams, hundreds of customer requests and the results of numerous expert and development meetings with renowned customers have all contributed to the development of this new generation of Safexpert. This allows Safexpert to set a new standard in safety-based project management. Naturally, we are looking forward to continued suggestions from the field!

#### User-friendliness

- The user interface was completely revised and to a large extent adapted to the Windows standard.
- Context menus are universally available by using the right mouse button.
- Several projects can be opened simultaneously in several windows.
- Data can be copied or moved at various locations using "drag-and-drop".
- Images can be linked or embedded at different locations (e.g. in risk assessment).
- The user management was expanded: It is now also possible to combine user rights into roles. In addition, access privileges to projects can be assigned for users, departments or locations.

#### Safexpert project manager

- All activities of the CE guide to be accomplished are directly displayed in the project manager.

- The status assessment of open items in the entire project is now always visible in its current state directly in the project manager – a separate assessment no longer needs to be activated → maximum clarity, particularly in system projects!
- As before, an automatic analysis is performed when starting Safexpert about which users still have open items in which projects. The newly developed Safexpert Reminder now also uses e-mail or Systray to send reminders about open items if Safexpert has not been started (see section 13.1.1.2).
- Particularly interesting new feature: When opening a project, Safexpert checks whether the applied standards still feature a presumption of conformity for the scheduled date of distribution (see section 13.1.1.4).

### Structuring of system projects

- System projects can be clearly structured as before using lower-level projects and modules. New:
  - Lower-level projects can now be linked or embedded.
  - Interfaces can be defined between the lower-level projects or modules for which a separate risk assessment is performed.
- The project structure is now displayed and edited directly in a tree structure in the project manager.

### Risk assessment

- Hazard locations and phases of machinery life can be defined in advance during the creation of the project and subsequently, e.g. during the risk assessment, edited or expanded. If the risk assessment is marked as "done," it is automatically checked whether all hazard locations and phases of machinery life have been edited.
- Measures can be linked with each other. This allows declaring one measure as suitable for removing several hazards.
- The texts in the danger and measure descriptions can now be formatted in an RTF editor. Tables and images can be inserted.
- The hazards list according to EN ISO 12100 is designed as a tree structure and grouped into hazards (possible consequences) and hazard events.
- A particularly interesting innovation: Cross-reference lists can now be independently refreshed and updated. The link to the hazards list is done via Global Safexpert Identifier (GSI).
- This also allows to easily add your own documents, such as plant standards or design manuals, as cross-references to the hazards list.
- The risk assessment can be structured and displayed by cross-references. This allows creating industry-specific cross-reference lists by C standards which support the risk assessment and risk reduction of significant hazards in a particular way (see section 13.3.6.2).
- Managing and updating cross-reference lists via the Safexpert Live Server without changing the hazards list.
- Managing and updating the hazards lists via the Safexpert Live Server.
- A particularly interesting innovation: For every measure, it is now possible to define which standard or directive section was used for the solution. In the context of the update run, the program automatically checks which individual measures may no longer correspond to the state of standardisation in the meantime.

### Standards manager

- The Standards manager can now remain open at all times.
- Applied standards can be copied directly into the project via "drag-and-drop".
- Full-text documents (e.g. standards) can now be saved directly in the database. Hence, Safexpert can now be operated as a pure client-server application in the company network.



## Reports, printouts and exports

- A completely new report generator with individual adaptation options.
- In addition to the printout of the risk assessment by hazards, hazard locations or phases of machinery life, the printout can now also be rendered based on cross-references.
- All printing can now also be done to Word (RTF), Excel, PDF or into text files. Furthermore, there are separate export functions for these file formats.
- All lower-level projects linked or embedded in a project, can be centrally printed using a single command.

**Note: Since a new report designer was implemented starting with version Safexpert 8.0, it is not possible to copy own report templates from an earlier version. All system reports that existed in Safexpert 7.0 are also available from 8.0.**

## Check and acceptance assistant (CAA)

- Completely new development with customised user interface.
- Checklists created within projects can be saved as templates.
- Images can be inserted in checklists as well as the descriptions of the check results.
- Managing and updating the checklists via the Safexpert Live Server.

## Instructions Assistant (IA)

- Notes for the operating instructions are now visible directly in the detailed data for a measure.

## Client Update

- In addition to silent installations, it is now automatically checked at the start of Safexpert if a newer version is available on the server. The update on the client can be performed directly.

## Safexpert Update wizard (Internet updates)

- Besides the update of the Standards manager, these updates are now also performed directly via the Internet:
  - Safexpert updates
  - Hazards lists
  - Cross-reference lists
  - Checklists
  - Operating instructions templates
  - Manuals
  - Sistema interface configuration
  - (System) report templates
  - Licensing
  - Pictograms library
- Safexpert checks via Internet whether new Safexpert updates, service packs or license extensions are available. Download and installation are also performed via Internet.

## Databases

- Instead of the Microsoft database of Visual FoxPro Safexpert now supports different databases (VistaDB, MS-SQL-Server,...).
- All the data are stored in the SQL database.
- Safexpert manages all the data in Unicode.
- A specially developed database framework provides the opportunity of developing different client-server databases as an option, e.g. MS SQL and Oracle, but also Firebird and MySQL. This requires individual software developments and an on-site installation by our technicians. Simply request a non-binding quote from your Safexpert supplier.

- For companies that do not want an Internet connection for the standards search, the Safexpert Live Server can optionally be operated as an appliance directly in the own company network. Simply request a non-binding quote from your Safexpert supplier.

#### **Other**

- Safexpert was completely developed in Unicode. This is an important prerequisite for future expansions with respect to characters of additional writing systems and notations.
- The entire development was performed object-oriented in professional layer models (data layer, OR mapper, business logic GUI) and modularised. Data access is carried out via a database framework and a specifically developed OR mapper.
- Safexpert was optimised for 32-bit and 64-bit operating systems.

#### **Input language - project language**

- The term "Input language" was replaced by the term "project language". The project language is selected when a new project is being created. It is no longer possible to subsequently change the project language. If translations are required, the data can be exported from the risk assessment, e.g. to Excel, RTF, etc.

## 2 System description

---

### 2.1 What is Safexpert?

#### Objective

Safexpert supports you in systematically carrying out the conformity assessment in accordance with the Machinery Directive 2006/42/EU.

Safexpert supports the standardisation and reuse of descriptions and measures by means of copy and library functions, and thereby creates the basis for consistent and economic processes and solutions.

As the project proceeds, Safexpert allows optimum overview of all tasks already completed and those still to be completed for the conformity assessment.

#### Target audience

The Machinery Directive is directed at designers of machines and plant systems. Designers of control systems are also very much affected by the provisions laid down in the Machinery Directive, since many hazards can be removed by control measures.

Safexpert encompasses the entire process of CE conformity assessment for machinery and plant systems and, therefore, is suitable for all persons involved in this process. Safexpert even supports the cooperation of different departments by providing optimised processes.

#### Functions

Safexpert offers a powerful project management and the "CE guide", guiding you through the conformity assessment in 8 steps. Comprehensive and comfortable research functions for the text of directives and standards support your work.

Projects and partial projects can be copied, descriptions for hazards and measures can easily be reused with the help of library functions.

From the start of a product to its acceptance, Safexpert supports all the work to be done by means of a comprehensive help function and by providing the directives and standards in their original text.

The check and acceptance assistant supports the inspection of any product by means of individually configurable checklists.

---

### 2.2 Notes concerning the application

Use of this software **does not** replace an in-depth study of the directives and standards applicable to your products and used to declare conformity of your product (e.g. machine) with the directive(s).

Safexpert undergoes continuous further development and adaptation to current specifications based on legislation, directives and standards. Special maintenance agreements are offered for this purpose.

---

### 2.3 Further directives

In addition to the Machinery Directive, several other directives require CE marking. These directives can be added on tab 2 of the CE guide. The module supports Safexpert Standards manager in locating these directives. But you should also observe the current publications in the EU official gazette.

---

### 2.4 Standards manager

In the **Standards manager** module, Safexpert offers a convenient system allowing you to manage and continuously update your standards, directives, and other technical specifications.

**Note: The Safexpert Standards manager module can also be used as independent module (without CE guide, etc.).**

---

## 2.5 Example of instructions in line with EU provisions

If you purchased the module "Example of instructions in line with EU provisions", a template for the operating instructions using the Word format is available. The template can be customised in conjunction with the Safexpert Operating instructions assistant module.

---

## 2.6 Check and acceptance assistant

At various locations, checks and acceptances of machinery and plant systems are performed by customers, suppliers (QA), authorities, TÜV organisations (German technical inspection association), insurance carriers, experts, etc. The procedure is not always well-organised and systematic. In practise, this leads to differing check results.

The check and acceptance assistant (CAA) supports you in performing checks and acceptances of machinery and plant systems in a uniform way. The basis for checks are checklists. They can be created and extended individually. This also allows employing the check and acceptance assistant for various check procedures, such as for evaluating suppliers, services or checks within the framework of quality assurance.

The following target audiences may, therefore, be users of the CAA:

- acceptance personnel (purchasers, planning engineers) involved in purchasing machinery and plant systems
- personnel responsible for safe work practices
- personnel responsible for CE marking
- Inspection authorities such as local trade authorities, TÜV organisations (German technical inspection association), professional associations, insurance companies
- QA representatives in manufacturing companies (final inspection)

**Note: A check or acceptance does not release the manufacturer from his or her legal obligations, e.g. to perform risk assessments in the context of the Machinery Directive.**

---

## 2.7 Safexpert update wizard

See chapter 12.

## 3 Installing Safexpert

---

### 3.1 Safexpert – Before the installation

Safexpert is based on a database that is created during the installation. The database system used directly affects the work with Safexpert. Two systems are supported by default:

- Local database (this is a file-based database system)
- Microsoft SQL Server 2008 R2
- Microsoft SQL Server 2008 R2 (Windows authentication)

While the local database is part of the Safexpert installation and, therefore, can be installed without any further preparations, an SQL Server must already be installed before the installation of Safexpert can be started.

The selection of the database system depends on the application environment of Safexpert. The use of an SQL server is recommended particularly for network installations where several persons work with Safexpert at the same time!

**Note: Future plans include provisions for additional database connectors (e.g. Oracle). Please contact your Safexpert supplier to check any availability.**

---

#### 3.1.1 Special features during the installation on an existing Microsoft SQL Server

It is possible to install the Safexpert database on an existing Microsoft SQL Server in two variants:

- automatically via Safexpert Setup or
- manually by the IT administrator: Snapshot isolation must be activated.

##### Activating the snapshot isolation

Execute the following SQL instructions in SQL Server Management Studio or in the command line tool:

- ALTER DATABASE "database name" SET SINGLE\_USER WITH ROLLBACK IMMEDIATE;
- ALTER DATABASE "name of new database" SET READ\_COMMITTED\_SNAPSHOT ON;
- ALTER DATABASE "name of new database" SET ALLOW\_SNAPSHOT\_ISOLATION ON;
- ALTER DATABASE "database name" SET MULTI\_USER;

---

### 3.2 System prerequisites

#### Minimum requirements

- Processor: Pentium processor (or compatible) with 1.4 GHz clock speed
- Operating system: Windows XP with Service Pack 3, Windows Vista with Service Pack 2, Windows 7, Windows Server 2003 with Service Pack 2, Windows Server 2008, Windows Server 2008 R2, 32 and 64 bit each.
- System memory: min. 1 GB, for 64-bit operating system min. 2 GB
- At least 500 MB hard disk capacity, plus storage space for data
- Graphics resolution min. 1024 x 768
- Internet Explorer, version 8 or higher
- Installation of .NET 4.0 Full Framework (may also be installed via Safexpert Setup, but cannot be installed via MSI packet).

**The following minimum requirements also apply for using a Microsoft SQL Server**

- Microsoft SQL Server 2008 R2 (32 or 64 bit)  
The following editions can be used:
  - *SQL Express with Advanced Services*
  - *Workgroup Edition*
  - *Standard Edition*
  - *Enterprise Edition*
  - *Data Centre Edition*
- Installed full-text search on Microsoft SQL Server
- A stable network connection with at least 1 Mbit bandwidth

**Recommended**

- Processor: current Pentium or Xeon processors (or 100% compatible multi-core processors) with at least 2 GHz clock speed
- System memory: 2 GB (or more), for 64-bit operating system 3 GB (or more)
- Internet access (for standards update, search for documents (standards, checklists, cross-reference lists, ...) on the Safexpert Live Server, Internet update, etc.)
- Microsoft SQL Server 2008 R2 for multi-user installation
- MAPI-compatible mail client or SMTP server for e-mail notification
- Microsoft Word 2003-2010 for the instructions assistant. Incompatible with starter edition
- Windows Installer 4.5 or higher

---

### **3.3 Safexpert – scope of supply**

You need the setup file as well as the 9-digit license number for the installation.

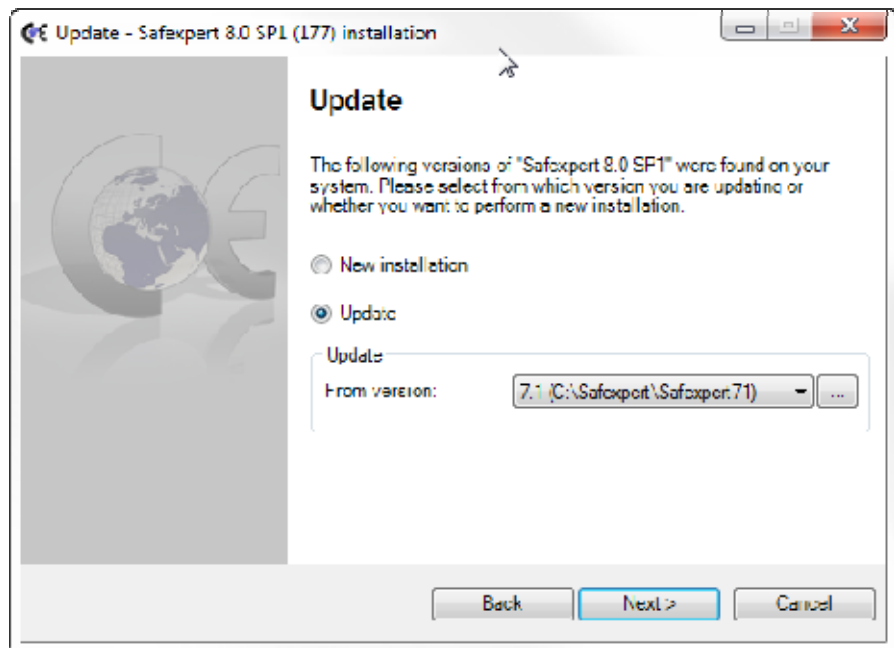
You will receive both items after your order as a certificate or transmitted via shipping document or invoice.

Any installed demo version can be activated directly via Internet update. All data and settings are retained.

---

### **3.4 Types of installation**

The installation program differentiates between a new installation and an update.



---

### 3.4.1 First-time installation

Select this installation type if you have not yet installed Safexpert on your PC.

---

### 3.4.2 Update

Select this type of installation if you want to update from earlier Safexpert versions. This is possible up to and including version 3.1.

**Note: The Safexpert setup program automatically checks in which directory you installed Safexpert and suggests the same directory for the update. Change the path only if you want to update another existing Safexpert installation – this is generally never the case!**

**After the installation of Safexpert the data of the previous version are automatically converted to the new format of Safexpert. A reverse conversion is then no longer possible.**

**Caution! Execute the Safexpert Update wizard immediately following the update to Safexpert 8.1 (see section 12). This will copy any system data that may have been updated in the interim (hazards lists, cross-reference lists, checklists,...) to your system.**

---

## 3.5 Types of installation

The Safexpert Setup also differentiates 3 installation types.

### Complete (client and database)

Select this type of installation, if you want to install Safexpert on a stand-alone PC. In this case, the executable part of Safexpert and the Safexpert database are installed.

**Note: If you want to change an existing stand-alone installation to a network installation, please contact the Hotline.**

### Database only

Select this type of installation, if you want to install the Safexpert database on a data server in the network. This can be executed over the network by a client computer.

The network path must be available to all computers and allow full access.

**Note: Safexpert controls your licensing rights through the simultaneous access permissions for the database. A client receives his license via the server and does not obtain a separate license number.**

### Client only

Select this type of installation to install only the executable parts of Safexpert. This applies, if the database was installed on a network server. A client installation may not be performed on a network drive.

**Note: Do not install a stand-alone version on a client computer. Otherwise data may be processed in the wrong database! When Safexpert is initially executed on the client computer after the installation, a window appears in which the database is selected.**

## 3.6 Licensing

In Safexpert, it is always the database that is licensed. Clients receive their license through the connection with a server. The license of Safexpert is valid only for one database. If it should be used for a second installation, a license error message appears. Information about which modules are released for your license number can be found in the Safexpert option "Overview of Modules" (see also 13.1.1.15).

**Note: If a database is moved at a later time, the licensing rights remain valid.**

## 3.7 Installation methods

### 3.7.1 Direct installation

This is the standard installation and is used most frequently.

Execute the file "SAFEXPERT\_SETUPx.y.EXE" and follow the instructions on the screen.

x.y = version number, e.g. 8.1.

### 3.7.2 Silent Installation

Select this setup type if you want to automatically distribute Safexpert to several clients via installation scripts.

The following parameters can be transferred to the installation file (SAFEXPERT SETUP.EXE):

Parameter	Meaning
-l=verbose	Activates expanded logging for setup.
-q	Silent: Installation runs in the background. Prerequisite: The /DBCONNECTION parameter must be defined.
-p	Passive: Installation runs automatically. Status information is being displayed.
-i	New installation of Safexpert
-x[=Parameter]	Uninstallation of Safexpert client Several parameters can be listed separated by a comma.



Parameter	Meaning
[=Database]	Also uninstall the database
[=ConfigFiles]	Also uninstall the configuration files
-r[=Parameter]	Repair: The Safexpert client installation will be repaired
[=Database]	Also repair the database
-u[=Parameter]	Update: The installed Safexpert version will be updated.
[=Version number]	Defines the exact version of Safexpert to be updated. This is required only if several installations were installed at the same time and a specific version is to be updated. Example: -u=8.1.345. If this version is not installed in the system, the update is cancelled.
[=Database path]	The update is performed for the version present in the specified database path. Example: -u="C:\Safexpert\SystemDB If the path does not contain a database, the update is cancelled.
/DBCONNECTION	Database connection to destination database If this parameter is defined, the client does not have to select a database for the first connection. Example <sup>1</sup>
-f[=Parameter]	Safexpert client and database are being installed. Several parameters can be listed separated by a comma. By default, both parameters(-f=Database,Client ) are selected here. This corresponds to a single-user installation.
[=Database]	Installs only the database
[=Client]	Installs only the Safexpert client
-lic[=Parameter]	Either the license number or the license file can be specified
[=License number]	Sets the license number for the Internet update. Example: -lic=6123456
[=License file]	Imports the specified license file. Example: -lic="C:\License\license.selic"
-m[=Parameter]	Data import Several parameters can be listed separated by a comma. By default, both parameters(-m= Projects, Components) are selected here.
[=Projects]	Installs the demo projects contained in setup.

<sup>1</sup> Example:

/DBCONNECTION="DBTYPE=VistaDB;DBSERVER=;DBDATABASE="C:\tmp\Databases\Destination\";DBUSERNAME=;DBPASSWORD=;DBCREATE=True;DBPORT=0;"

Parameter	Meaning
[=Components]	Installs the library of components and devices contained in setup.

### 3.7.3 Automated update installation of the client via the server

This is the easiest variant of updating the client.

An automated installation of the client is possible only if the database has been updated via Internet update (see chapter 12.4).

The system always checks at the start of Safexpert whether the client version matches the version of the database. If this is not the case, a corresponding message appears.

Safexpert users who have the right "May perform software updates", can perform the setup directly.

Safexpert users who do not have this right must contact their IT administrator.

**Note: To be able to perform the setup, users require administrator rights on their PC. It is recommended to assign the above Safexpert right only to users who also have administrator rights on their PC.**

### 3.7.4 Installation in a terminal server environment

Terminal servers are used particularly in companies with several locations, such as:

- Microsoft Terminal Server or
- Citrix.

The advantage of a terminal server is that the software does not have to be installed on individual client computers, only on the host computer (server).

Safexpert can be operated on such terminal servers.

**Note: Safexpert can also be operated in a mixed mode, as client server as well as terminal version.**

### 3.7.5 Installation via Microsoft SCCM Server (MSI)

Safexpert can be distributed as MSI package via the Microsoft SMS Server.

This requires that the following installations are available:

- Windows Installer
- Microsoft .NET Framework

You obtain the MSI packet by starting the Safexpert Setup via the "**-ExtractSetup [path]**" parameter.

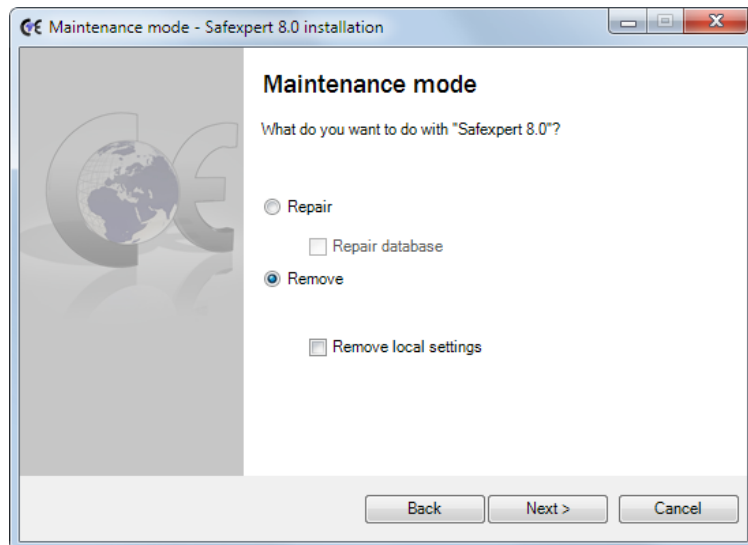
**Caution: Before the MSI package can be used for distribution, certain parameters must be adjusted within this package. Please contact the hotline in this case.**

**Note: The MSI packet cannot perform any updates of the Windows components!**

## 3.8 Uninstalling Safexpert

### Procedure

- 1 In the "Control Panel" window of Windows, select the **Programs and Features** option.  
→ The **Software Properties** window is displayed.
- 2 On the "Install/Uninstall" tab from the list of programs, select the Safexpert entry.  
→ The "Add/Remove..." button is enabled.
- 3 Select the "Add/Remove..." button.  
→ The Maintenance Mode window opens.



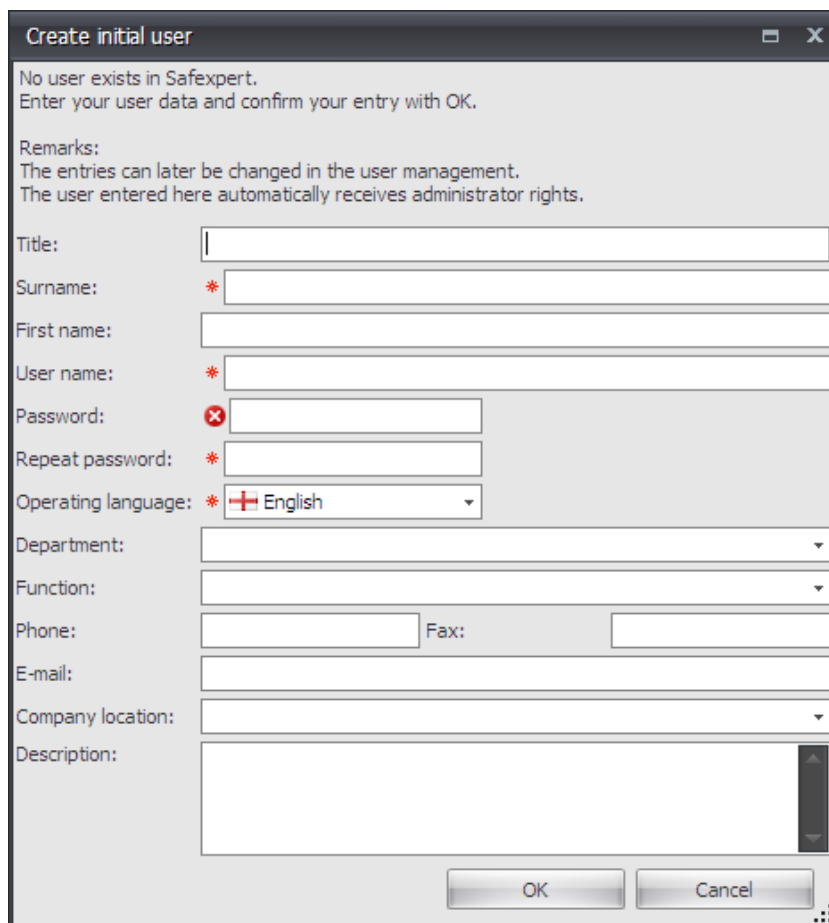
- 
- 4 Select from these options:
    - **Remove:** The Safexpert software client is being uninstalled
    - **Remove Database:** Also deletes the last database in use. **CAUTION:** All data will be lost!
    - **Remove local settings:** Deletes local information such as the installation language and the path to the database. These data can simplify a reinstallation.

**Note: If the database is removed during the uninstallation, it is not possible to restore it. If necessary, perform a data backup first!**

## 4 Using Safexpert

### 4.1 Starting Safexpert for the first time

When you start Safexpert for the first time, you must create a user.



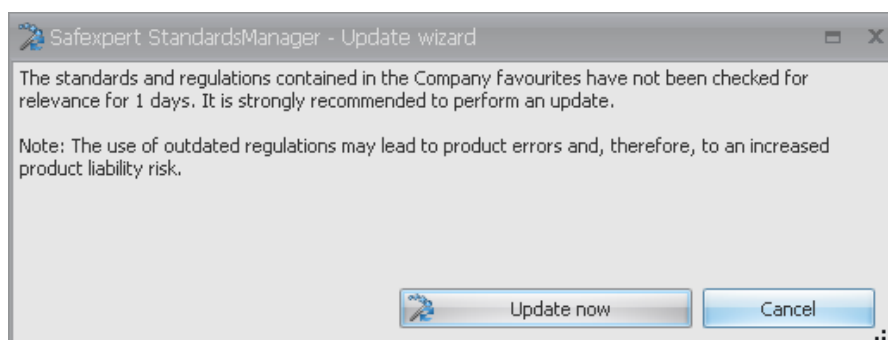
Screen for first login

The fields marked with a red asterisk are mandatory fields.

For detailed information about the user management, see section 13.1.4.

#### Set up Standards manager

The window for setting up the company favourites is displayed next:

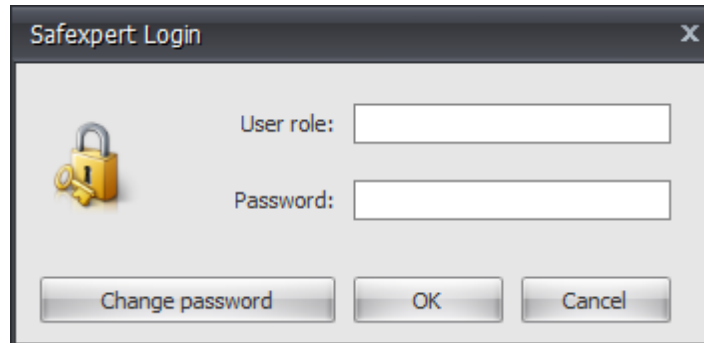


For more information about setting up the company favourites, see section 12.3

---

## 4.2 How to start Safexpert

**Note:** When starting, Safexpert automatically creates a link to the database which was used last. If Safexpert does not find the database, a window for selecting the database is displayed. Contact your system administrator if necessary.



*Safexpert login*

### Procedure

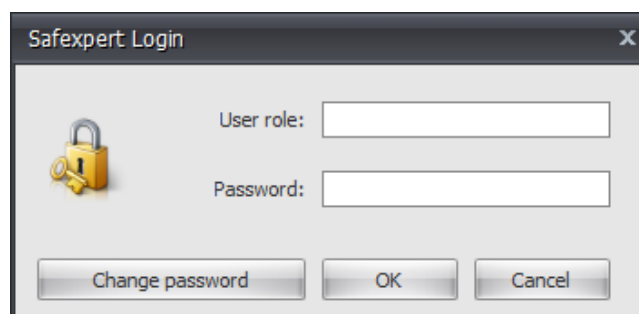
- 1 In the Windows start menu, select **Programs - Safexpert ...**  
→ The **Safexpert Login** window is displayed.
- 2 Enter your user name and your password and confirm with "OK".  
The user must have been created by the system administrator.  
Otherwise, it is not possible to access Safexpert!  
→ Safexpert opens.

---

## 4.3 How to change your password

Initially, the password is issued by the system administrator when a new user is created. When the user logs in to Safexpert for the first time, the password created by the administrator must be entered and the personal password can be entered underneath it.

To change the password, click on Change password in the Safexpert Login window.

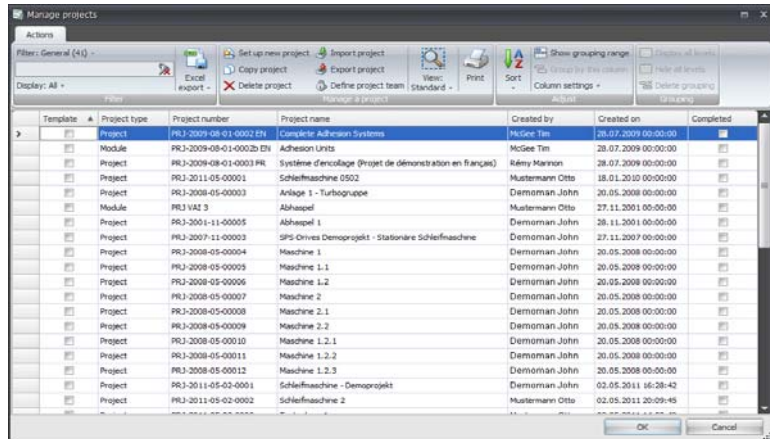


## 4.4 Managing projects

### Procedure

- 1 In the **Projects** main menu, select the command **Project management**.

→ The **Manage projects** window is displayed.



The "Column settings" command allows changing the appearance of the project list.

If the scheduled date of distribution should be exceeded and the column **Scheduled date of distribution** is visible, the following is displayed: ⚠

### Grouping

This window provides the function **Grouping by columns**. To perform a grouping, drag a column heading into the grouping area.

### Columns in project list requiring explanations

#### Done

If this column features a check mark, the project has already been processed completely and has been released. All steps have been marked as completed in the CE guide.

#### Copy protected

If this column features a check mark, then this project has been copy protected into a new project. You can activate or deactivate this copy protection when you define the project team.

#### Reading

If this column features a check mark, this project has been released for reading access for all users. You can activate or deactivate this release when you define the project team.

#### Project type

Projects can be part of one or several other project(s) (see **Structure** tab). You can mark such lower level projects as **modules**. There is no functional difference between projects and modules.

The identification as a module allows you to hide such lower level projects in the project list. The project list is, therefore, more clearly structured.

### 4.4.1 Set up new project

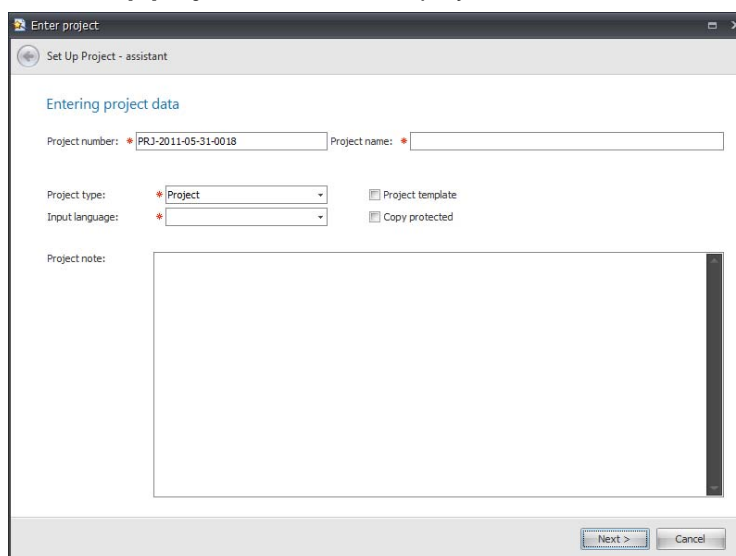
**Note: You cannot set up or edit any projects if you do not have the corresponding user rights.**

**Note: The parameters defined here are taken into consideration for performing the risk assessment and compiling the technical documentation / technical files. Make sure that all settings made here are correct.**

## Procedure

- 1 In the **Projects** main menu, select the command **Set up new project**

→ The **Set up project** assistant is displayed.



- 2 Enter the desired in the individual windows and click on Next in each case.

The fields marked with a red asterisk are mandatory fields.

With the exception of the project language, the data entered can later be changed at any time on the Project data tab.

For information about the individual data fields or options, see section 5.1

### Project language

The selected project language (language in which the users document the project) affects all data areas that are required for the entry of projects, such as:

- hazards list during the risk assessment
- selection of the phases of the machinery life
- titles of standards in the Standards manager

The project language selected while creating a project cannot subsequently be changed.

### Scheduled date of distribution

When opening a project, Safexpert checks whether the applied standards still feature a presumption of conformity for the scheduled date of distribution (see section 13.1.1.4).

**Note: If the "Scheduled date of distribution" falls after 29 Dec 2009, the CE guide acc. to Machinery Directive 2006/42/EG is selected, otherwise the CE guide acc. to Machinery Directive 98/37/EG.**

### Enter manufacturer data

These data are predefined with "main manufacturer" data. If necessary, select the "Manufacturer..." button to select a different manufacturer from the list of manufacturers.

See also section 5.1.4

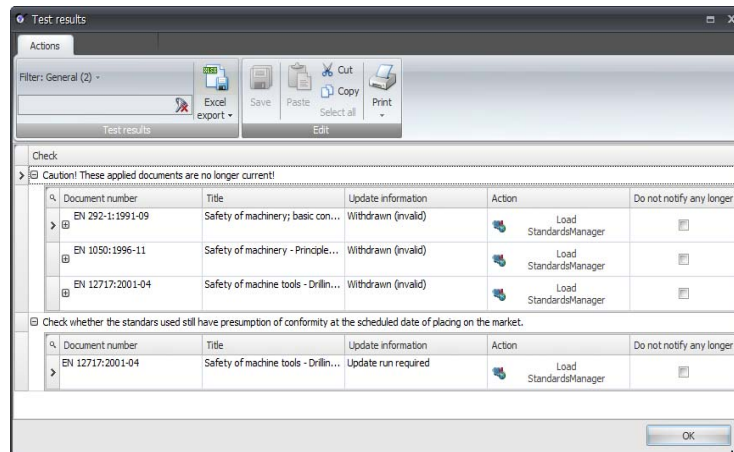
## 4.4.2 Open project

### Procedure

- 1 In the **Projects** main menu, select the command **Open project**.  
→ The **Open project** window is displayed.
- 2 Mark the project to be opened.
- 3 Click on "OK".  
→ The project opens.

### Checking up-to-date status of hazards list

This window is displayed while opening the project only if the hazards list used has been changed in the meantime on the Safexpert Live Server.



Checking up-to-date status of hazards list

Click on **Update** if you want to apply the change to the project.

## 4.4.3 Delete project

**Note: If the project is linked to another project as a lower-level project, it cannot be deleted!**

### Procedure

- 1 In the **Projects** main menu, select the command **Project management**.  
→ The **Managing projects** window is displayed.
- 2 Mark the project to be deleted.
- 3 In the **Manage a project** group, select the **Delete project** command.

**Note: A deleted project cannot be restored.**

## 4.4.4 Copy project



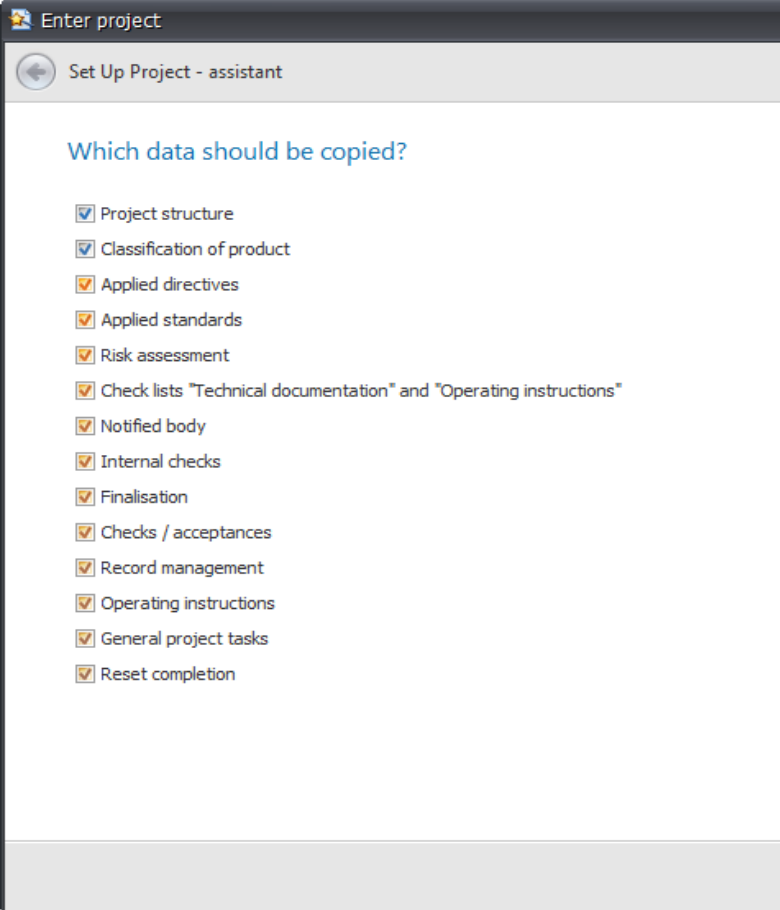
**Caution:** You must consider the state of the art when selecting the appropriate solutions for risk reduction. Measures that were state of the art at a certain time can already be obsolete when copying a project.

If you own the Standards manager module, Safexpert automatically checks while copying projects based on the entries in the company favourites whether various data, such as applied directives, standards, hazards lists, cross-reference lists or checklists, are still current. This requires that the Company Favourites are constantly being updated.

## Procedure

- 1 In the **Projects** main menu, select the command **Project management**.  
→ The **Managing projects** window is displayed.
- 2 Mark the project to be copied.
- 3 In the **Manage a project** group, select the **Copy project** command.
- 4 Follow the instructions of the **Set up project** assistant.

## Which data should be copied?



Enter project

Set Up Project - assistant

Which data should be copied?

- Project structure
- Classification of product
- Applied directives
- Applied standards
- Risk assessment
- Check lists "Technical documentation" and "Operating instructions"
- Notified body
- Internal checks
- Finalisation
- Checks / acceptances
- Record management
- Operating instructions
- General project tasks
- Reset completion

*Setting which data should be copied.*

## Reset completion messages

Also select whether or not the completion messages in the copied project are to be reset. You should generally reset them since a new project usually requires another conformity assessment.

### **Project number, project name and machine number**

These data are predefined according to the Safexpert **Project defaults** options (see section 13.1.1.3) and must be adjusted accordingly.

### **Serial number**

This field is marked in red since the serial number for the new project must generally be adjusted.

### **Additional project data**

For information about the individual data fields or options, see section 5.1

---

## **4.4.5 Exporting or archiving projects**

You need this function to:

- transfer projects to other Safexpert users – this is important, for instance, when mechanical engineers and control system designers cannot access the database simultaneously.
- archive the complete project at a certain time – all data from the archive directory can be saved to a CD.

When exporting or archiving a project, all data of a project are filed in a target directory under an archive name. However, the data will remain in the database.

There is no functional difference between the two functions "Exporting" and "Archiving".

### **When exporting or archiving, the following data are taken into account:**

- all project data (risk assessment, checklist of technical files, etc.)
- all files or directories linked to the project
- all lower level projects that have been defined in the project structure, down to the lowest level
- all files or directories linked to lower level projects
- the hazards list(s) used for the project or the lower level projects
- the project password

### **Procedure**

- 1** !!!If you want to export the open project, go to the **Projects** main menu and select the **Export project** command if you want to export another project, go to the **Projects** main menu and select the **Project management** command, mark the project to be exported and click on **Export project**.  
→ The **Export project** window is displayed.
- 2** Select the desired target path.
- 3** Click on **Next**.  
→ The data export is carried out. If no errors occur during the export, the **Export successful** message is displayed.  
→ If errors occur during the export, a log is created and the message **Error while exporting** is displayed.
- 4** Click on **Close**.

---

## **4.4.6 Importing or re-archiving a project**

You need this function to:

- adopt projects from other Safexpert users – this is important, for instance, when mechanical engineers and control system designers cannot access the database simultaneously.
- adopt archived projects into a database – for example to furnish evidence for quality assurance or authorities.

**Note: Only projects created with the same or a lower version of Safexpert can be imported.**

**Safexpert provides interactive support for importing or re-archiving projects. If you select the "Overwrite existing project" option for this process, Safexpert does not check whether any changes have been made in the interim in the project to be overwritten.**

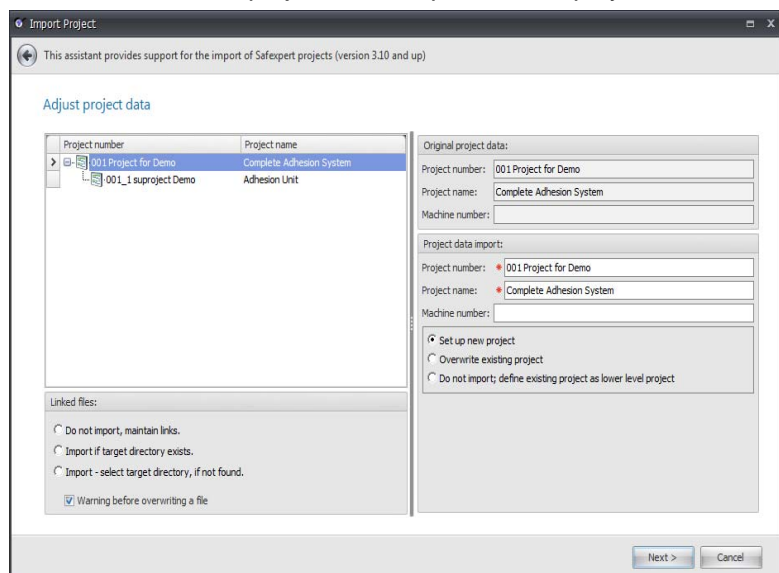
**The overwritten projects cannot be restored again, unless you can find them in another archive.**

When importing or re-archiving, the following data are included:

- all project data (risk assessment, checklist of technical files, tasks, etc.)
- all files or directories linked to the project
- all lower-level projects defined for a project in the project structure
- all files or directories linked to the lower-level projects

## Procedure

- 1 In the **Projects** main menu or in the **Managing projects** window, select the **Import project** command.  
→ The **Import project** window is displayed.
- 2 Select the project to be imported: file extension ".ini" for projects before Safexpert 8.0, ".sedata" starting with version 8.0.
- 3 Click on **Next**.  
→ The structure of the project to be imported is displayed:



- 4 For the projects to be imported and, if necessary, for the lower-level projects or modules it contains, select the project number, the project name and, if required, the machine number. The data of the archived project are being suggested.
- 5 Select the parameters in the sections "Project data import" and "Linked files" and click on **Next**.  
→ The project import is being performed.

#### **Linked files: Do not import, maintain links**

The linked files and directories contained in the archive are not imported. The links in the database are maintained after the import of the project data.

#### **Linked files: Import if target directory exists**

The linked files and directories contained in the archive are imported if the target directory is available on the importing computer or the network of the importing computer. Before overwriting an existing file, a warning is displayed if the "Warning before overwriting a file" check box is activated.

#### **Linked files: Import - select target directory, if not found**

The linked files and directories contained in the archive are imported. If the target directory on the import computer or the network of the import computer does not exist, Safexpert displays a window for entering the target directory. Before overwriting an existing file, a warning is displayed if the "Warning before overwriting a file" check box is activated.

#### **Set up new project**

Safexpert automatically checks whether the entries made by you are still available in the database.

#### **Overwrite existing project**

Selecting this option displays the **Open project** window. Select the project to be overwritten and click on **OK**.

#### **Do not import, define existing project as lower-level project**

Select this option if you do not want to import a lower-level project but, instead, want to use an existing project in the system as a replacement.

---

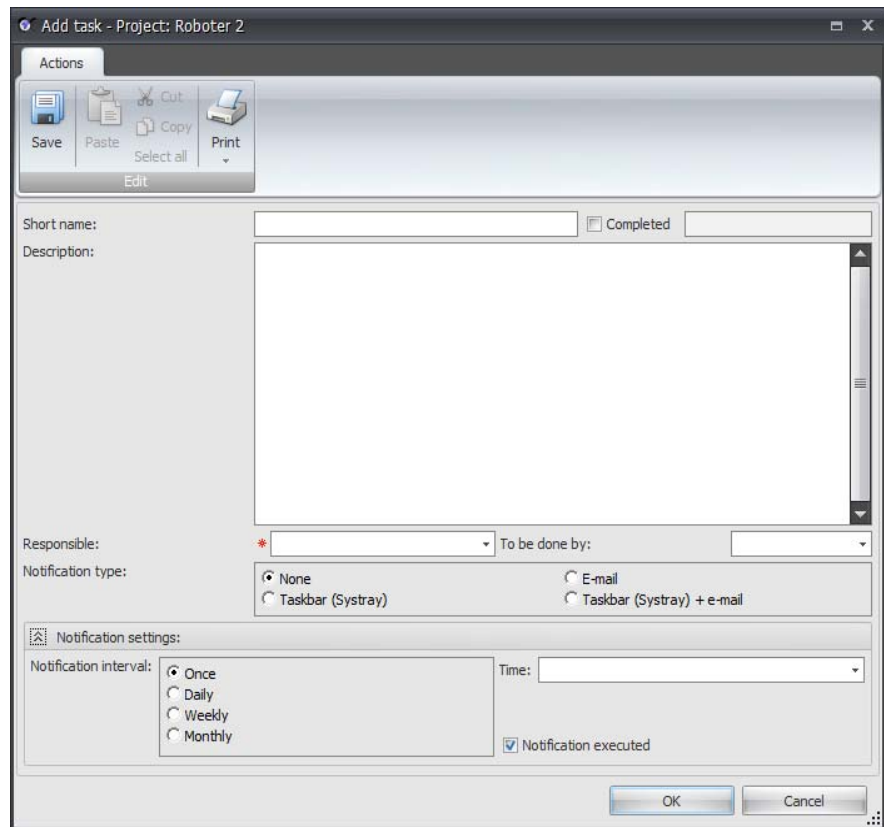
## **4.5 Manage tasks**

At two locations, Safexpert provides the option to create tasks:

- In the Safexpert project manager in the "General project tasks" area (see section 5.7)
- In the Risk assessment window for every defined measure (see section 8.2.3.12)

The project can be completed only if all tasks have been finished.

The representation of all tasks and an analysis of all open tasks is done in the **Status** main menu (see section 6).



Add task

#### How to create a task

- 1 In the project manager, select the General project tasks point.
- 2 In the multifunction bar or context menu, select the function **Add – Task**.  
→ The Add task window is displayed.

## 4.6 Template projects and modules

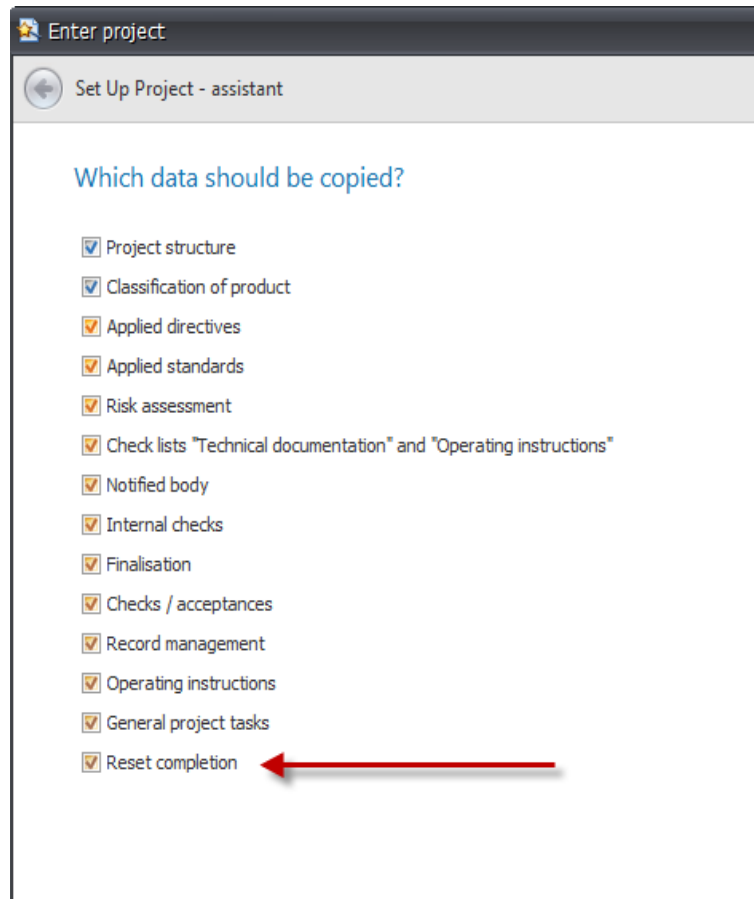
Any existing project/module can be classified as a template. Template projects can be selected as the source of copies, allowing you to create new projects/modules. When copying the template you can define which data is to be copied into the new project.

**Template projects/modules may tempt some to carelessly mark items as done. For all proposals contained in a template project, please check whether:**

- the limits of the machinery and the categories match the current project;
- the proposed solutions actually fit the case at hand and meet the state of the art and the current state of scientific progress (product liability);
- the standards and directives listed are complete and match the current project;
- the project entails additional hazards.

## Procedure

- 1 In the **Projects** main menu, select the command **Project management**.  
→ The **Managing projects** window is displayed.
- 2 Mark the project or module identified as template that you want to copy.
- 3 In the **Manage a project** group, select the **Copy project** command.
- 4 Follow the instructions of the **Set up project** assistant.



*Setting which data should be copied.*

**Note: It is highly recommended to leave the "Reset completion" flag enabled (see above).**

## 4.7 Saving data - database

When exiting windows, Safexpert saves either automatically or it queries whether any changes made should be saved.

In case of a system crash or power failure, any unsaved data may be lost.

To avoid update conflicts in network operation, Safexpert blocks data areas that are currently being edited by another user. Hence, it is not possible to overwrite the work of other users logged into Safexpert during the save operation.

### Database

In Safexpert, all data is saved in a database. The storage location is defined in setup.

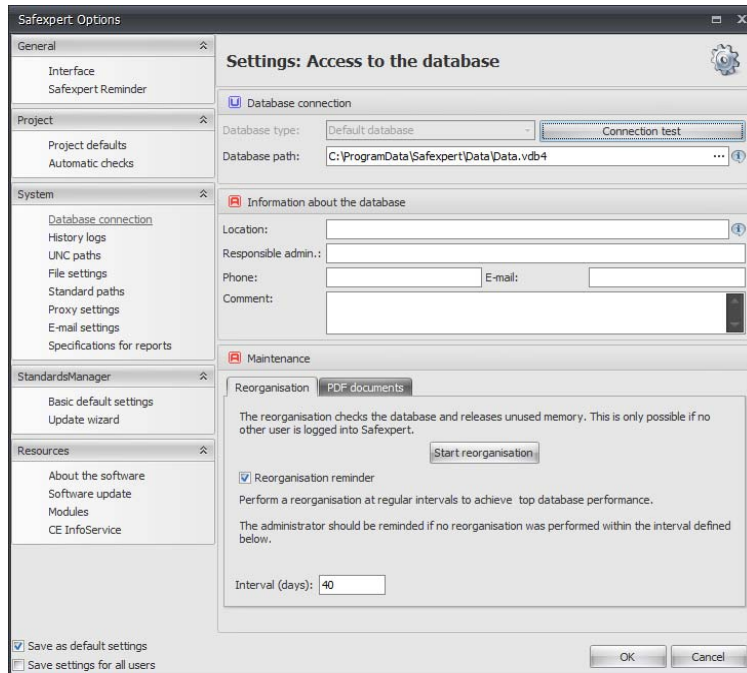
If Safexpert was installed on a stand-alone PC, the database is on the computer on which the installation was carried out.

When starting, Safexpert automatically creates a link to the database which was used last. If Safexpert does not find the database, a window for selecting the database is displayed.

**Note: It is not possible to work in two different Safexpert instances on the same PC on different databases.**

## How to change the database

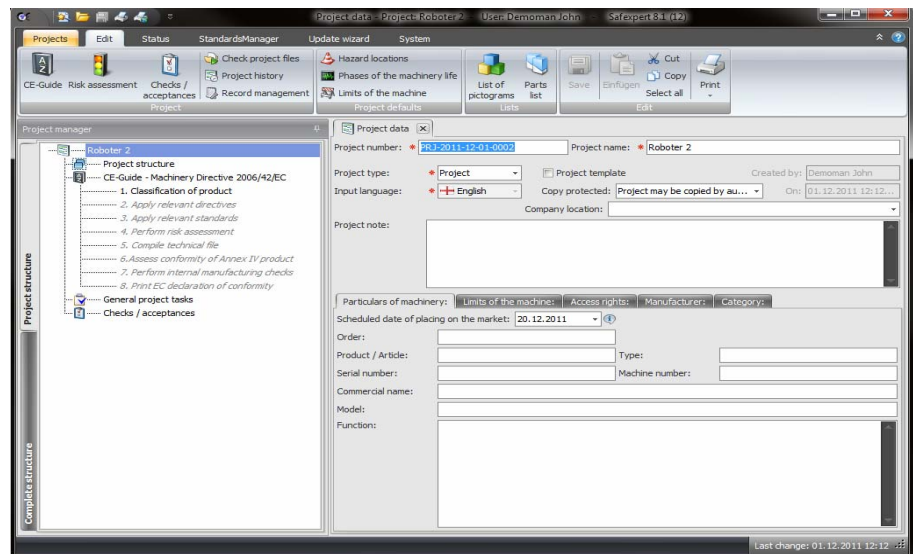
- 1 In the **System** main menu, select the **Options** command.  
→ The **Safexpert Options** window is displayed.



- 2 In the **System** section, select the **Database connection** subitem.
- 3 Select the desired database path.

## 5 Edit projects - Project manager

After opening a project, the project manager and the Project data tab as well as the Edit multifunction bar are displayed:



*Displayed window after opening a project*

The project manager represents the control centre in Safexpert. By double-clicking on an entry in the project manager, the corresponding tabs with the detailed data are displayed on the right side.

The project manager shows at a glance which points have already been completed and which ones are still open.

A project receives the "Done" flag if:

- all lower-level projects or modules integrated in the project structure are finished,
- all points of the CE guide have been completed,
- no more general project tasks (referred to as "hold points" in earlier versions of Safexpert) are open,

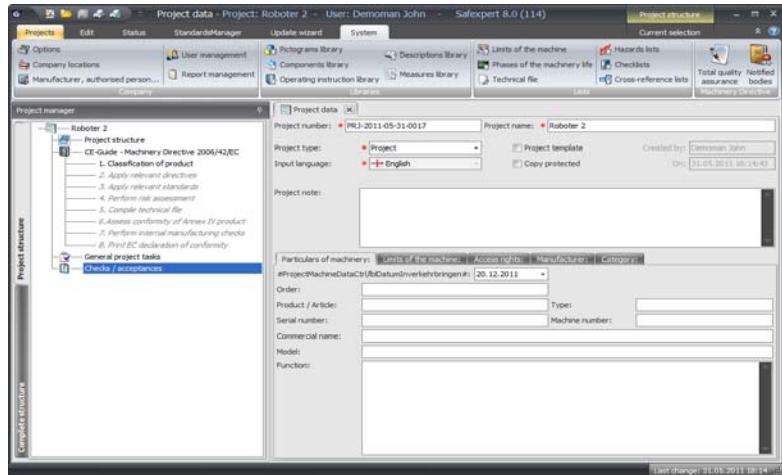
### 5.1 Project data

Various project data are entered when you create projects. They can subsequently be changed.

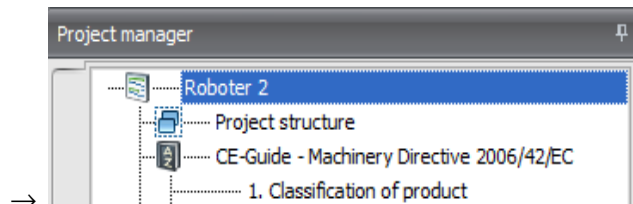


## Procedure

- 1 Open a project  
→ The Project data tab is displayed:



- 2 If the Project data tab was closed, double-click on the project name in the project manager:



---

## Description of the project data

### Project number

The project number is preassigned during the creation of a new project according to the settings in the Safexpert options and can subsequently be changed.

### Project name

Safexpert indicates if the **project name** already exists.

### Project type

The project types **Project** and **Module** are differentiated. Projects should be identified as modules if they are intended for incorporation in a project.

A filtering for projects or modules can be performed in the project management. This increases the overview.

There is no data-based difference between projects and modules. Hence, the project type can be changed at any time.

Projects as well as modules can be inserted into the structure of a higher-level project.

### Project template

See chapter 4.5

### Copy protected

This option prevents projects from being copied. This allows preventing projects from being copied by colleagues, for example, before they are completed.

---

## 5.1.1 Particulars of machinery

The particulars of machinery are used in the printout of project cover sheets and partially also in declarations of conformity or incorporation.

Particulars of machinery: Limits of the machine: Access rights: Manufacturer: Category:

Scheduled date of placing on the market: 09.03.2012

Order:

Product / Article: Demo product Type: random type

Serial number: 123456789 Machine number:

Commercial name:

Model:

Function:

*Updating particulars of machinery*

### Scheduled date of distribution

When opening a project, Safexpert checks whether the applied standards still feature a presumption of conformity for the scheduled date of distribution (see section 13.1.1.4).

**Note: If the "Scheduled date of distribution" falls after 29 Dec 2009, the CE guide according to Machinery Directive 2006/42/EU is automatically used, otherwise the CE guide according to the old Machinery Directive 98/37/EU.**

---

## 5.1.2 Limits of the machine

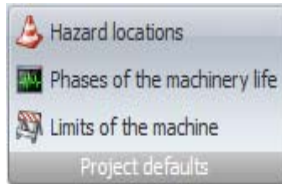
The entire project work starts by defining the limits of the machine:

- Limits of use:
  - Intended use
  - Reasonably foreseeable misuse
- Space limits
- Time limits
- Other limits

The limits of the machine can be entered in Safexpert:

- when creating a new project or
- on the **Project data** tab on the **Limits of the machine** subtab

## How to open the Limits of the machine window



- 1 On the **Project data** tab, click on the **Limits of the machine** subtab or in the multifunction bar of the **Project defaults** group, click on the **Limits of the machine** function:

→ In the second case, the limits of the machine are displayed in a separate window:

Type	File	Short note
------	------	------------

→

Hence, the information is available during the entire project work.

### 5.1.3 Defining access rights and the project team

**Note: If you forgot the password for login as a user assigned to a project, you will no longer be able to access the project data.**

With the assignment, you also grant access to a project. If no user has been assigned to a project, all users have access to it.

If you have already defined the project team members and are a member of the project team yourself, you have to log in with your user name and password. You are then able to define new project team members or delete project team members already assigned.

#### Procedure

- 1 On the **Project data** tab, select the **Access rights** subtab.
- 2 Click on **Defining access rights**.

→ The Access rights window is displayed:

Company location	Department	Function	User
------------------	------------	----------	------

→

- 3 Assign a new project password.
- 4 Define whether users of an entire company location, certain departments or certain functions or directly named users may access the project.

### 5.1.4 Manufacturer data

The manufacturer data are used in the printout of project cover sheets and particularly in declarations of conformity or incorporation.

The manufacturer details can be updated while creating the project or subsequently on the Project data tab on the Manufacturer subtab:

*Updating manufacturer details*

Click on the **Select address** button to display the selection of predefined manufacturer details (see section 13.1.3).

### 5.1.5 Category

During the new entry of a project, the user defines whether the machine is subject to a specific category, e.g. foodstuffs machinery, machinery for cosmetics or pharmaceutical products, machinery for use by private persons, machinery for distributing pesticides, etc.

*Defining categories*

The parameters of the machinery classifications affect:

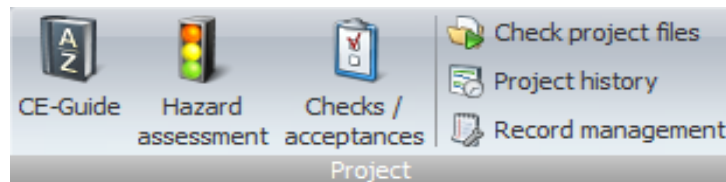
- the necessary chapters in the operating instructions,
- individual points of the cross-reference lists.

This prevents that users of Safexpert are shown cross-references to locations of standards or directives that are not relevant to the current project.

See also section 13.3.4.4

---

## 5.2 Project functions



The tabs **CE guide**, **Risk assessment** and **Open check / acceptance** of an opened project can be opened here.

---

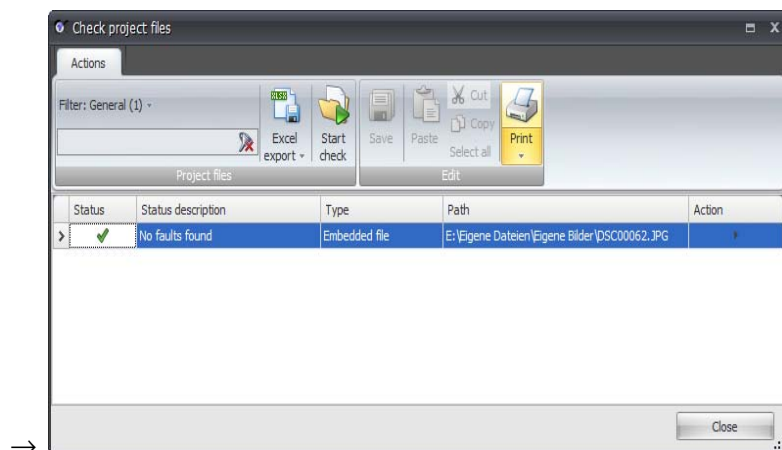
### 5.2.1 Check project files

At various locations, Safexpert offers the option of adding images or other files (see section 10.1).

The **Check project files** function allows checking the linked or embedded files for availability or relevance.

#### Procedure

- 1 In the **Edit** main menu on the multi-function bar, click on the **Check project files** function.  
→ The Check project files window is displayed.
- 2 Click on **Start check**.  
→ The check results are displayed:



---

### 5.2.2 Project history

In the Safexpert options, the system administrator can define whether or in which way the history logs should be performed (see section 13.1.1.6).

## View project history

- 1 In the **Edit** main menu on the multi-function bar, click on the **Project history** function.  
→ The Project history window is displayed.

This window provides the function **Grouping by columns**. To do so, drag a column heading into the grouping area or out of the grouping area.

Two filters are available to maintain an overview. If the project history is opened from within the CE Guide or the Risk assessment, only the relevant history entries for this case are displayed. But if the complete history needs to be displayed, the filter can be disabled on the multifunction bar.



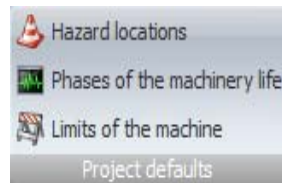
---

### 5.2.3 Protocol management

See chapter 5.9.

---

## 5.3 Project defaults

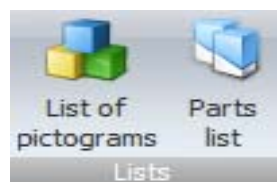


Besides the limits of the machine, hazard locations and phases of machinery life can also be defined in advance for each project at a higher level.

**Note: At the completion of the project, Safexpert checks whether risk assessments have been performed for all hazard locations or phases of the machinery life.**

---

## 5.4 Lists



---

### 5.4.1 List of pictograms

In section 1.7.2, the Machinery Directive (2006/42/EC) requires:

### "1.7.2 Warning about residual risks

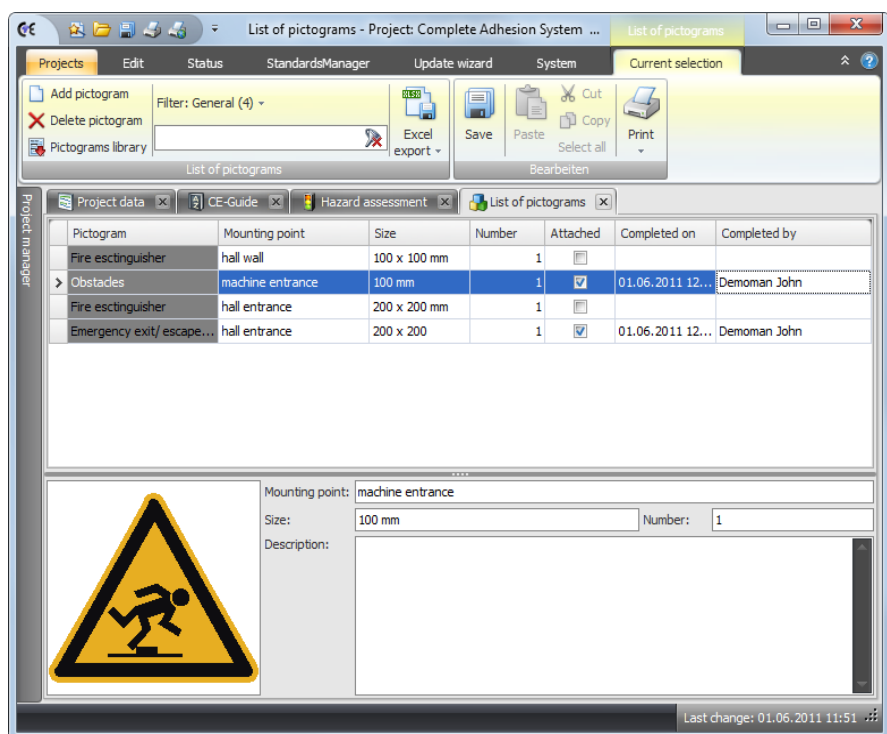
*If residual risks exist despite the measures for integrating the safety in the design, despite the safety precautions and despite the complementary protective measures, then the required warnings, including warning devices, must be planned."*

Hence, warnings (pictograms) receive special importance through the machinery directive.

#### List of pictograms

For every project, a particular list of pictograms is created. The list of pictograms contains the pictograms that must be affixed to the machine or plant system. The entries in the list of pictograms are done manually or during the risk assessment (see section 8.2.3.8). A completion notice for the project is possible only after all pictograms entered in the list of pictograms have been marked as **OK** (attached).

To open the list of pictograms, click on **List of pictograms:** in the **Edit** main menu on the multifunction bar.



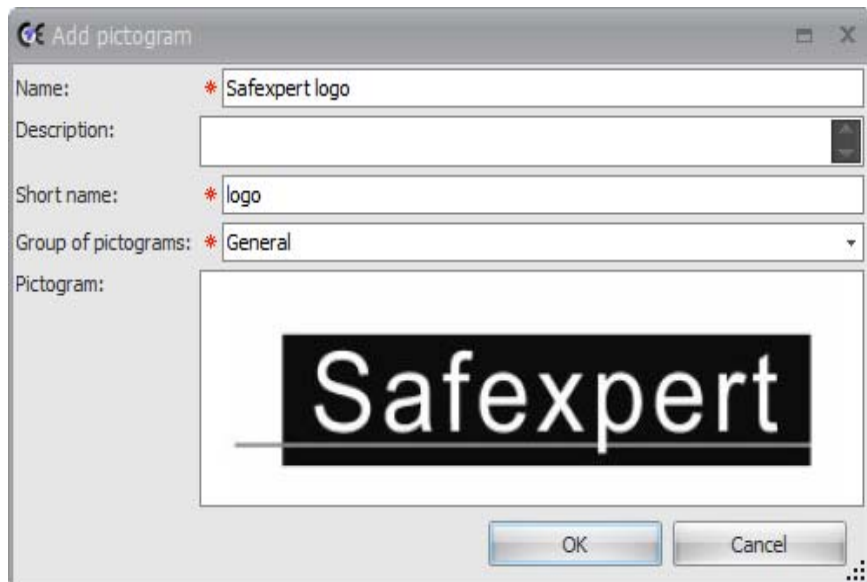
List of pictograms

The list shows all pictograms directly inserted in this window and all pictograms that were added in the risk assessment (see 8.2.3.8).

**Note: If a pictogram is added to the list of pictograms via the risk assessment, Safexpert internally records to which measure that corresponding pictogram belongs. If a measure is deleted at a later time, all pictograms related to this measure will also be deleted from the list of pictograms.**

#### Add pictogram manually

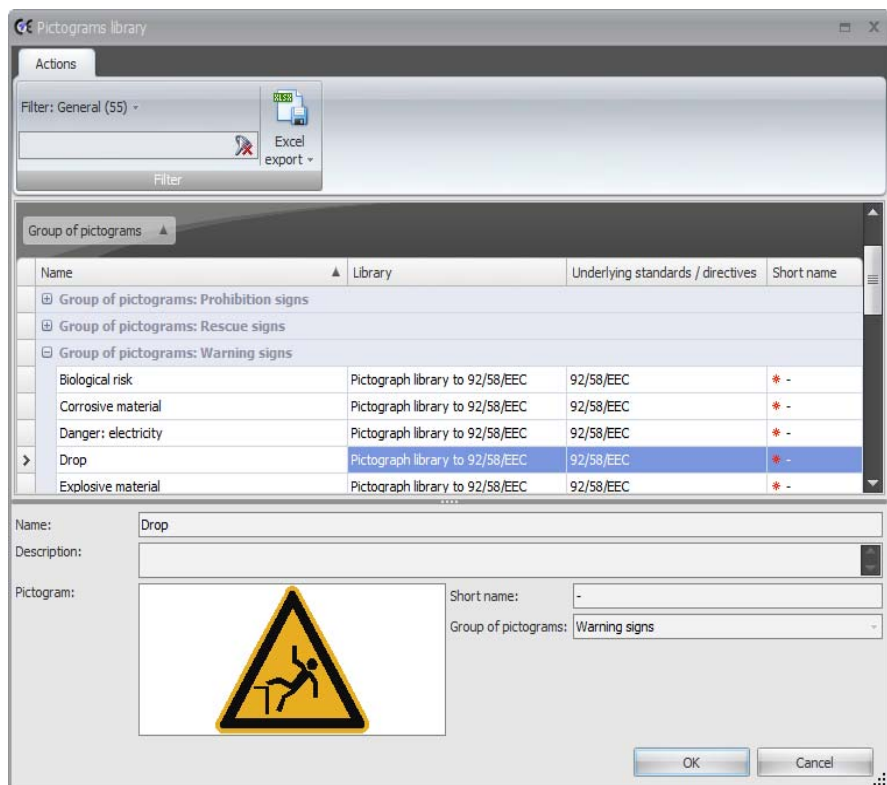
In the multifunction bar or in the context menu, select the **Add pictogram** function and enter the texts:



To insert the symbol from the clipboard, select the **Paste** function from the context menu or select the **Load** function to insert the graphic from a file.

#### Add pictogram from a pictograms library

On the multifunction bar, select the **Pictograms library** function, select the desired pictogram and click on **OK**.



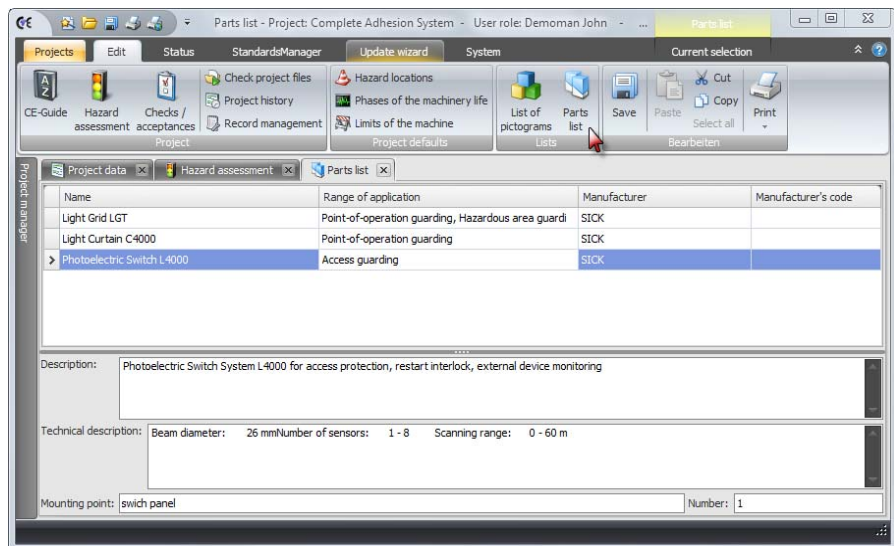
*Copying a pictogram from the pictograms library*

## 5.4.2 Parts list

Safexpert provides the option to define during the risk assessment which components or devices were used for the risk reduction.

All components or devices are displayed in the parts list:





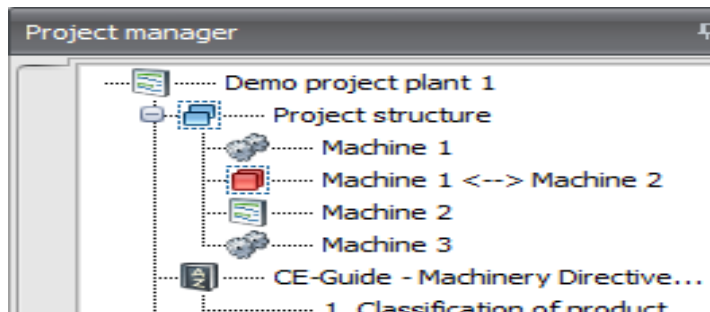
Display of components or devices applied in the project.

Components or devices can also be manually added to the parts list via the context menu.

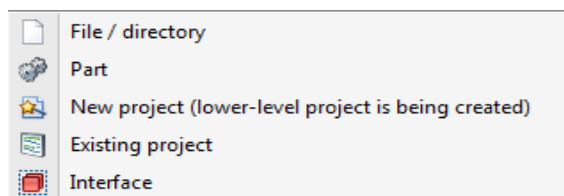
**Note: The parts list does not necessarily contain all components required for the current project! This parts list is meant to help the designer not to forget important parts. It should not be considered an order list.**

## 5.5 Structuring a project

Safexpert provides special functions that allow you to maintain an overview even in case of industrial systems or larger projects.



In the **Project manager**, the structuring of the system project is performed in the **Project structure** subitem for the opened project. These elements can be added in the project structure:



This menu is displayed if you place the cursor on the **Project structure** and then select the **Add** command in the multifunction bar or by right-clicking on the **Project structure** to open the context menu.

### 5.5.1 Integrating parts

Freely definable parts refers to all parts that are purchased externally and integrated into the machine for which no data are available in the Safexpert format. Such parts can already bear a CE mark, e.g., a part can be a complete machine that was already made subject to a conformity assessment by the

supplier. Purchased components can also be safety components or other equipment. For all parts included in a project, the "Part OK" check box must be activated, otherwise a completion message for the whole project is not possible.

### 5.5.2 New project (lower-level project is being created)

This function creates a lower-level project. This project does not appear in the project list later on. Hence, it can be opened only from within the project structure.

The lower-level project is edited just like a regular project. The project must be completed, otherwise the higher-level project cannot be completed either.

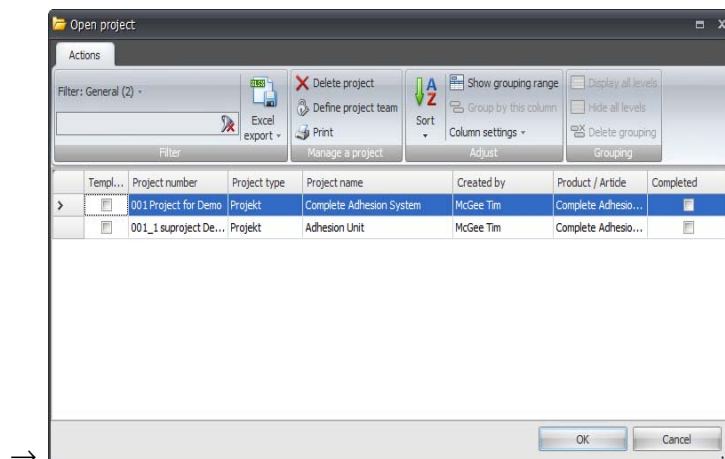
### 5.5.3 Adding an existing project

Safexpert provides two options for adding exiting projects to a structure:

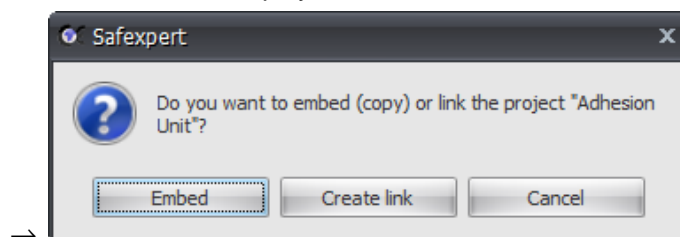
- Embed project
- Link project

#### Procedure

- 1 In the context menu, select the **Add - Existing project** command:  
→ The **Open project** window is displayed.



- 2 Select the project to be added and click on **OK**.  
→ This window is displayed:



- 3 Click on the desired option.

#### Embed

This option copies all the data into the existing project. After copying, a connection to the previous project no longer exists.

This project does not appear in the project list later on. Hence, it can be opened only from within the project structure.

The lower-level project is edited just like a regular project. The project must be completed, otherwise the higher-level project cannot be completed either.

## Create link

This option only creates a link to the selected project. Hence, any change in the linked project affects the main project.

The linked project must be completed, otherwise the higher-level project cannot be completed.

---

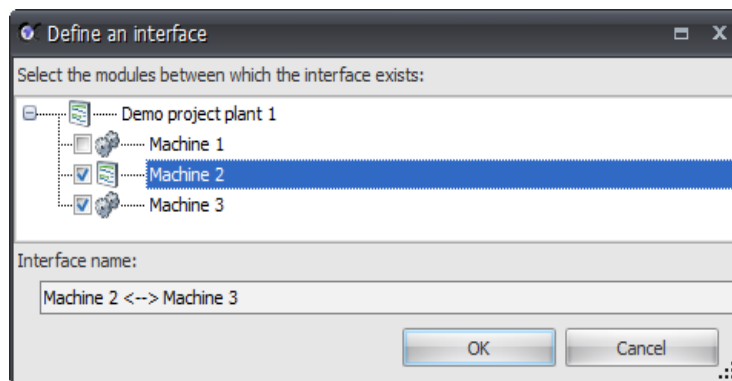
### 5.5.4 Adding an interface

If machinery or partly completed machinery are combined with each other, it may result in new hazards.

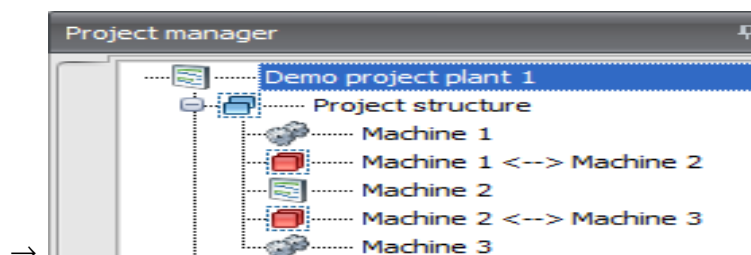
Safexpert provides a special function with which a risk assessment can be performed at the interfaces.

#### Procedure

- 1 In the context menu, select the **Add - Interface** command:  
→ The **Define an interface** window is displayed.
- 2 Click on the two option fields of both projects to be combined with each other:  
→ The project names of the projects are automatically entered in the Interface name field:



- 3 Then click on **OK**.  
→ After selecting the hazards list to be used for the interface inspection, the interface is inserted after the entry of the project listed first:



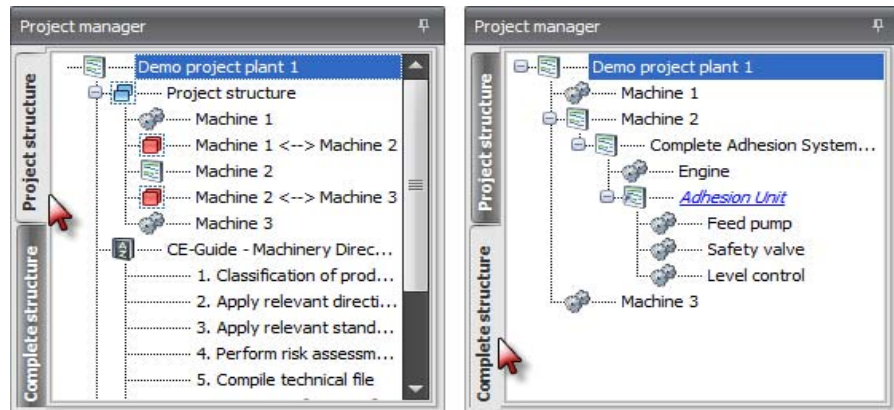
For information about performing the risk assessment at interfaces, see section 8.3.

---

### 5.5.5 Displaying the complete structure

On the Project structure tab, only the first level of the lower-level projects is displayed at all times. But lower-level projects could also have lower-level projects.

On the Complete structure tab, the entire structure tree, including all lower-level projects, is displayed:



Two views: Project structure and Complete project structure

If the opened project happens to be a lower-level project of another project, then the Complete structure tab also shows the higher-level projects.

**Note: It is not practical to display the detailed structure of a lower-level project in a main project. If the complete structure is displayed, the integrated parts would be shown twice – once for the main structure and once as subpoints of the lower-level project.**

The Project structure tab shows which lower-level projects are already marked with "Done".

## 5.6 CE guide – Machinery directive

The project manager shows which points of the CE guide must be completed and which are already complete.

Double-clicking on an entry opens or displays the corresponding tab of the CE guide.

For additional information about the CE guide, see chapter 7.

## 5.7 General project tasks

General project tasks are tasks that must be completed across the project.

**Tip: Do not create any tasks for points that are included in the CE guide by default, such as "Perform a risk assessment" or "Compiling technical file".**

### Creating tasks

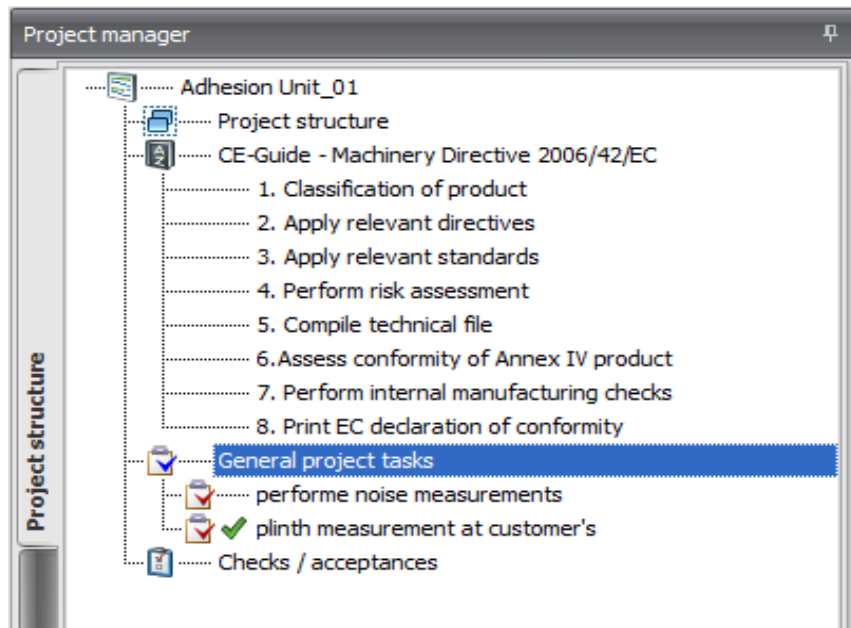
- 1 In the project manager, select the General project tasks point.
- 2 In the multifunction bar or context menu, select the function **Add – Task**.  
→ The Add task window is displayed (see the section 4.5).

### Edit task or mark as done

- 1 Double-click on the task.  
→ The Edit task window is displayed.

### Status of tasks

Whether the tasks have been marked as "Done" is immediately visible in the project manager:



*Immediately visible: General project tasks done or still open.*

An overview of all open tasks is located in the Status main menu (see section 6)

---

## 5.8 Checks / acceptances

The project manager immediately shows whether checks or acceptances have been created for the project and whether they are already complete.

Double-clicking on an entry of Checks / acceptances displays the Checks / acceptances tab.

Additional information about the Check and acceptance assistant is located in chapter 9.

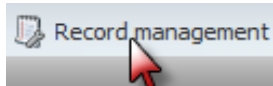
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## 5.9 Managing project protocols

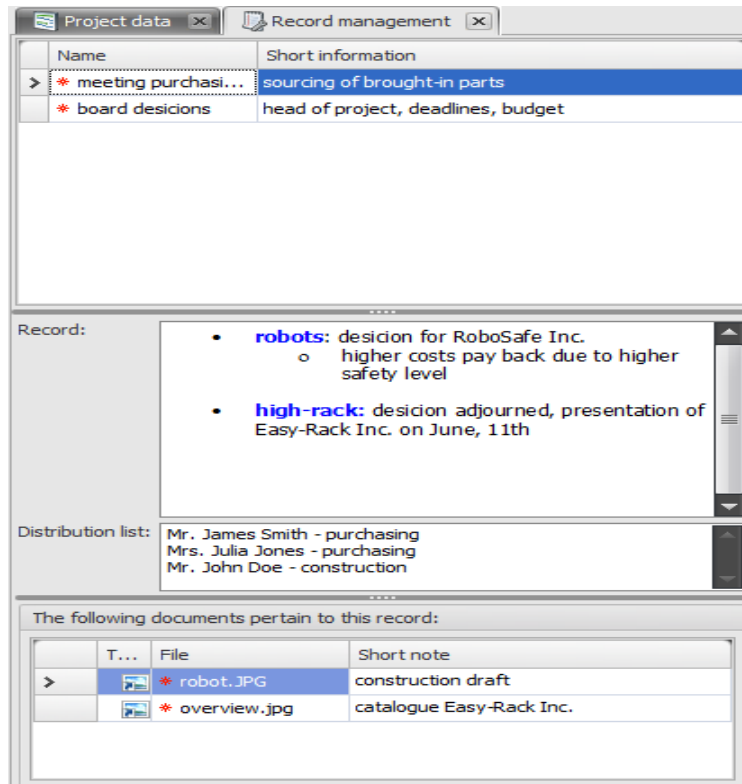
While working on a project, a large number of different protocols and documents can accumulate. With Safexpert, they will be clearly managed for every project. The search function facilitates and accelerates the retrieval of protocols.

Any number of protocols can be created for a project and any number of documents (files) can be created for every protocol.

## Creating a protocol

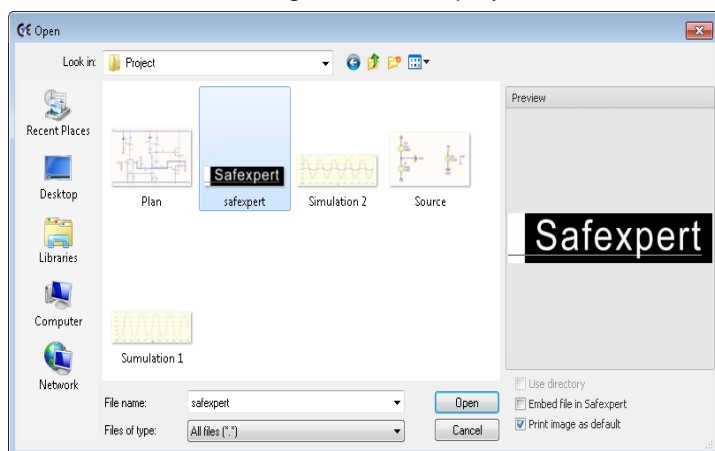


- 1 In the **Edit** main menu in the **Project** group, click on the **Protocol management** function:  
→ The Protocol management tab is displayed.
- 2 In the context menu or multifunction bar, select the **Add protocol** function.
- 3 Enter the parameters and, if necessary, add files to the project.



## Add file to protocol

- 1 Click in the multifunction bar in the **Files** group or in the **Add file** context menu.  
→ The window for selecting the file is displayed:



- 2 If you select the **Embed file in Safexpert** option, the file is embedded in the Safexpert database, otherwise a link is placed to the file on a data carrier.  
Click on **Open** to add the file to the protocol.

## 6 Status

Especially for larger projects with several participants, it is often difficult to determine whether all required points have been done.

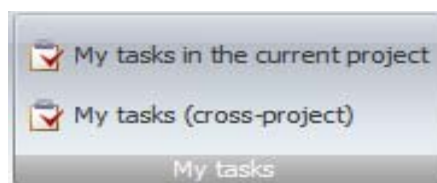
The completion message for a project is given if:

- all points of the CE guide have been completed,
- all lower level projects have been completed
- all parts connected to the project (e.g. machine components, etc.) have been completed
- no more tasks are open,
- all pictograms in the list of pictograms have been declared as "OK" (attached).
- all required checks or acceptances have been completed positively.

Safexpert offers convenient functions that facilitate tracking projects and safeguard the clarity of large projects.

---

### 6.1 My tasks



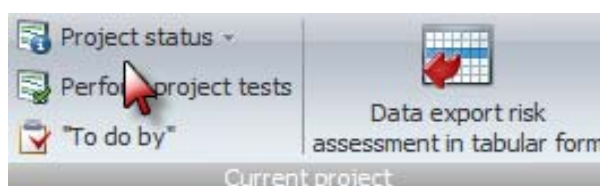
An analysis is performed which tasks are still open for the logged-in user:

- in the current project or
- cross-project.

The cross-project task list is automatically displayed when opening Safexpert.

---

### 6.2 Current project

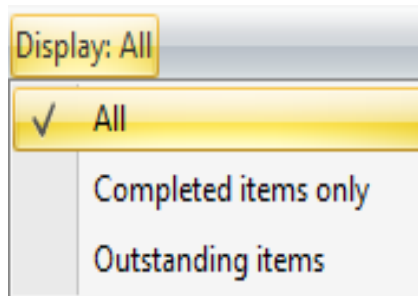


*Analysis functions for the opened project*

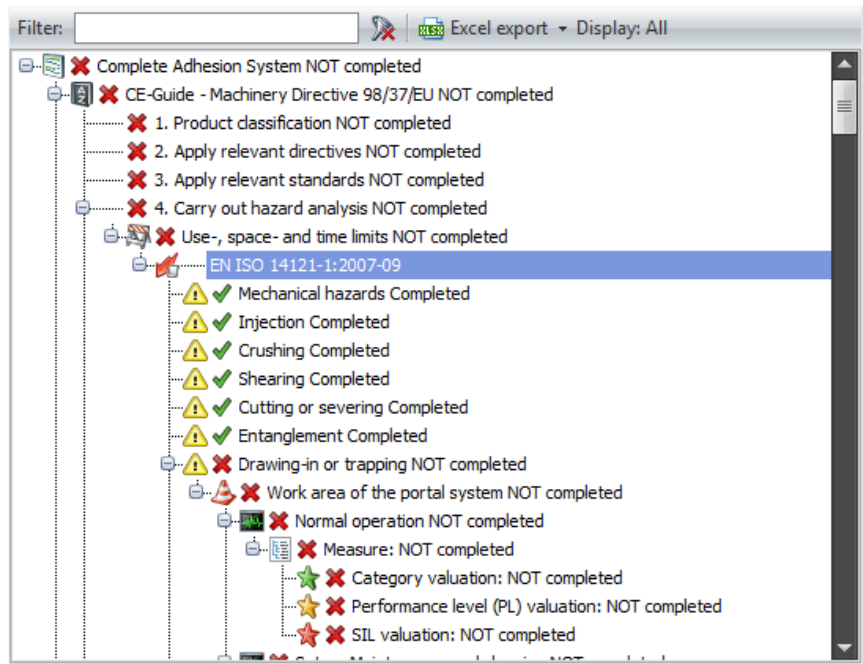
---

#### 6.2.1 Project status

In the Project manager, you can define that only items still outstanding or only items already completed can be displayed. To do so, click in the **Project structure** group on the **Display** menu on the multi-function bar:



In addition, Safexpert offers an analysis of all activities to be done in a clearly arranged tree structure. To do so, click on the **Project status** function on the **Current project** multi-function bar:



*Clearly arranged analysis of all required activities in the project*

## 6.2.2 To do by

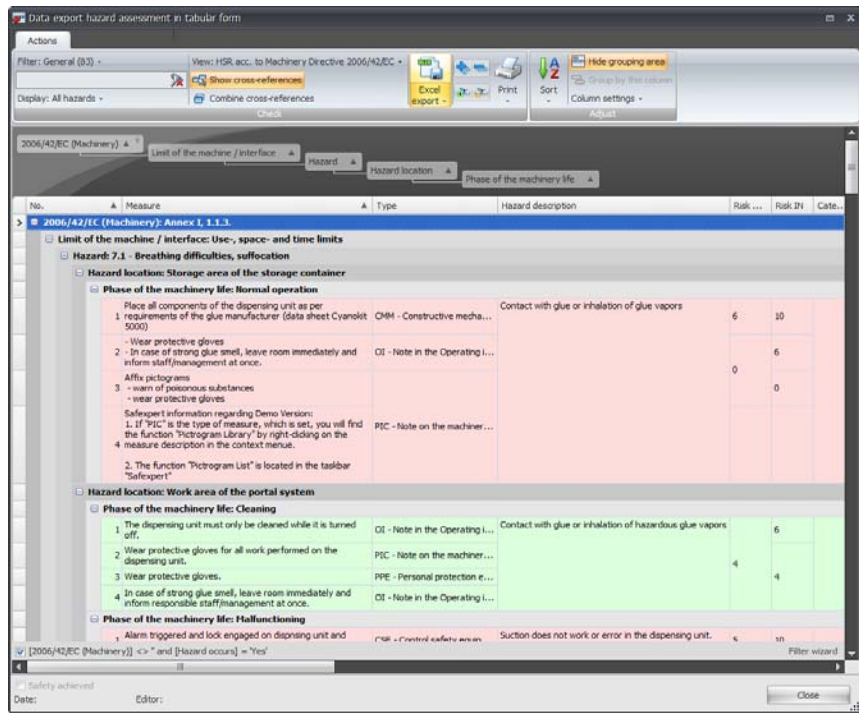
An analysis is performed which tasks of which persons are still open in the current project.

The **Add task** function allows adding tasks for any projects at this point.

## 6.2.3 Risk assessment data export in tabular form

This function provides persons with expertise in data processing a means for extremely flexible data compilation from the risk assessment for export.





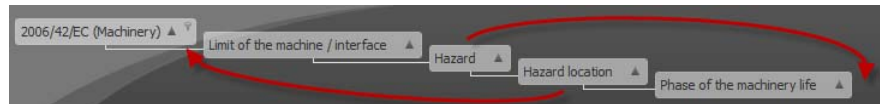
*Flexible compilation of data from the risk assessment*

The function is available in the **Status** main menu under **Risk assessment data export in tabular form**.

**Note: No data can be changed in this window. Changes must be made in the "Risk assessment" window.**

### Defining your own grouping criteria

Use the left mouse button to drag the desired field designations to another position:



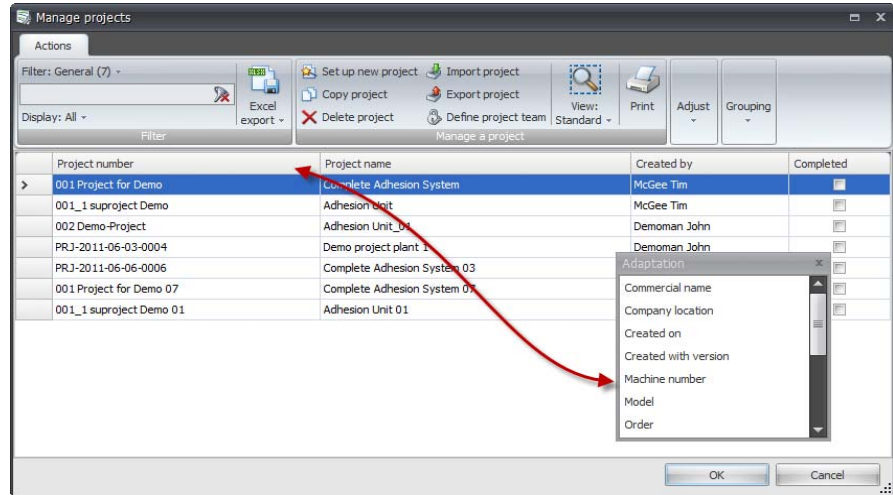
*Very simple change of the representation for maximum overview*

## Displaying and hiding columns

In the multifunction bar, click on the **Column settings** function and select **Hidden columns**.

Click on the field designation shown in the column heading, hold the mouse button pressed and drag it into the **Hidden columns** window.

To show the columns again, drag them back into the column heading.



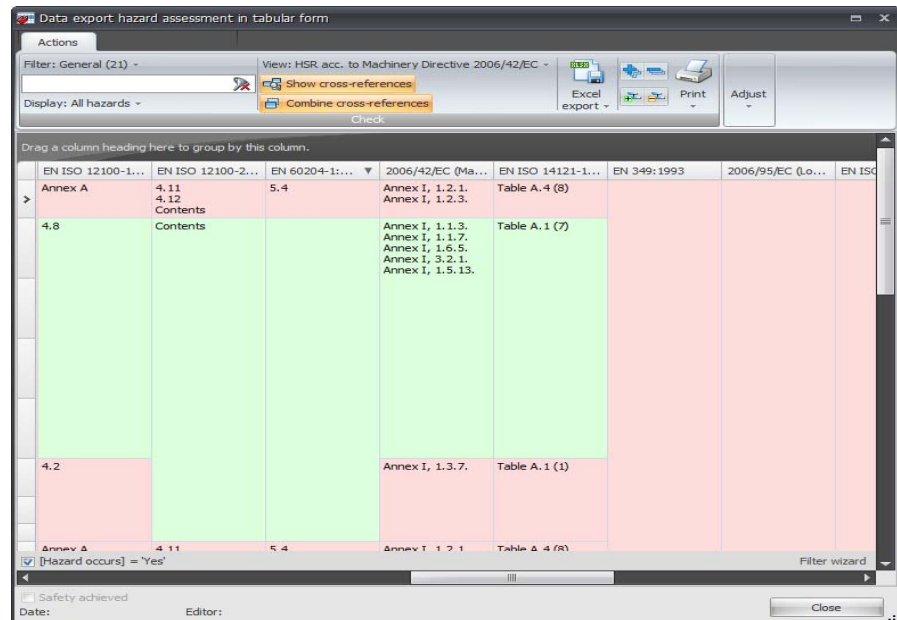
Displaying and hiding columns

## Show cross-references

Click on the **Show cross-references** button:

All documents for which cross-references have been entered in the hazards list are displayed in a separate column.

If you click on the **Combine cross-references** button, all cross-references are combined in a row.

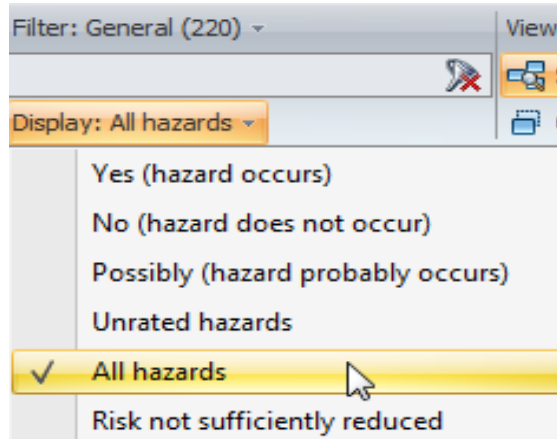


Combine cross-references

## Setting filter conditions

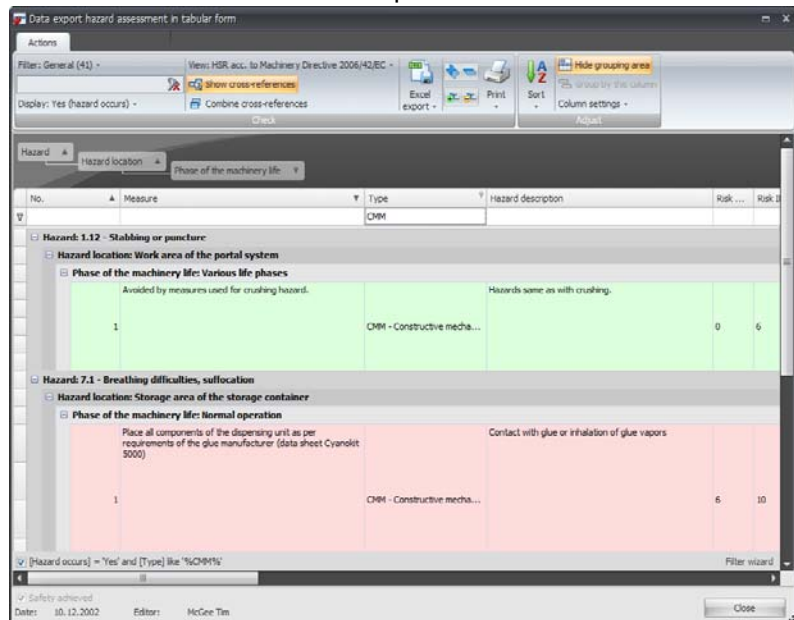
The display of the data is based on different filter parameters:

- Risk assessment and status of completion:



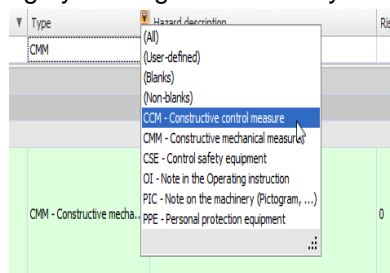
→

Column filter: Searches the text in the respective column:



→

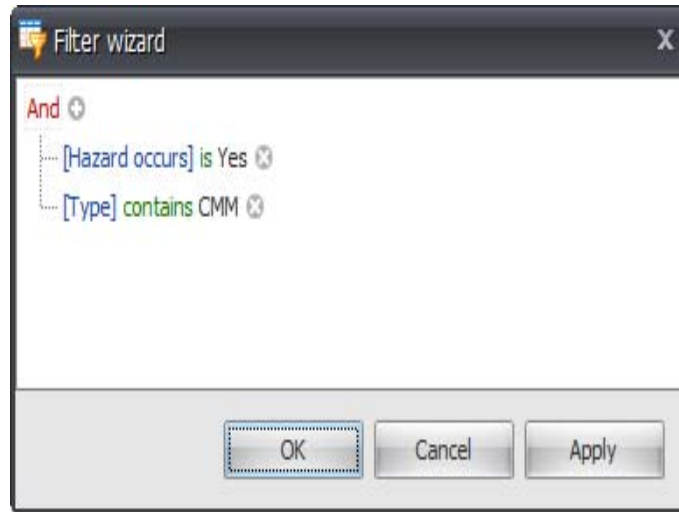
- Filtering by clicking on the filter symbol within the column heading:



→

## Filter wizard

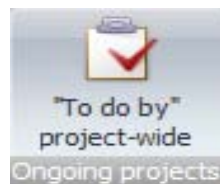
Click on the Filter wizard button in the bottom right area of the window or select the "Filter wizard" from the context menu of the column headings.



*Flexibly compiling filter criteria*

---

## 6.3 Ongoing projects



An analysis is performed which tasks of which persons are still open in all projects. The **Add task** function allows adding tasks for any projects at this point.

---

## 6.4 System



The **Logged-in user** function provides the option to establish contact with users that are logged into the system.

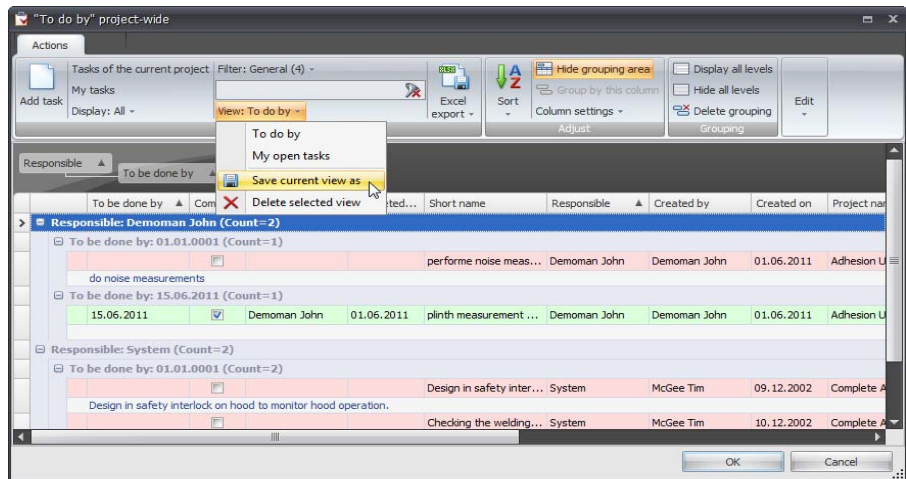
---

## 6.5 Freely defined views

In all windows that display headings of open tasks, the **Grouping by columns** function is available.

This makes it possible to quickly and easily create freely defined views yourself. To do so, drag a column heading into the grouping area or out of the grouping area.

Freely defined views can be saved so that they do not have to be compiled anew every single time. For this purpose, click on **View** and select the **Save current view as** item from the menu:



*Saving freely defined views*

During the save process, you can select whether the view should be visible for all users of Safexpert.

### Displaying freely defined views

To open a freely defined view, click on the desired icon and select the desired view from the displayed list:

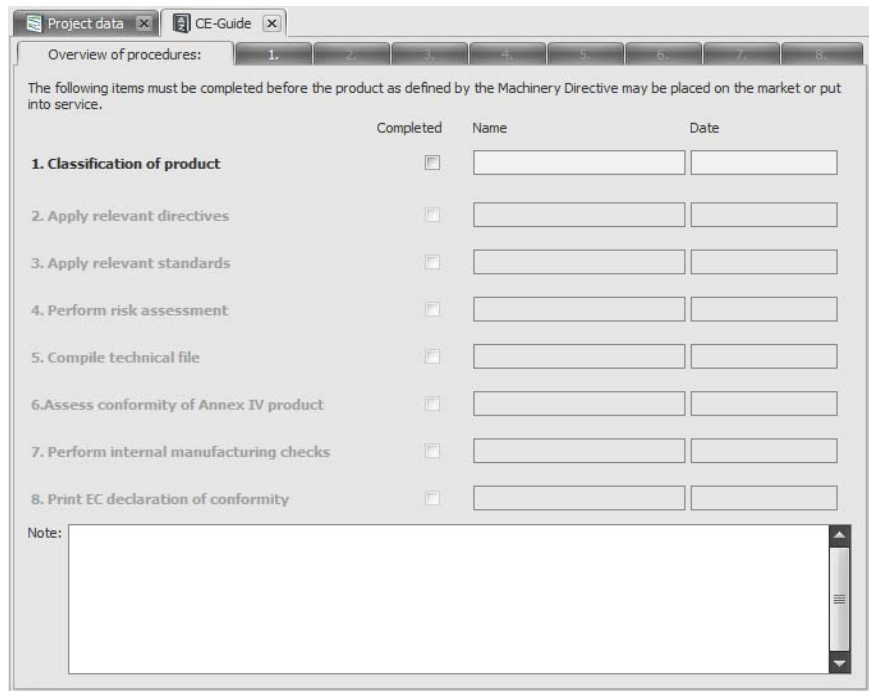


## 7 CE guide

**Note: The "CE guide" function can be executed only if you own the license right to this Safexpert module!**

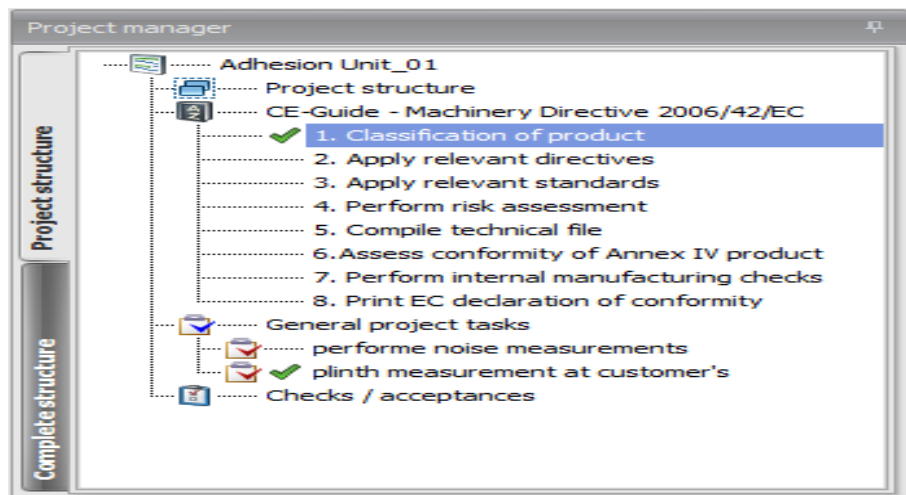
Safexpert supports systematic conformity assessment according to the Machinery Directive.

The CE guide guides you through the entire process of the conformity assessment in seven or eight steps.



*Conformity overview or overview of procedures in the CE guide*

The steps to be completed in the CE guide are also displayed in the project manager:

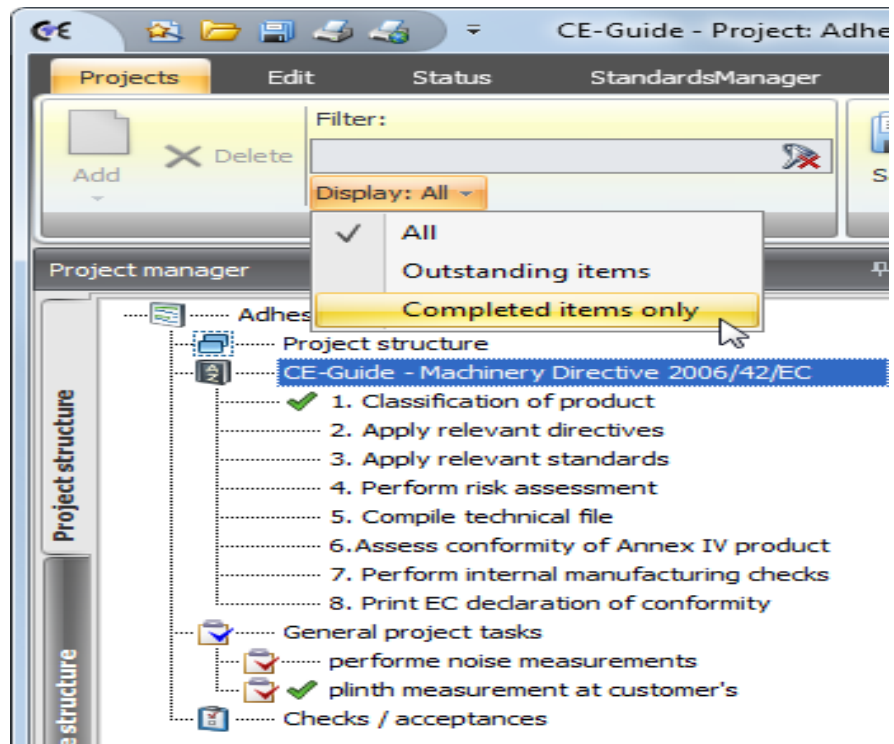


*Conformity overview or overview of procedures in the project manager*

You can select each step by directly clicking on the respective tab with the mouse. Processing does not have to follow the sequence indicated.

### Overview of procedures in the CE guide

In the project manager, click on an entry of the CE guide and then on **Display**. Select the desired option, e.g. to display only the open points:



Overview of the completed and open points in the CE guide

Safexpert contains two CE guides:

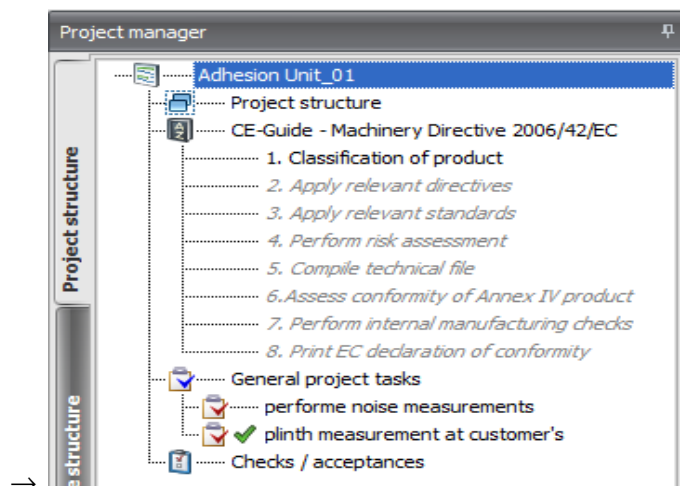
- CE guide - Machinery Directive 98/37/EU and
- CE guide - Machinery Directive 2006/42/EU

The CE guide according to the Machinery Directive 98/37/EU is still available to be able to correctly display earlier projects.

This manual describes the CE guide - Machinery Directive 2006/42/EU.

### How to open the CE guide

- 1 Open a project  
→ The Project manager is displayed.



- 2 Double-click on **CE guide - Machinery Directive 2006/42/EU**:  
→ The CE guide opens.

## Overview of procedures (conformity overview)

The "Overview of procedures" tab of the "CE guide" window forms the control centre for processing the conformity assessment. Here you can see which items have already been completed and which are still open.

	Completed	Name	Date
1. Classification of product	<input type="checkbox"/>		
2. Apply relevant directives	<input type="checkbox"/>		
3. Apply relevant standards	<input type="checkbox"/>		
4. Perform risk assessment	<input type="checkbox"/>		
5. Compile technical file	<input type="checkbox"/>		
6. Assess conformity of Annex IV product	<input type="checkbox"/>		
7. Perform internal manufacturing checks	<input type="checkbox"/>		
8. Print EC declaration of conformity	<input type="checkbox"/>		

Note:

Overview of procedures in the CE guide

The eight steps listed are assigned to the eight tabs in the "CE guide". The steps required for the project at hand must be followed. The processing does not need to follow the sequence indicated. Every tab in the CE guide features a **Done** check box (top right).

### How to define a step as "Done"

- 1 Open one of the eight tabs in the CE guide.
- 2 Click on the **Done** check box (top right) if the product classification is complete.
  - The point is marked in the overview of procedures. Safexpert automatically fills the columns Name and Date with the name of the logged-in user and the system date.

---


## 7.1 Classification of product

On tab 1 of the CE guide, you have to enter basic information about the product.

Answer the questions about the product for which you want to perform the conformity assessment. In accordance with your evaluation, certain options are automatically deactivated or activated depending on which options the Machinery Directive provides.



*Classification of product*

All terms feature a Safexpert information button to provide users, who do not yet know the requirements of the machinery directive in detail, the easiest possible classification of the product: . Clicking on this button displays the point in the machinery directive that contains important statements for the respective term.

## 7.2 Clarifying the application of additional directives

**Note: Always consult the original directives or the implemented national laws, as required.**

Products that are subject to the machinery directive can also be subject to additional EU directives, e.g., EMC Directive, ATEX Directive, etc. On tab 2 of the CE guide, you define which EU directives are or were applied for the current project.

The machinery directive is incorporated into the list by default and cannot be removed. If the project is subject to the category "Machinery for distributing pesticides," the Directive 2009/127/EG is also included in the list.

In the EC declaration, the directives marked as applied are listed. This also includes those directives that do not require a CE mark.

### Selecting the directives

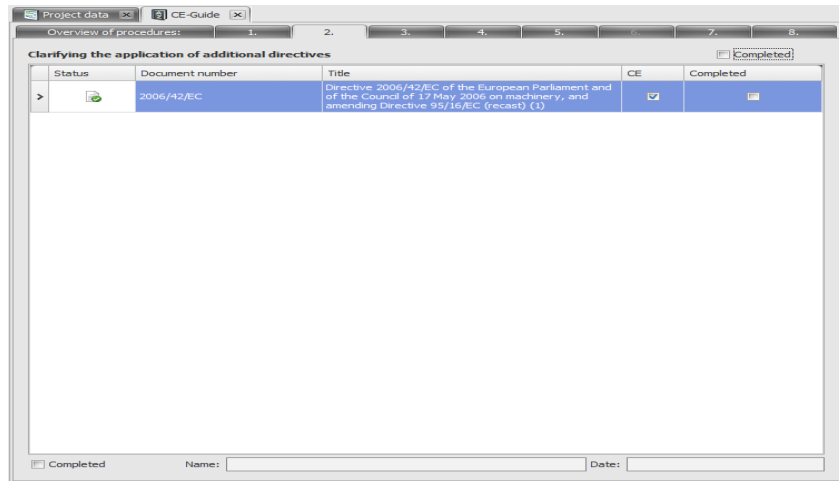
Safexpert supports you in the selection of the directive that may have to be applied in addition to the machinery directive. All directives that are designated for a CE marking are selected on the Directives register in the **CE** column with a check mark.

You can add individual further directives to the list of applied directives or copy them from an earlier project.

### 7.2.1 Adding individual directives

The procedure for adding applied directives to a project depends on whether you own the **Standards manager** module or not.

- If you own the Safexpert Standards manager, then the directives you would like to add to a project are selected in Standards manager and added to the project (and to the company favourites, if necessary).
- If you do not own the Safexpert Standards manager, you can enter and copy the directives you want to add to a project in a special window.



*Clarifying the application of additional directives*

**Note:** In Safexpert, it is possible to copy applied directives from an earlier project. During copying, it is automatically checked whether the directives to be copied are still up to date in Standards manager. It is a prerequisite that you own the "Standards manager" module and that the data have been continuously updated.

Check standards / regulations for relevance, see section 12.3.3.

## Procedure

- 1 In the CE guide, open tab 2.
- 2 In the **Applied directives** group or in the context menu, select the **Add directive** command.
  - If you own Safexpert Standards manager, it will be displayed.
  - If you do not own Safexpert Standards manager, then the **Include directive/standard/document** window is displayed.
- 3 If you own Safexpert Standards manager, then search in Safexpert Standards manager for the documents you would like to add to the current project.
 

Mark it in the list of search results and click on the **Copy** function in the multifunction bar or in the context menu.

If you do not own Safexpert Standards manager: If you do not own Safexpert Standards manager: In the window, enter the document to be added and click on **OK**.

## 7.2.2 How to remove a directive from the list

### Procedure

- 1 In the CE guide, open tab 2.
- 2 Select the directive to be removed from the list.
- 3 In the **Applied directives** group or in the context menu, select the **Delete directive** command.
  - The confirmation query **Delete record?** is displayed.
- 4 Select **Yes** to delete the entry.
 

(Removing the entry from the list on tab 2 does not delete it from the company favourites!)

---

### 7.2.3 How to copy directives from an earlier project

If you are editing a project for which you want to use the same directives as an earlier project in addition to the Machinery Directive, they can simply be copied. In doing so, it is important to determine whether these directives are still up to date. Safexpert automatically handles this time-consuming work for you if you own the Safexpert module **Standards manager**.

**Caution! It is a prerequisite for accurate checking that the company favourites have been continuously updated.**

See the chapter **Check standards / regulations for relevance** on page 151.

If any documents have been manually added to the list of applied directives, these directives will not be added again. In this case, Safexpert will not check whether they are still up to date.

**Note: Checking whether standards are up to date is performed only if you licensed the "Standards manager" module.**

#### Procedure

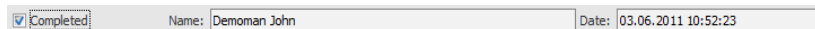
- 1 In the CE guide, open tab 2.
- 2 In the **Applied directives** group or in the context menu, select the **Copy directives from project** command.  
→ The "Open project" window is displayed.
- 3 Double-click on the project from which you want to copy the applied directives.  
→ If you own the Safexpert Standards manager, then Safexpert automatically checks when copying whether the directives to be copied are still up to date.

---

### 7.2.4 How to define that a directive has been followed

#### Procedure

- 1 In the CE guide, open tab 2 **Clarifying the application of additional directives**.
- 2 Select the entry in the list of applied directives that you want to mark as completed.
- 3 Enable the **Done** check box (under the list of directives).



---

## 7.3 Evaluating relevant standards

On tab 3 of the CE guide, you define which standards or other technical specifications are applied for the current project. You can either add the applied documents individually or copy them from an earlier project.

In the EC declaration of conformity, Safexpert prints all standards and technical specifications,

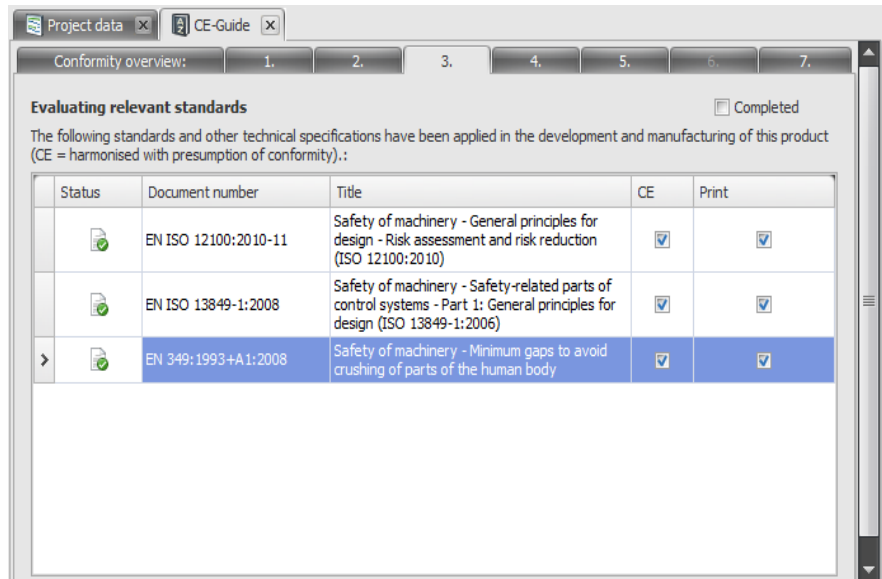
- that have been added as applied standards on tab 3 of the CE guide, and
- for which the **Print** option is selected.

---

### 7.3.1 How to add applied standards to a project

The procedure for adding applied documents (e.g. standards, other technical specifications, etc.) to a project depends on whether you own the Safexpert module **Standards manager** or not:

- If you own Safexpert Standards manager, then the documents you want to add to a project are selected and added in Standards manager.
- If you do not own Safexpert Standards manager, you can enter and copy the documents you want to add to a project in a special window.



*Evaluating relevant standards*

**Note: In Safexpert, it is possible to copy applied standards from an earlier project. During copying, it is automatically checked whether the directives to be copied are still up to date in Standards manager.**

**It is a prerequisite that you own the "Standards manager" module and that the company favourites have been continuously updated.**

See the chapter **Check standards / regulations for relevance** on page 151.

## Procedure

- 1 In the CE guide, open tab 3.
- 2 In the **Applied standards** group or in the context menu, select the **Add directive** command.
  - If you own Safexpert Standards manager, it will be displayed.
  - If you do not own Safexpert Standards manager, then the **Include directive/standard/document** window is displayed.
- 3 If you own Safexpert Standards manager, then search in Safexpert Standards manager for the documents you would like to add to the current project.
  - Mark it in the list of search results and click on the **Copy** function in the multifunction bar or in the context menu.
  - If you do not own Safexpert Standards manager: If you do not own Safexpert Standards manager: In the window, enter the document to be added and click on **OK**.

---

## 7.3.2 How to remove a standard from the list

### Procedure

- 1 In the CE guide, open tab 3.
- 2 Select the entry that you want to delete from the list.
- 3 In the **Applied standards** group or in the context menu, select the **Delete standard** command.  
→ The confirmation query **Delete record?** is displayed.
- 4 Select **Yes** to delete the entry.  
(Removing the entry from the list on tab 2 does not delete it from the company favourites!)

---

## 7.3.3 Copying documents from an earlier project

If you work on a project to which you want to apply the same standards and technical specifications as an earlier project, you can simply copy them. In this context, it is important to determine whether these standards are still up to date. Safexpert automatically handles this time-consuming work for you if you own the Safexpert module "Standards manager".

Only documents updated at the Safexpert Live Server can be checked whether they are up to date.

**Caution! It is a prerequisite for accurate checking that the company favourites have been continuously updated.**

Check standards / regulations for relevance, see section 12.3.3.

**Note: Checking whether standards are up to date is performed only if you licensed the "Standards manager" module.**

If any documents have been manually added to the list of applied standards, these documents will not be added again. In this case, Safexpert will not check whether they are still up to date.

### Procedure

- 1 In the CE guide, open tab 3.
- 2 In the **Applied standards** group or in the context menu, select the **Copy applied documents from project** command.  
→ The "Open project" window is displayed.
- 3 Double-click on the project from which you want to copy the applied standards.  
→ If you own the Safexpert Standards manager, then Safexpert automatically checks when copying whether the documents to be copied are still up to date.

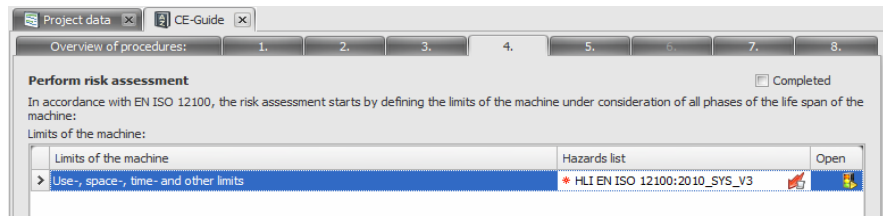
---

## 7.4 Perform a risk assessment

### 7.4.1 Defining the limits of the machine

The entire project work starts by defining the limits of the machine (see 5.1.2).

When creating a new project, the limits of the machine are automatically copied from the library (see 13.3.1) to tab 4 of the CE guide:



Possible division of the limits of the machine on tab 4 of the CE guide

**Note: The divisioning of machinery into modules should not be done on tab 4 of the CE guide, but in the project manager in the "Structuring a project " section (see chapter 5.5).**

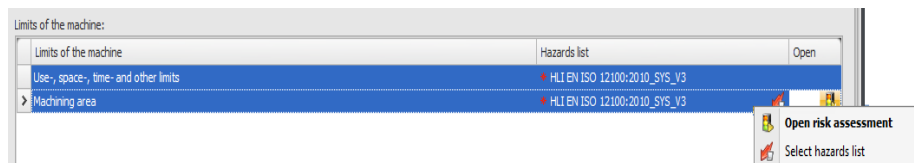
The context menu contains the commands for adding, deleting and renaming entries.

**Note: When deleting the limit of the machine, all performed risk assessments at this limit are also deleted. If no limits are defined, you cannot perform a risk assessment.**

## 7.4.2 How to open a risk assessment

At each limit of the machine, a separate independent risk assessment is performed. It is displayed in the Open column upon clicking on the **Open Risk assessment** icon.

It is also possible to open several Risk assessments at the same time. To do so, select the desired limits of the machine, followed by the command **Open Risk assessment** via the context menu.



Opening the risk assessment on tab 4 of the CE Guide

## 7.4.3 How to select the hazards list

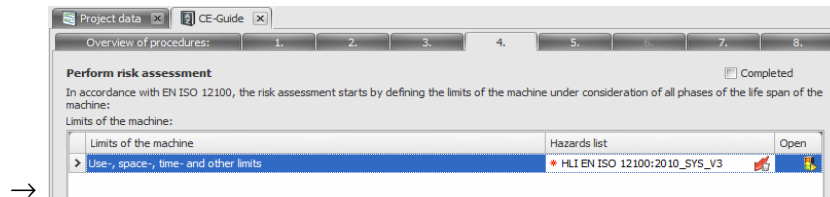
Safexpert is delivered with the hazards list acc. to EN ISO 12100.

The user can create or edit individual hazards lists. However, we do not recommend it. To perform industry-specific risk assessments, use the Safexpert concept for managing industry-specific cross-reference lists instead (see 13.3.6.2)

**Note: The hazards list you select for the risk assessment can be converted at a later time only if a conversion table exists for this hazards list! Conversion tables can be created by the system administrator.**

## Procedure

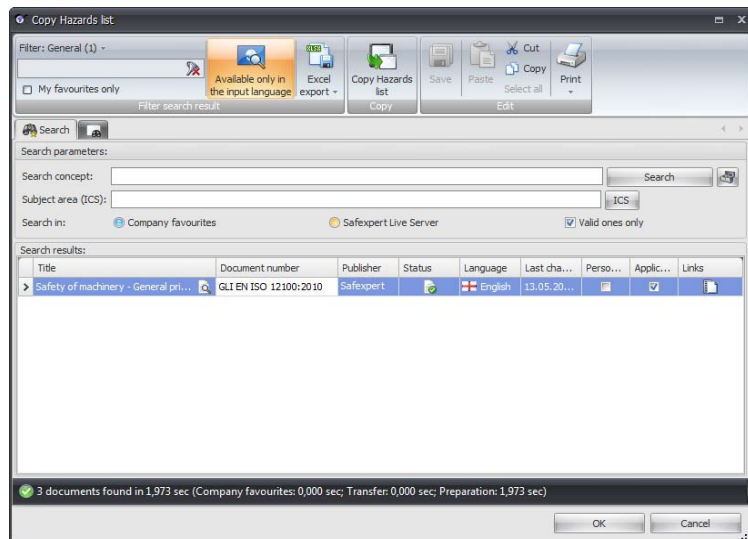
- 1 In the CE guide, select tab 4.



- 2 If the company favourites contain only one hazards list marked as "**Applicable**", it is automatically entered for the predefined limit of the machine .

- 3 Otherwise click on **Select hazards list** :

→ The "Copy hazards list" window is displayed:



- 4 Double-click on the hazards list to be copied.

### 7.4.4 How to convert the hazards list for a project

Up to release 6.0, Safexpert was delivered with a hazards list according to EN 1050. This standard was first replaced by EN ISO 14121-1 and later by EN ISO 12100. For current projects created on the basis of the old hazards lists to be applicable as quickly as possible, special conversion tables were developed for Safexpert. Based on this table, current projects or template projects are converted by pressing a button.

## Procedure

- 1 In the CE guide, select tab 4.



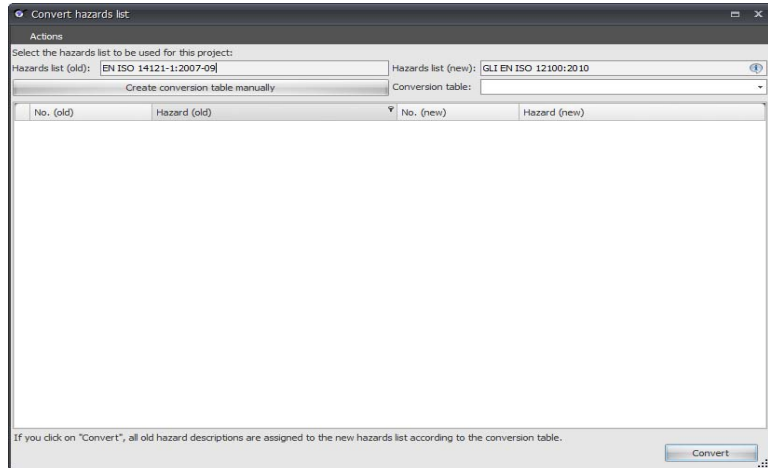
- 2 On tab 4, select the Select hazards list button.

→ If a risk assessment is open, a message appears that it needs to be closed.

→ Otherwise, the Convert hazards lists window appears.

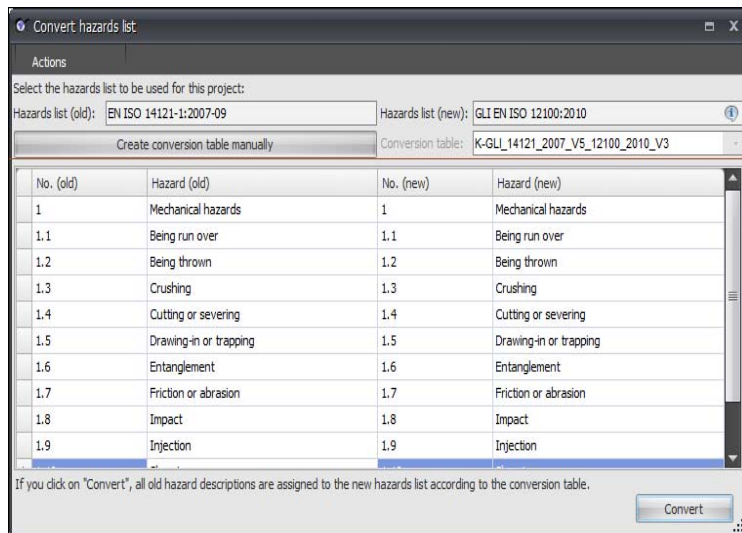
- 3 Select the hazards list to which you want to convert and click on Convert hazards list or OK.

→ The Convert hazards list window is displayed:



- 4 From the suggested conversion tables, select the one you want to use for the conversion.

→ The conversion table is displayed:



If no conversion table exists, you can manually create your own conversion table (see below).

- 5 Click on **Convert**.

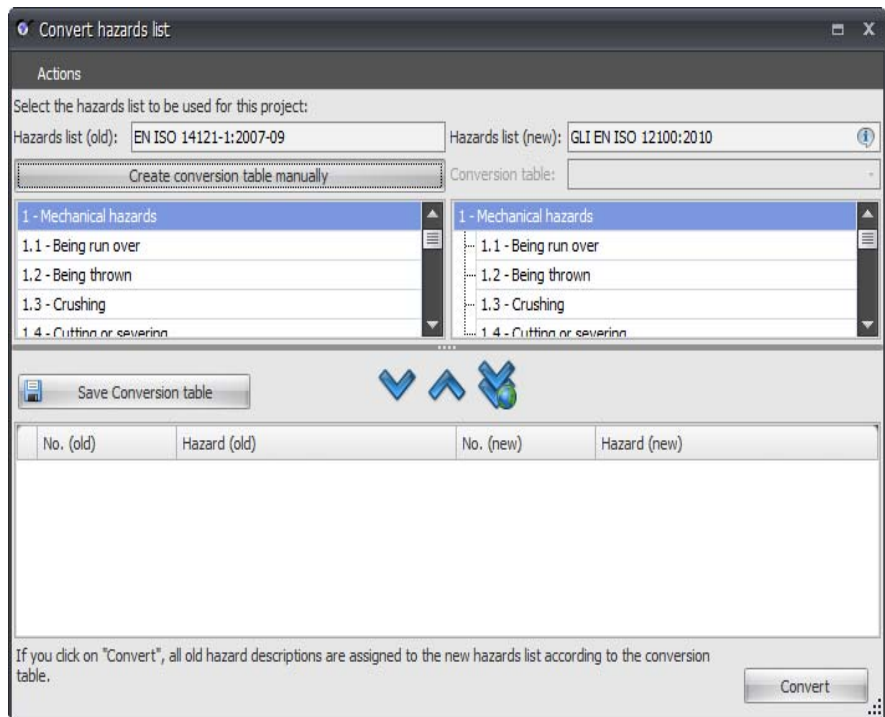
→ Before the conversion is performed, the **Select cross-reference lists** window appears.

### Create conversion table manually

If you developed your own hazards lists and they have to be updated, you can create your own conversion tables as long as you have the user right to do so.

This window is displayed if you clicked on **Create conversion table manually** in step 4 above:





Create own conversion table

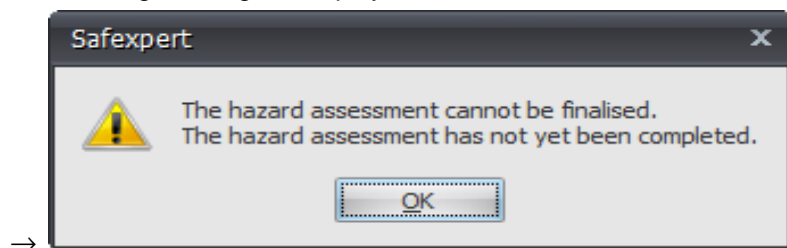
For additional information, see section 13.3.4.3.

## 7.4.5 Finalizing a risk assessment

The risk assessment is finalized if all limits of the machine have been evaluated for all possible hazards with respect to all possible phases of the machinery life and the measures to be taken have been described.

### How to define the finalization of the risk assessment

- 1 In the CE guide, select tab 4.  
→ The **Perform a risk assessment** tab is displayed.
- 2 Enable the **Completed** check box:  
→ Safexpert performs an internal check whether all items of the risk assessment have been completed. If this is not the case, the following message is displayed.



→

## 7.5 Instructions assistant

- See chapter 8.2.3.11.

## 7.6 Compiling the technical file for machines

Safexpert provides support on tab 5 of the CE guide for compiling the

- technical file for machines or
- special technical file for incomplete machines.

You can supplement this checklist for series production with the internally taken measures to ensure the correspondence of all manufactured machinery with the requirements of the machinery directive.

**Compile technical file** Completed

**Name and address of the person who is authorised to compile the technical documents**  
**Note: The person must be established in the Community.**

Name:  Select address

Company:

Street:  PO Box:

Country:  Post code:  Town:

Phone:  Fax:

E-mail:  Web:

Short name	Required	Completed	Completed on	Completed by
List of essential requirements	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
List of used standards	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
List of other technical specifications	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Description of hazard prevention	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	03.06.2011 11:3...	Demoman John
Technical reports or certificates	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
<b>Technical reports</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	03.06.2011 11:3...	Demoman John
Instructions for the machinery	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Information on the machinery	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Intended use	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	03.06.2011 11:3...	Demoman John
Misuse	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Workstations	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

Description: If the manufacturer or his representative residing in the EU declares the conformity with a harmonized standard which requires it that any technical report about the results of the checks can be performed by himself based on his selection or by an authorised body or an authorised lab.

Note:

Files:

Type	File	Short note

#### Compiling Technical file

#### Required

The **Required** column indicates whether this information or these documents are required in the sense of the machinery directive. Safexpert makes an automatic default setting.

#### File and directory

In this field you can enter a link to a file or directory. Double clicking on the directory entry directly opens the respective document provided that the required application program is installed on your computer.

### 7.6.1 Operating instructions

The operating instructions are a particularly important document with respect to product safety. Therefore, a checklist for the contents of the operating instructions has been integrated into Safexpert.

Short name	Required	Completed	Completed on	Completed by
Instructions for the machinery	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Information on the machinery	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Intended use	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	03.06.2011 11:3...	Demoman John
Misuse	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Workstations	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Putting into service	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Use	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Handling	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Installation	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Assembly and dismantling	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Adjustment	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

Compiling technical file – Subitem "Operating instructions for the machinery"

## 7.7 Clarify conformity assessment procedure for Annex IV Product

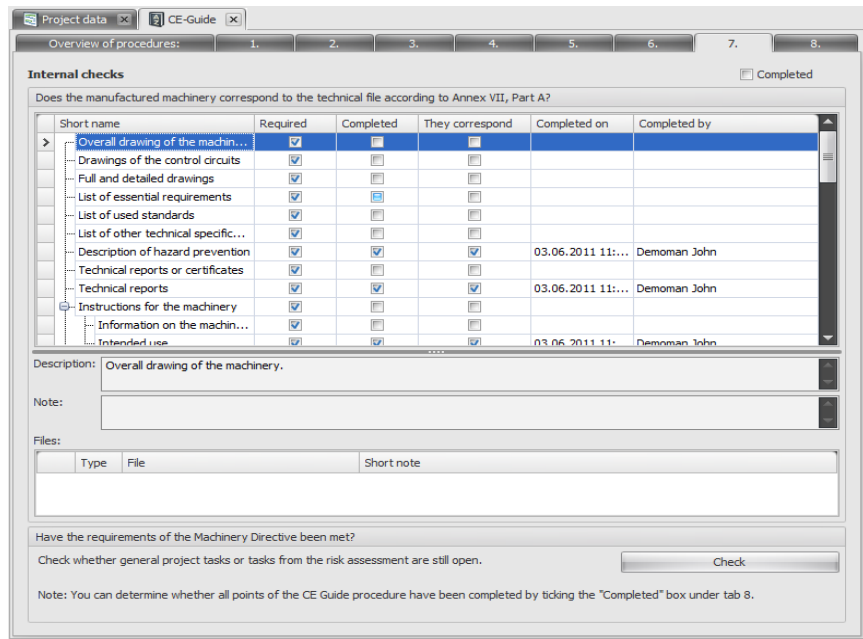
Tab 6 is active only if you selected on tab 1 that the product falls under Annex IV of the Machinery Directive. On tab 6, you select the conformity assessment procedure you applied for Annex IV Products.

Clarify conformity assessment procedure for Annex IV Product

Click on a notified body to copy the address data from the list defined in the system options (see section 13.4.2).

## 7.8 Perform internal manufacturing control

On the **Perform internal manufacturing control** tab, Safexpert provides support for executing the required tasks for the evaluation of the conformity with internal manufacturing control according to Machinery Directive 2006/42/EU, Annex VIII.



*Perform internal manufacturing control*

**Note: The checklist is copied from tab 5 and can be changed only on tab 5.**

### Done

The **Done** column signals whether the required information or documents are present. Safexpert makes an automatic default setting from tab 5. The user can change this default setting only in tab 5.

### They correspond

Click on the **They correspond** check box in the column if the manufactured machine corresponds with the specifications or documents.

### If the requirements of the machinery directive are met

If you click on the Check function, the Task Overview window is displayed. In addition to the general project tasks and the tasks from the risk assessment, all points from the CE guide must be completed. This is checked by clicking on "Done" on tab 8.

The Safexpert project manager clearly shows which points are still open on the project level (see section 6.2.1).

## 7.9 Print EC declaration of conformity or declaration of incorporation

The Machinery Directive allows for different declarations. Depending on your fundamental specifications about the product on tab 1 of the CE guide, Safexpert automatically decides which declaration is required for your product.

On tab 8 of the CE guide, the EC declaration of conformity or declaration of incorporation is printed out.

*Print EC declaration of conformity or declaration of incorporation*

### Printing the signature card

The signature must be affixed to the EC declaration in a legally binding form for the company according to the machinery directive. In practice, the signatories are often not identical with the operationally responsible persons for the respective subject area.

It is recommended to present the signatory of the EC declaration with a signature card.

Printing the signature card is done in Safexpert at the same locations where the declaration of conformity can also be printed, i.e. on tab 8 in the CE guide.

## 7.9.1 Completing the conformity assessment procedure

### Procedure

- 1 In the CE guide, open tab 8. **Print EC declaration of conformity or declaration of incorporation.**
- 2 Click on the check box **Done** (at the upper right), if you complete the conformity assessment for the machinery or the procedures for the partly completed machinery.
  - Safexpert checks whether all required points have been completed.
  - In the overview of procedures, the point **8. Print EC declaration of conformity or declaration of incorporation** is marked as **Done** if all points are completed. Safexpert automatically fills the columns Name and Date with the name of the logged-in user and the system date.
  - If not all points are completed, an error is displayed.

## 8 Risk assessment

Performing a risk assessment is a central requirement of the machinery directive or EN ISO 12100.

### 8.1 Basic considerations for the risk assessment

In the "General Principles" of Annex I, the machinery directive obligates the performance of a risk assessment and the required risk reduction. A perfect guide about the strategy for risk assessment and risk reduction is featured in Section 4 of EN ISO 12100:2010 and its Figure 1:

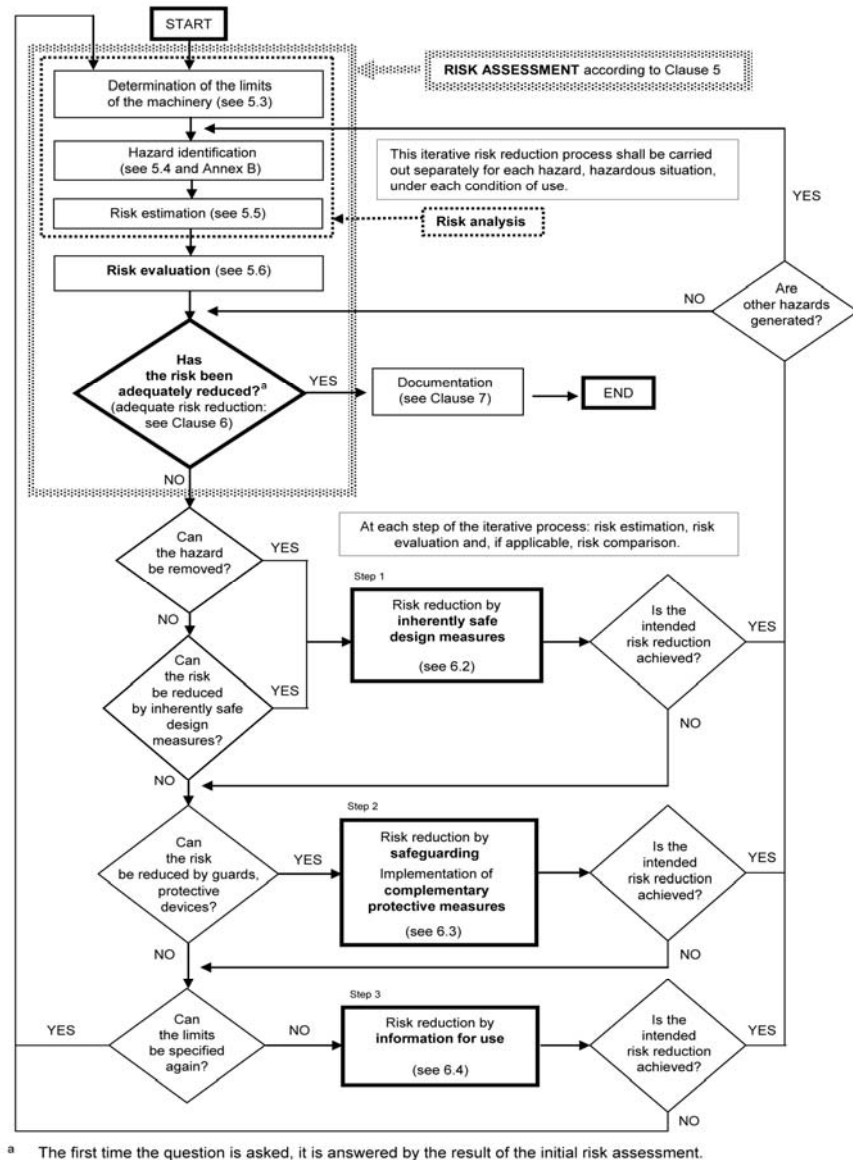


Figure 1 from EN ISO 12100:2010: Schematic representation of the three-tier iterative process for risk reduction

#### 8.1.1 Normative industry solutions

EN ISO 12100 forms the basis for the standards series "Safety of Machinery". Among other things, it ...

*"...provides a strategy for standards developers and will assist in the preparation of consistent and appropriate type-B and type-C standards..."*

C-standards are referred to as "Machinery Safety Standards". They deal with detailed safety requirements for a particular machine or group of machines.

EN ISO 12100, Introduction:

*"When a type-C standard deviates from one or more technical provisions dealt with by this International Standard or by a type-B standard, the type-C standard takes precedence."*

Many C standards contain a list of significant hazards in Section 4 that is derived from EN ISO 12100 based on the higher-level hazards list:

Table 3 — List of significant hazards

Hazards in Annex A of EN 1050		Exposed persons	Hazardous situations (Examples)	Danger zone	Relevant clauses in EN ISO 12100 (A)		Relevant Type B standard	Relevant clauses in this standard
No	Designation				Part 1	Part 2		
1	Mechanical hazards due to:				4.2			
1.1	Crushing/	Operator	Manual or automatic workpiece clamping, manual or automatic toolchanging	Work zone	4.2.1	EN 4.2 5.2.1 (A)	EN 294 EN 349 EN 953 EN 1088	5.2.4 5.2.7 5.2.10
1.2	Shearing				4.2.2			
1.4	Entanglement	Operator	Manual operations close to the grinding wheel or the spindle of the machine	Work zone	4.2.1 4.2.2		EN 953 EN 1088	5.2.4 5.2.5
1.5	Drawing-in or trapping	Operator	Manual operations between the grinding wheel and parts of the machine, particularly the work rest, or between the grinding wheel and the workpiece	Work zone	4.2.1	EN 4.14 5.2.1 5.5.3 (A)	EN 953 EN 1088	5.2.4 5.2.5 5.2.7
1.6	Impact	Operator	Operation in the area of travelling axes and in the area of automatic loading devices	Work zone	4.2.1		EN 294 EN 953 EN 1088	5.2.4 5.2.10
1.8	Friction or abrasion	Operator	Unintentional contact with the rotating abrasive product during loading, unloading and/or measuring	Work zone	4.2.1	EN 4.3.b 4.14 (A)	EN 953 EN 1088	5.2.1 5.2.5 Annex A

(continued)

For the individual hazards, reference is made to sections of the C standard in which specific safety-relevant solutions are described that may be specifically suitable for risk reduction.

But be careful! Many C standards point out that other hazards may also be "relevant" in addition to the hazards listed in the list of significant hazards. They must be identified in accordance with the hazards list acc. to EN ISO 12100.

Example from the C standard EN 692:2005+A1:2009 (mechanical presses):

*"Table 1 of this standard is a list of significant hazards and their related danger zones normally associated with a mechanical power press. As part of the risk assessment, the designer shall verify whether the list of hazards in table 1 is exhaustive and applicable to the press under consideration."*

Hence, it is indispensable to check at all times whether hazards may occur on the machine to be developed that may occur in addition to the significant hazards listed in the C standard.

## 8.1.2 Industry-specific risk assessment with Safexpert

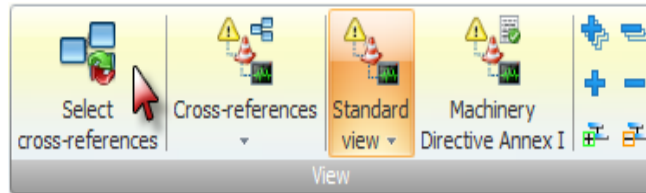
C standards contain proposed solutions how the risks for the significant hazards listed in the standard can be removed or reduced.

Correspondingly, Safexpert provides the option of creating special cross-reference lists by C standards and to sort the risk assessment in the hazards tree by the chapters contained in the cross-reference list.

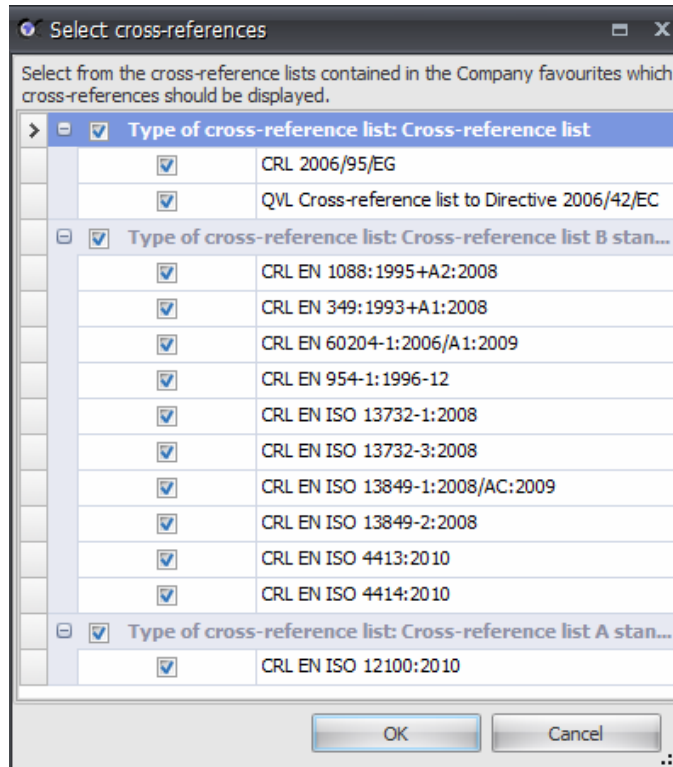
It is recommended to start the risk assessment with the representation based on the C standard since it suggests the hazards as well as the measures for risk reduction.

## Procedure

- 1 Open the risk assessment.
- 2 In the multifunction bar, click on the "Select cross-reference list" command:



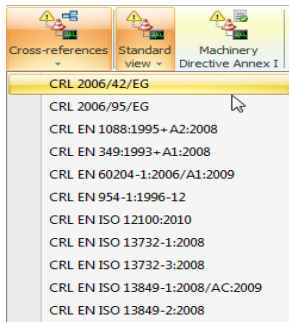
→ The list of cross-reference lists contained in the company favourites is displayed:



- 
- 3 Select the suitable C standard cross-reference list from the list and confirm with **OK**.

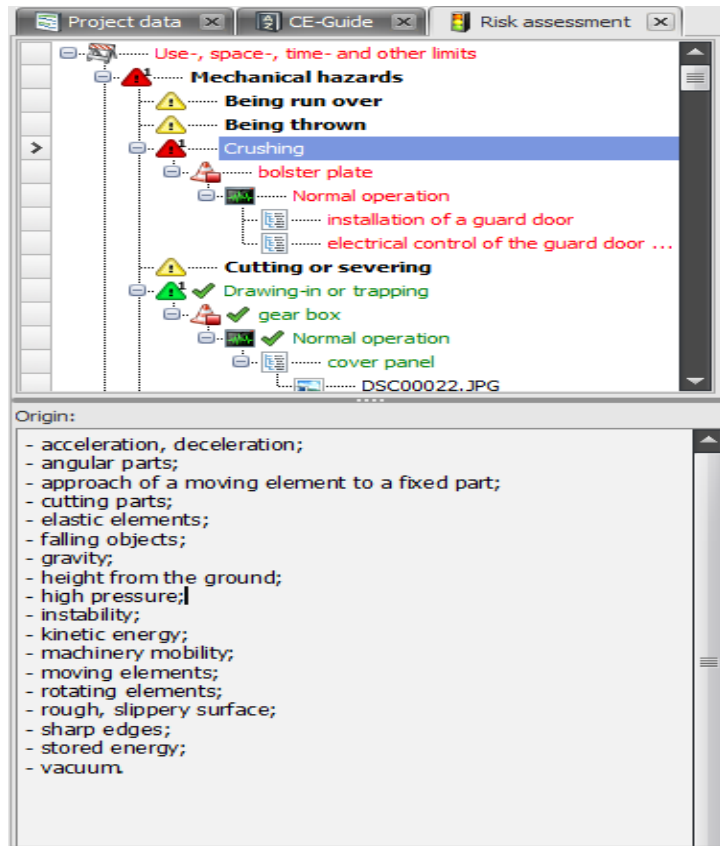
If no suitable cross-reference list exists, you can search for a cross-reference list on the Safexpert Live Server with the menu item **System – Cross-reference lists** and copy it into the company favourites.





4 In the multifunction bar, click on the Cross-reference list command and select the cross-reference list of the C standard.

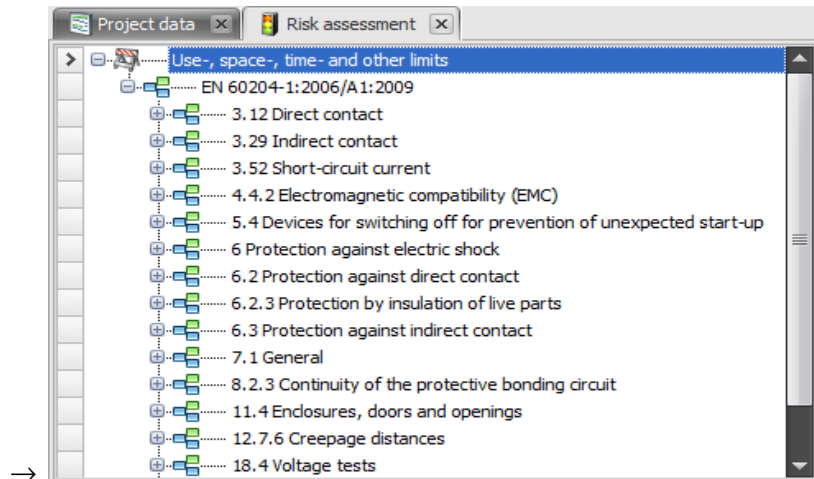
→ The hazards tree displays the sections of the C standard with the corresponding hazards that may already have been evaluated:



→



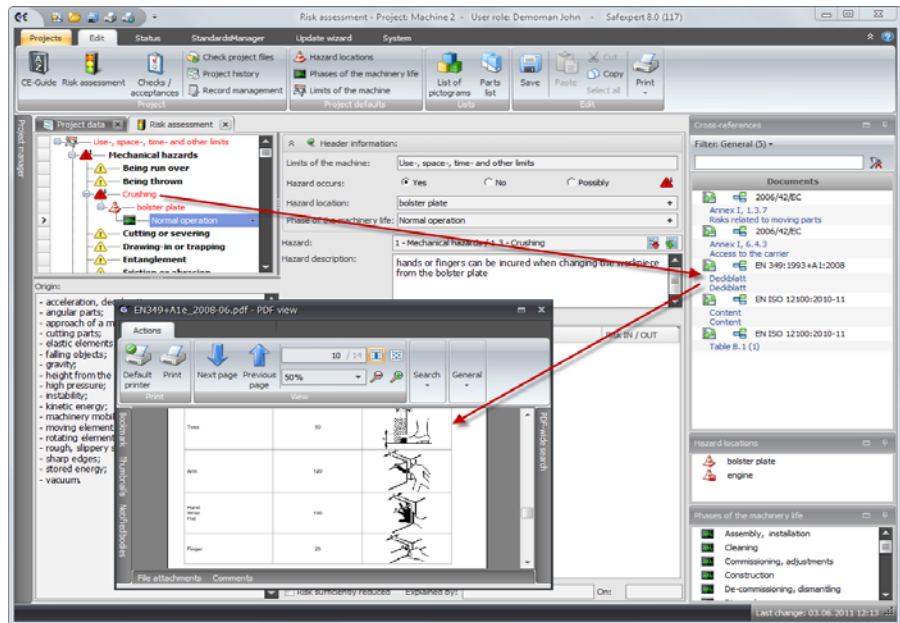
5 You can display a clearly arranged list of all chapters contained in the cross-reference list with the functions for selecting the levels:



→

### Precise information at the right time

The defined cross-references are displayed depending on the selected hazard. Double-clicking on a cross-reference displays the original text of the harmonized standard at the corresponding position if you have the required licensing rights.



*Important information always at the tip of your fingers*

## Risk assessment and risk reduction

All the functions for risk assessment are also available in this view. Access to current standards facilitates the selection of a suitable solution for risk reduction for the designers.

**Be mindful of blind trust in standards! Always check whether the solutions suggested in the standards fit your specific machine!**

### 8.1.3 Do not perform risk assessment in Safexpert

If you do not want to perform the risk assessment with Safexpert, then you can mark step 4 in the CE guide as "Completed".

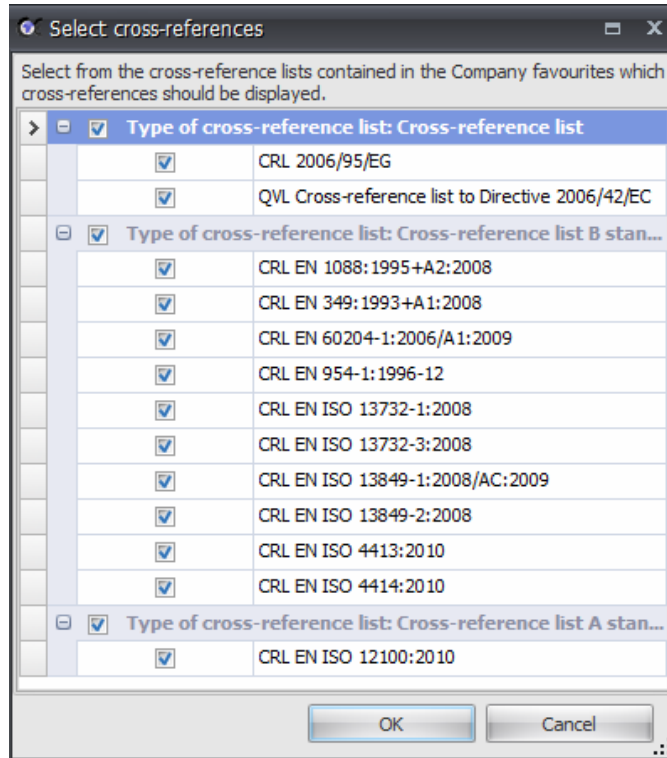
To do so, delete all entries in the "Limits of the machine" list.

## 8.2 Perform a risk assessment

### Procedure

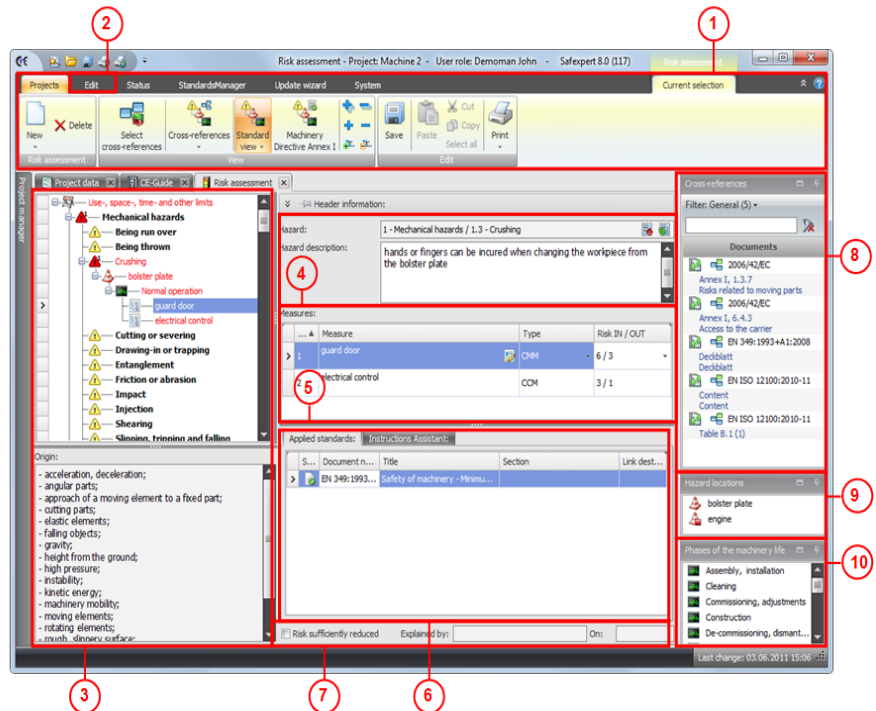
Risk assessment

- 1 In the CE guide, click on the **Risk assessment** button on tab 4.  
→ If the risk assessment is opened for the first time, the Select cross-reference lists window is displayed:



- 2 Select among the cross-reference lists contained in the company favourites which cross-references should be displayed in the risk assessment and click on OK.  
→ The **Risk assessment** tab is displayed.

## Risk assessment tab

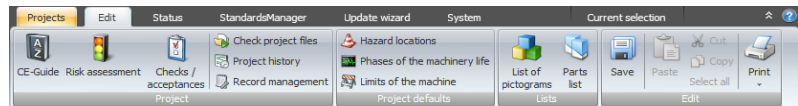


Dialogue window for risk assessment and risk reduction

### (1) Current selection - Multifunction bar for risk assessment

It features the functions for the optional representation of the risk assessment in various views.

### (2) Menu item for displaying the "Edit" multifunction bar



Among other things, the **Limits of the machine** window can be displayed here (see 7.4.1).

### (3) Hazard tree

It displays the risk assessment in the selected views. Based on the symbol and colour changes, it is immediately apparent which items still have to be completed.

### (4) Hazard description

### (5) Description of the measures for risk reduction

The selection of the kind of measure and a quantitative estimation of the risk is also performed here.

**Note: In accordance with EN ISO 12100, Section 5.1, "... only a risk estimation based on a qualitative analysis is possible in many application cases."**

### (6) Detailed data for the respective measure for risk reduction

The display depends on the kind of measure defined in section (5).

### (7) Field for "Risk sufficiently reduced" evaluation

The risk assessment cannot be completed until this field has been confirmed for every identified hazard.

**(8) Cross-reference list**

Cross-references provide users with specific information about the hazard selected in the hazard tree (3).

The **Select cross-references** function on the multifunction bar (1) allows defining which cross-references should be shown.

Conditions can be defined during the creation of cross-references (see 13.3.6). Cross-references are displayed only if these conditions are met.

**(9) Phases of the machinery life**

In accordance with EN ISO 12100, Section 5.4, the designers have to consider all phases of the life limit of the machine when identifying the hazards. The previously defined phases of the machinery life in the project are displayed here.

The phases of the machinery life can be defined in advance in the project. The entries can be copied from the system library (see 13.3.2) or defined at random.

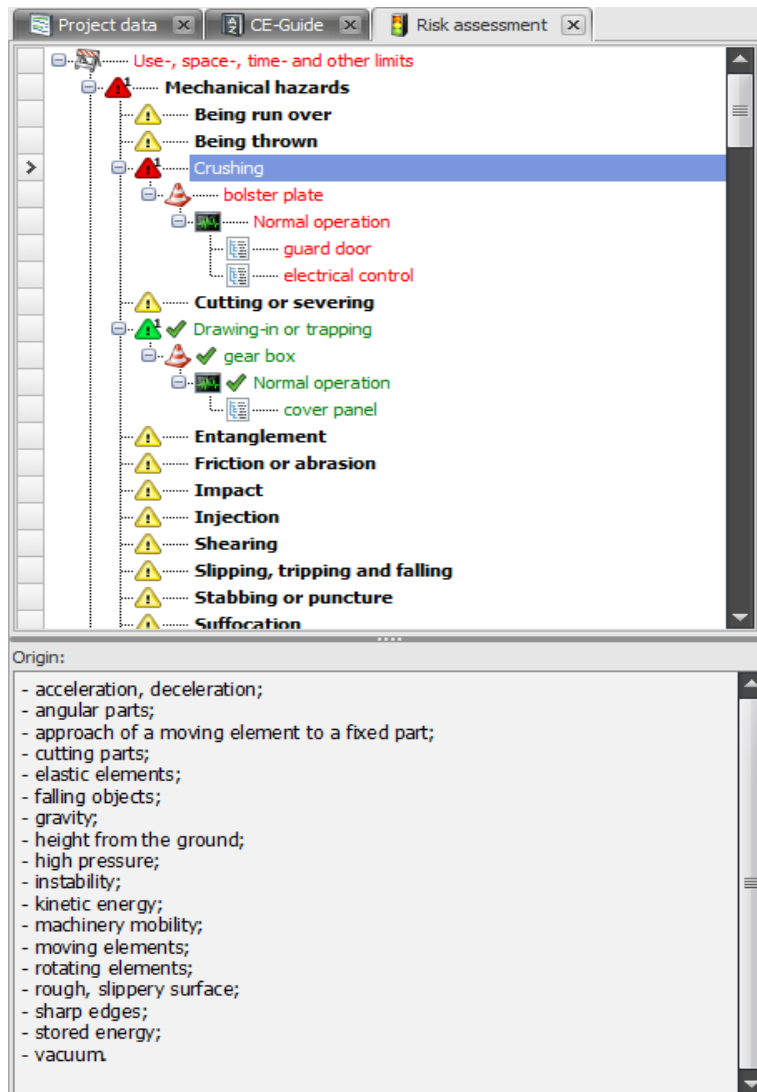
**(10) Hazard locations**

The hazard locations or hazard areas are defined here. Right-clicking on an entry allows defining the hazard location as "Interface-relevant" (see 8.3).

---

## 8.2.1 Hazard tree

The evaluation which hazards occur at which hazard locations in which phases of the machinery life is performed in the hazard tree.



*Identifying hazards*

### Status of hazards

The symbols in the hazards list indicate how these hazards have been assessed:



Yes. Hazard occurs at the selected limit of the machine.



No. Hazard does not occur within the selected limit of the machine.



Possibly. Hazard possibly occurs within the selected limit of the machine, not yet definitely specified.



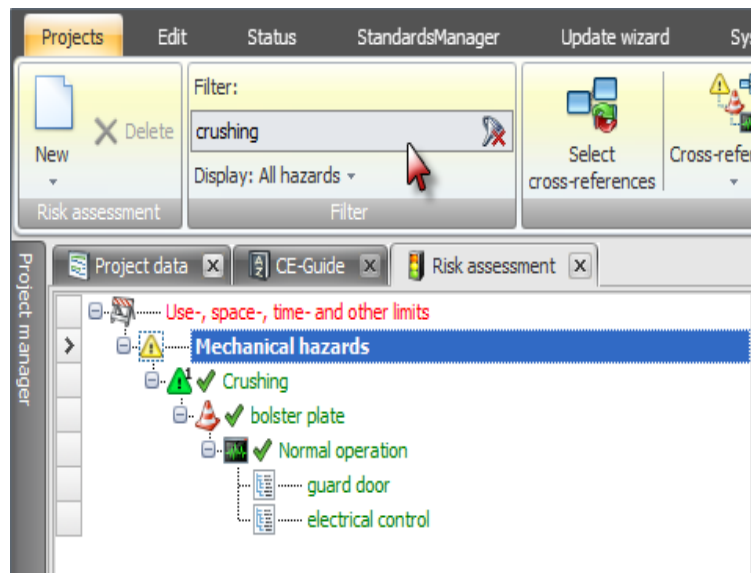
No risk evaluation has been performed yet.



Risk sufficiently reduced.

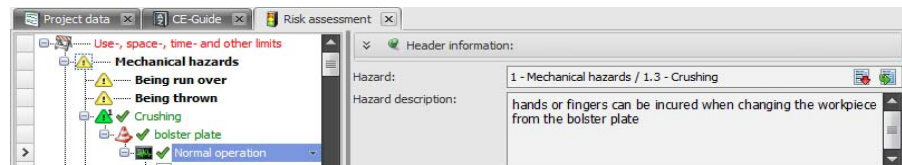
### Search texts

The filter functions facilitate finding certain hazards, hazard locations, phases of the machinery life or measures:



*Text search in the risk assessment*

## 8.2.2 Hazard description



*Hazard description*

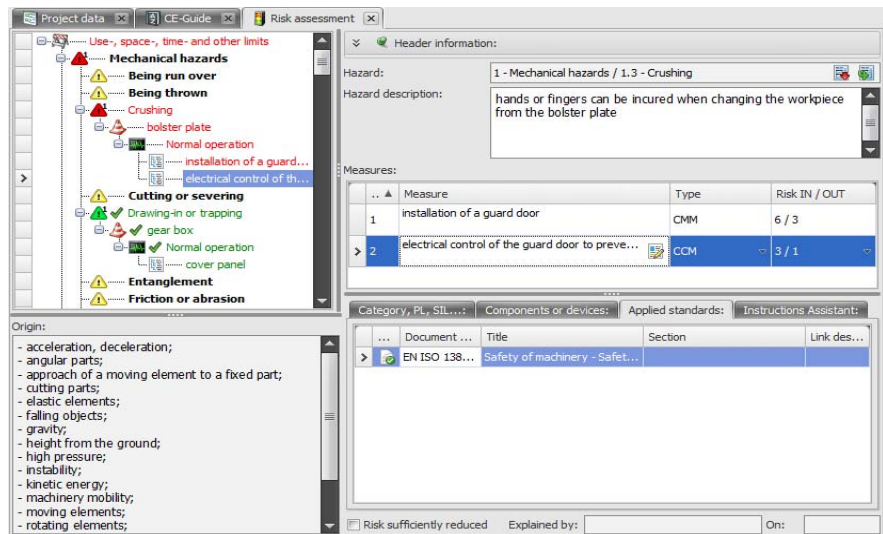
You can manually enter a hazard description or insert a previously created description from the descriptions library (see 8.4).

## 8.2.3 Measure description

**Note: In this context, it is absolutely necessary to observe the Machinery Directive, Annex I, Section 1.1.2b: "Integration of Safety".**

After a hazard that occurs at a particular location in a certain phase of the machinery life has been described, the following must be recorded:

- with which risk this hazard is accompanied (risk estimation),
- which design measures or which protective measures are taken to eliminate or minimise the hazard,
- which references to residual risks (residual hazards) are made if a hazard cannot be removed completely.



*Measure description*

For each identified hazard, the measures taken for sufficient risk reduction are documented step by step.

To add a measure, select **New – Measure** on the multifunction bar or the **Add measure** function from the context menu.



To open the RTF editor for the description of the measure, click on **Edit measure text**.

### 8.2.3.1 Determining the type of measure

The Machinery Directive stipulates in Annex I, Section 1.1.2b: "In selecting the most appropriate methods, the manufacturer or his authorised representative must apply the following principles, in the order given:

- eliminate or reduce risks as far as possible (inherently safe machinery design and construction),
- take the necessary protection measures in relation to risks that cannot be eliminated,
- inform users of the residual risks due to any shortcomings of the protective measures adopted, indicate whether any particular training is required and specify any need to provide personal protective equipment."

Consequently, the designer can determine different types of measures to eliminate or reduce hazards.

If the measure depends on a control, an estimation of the required category can be performed acc. to EN 954-1, the required performance level acc. to EN ISO 13849-1 and/or the required SIL acc. to EN 62061.

The following types of measures can be selected in Safexpert:

#### **CMM**

Constructive mechanical measure

#### **CCM**

Constructive control measure. Allows the selection of safety-related parts of controls acc. to EN 954-1, EN 13849-1, EN 62061.



## MSE

Mechanical safety equipment, e.g. guard doors, cover plates, etc.

## CSE

Control safety equipment, e.g. photoelectric barriers, two-hand control devices. Allows the selection of safety-related parts of controls acc. to EN 954-1, EN 13849-1, EN 62061.

## PPE

Personal protection equipment, e.g. helmet, safety shoes, etc.

## PIC

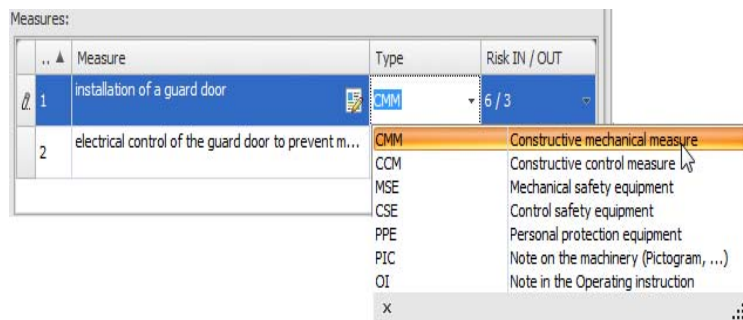
Reference on the machinery, e.g. pictograms (see 8.2.3.8)

## OI

Note in the instructions. These texts can be printed to a text file and imported into other systems, or they can be directly entered in the instructions with the instructions assistant.

## Procedure

- 1 Click on the arrow symbol in the "Type" column:  
→ The list with the possible types of measures is displayed.



- 2 Select the desired kind of measure.  
→ The corresponding short name is entered into the "Type" column.

### 8.2.3.2 Estimating the risk

In accordance with EN 12100, Section 3.12. the risk is defined as: "Combination of probability of the occurrence of damage and its extent of damage".

The risk estimation in Safexpert is derived from the standards EN ISO 12100 "General design principles - Risk assessment and risk reduction".

The quantitative risk estimation is optional in Safexpert. This means that a quantitative estimation can be performed before and after every defined measure, but it does not have to be.

In the field, it may not be possible to reduce the risk with any measures taken. In many cases it will also not be possible to reduce the risk to "0". It is important whether the residual risk is acceptable after all protective measures have been taken (see EN ISO 12100, Figure 2).

**Remark from EN ISO 12100, Section 5.1: "A quantitative approach may be suitable if usable data are available. However, a quantitative approach is limited by the available usable data and/or the limited resources of the persons performing the risk assessment. For this reason, only a risk estimation based on a qualitative analysis may be possible in many application cases."**

## Risk IN / OUT

In the Risk IN / OUT column, the risk can optionally be estimated before and/or after the measure has been taken:



In the „Risk IN / OUT“ column, click on the button with the dots:  
 → The **Risk estimation** window is displayed

The screenshot shows a 'Risk estimation' window with a tree diagram on the left and two risk matrices on the right. The tree starts at 'Start' and branches into 'no injury', 'slight', 'serious', and 'death'. Each branch further divides into 'rare' and 'often' categories, which then split into 'p' (probability) and 'h' (hazard) sub-categories. The 'IN' matrix shows the current risk levels, with the value '6' highlighted in red in the 'serious/often/h' cell. The 'OUT' matrix shows the target risk levels, with the value '0' highlighted in red in the 'no injury' cell. Below the matrices is a text area for 'Reason for this valuation:', followed by 'Evaluated by: Demoman John' and 'On: 01.12.2011 11:51:00'. At the bottom are buttons for 'Delete risk estimation' and 'OK'.

		IN			OUT		
		sm	mi	hi	sm	mi	hi
no injury	p	0	0	0	0	0	0
	h	0	1	2	0	1	2
	p	1	2	3	1	2	3
	h	2	3	4	2	3	4
serious	p	3	4	5	3	4	5
	h	4	5	6	4	5	6
death	p	5	6	7	5	6	7
	h	6	7	8	6	7	8
often	p	7	8	9	7	8	9
	h	8	9	10	8	9	10


→ *Quantitative risk estimation*

### 8.2.3.3 Risk sufficiently reduced

For all identified hazards, the "Risk sufficiently reduced" flag must ultimately be set. Otherwise, the risk assessment cannot be completed.



Header information:

Limits of the machine: Use-, space-, time- and other limits

Hazard occurs:  Yes  No  Possibly 


Hazard location: cutting area +

Phase of the machinery life: Normal operation +


Hazard: 1 - Mechanical hazards / 1.4 - Cutting or severing  

Hazard description: fingers may be harmed when chanding the workpiece

Measures:

.. ▲	Measure	Type	Risk IN / OUT
1	install safety door	CMM	6 / 5
> 2	electric controlled position sensing 	CCM	5 / 4

Category, PL, SIL...: Components or devices: Applied standards: Instructions Assistant:

...	Document ...	Title	Section	Link de...
>		ONORM EN ...	Safety of machinery - Safe...	

Risk sufficiently reduced Explained by: Demoman John On: 06.06.2011 0

*Qualitative estimation of the risk*

The history logs record which user performed this risk assessment and at which time. This is indicated in the printout of the risk assessment.

### 8.2.3.4 Sorting measures

You can sort the sequence of the measures. This may have an effect on the IN/OUT risk estimation.



Click on the line symbol, hold the left mouse button pressed and drag the measure to the desired position.

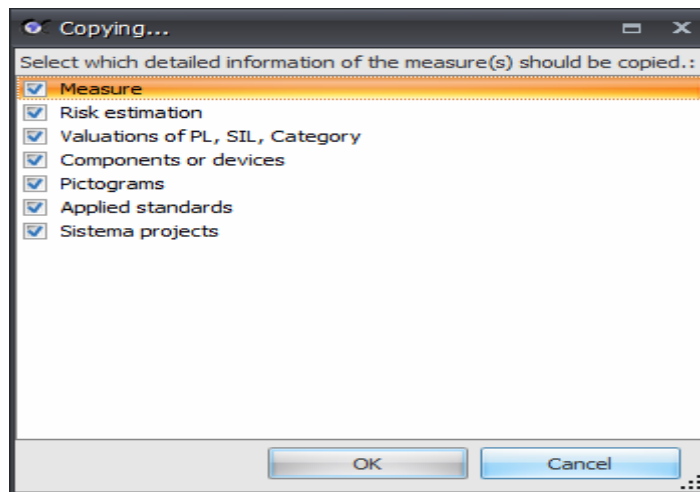
You can also move a measure in the **hazards tree**. To do so, click on the measure in the hazards tree to be moved and hold the Shift key pressed while moving it. An up or down arrow appears on the left side of the hazards tree. It allows selecting whether the measure should be positioned before or after the respective measure.

### 8.2.3.5 Copying measures

Measures are not copied in the **Measures** window section, but in the **hazards tree**:

- 1 In the **hazards tree**, click on the measure to be copied and drag it to a different position. An up or down arrow appears on the left side of the hazards tree. It allows selecting whether the measure should be positioned at the point before or after the respective measure.

→ The following window is displayed next:



- 2 Select the detailed data of the measure to be copied and click on **OK**.

### 8.2.3.6 Category, PL, SIL

The standards EN 954-1, EN ISO 13849-1 and EN 62061 support you in the safety-related design of controls. To provide you with the freedom to use the desired standard individually as a user of Safexpert, Safexpert offers the evaluation options according to all three standards.

To prevent conflicts from arising as a result of the different classifications, Safexpert carries out agreement checks. The evaluations already performed are used for the default setting of another evaluation. The representation uses a yellow background. However, it is possible to perform deviating evaluations.

Measures:

Measure	Type	Risk IN / OUT
1 install safety door	CMM	6 / 5
2 electric controlled position sensing	CCM	5 / 4

Category, PL, SIL...: Components or devices: Applied standards: Instructions Assistant:

Performance level (PL) valuation | SIL valuation | Category valuation

Required Performance Level

Start

S1

S2

F1

F2

P1

P2

a

b

c

d

e

H

Required Performance Level: e

Performance Level reached:

Calculate PL

Delete performance level

Determining the required Performance Level acc. to EN ISO 13849-1

Performance level (PL) valuation    SIL valuation    Category valuation

Required SIL:     SIL reached:    

Effects / Severity Se	Class Cl = Fr + Pr + Av = 0	Class Cl = Fr + Pr + Av = 0					Fr	Pr	Av
		4	5 - 7	8 - 10	11 - 13	14 - 15			
Death, loss of an eye or arm	4	SIL 2	SIL 2	SIL 2	SIL 3	SIL 3	5	5	
Permanent, loss of fingers	3		AM	SIL 1	SIL 2	SIL 3	5	4	
Reversible, medical treatment	2			AM	SIL 1	SIL 2	4	3	5
Reversible, First Aid	1				AM	SIL 1	3	2	3
							2	1	1

    Decrease value

Determining the required SIL acc. to EN 62061

Performance level (PL) valuation    SIL valuation    Category valuation

Category	B	Category			
		1	2	3	4
S1	●	●	○	○	○
F1	●	●	●	○	○
P1	●	●	●	○	○
P2	●	●	●	○	○
S2	●	●	●	●	○
F2	●	●	●	●	○
P1	●	●	●	●	○
P2	●	●	●	●	○

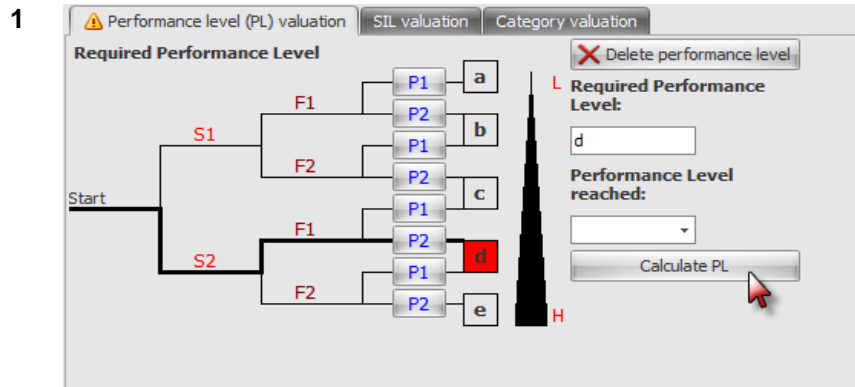
Determining the required category acc. to EN 954-1

**Note: This function continues to be available for editing historic projects, even after the withdrawal of the standard EN 954-1.**

### 8.2.3.7 Designing safety-based parts of controls with SISTEMA

**Note:** An interface to SISTEMA is available for designing "safety-based parts of controls." This software is free of charge from the IFA (Institute for Industrial Safety) of the German Legal Accident Insurance. Download under: <http://www.dguv.de/ifa/de/prs/softwa/sistema/index.jsp>.

#### Procedure



Click on **Calculate PL**.

→ SISTEMA is started and the data will be copied directly from Safexpert to SISTEMA.

2 Perform the evaluation (validation) for the **Performance Level reached** in SISTEMA.

For all further information concerning SISTEMA, please refer to the user manual or online help of SISTEMA.

3 Close SISTEMA.

→ The PL is copied to Safexpert.

The data generated in Sistema are stored and archived in the Safexpert database.

### 8.2.3.8 Pictograms

If you selected the "PIC" kind of measure, the Pictograms tab is displayed:

The screenshot shows the 'Measures' and 'Pictograms' tabs. The 'Measures' table has the following data:

Measure	Type	Risk IN / OUT
1 define emergency exits and inform by manual	OI	5 / 3
2 put up pictogram	PIC	3 / -

The 'Pictograms' table has the following data:

Pictogram	Mounting point	Size	Num...	Atta...	Comple...	Completed by
Emergency exit...	Engine		1			

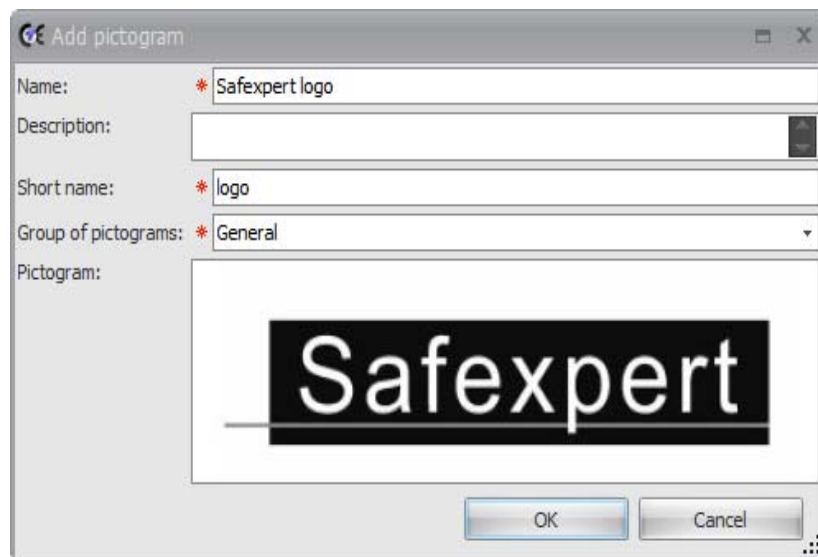
Below the table, a preview of the pictogram is shown with the following fields:

Mounting point: Engine  
Size: [ ] Number: 1  
Description: [ ]

"PIC" kind of measure – Affix pictogram

## Add pictogram manually

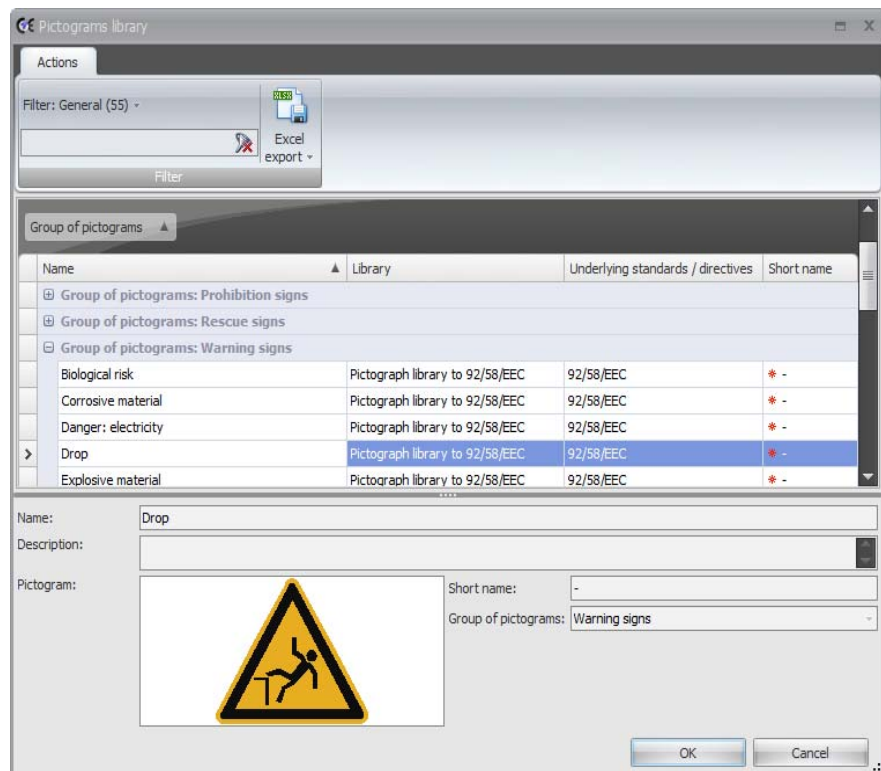
In the multifunction bar or in the context menu, select the **Add pictogram** function and enter the texts:



To insert the symbol from the clipboard, select the **Paste** function from the context menu or select the **Load** function to insert the graphic from a file.

## Add pictogram from a pictograms library

In the context menu, select the **Pictograms library** function, select the desired pictogram and click on **OK**.



*Copying a pictogram from the pictograms library*

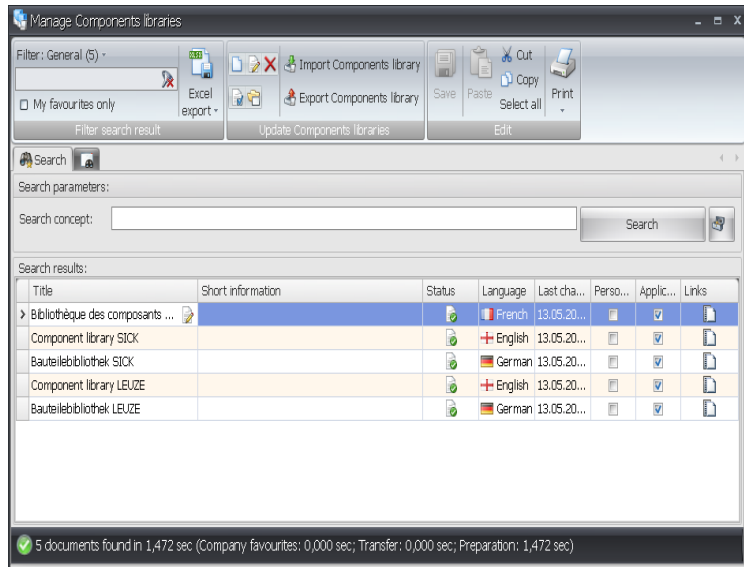
### 8.2.3.9 Components

Safexpert provides the option to define during the risk assessment which components or safety components were used for the risk reduction.

All components or devices are displayed in the parts list (see 5.4.2).

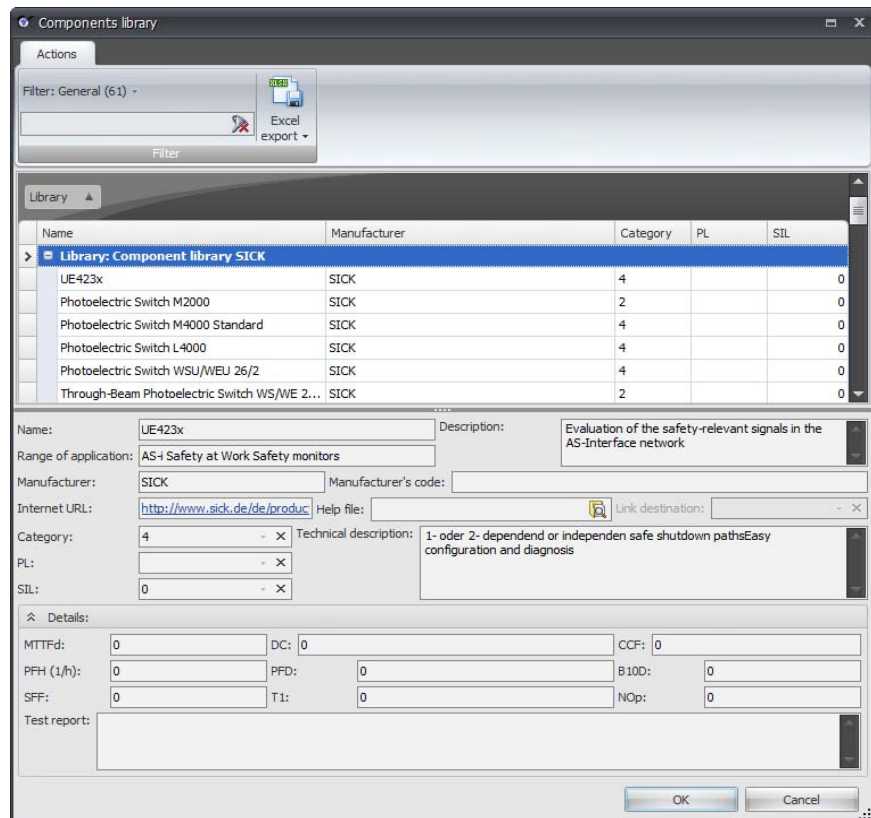
### Add component

- 1 Click on the desired measure.
- 2 Click on the **Components** tab:



- 3 In the context menu, select the **Add component** command to manually add a component, or **Library of components and devices** to add a component from a library.

### Components library



Find the desired component and click on **OK**.

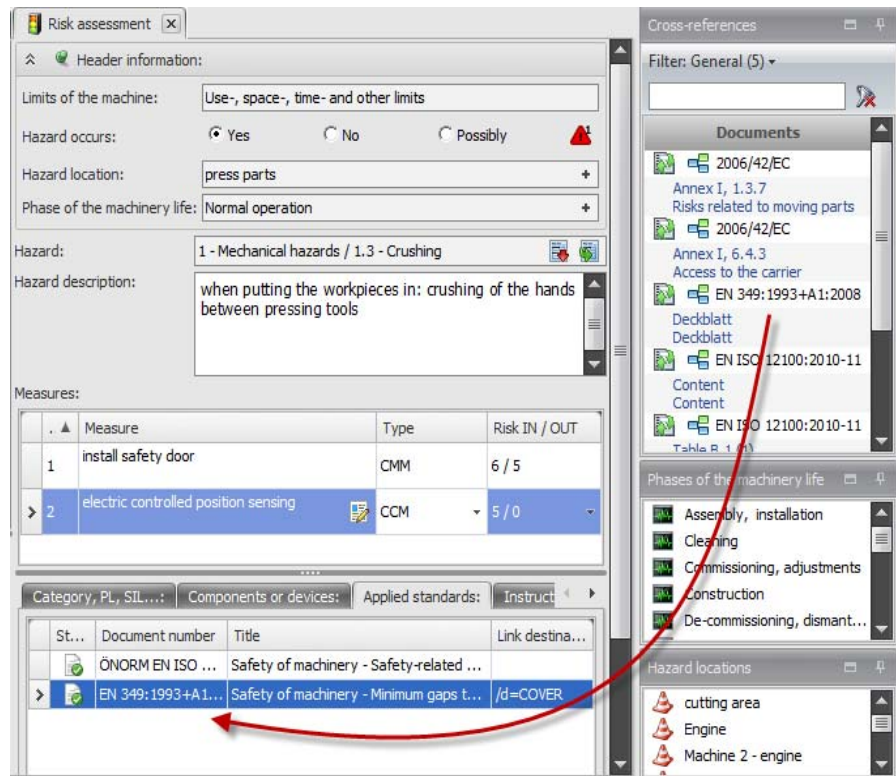
For additional information about library of components and devices, see section 13.2.2.



**Note: As the manufacturers of the safety components have not yet supplied any probability values to date, a component selection can initially only be made based on the category according to EN 954-1!**

### 8.2.3.10 Applied standards

For every measure it is possible to define which standards or standard sections have been applied in finding a solution:



*Applied standards for the risk reduction of a specific measure*

To add a standard, drag the desired standard section from the cross-reference list into the **Applied standards** field.

It is also possible to copy a standard from the Standards manager. To do so, click on **Add standard** in the context menu, find the desired standards and drag them into the **Applied standards** field.

### 8.2.3.11 Instructions assistant

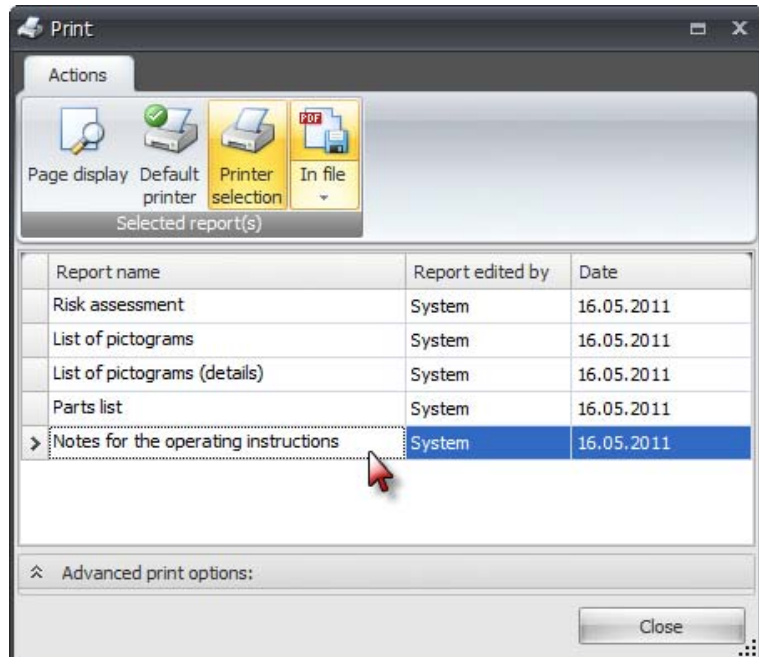
To save documentation costs and be on the safe side as much as possible that no Information about the residual risks is missing in the operating instructions, the designers should document the notes for the operating instructions as early as during the design phase. The notes for the instructions are registered under the measure type "OI - Note in the instructions".

Safexpert offers the option to print all notes for the operating instructions as a group.

## Print notes for the operating instructions

- 1 Click anywhere in the hazards tree.
- 2 On the multi-function bar, set the filter to **Kind of measure: OI**.
- 3 Click on Print.

→ The window for selecting the report template is displayed:



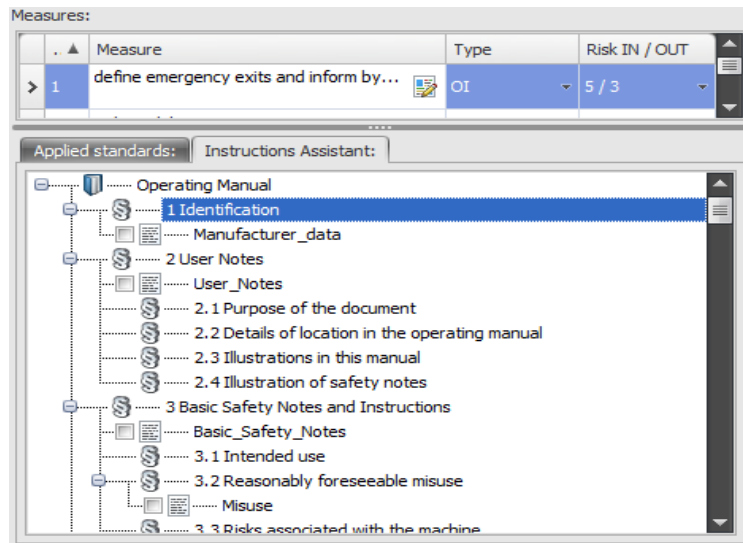
→

- 4 Select "Notes for the operating instructions" and click on the desired print target.

## Instructions assistant

The instructions assistant is based on a word file which is used as a template for the instructions. It allows copying the safety notes from Safexpert and inserting them in the instructions:

- 1 Click on the desired measure.
- 2 Click on the Instructions assistant tab:  
→ The document structure of the Operating instructions template is displayed:



→ The field is empty if no operating instructions template has been added in the opened project. In this case, select the **Add template** function on the multi-function bar or in the context menu.

- 3 Click on the bookmark to which the measure text should be assigned.

If the risk assessment is completed, the operating instructions can be generated. To do so, click on the **Generate document** function on the multi-function bar or in the context menu, select a file name and click on Save.

Safexpert replaces the bookmarks with measure texts and creates a new word file.

**Note: You can also assign several templates to a project to copy safety notes into different documents.**

### Processing the generated instructions in Word

The measure texts copied by Safexpert

- Are not complete safety notes,
- Must be edited further.

Pass the Word file on to the responsible author for further processing. He is responsible for the conformity of the safety notes contained in the instructions.

**Note: Standardise the measure texts in the measures library. This reduces the effort required for further processing by the technical writer.**

If you need the measure texts in another program or file format, you may export them from Word with the function "Save as" and then import them into the other program.

### 8.2.3.12 Tasks

Safexpert provides the option of defining general project tasks (see 4.5).

In addition, tasks can be added to any measure during the risk assessment.

## Creating tasks

- 1 Place the cursor in the Measure window section in the measure to which you want to add a task.
- 2 To do so, select the **Add task** function from the context menu.  
→ The Add task window is displayed (see the section 4.5).

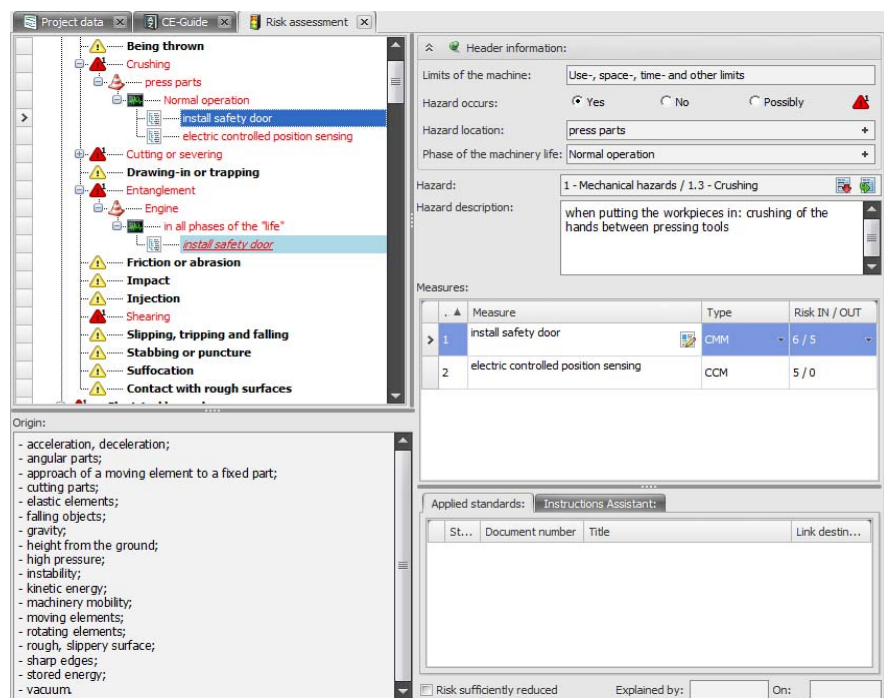
## Status of tasks

Whether the tasks have been marked as "Completed" can be seen in the tree structure. For additional information about the status analysis of tasks, see section 6.

### 8.2.3.13 Linking measures

It happens again and again, the several hazards occur at a hazard location that can be removed with the same measures.

For this reason, Safexpert provides an option for linking measures with each other:



Linking measures

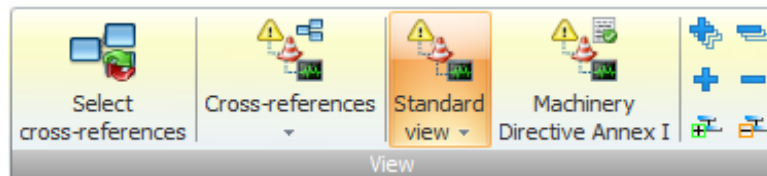
Drag a previously defined measure to another location by holding the ALT key pressed. The text is attached at the linked position and displayed in italics.

If you click on one of the two entries, both linked measures are marked and the measure text is displayed with all the detailed data. If the data are changed at one location, it also applies to the other location.

**Caution! Note that the measures can depend on the risks that occur. Hence, selecting the same measures is possible only if the higher occurring risk is secured!**

## 8.2.4 Views of the risk assessment

For a maximum overview, the associations of hazards to hazard locations and phases of the machinery life can be represented and printed out differently in Safexpert.



*Clearly arranged and flexible representation of the risk assessment data*

## Standard view

### Hazards - Hazard locations - Phases of the machinery life

All hazards are listed in this view. Below the hazard, the hazard location and the phase of machinery life during which it occurs are displayed.

## Hazard locations

### Hazard locations - Hazards - Phases of machinery life

All hazard locations are listed in this view. Below the hazard location, the hazard and the phase of machinery life during which it occurs are displayed.

**If you delete a hazard location, then all performed risk assessments and descriptions of measures at this hazard location are also deleted.**

The change of the name of the phase of machinery life is effective only at the selected location. Phases of the machinery life with the same name that were defined at a different hazard location are not changed. If you want to rename a phase of the machinery life across all hazards or hazard locations, change to the view **Phases of the machinery life 1** or **Phases of the machinery life 2** and perform the change.

## Phases of the machinery life 1

### Phases of machinery life - Hazards - Hazard locations

All phases of machinery life are listed in this view. The hazard and the hazard location are displayed below it.

## Phases of the machinery life 2

### Phases of machinery life - Hazard locations - Hazards

All phases of machinery life are listed in this view. Then follow the hazard locations and the type of hazard.

## Cross-references

This view offers particularly convenient options for the industry-specific representation of the risk assessment (see section 8.1.2).

In addition, a technical representation can be performed here, e.g. even by company-specific design manuals, QM specifications or company standards.

## Machinery Directive – Annex I

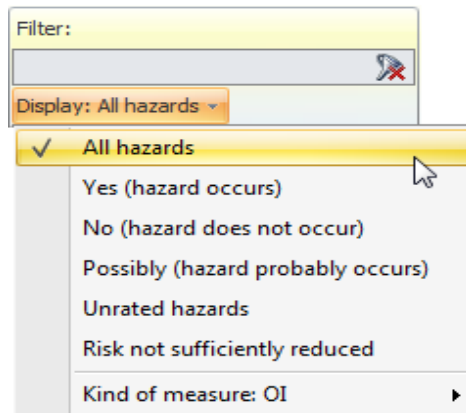
This view shows all the points of Annex I of the Machinery Directive and subordinates the assigned hazards. This representation is particularly suited for testing whether the safety goals of the machinery directive have been met.

**Note: The different views provide an optimum overview. They do not represent any additional operating steps in the risk assessment.**

## 8.2.5 Overview of completed and outstanding items

### Procedure

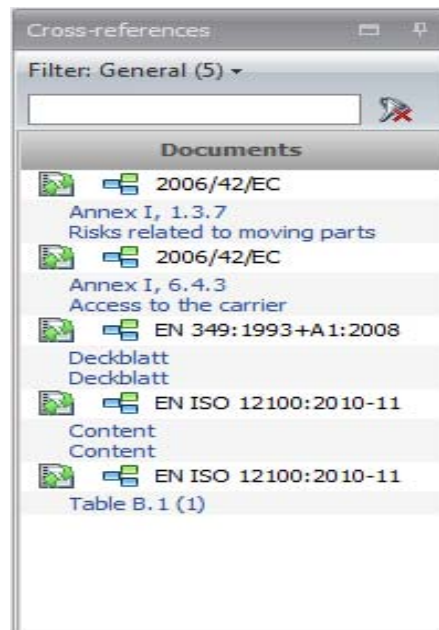
- 1 In the **Filter** group, select the **Display** list field.  
→ The selection of possible display options is displayed.



- 2 Click on the desired option.  
→ The hazards list is filtered accordingly.

## 8.2.6 Cross-references to passages in standards and directives

During the risk assessment, cross-references allow direct access to specific standard and directive locations.



*Cross-references for the selected hazard*

Double-clicking on a cross-reference opens the document at the corresponding location.

**Note: The display of the cross-references is done according to the project variables defined in the project (machine type) and the conditions defined in the cross-reference list!**

## 8.3 Performing a risk assessment at interfaces

For information about adding interfaces in the project structure, see 5.5.4.

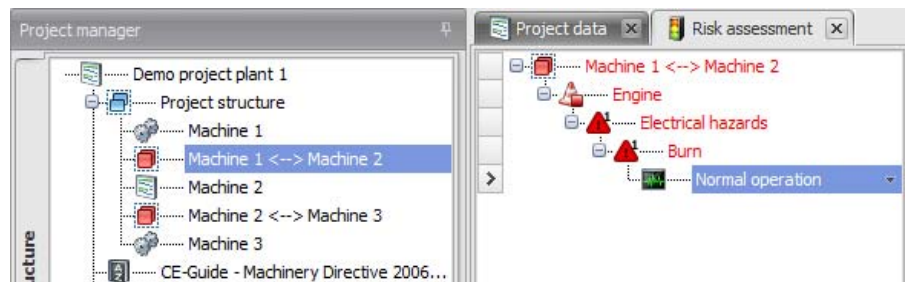
### Passing on information from lower-level projects

Particularly in conjunction with incomplete machinery, it frequently occurs in the field that hazards at certain hazard locations cannot be secured until the installation in another machine.

Safexpert offers useful functions so that hazards and any measures taken in lower-level projects are available in higher-level projects.

### Interface-relevant hazard locations

Hazard locations can be identified as "interface-relevant". If an interface is defined for a project with interface-relevant hazard locations, these hazard locations with all the identified hazards are automatically created in the risk assessment of the interface:



Automatic adoption of interface-relevant hazard locations from lower-level projects

### Example

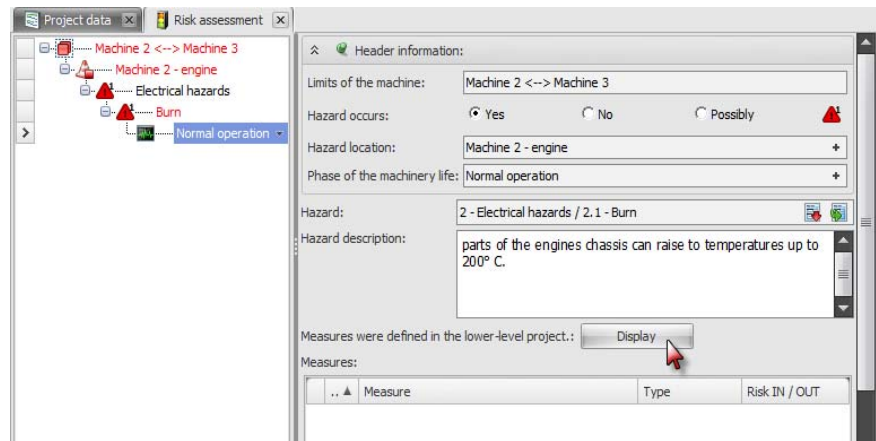
The "System 1" depicted in the figure was assembled using a removal robot and a grinding machine. This created the interface "grinding machine <--> removal robot".

From the "removal robot" lower-level project, the interface-relevant hazard location "gripper" and from the "grinding machine" lower-level project, the interface-relevant hazard location "crankshaft", including all hazards documented at these hazard locations were automatically copied to the risk assessment of the main project interface (system 1).

### Defining measures for risk reduction

The measures for risk reduction defined in the lower-level projects were not automatically copied to the main project since it must be decided on an individual basis whether these solutions are suitable for the main project.

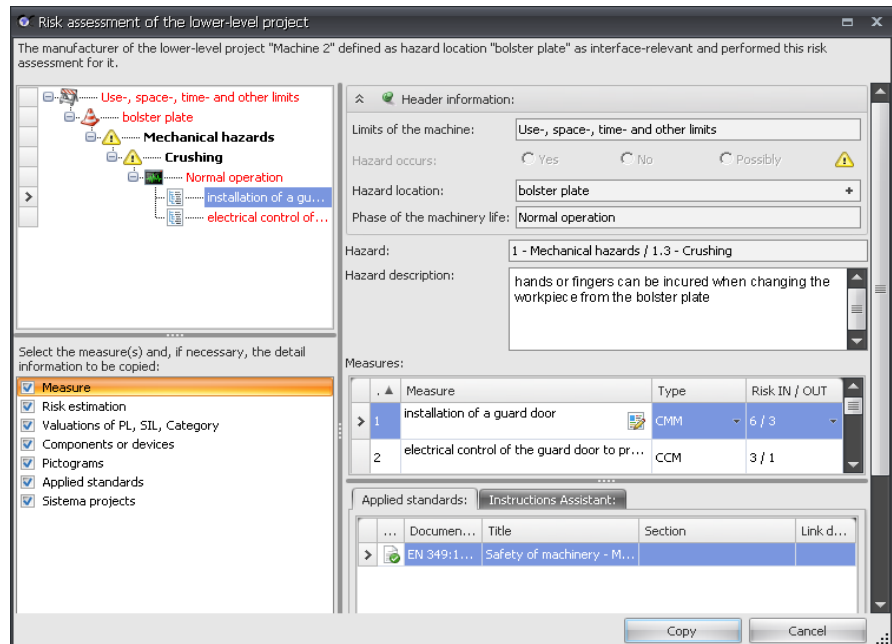
If you move the cursor to the "Normal operation" hazard location in the risk assessment, the detailed data for the risk assessment display the hazard description from the lower-level project:



Display any documented measures in the lower-level project

The hazard description was copied from the lower-level project and can be changed at random in the main project. This does not change the data in the lower-level project.

If you click on **Display**, the **Risk assessment of the lower-level project** window is displayed:



*Copy measures from the lower-level project*

**Note: The "Display" button is visible only if measures are defined in the subproject at the same hazard, hazard location and phase of machinery life.**

Use multiple selection to mark all the measures you want to copy to the main project, define the detailed information to be copied in the left window and then click on **Copy**.

The data can subsequently be adjusted at random in the main project. This does not change the data in the lower-level project.

**Note: If you do not make a multiple selection in the table of measures, only the marked measure will be copied.**

## 8.4 Descriptions library for hazard descriptions

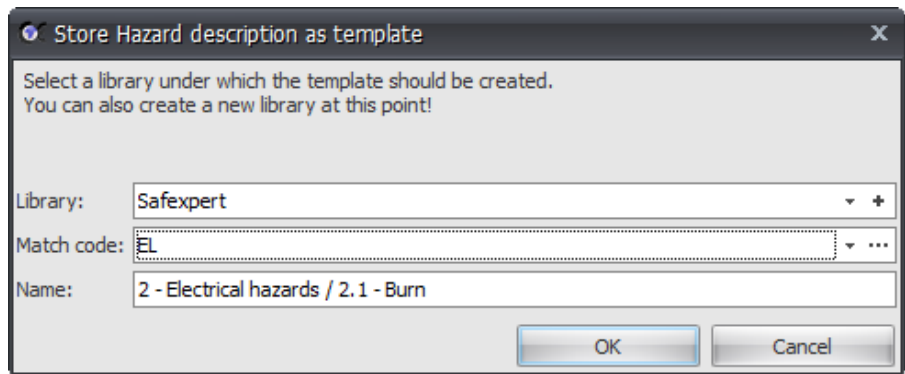
Certain hazard descriptions will be repeated from time to time. For this reason, Safexpert was provided with a descriptions library. In this descriptions library, you can centrally place texts that all users can directly copy into the risk assessment.

Upon delivery of Safexpert, the descriptions library is empty. The descriptions library is filled with the entries written by Safexpert users, and will, therefore, adjust itself precisely to suit your specific demands.

### 8.4.1 Filing the description in the descriptions library

In the context menu, select the **File in library** function.





Select the library, enter the name and match code under which the description should be filed, and click on **OK**.

**Note: The administrator can disable or enable access to the libraries for individual users. If a locked sign appears in the menu for calling up the library, then access to it has been disabled. Please contact your administrator.**

## 8.4.2 Copying the description from the descriptions library

A match code is assigned to every entry in the descriptions library. This procedure permits a structured filing and facilitates the retrieval of suitable description texts.

In the context menu, select the **Copy from library** function, select the text to be copied and click on **OK**.

## 8.5 Measures library

The measures library integrated into Safexpert allows particular measures to be stored and retrieved from one central base. This allows proven solutions to be used uniformly.

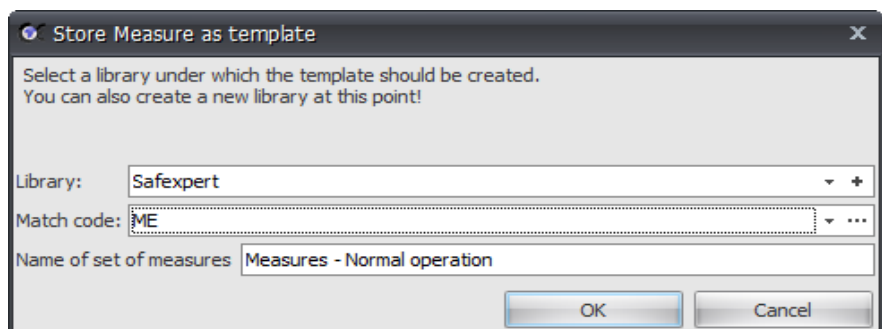
**Note: Before copying measures from the measures library or an earlier project, you should check whether the measure filed is still appropriate.**

Upon delivery of Safexpert, the measures library is empty. It is filled with entries generated by Safexpert users, and will, therefore, adjust itself precisely to suit your specific demands.

**Note: You can change the copied measures as desired. This will have no effect on the texts in the measures library. After copying the text from the measures library, everything is the same as if you had entered the text with the keyboard.**

### 8.5.1 Filing measures in the measures library

In the context menu, select the **File in measures library** function.



Select the library, enter the name and match code under which the measures should be filed and click on **OK**.

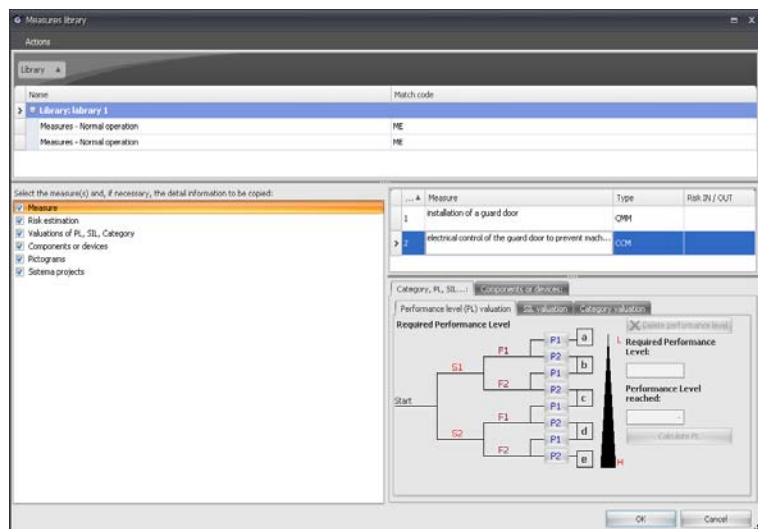
**Note: The administrator can disable or enable access to the libraries for individual users. If a locked sign appears in the menu for calling up the library, then access to it has been disabled. Please contact your administrator.**

## 8.5.2 Applying measures from the measures library

A match code is assigned to every entry in the measures library. This permits a structured filing and a fast retrieval of suitable measures.

### Procedure

- 1 Select the hazard for which you want to copy the measure:
  - open the risk assessment to a limit of the machine,
  - open the hazard and the hazard location and then
  - mark the phase of the machinery life.
- 2 In the context menu, select the **Apply from library** function.  
→ The Measures library is displayed:



- 3 Define which detailed data should be applied and click on **OK**.

## 9 Check and acceptance assistant

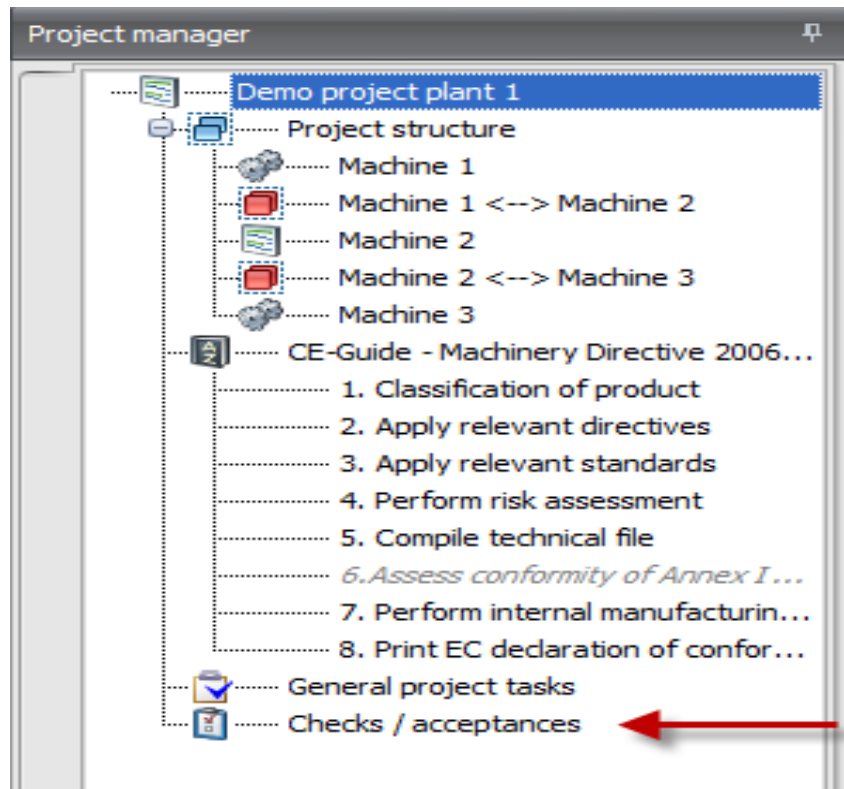
The check- and acceptance assistant is used to perform uniform checks or acceptances of machines or systems. Besides the checklists provided with Safexpert, you can also create your own checklists.

The checklists are managed and updated in the company favourites.

In practice, the process of a check or acceptance is similar. For this reason, the term "check" is used synonymously in Safexpert for both activities.

### Open check and acceptance assistant

In the Safexpert project manager, it is immediately noticeable whether checks or acceptances have been performed for the project and whether they are already complete.



Double-clicking on Checks / acceptances opens the Check- and acceptance assistant.

## 9.1 Performing the check

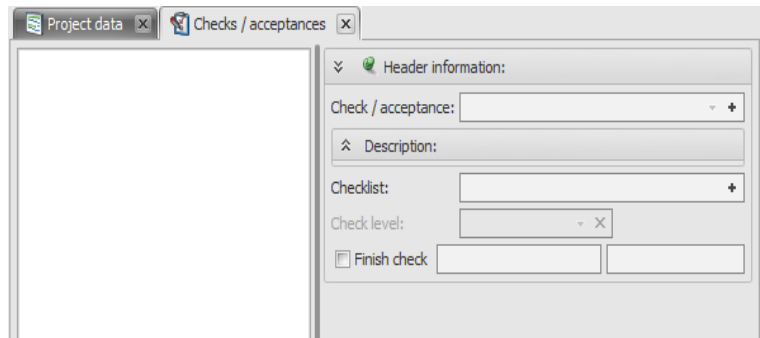
### 9.1.1 Defining check criteria

Several checks can be performed in a project. For each check, one or several checklists could be applied.

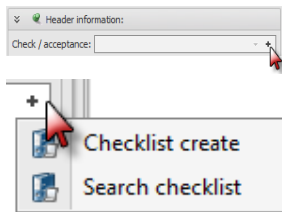
## How to define the check criteria

- 1 In the Safexpert project manager, double-click on **Checks / acceptances**:

→ The **Checks / acceptances** window opens:



→



- 2 Click on **Add check / acceptance** and select a name from the predefined names or define a new name.
- 3 In the **Checklist** field, click on **Add checklist** and select the desired function from the context menu.

→ **Set up checklist:** You can create your own project-specific checklist.

→ **Search checklist:** You search for an existing checklist in the company favourites or on the Safexpert Live Server and copy it into the project.

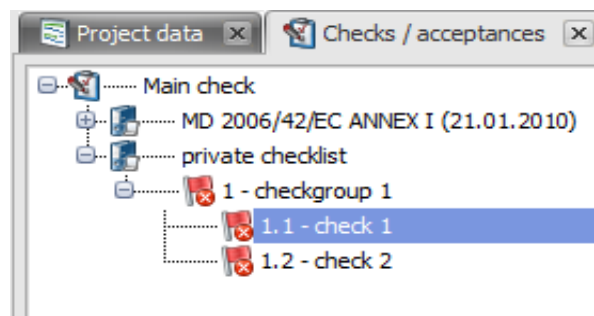
## Set up checklist

The test person can create complete own checklists or change checklists copied into the project.

**Note: Changes to existing checklists are possible only if the option "Changes allowed by the user" is enabled.**

The name of the own checklist is freely selectable.

The structural design of the checklist is freely selectable:



*Structuring of own checklists*

To create new checkpoints, select the **Create new checkpoint** function on the multi-function bar or in the context menu.

**Note: Individually created checklists in projects can be saved as templates (see section 13.3.5).**

## Search checklist

In Safexpert, checklists are managed in the same way as standards. For detailed information about managing and searching checklists, see chapter 11.

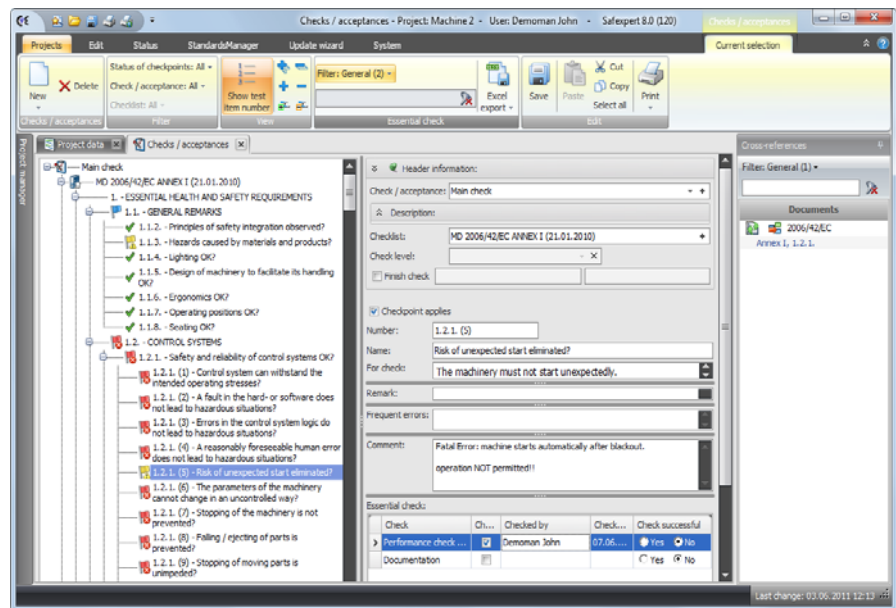


If you select **Search checklist**, the **Copy checklist** window is displayed. Select the desired checklist and click on **Copy checklist**.

## 9.1.2 Document check results






Click on the desired checkpoint in the checklist. The middle of the window displays the detailed data for the checkpoint.

The right side shows the cross-references to the checkpoint.



*Document check- and acceptance assistant*

### Status of checkpoints

-  Required check - Not checked (red flag)
-  Required check – Checked, not OK (yellow flag)
-  Required check – Checkpoint checked and OK, but subpoints are not yet OK (blue flag)
-  Required check - Checked and OK (green check mark)
-  Checkpoint does not apply

### Document check results

Document any negative check results in the Comment section.

The **Essential check** section shows the check types which the manufacturer of the checklist considers to be required for the respective checkpoint.

Header information:

Checkpoint applies

Number: 1.2.1. (5)

Name: Risk of unexpected start eliminated?

For check: The machinery must not start unexpectedly.

Remark:

Frequent errors:

Comment: Fatal Error: machine starts automatically after blackout.  
**operation NOT permitted!!**

Essential check:

Check	Ch...	Checked by	Check...	Check successful
> Performance check ...	<input checked="" type="checkbox"/>	Demoman John	01.12. ...	<input checked="" type="radio"/> Yes <input type="radio"/> No
Documentation	<input type="checkbox"/>			<input type="radio"/> Yes <input type="radio"/> No

Document check results

### 9.1.2.1 Overview of keyboard shortcuts

The following keyboard shortcuts will allow you to transfer the evaluations quicker from paper to the database without having to use the mouse.

#### General function

When you use any of the shortcuts listed in the following table:

- Starting with the current cursor position in the "Checks / acceptances" window section (tree structure), the next checkpoint for which "Checked" has not yet been enabled is approached,
- Depending on the shortcut, the check box "Checked" and "Check successful" is set to "Yes" or "No" for this checkpoint,
- the cursor may move to the "Check comment" field. If text has already been entered, the cursor moves to the end of the text.

If there is no further checkpoint to be checked below the current cursor position, the message "No further checkpoints have been found" is displayed. Please note that open checkpoints may still be located above the cursor position.

#### CTRL + J

- **Checked** is enabled
- **Check successful** is set to **Yes**

#### CTRL + E

- **Checked** is enabled
- **Check successful** is set to **No**

## CTRL + Z

- Checkpoint applies is shown or hidden

## CTRL + N

- **New** context menu is opened

---

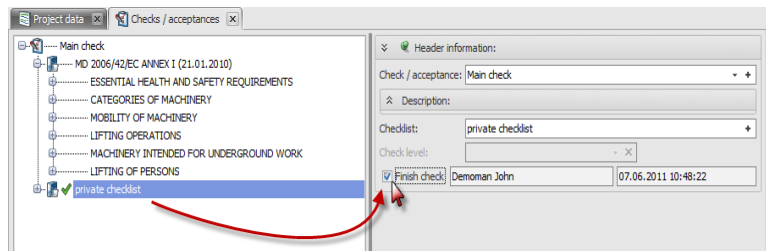
### 9.1.3 Finish check

Completing a Check / acceptance is always performed with respect to the selected checklist.

After the completed check / acceptance, **Check successful** can subsequently be set to **Yes**.

#### Procedure

- 1 In the **Check structure** window section, select the checklist you want to complete.



- 2 In the Header information window section, click on the **Finish check** check box.

- If all relevant checkpoints of the checklist feature the **Checked and OK** status, the check box is switched over and the name of the logged-in test person and the current date are entered.
- When you attempt to finish a checklist whose relevant checkpoints are not all showing the **Checked and OK** status, a corresponding message appears. Yet, it is still possible to finish the check.

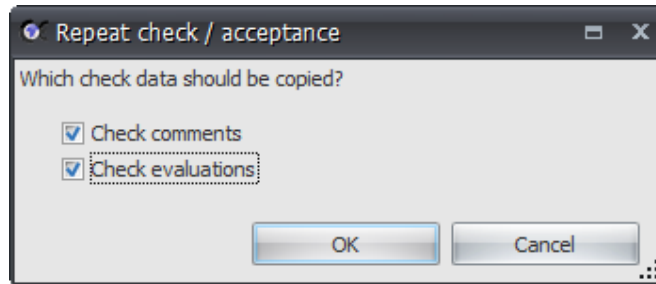
---

## 9.2 Repeat check

Within a project, entire checks or the checks according to a certain checklist can be repeated.

## Procedure

- 1 Mark the check or checklist to be repeated.
- 2 On the multifunction bar or in the context menu, select the **Copy** function.
- 3 Place the cursor at the position to which you want to copy the check or checklist.
- 4 On the multifunction bar or in the context menu, select the **Paste** function.  
→ The "Repeat check" window is displayed.



- 
- 5 Select the data to be copied and click on **OK**.

## 9.3 How to add a link to a file to a checkpoint

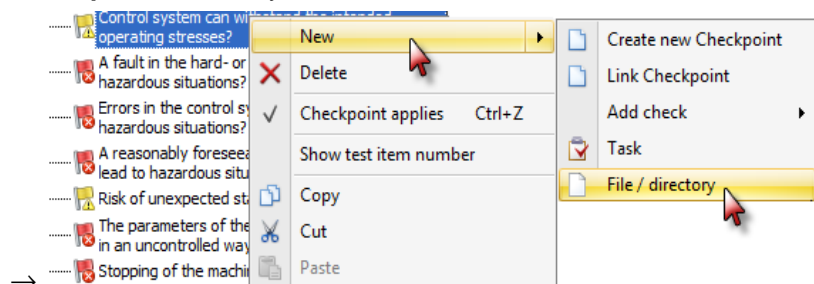
Links to any files can be added to any checkpoint. This places all the important information at the disposal of the test personnel. Double-clicking on the file opens it directly.

It may be useful to link the following files with a checkpoint:

- Standards
- Directives
- Data sheets
- Checklists
- Calculations
- QA documents
- ...

## Procedure

- 1 In the **Check structure** window section, right-click to select the **Checkpoint** to which you want to add a link to a file.



→ The context menu opens.

- 2 Select **New – File / directory**.  
→ The **Open** window is displayed.
- 3 Select the file you want to link with the checkpoint.



## 10 Printing reports

In accordance with the machinery directive, not all documents of the technical file have to be present in printed form at all times.

Machinery Directive 2006/42/EU, Annex VII, Section A:

*"... The technical file does not necessarily have to be located within the EU and be physically present at all times. However, the person listed in the EC declaration of conformity must be able to compile them according to the complexity of the documents within an appropriate period of time and make them available..."*

Safexpert provides support for the compilation of the technical documentation.

---

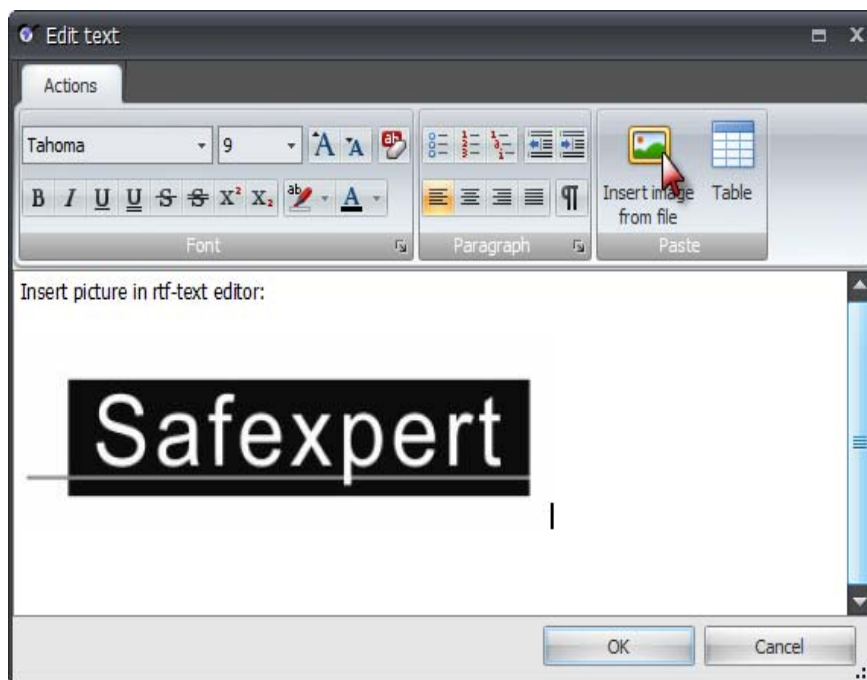
### 10.1 Inserting and printing images

In principle, Safexpert provides two options for inserting images:

- Inserting images in RTF text fields
- Attaching images.

---

#### 10.1.1 Inserting images in RTF text fields



*Inserting images in RTF text fields*

#### Inserting an image

To insert an image, click on Insert image from file and select the image. The size of the image can subsequently be changed.

#### Printing an image

The images inserted in text fields are always printed in the printout. The printout is done with the size with which the image was embedded in the RTF editor. For this reason, ensure that the image is not larger than the available space in the printout.

Besides the option of inserting images directly in the text, images can also be attached to certain points and printed out as attachments following the report (see section 10.1.2).

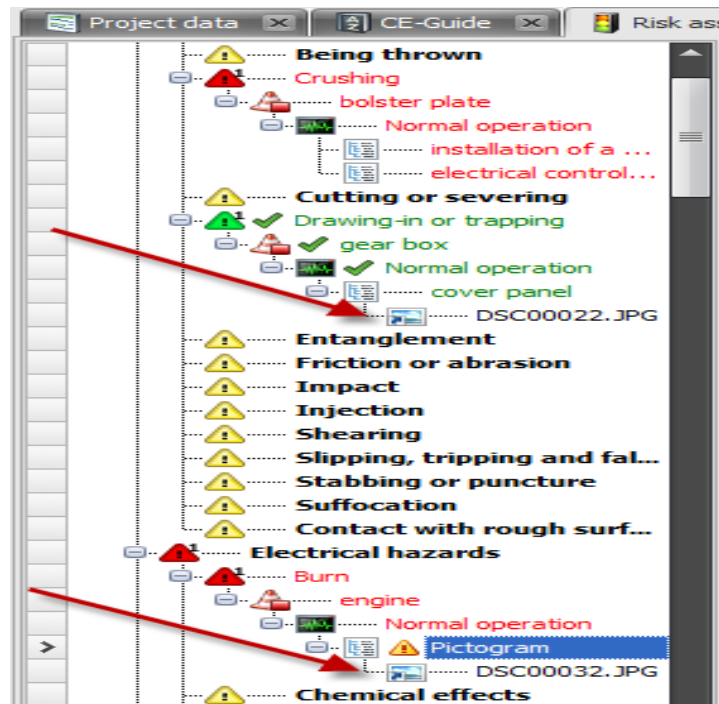
For example, RTF editing fields are available in Safexpert:

- in the risk assessment in the fields **Hazard description** and **Measure**

- in checklists
- in the fields **To check** and **Check comment** during checks / acceptances
- in hazards lists
- in the **Note** field in the CE guide
- in the **Additional text** field for a part added in the project structure

## 10.1.2 Attaching images

When attaching images, either a link to an image file is added or the image file is embedded in the database.



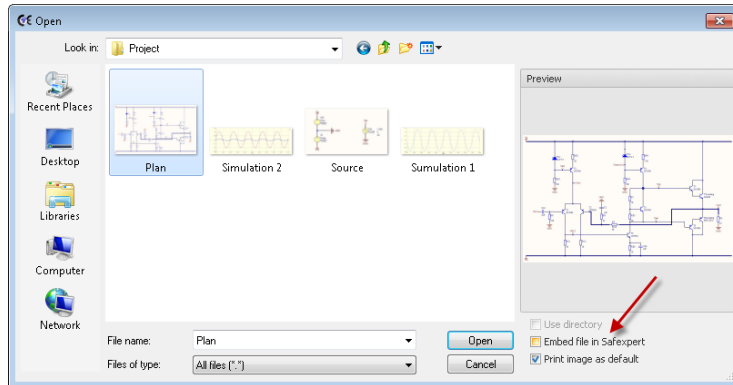
*Adding a link to an image file (or another file)*

Attaching files is possible, for example:

- in the risk assessment to hazard locations and to measures
- in the check and acceptance assistant to checkpoints
- in the protocol management.

## Attaching an image

- 1 Right-click at the point where you want to attach the file and select **New – File / Directory** from the context menu.  
→ The **Open** window is displayed.



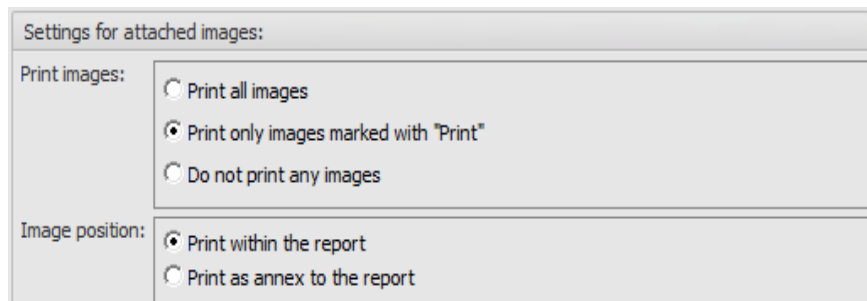
- 2 Select the file to be attached.
- 3 Select **Embed file in Safexpert** if the file is to be embedded in the database. Otherwise, a link to the file is being created.

## Settings for attached images

With every link to an image, you can define whether the image should be printed or not.

For this purpose, either select the **Print image by default** option in the aforementioned window or select the command **Print: Yes** or **Print: No** from the context menu after the image has been attached.

Before the printout, the user can select in the advanced print options whether all, only those images identified with "Print: Yes" or no images should be printed:



*Settings in which way attached images should be printed*

## Image position

It can also be defined whether the attached images should be printed within the report or as appendix to the report.

If you select "Print within the report", the image is embedded in the printout. If the column in which the image is printed is narrower than the image width, the image is scaled. The aspect ratio of the image is maintained.

Depending on the report template, this may cause the image to be reduced so much that the image is no longer recognizable. In this case, the option "Print as attachment to the report" should be selected.

In this case, the respective image is displayed within the report in thumbnail format with an end note and the file name. At the end of the report, the images are each printed on a separate page. If the image should be larger than the available space on the page, the image is scaled. The aspect ratio of the image is maintained.

---

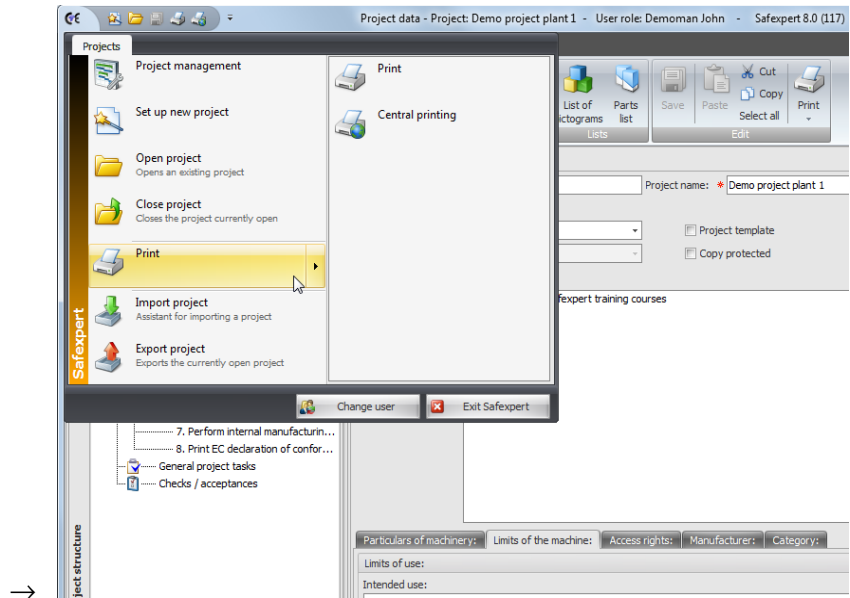
## 10.2 Printing in Safexpert

Safexpert features two different print functions:

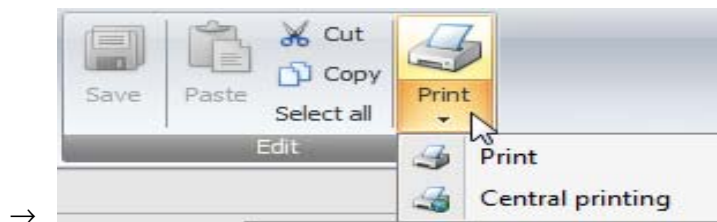
- Context-dependent printing
- Central printing

Both print functions can be opened in these two ways:

- On the "**Project > Print**" tab



- or from the "Edit" group.



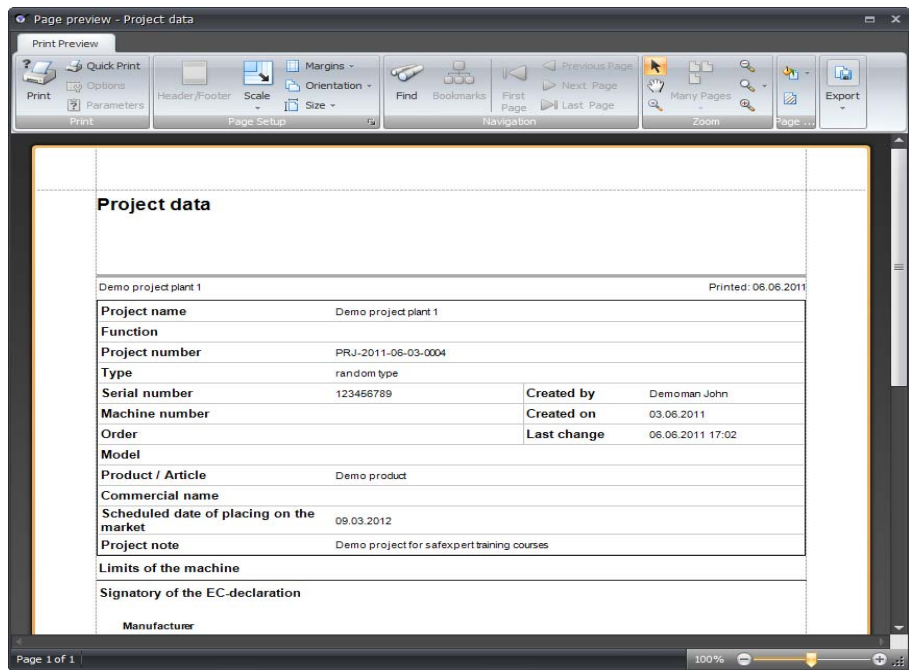
## Print targets



Selecting the print target

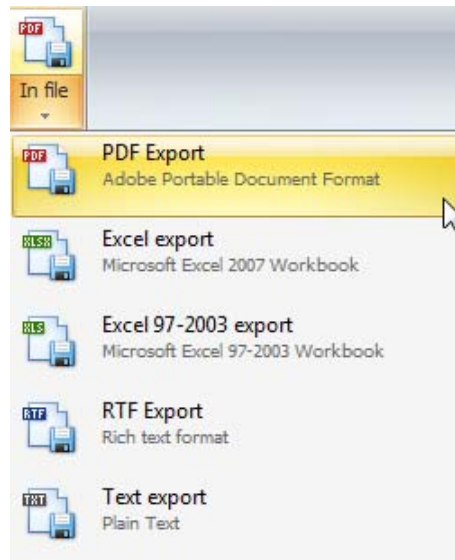
### 10.2.1 Page display

With the "Page display" function, the report is displayed on the screen.



**Note: The report generator implemented in Safexpert is available only in English!**

## 10.2.2 Printing to a file



*Selection of format for exporting reports*

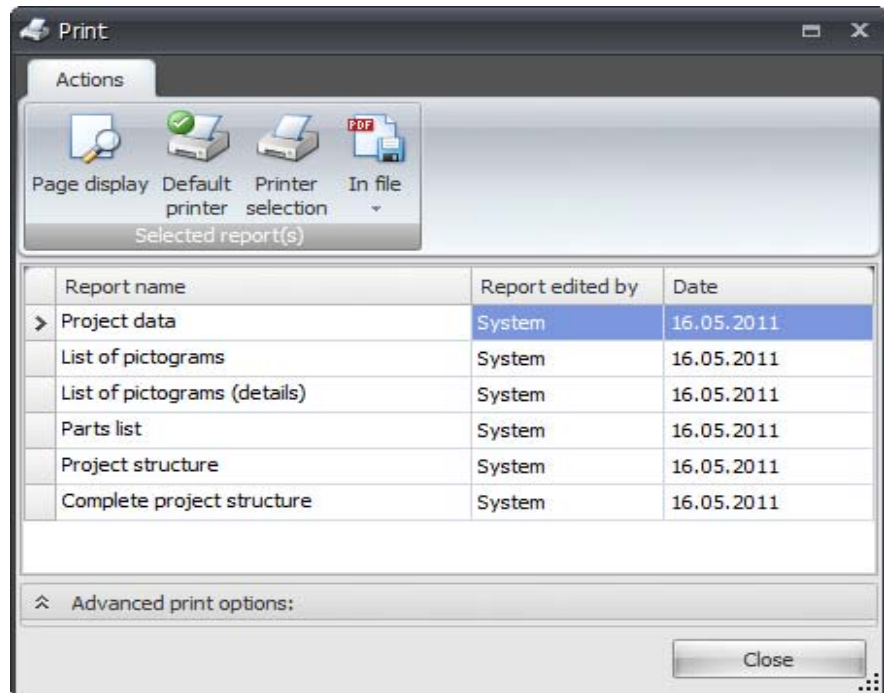
All reports can be printed in these file formats:

- PDF
- Excel
- RTF (Rich Text Format): For import in Word® or other programs.
- Text file (TXT).

**Note: The printout is formatted based on the predefined report templates. If necessary, the report templates may have to be adjusted to achieve the desired results in the respective formats.**

### 10.2.3 Context-dependent printing

For context-dependent printing, the report templates displayed depend on the mask currently being displayed.

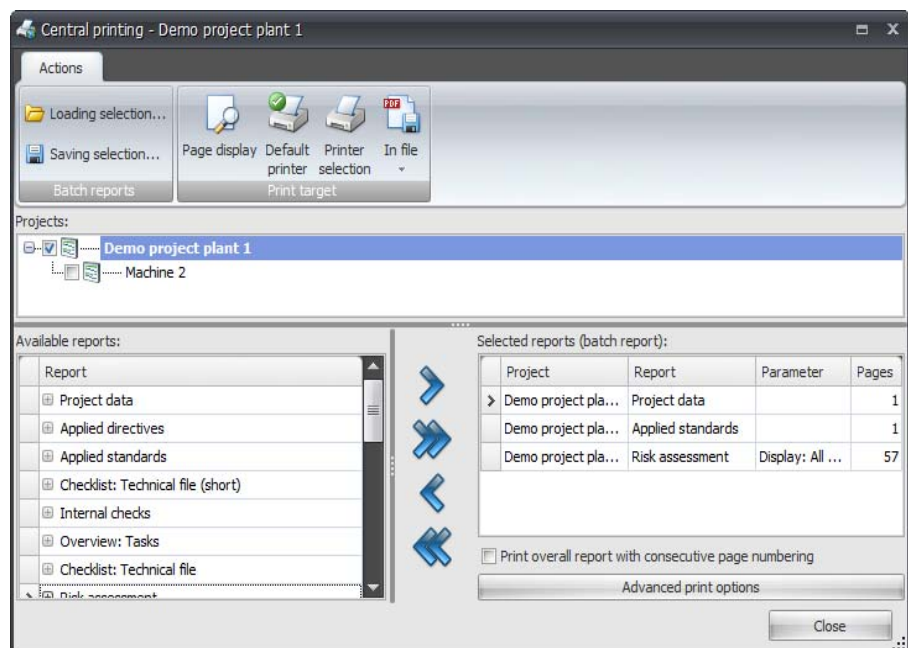


Selecting the print target and report template

Select the report(s) to be printed and click on the desired print target.

### 10.2.4 Central printing

In central printing, several reports can be printed in one run (batch report). Any number of batch reports can be compiled and saved.



#### Procedure

- 1 Select the "Central printing" function.  
→ The "Central printing" window is displayed.

- 2 In the "Projects" section, select the projects to be printed.
- 3 If necessary, load an existing batch report or compile a new one from the available reports.

**Note: Some reports provide an option for setting parameters (+). The parameters must be selected before the report is adopted into the batch report!**

- 4 Select the print options.
- 5 Click on the desired print target

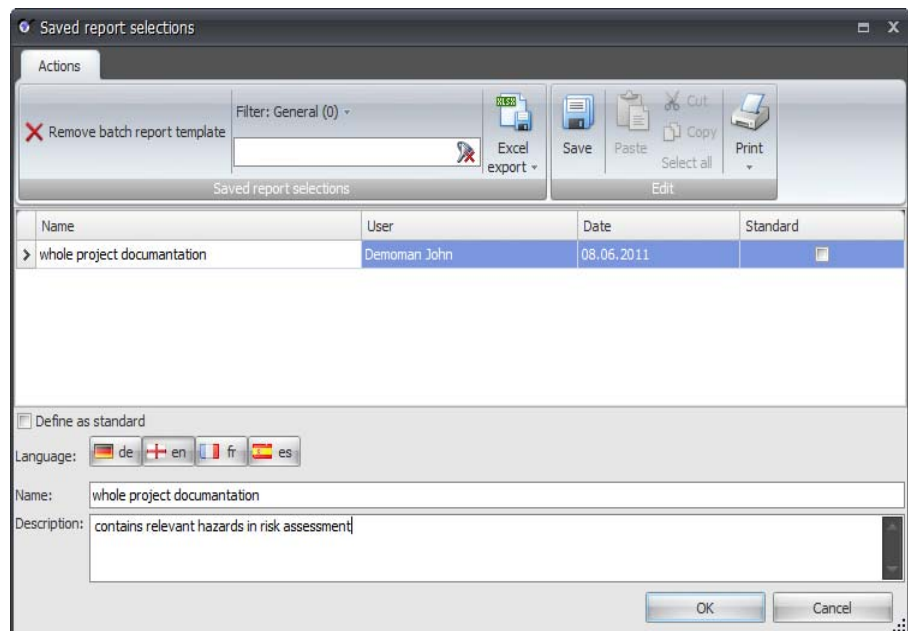
### Overall report with consecutive page numbering

Print overall report with consecutive page numbering

You can select whether the page numbering should start with 1 for every report or whether all reports are consecutively numbered.

### Saving batch reports

Any number of batch reports can be saved for reuse. They can also be used by all the other Safexpert users.

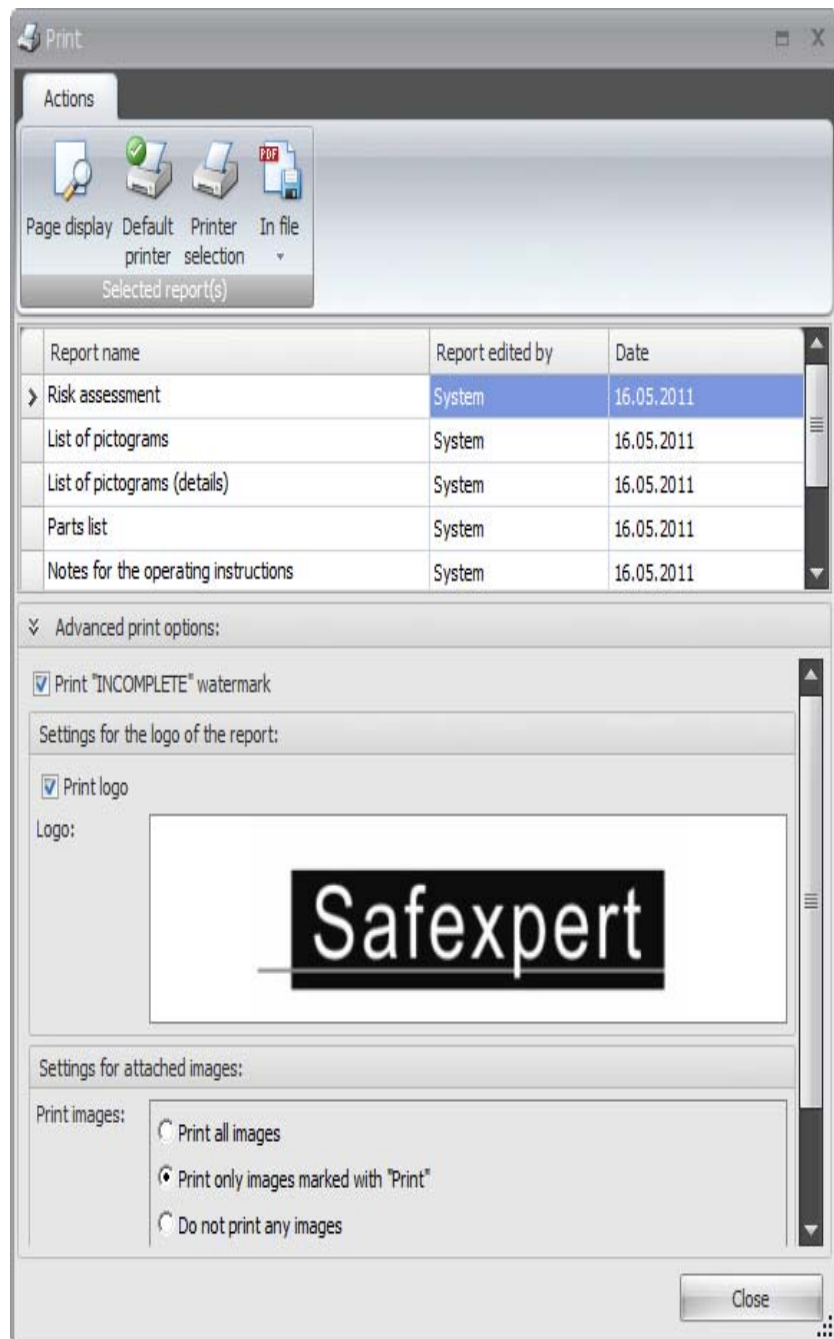


Mark the Define as standard check box if this selection is to be loaded automatically the next time Central printing is run.

## 10.2.5 Advanced print options

In context-dependent printing as well as "Central printing", it is possible to define "Advanced print options".

Basic default settings for the print options can be performed in the **Safexpert Options** in the section **System - Specifications for reports** (see chapter 13.1.1.12).



*Settings for printing reports*

### **Print "INCOMPLETE" watermark**

This setting applies to reports that are printed from within the CE guide. The watermark is printed if the step has not yet been completed in the CE guide.

### **Print logo**

By default, the logo defined in the **Safexpert Options** (see chapter 13.1.1.12) is displayed here.

The logo can be changed here for the current report. This does not change the default setting in the Safexpert options.

Right-click in the **Logo** field and select **Load logo** in the context menu.

### **Settings for attached images**

These settings are possible only if the printout contains images.

Information about the settings can be found in chapter 10.1.2



## 10.3 Reports for project documentation

These standard reports are available in Safexpert for project documentation:

Report template	Available in the windows
Project data (cover sheet)	Project data
Project structure	Project data
Project status	Project data
Complete structure	Project data
Applied directives	CE guide, tab 2
Applied standards	CE guide, tab 3
"Technical file" checklist (short)	CE guide, tab 5
Risk assessment	Risk assessment CE guide, tab 4
Risk assessment (including "Applied standards")	Risk assessment CE guide, tab 5
List of pictograms	Project data Risk assessment CE guide, tab 4
List of pictograms (details)	Project data Risk assessment CE guide, tab 4
Parts list	Project data Risk assessment CE guide, tab 4
Notes for the operating instructions	Risk assessment CE guide, tab 4
"Technical file" checklist	CE guide, tab 5
Internal manufacturing control	CE guide, tab 7
History	Project history
Overview: Tasks	In all analyses of outstanding tasks in the <b>Status</b> main menu
Protocols	Protocol management
Current protocol	Protocol management
Project structure	Project data
Complete project structure	Project data
Signature card	CE guide, tab 8
Declaration of conformity or incorporation	CE guide, tab 8

To create your own reports, see chapter 13.1.5

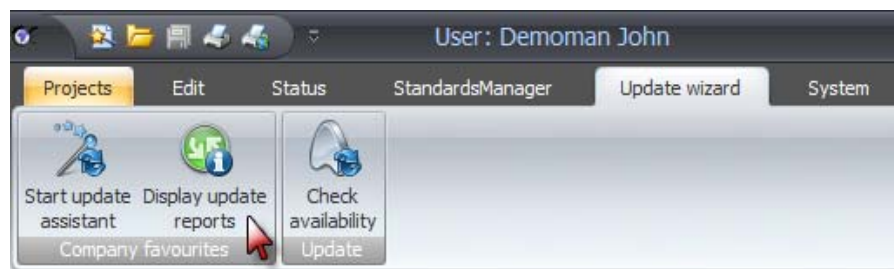
## 10.4 Reports for system management

These reports are generally required only by the Safexpert system administrator.

### "System" main menu – Available reports

Report template	Available in the windows
Safexpert user	System - User management
Safexpert user (details)	System - User management
Hazards list with cross-references	System - Hazards lists
Hazards list without cross-references	System - Hazards lists
Checklist with cross-references	System - Checklists
Checklist without cross-references	System - Checklists
Cross-reference list	System - Cross-reference lists
CE InfoService application form	Safexpert options - Resources

### Update wizard

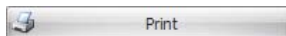
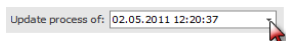


*Print update reports*

Safexpert offers very powerful functions for updating the company favourites and for Safexpert updates (see chapter 12).

The update reports of the company favourites can be printed following the update runs or later.

### Print update reports of company favourites subsequently



- 1 In the **Update wizard** main menu, click on **Display update reports**.
- 2 In the **Update process of** area, select the desired update run (see chapter 12.3.1).
- 3 Click on **Print**.  
→ The list of available reports is displayed.
- 4 Select the desired report and click on the desired print target.

### Safexpert update wizard – Available reports

Report template	Available in the windows
Company favourites - Update report	Standards manager update processes
Updated documents (linked files)	Standards manager update processes
Update report – Concerned projects	Standards manager update processes
Updated templates / libraries	Standards manager update

Report template	Available in the windows
	processes

To create your own reports, see chapter 13.1.5

## 11 Safexpert Standards manager

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### 11.1 Note about the term "document"

Besides standards, other documents can also be managed and updated in Safexpert, such as directives, laws, and technical, but also hazards lists, cross-reference lists, checklists, etc.

For this reason, the collective term "documents" is frequently used in Safexpert.

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### 11.2 What is the Safexpert Standards manager used for?

#### Difficulties in handling standards and directives

- It is difficult to find the correct standard for the current activity from the multitude of available standards.
- Standards and directives can change at short intervals due to their constant adaptation.
- It is difficult and cost-intensive to keep the standards register applicable to the company up to date.
- It is time-consuming and cost-intensive to keep all employees up to date.
- It is difficult and cost-intensive to determine for standards changes which ongoing projects are affected by the changes.

Safexpert supports you in keeping your company standards database (company favourites) up to date and informing those users about possible changes that are affected by them.

#### How Safexpert supports you in handling standards and directives

The Safexpert Standards manager provides support for the following activities:

- Search for standards and regulations.
- Setup of the standards database specific to your company (company favourites).
- Interactive updating of the company favourites.
- Managing of personal favourites for several users. Changes to standards will be reported by e-mail.
- Checking which ongoing projects and which template projects are affected by current changes to standards.
- Management of original texts.
- Quick access to original texts of standards and regulations.
- Management of personal documents, such as plant standards

#### Safexpert Standards manager - so much more than a standards database

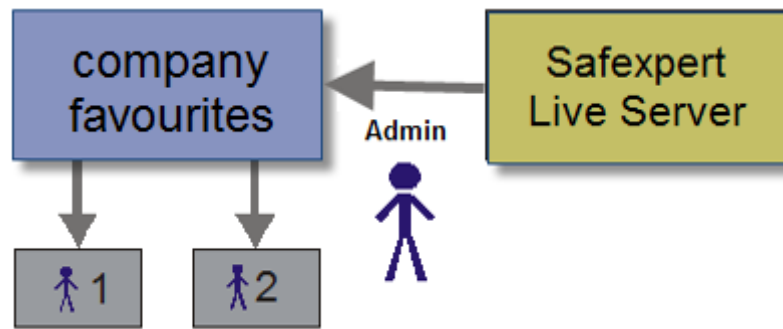
In light of these functions, Safexpert should not be compared with a standards database which are even offered free of charge on the Internet by various manufacturers. The objective of Safexpert goes far beyond simply providing standards data.

On the one hand, automatic functions are provided that check which effects the changes of documents would have on the processes and the participants in organisations.

On the other hand, the selective concentration on harmonised European standards from the area of mechanical and plant engineering reduces the data flow for the user.

Nevertheless, it is also possible to search for standards of other subject areas in the extensive standards pool of the Austrian Standards Institute (over 40,000 records) . Hence, all EN and ISO standards published by the ASI are also found, such as the documents of the ISO 9000 series.

## 11.3 Operating principle of Safexpert Standards manager



*Fundamental concept for standards management and standards update*

Many users are overwhelmed with the flood of standards and laws. It is therefore possible to manage the standards and regulations with Standards manager, that are primarily required by your company, as company favourites in an internal database.

The Safexpert Update wizard provides support for the setup (see section 12).

As the user, you can define which standards are personally important to you by marking them each as **Personal Favourite**. The likelihood of finding relevant standards and regulations quickly is considerably increased, in particular for less experienced users of standards.

To avoid the application of obsolete standards in the company, the administrator can be notified automatically upon opening the Standards manager if the last update is older than the number of days specified in the Safexpert options.

### **Favourites**

Documents that are important to a company or to single users can be marked as favourites. Personal favourites, such as plant standards, can also be incorporated in the company favourites.

Besides the company favourites, you can also declare **Personal Favourites**. The search for documents can be limited to these favourites (**My favourites only**).

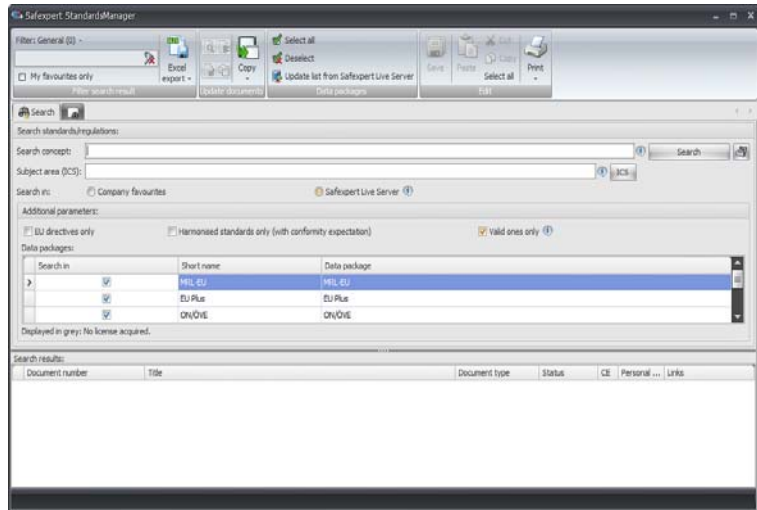
---

## 11.4 Safexpert Standards manager

### Procedure

- 1 In the **Standards manager** main menu in the **Search standards/regulations** group, select the function **In company favourites** or **At Safexpert Live Server**.

→ The **Safexpert Standards manager** dialogue window is displayed:



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## 11.5 Data packets

To facilitate locating the harmonised standards that are important for the CE marking, special data packets are offered with Safexpert that were compiled based on the publications in the EU Official Gazette.

The data packets are continuously being updated by the Safexpert Team. In the context of maintenance contracts, the updates are performed via the Internet (Safexpert Live Server) or via data carrier (CD/DVD).

These data packets are the basis for:

- the initial setup of the company's own databases (company favourites) and
- the continuous interactive updating of the company favourites.

### Available data packets (references):

- EU Machinery Directive:
  - Machinery, EMC, ATEX, Pressure Equipment and Low-Voltage Directive
  - Standards data for the Machinery Directive in the EU Official Gazette
  - Historical data of standards data previously listed in the data packet MD-EU according to Machinery Directive
  - Successor standards not yet published in the EU Official Gazette that are expected to receive the declaration of conformity and are part of the standards packet Safexpert Standard.
- EU Plus:
  - Standards data published in the EU Official Gazette for EMC, ATEX, Pressure Equipment and Low-Voltage Directive
  - Historical data of standards data previously listed in the data packet EU Plus according to these directives
- ON/ÖVE:
  - Standards data of the Austrian Standards Plus GmbH ([www.as-plus.info](http://www.as-plus.info)). This data packet is also of interest to users outside of Austria since it also contains information about international agreements. This packet also contains standards information for other subject areas than mechanical and systems engineering, e.g. quality management, inspection systems, electrical engineering,...

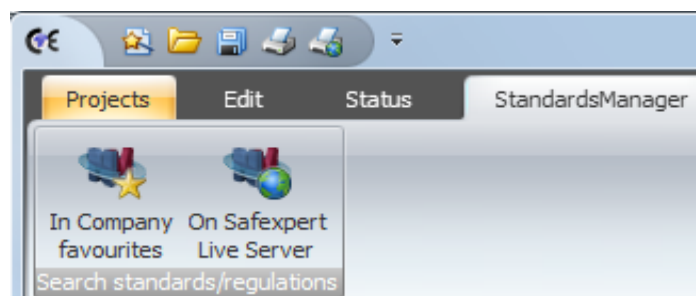
### Safexpert Live Server

Internet standards database with reference data to the EU directives:

- Machinery
- Low-voltage
- EMC
- ATEX
- Pressure equipment
- and a special "ON/ÖVE" data packet

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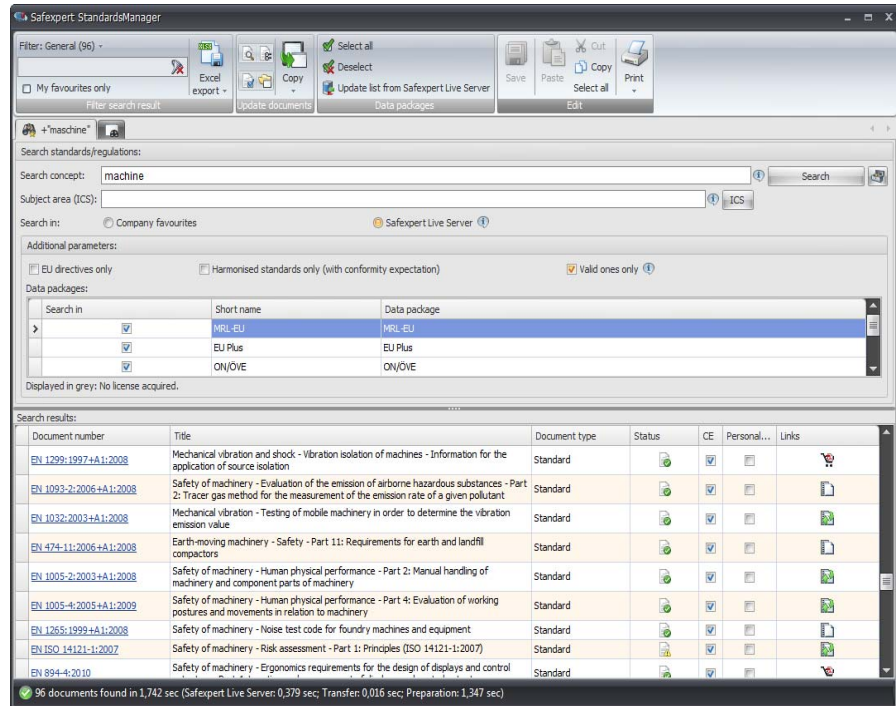
## 11.6 Search for standards and regulations.



*Searching for and managing documents in the company favourites or on the Safexpert Live Server*

When opening the Standards manager, you can already decide whether you want to search in the company favourites or on the Safexpert Live Server (Internet). This option can also be changed after opening the Standards manager.

## 11.6.1 Specifying search parameters



Safexpert Standards manager

### Search concept

You can add several search concepts. All records are located that contain all the search concepts entered in the search field. The search is not case-sensitive.

The "-" sign before a search text indicates that data records will not appear in search results which contain these character strings.

In the search results, the search concept is displayed in **bold**. If you are searching for **EN ISO 12100**, **EN**, **ISO** and **12100** are each displayed in boldface.

### Examples of search concepts

#### EN ISO 12100

Finds records in which the following occurs: **EN** and **ISO** and **12100**

#### pinch machine

Finds data records, in which both words are found

- Examples: EN 349

#### pinch -machine

Finds records in which the word **pinch**, but not the **machine** occurs at the same time.

- Examples: EN 60682

### Subject area ICS

More ICS numbers can be entered, separated with a comma or a space character. All data records will be found that contain one or more of the ICS numbers entered (OR operator).

**Note: Many standards users are not aware of the great benefit of the ICS classification system. For this reason, please observe section 11.6.3.**

### Search in

Select whether you want to search for standards and regulations **on the Safexpert Live Server** or in **the company favourites**.



**Note: If you want to search on the Safexpert Live Server, an Internet connection is required!**

### Additional parameters

These search parameters narrow the search further and the number of hits is reduced.

**Note: With respect to European standards, "Valid ones only" means that documents are also displayed that have been withdrawn by the standards publisher, but are still listed in the EU Official Gazette as applicable standards.**

### Data packets

In this list, only the entries shown in black can be searched. Right-click to deactivate all via the context menu and to activate only the desired packets.

**Note: For the data packets shown in grey, no copyright is needed. To purchase copyrights, please contact your Safexpert supplier or the Safexpert hotline. For this reason, please observe section 12.1.**

### New search window



To keep a previous search result readily available, you can open a new search window for a new search. To do so, click on **New search window**.

## 11.6.2 Search result

The search result is displayed in a table.

Document number	Title	Document type	Status	CE	Person...	Links
EN 60204-1:2005/A1:2009	Safety of machinery - Electrical equipment of machines - Part 1: General requirements (IEC 60204-1:2005)	Standard		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
EN 12717:2001+A1:2009	Safety of machine tools - Drilling machines	Standard		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
EN 12409:2008	Plastics and rubber machines - Thermoforming machines - Safety requirements	Standard		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
EN 692:2005+A1:2009	Machine tools - Mechanical presses - Safety	Standard		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
EN ISO 10472-5:2008	Safety requirements for industrial laundry machinery - Part 5: Flatwork ironers, feeders and folders (ISO 10472-5:1997)	Standard		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
EN 415-8:2008	Safety of packaging machines - Part 8: Strapping machines	Standard		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
EN 1845:2007	Footwear manufacturing machines - Footwear moulding machines - Safety requirements	Standard		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
EN 15057:2007	Plastics and rubber machines - Film converting machines for bags and sacks - Safety requirements	Standard		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
EN 1870-1:2007+A1:2009	Safety of woodworking machines - Circular sawing machines - Part 1: Circular saw benches (with and without sliding table), dimension saws and building site saws	Standard		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
EN 422:2009	Plastics and rubber machines - Blow moulding machines - Safety requirements	Standard		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
EN 14886:2008	Plastics and rubber machines - Bandknife cutting machines for block foams - Safety requirements	Standard		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
EN 1260:2005+A1:2009	Safety of machines - Safety requirements for pressure metal diecasting units	Standard		<input type="checkbox"/>	<input type="checkbox"/>	

*Search results in the Safexpert Standards manager*

### Show or hide columns

The view of the **Search result** table can be customised by displaying and hiding columns. To do so, right-click on a column heading to display the **context menu** with the possible columns. Show or hide the desired columns.

### CE



The document is listed in the EU Official Gazette according to at list one EU directive and have the presumption of conformity. For details, see the detailed data in the section **Document status as harmonised standard**.

The setting is copied from the standards database and cannot be changed by the user. For personal documents, this parameter is set by the system administrator.

## Personal Favourite



The document is marked as personal favourite. Only mark those documents as personal favourite that are important to you.

For more information, see section 11.7.6.

## Status

Details about the individual statuses are displayed if you move the mouse pointer over the symbol.



**Current**



**Still applicable for CE marking during the transitional period**



**Withdrawn**



**Applicability uncertain**

## Left

See chapter 11.8.1

## Document type



**Draft**

Caution: Standards drafts could also be given the status "Current". For this reason, a special reference is made in the Document type column if it is a draft.

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### 11.6.3 Search by subject areas (ICS classification)

**ICS** is short for **International Classification of Standards**. The ICS classification is applied by almost all members of the International Standards Organisation for the classification of their standards.

The hierarchical system of the ICS consists of three levels.

The first two digits (01-99) represent the subject area, the next three digits describe the subject group directly subordinated to this main subject field. The last two digits are for sub-areas of the subject group.

**Note: Many standards users are not aware of the great benefit of the ICS classification system. Investing a few minutes of your time will be worthwhile.**

EUROPEAN STANDARD

**EN ISO 12100**

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2010

ICS 13.110

Supersedes EN ISO 12100-1:2003, EN ISO 12100-2:2003, EN ISO 14121-1:2007

English Version

Safety of machinery - General principles for design - Risk assessment and risk reduction (ISO 12100:2010)

Sécurité des machines - Principes généraux de conception -  
Appréciation du risque et réduction du risque  
(ISO 12100:2010)

Sicherheit von Maschinen - Allgemeine  
Gestaltungsgrundsätze - Risikobeurteilung und  
Risikominderung (ISO 12100:2010)

*ICS numbering designation*

This classification into subject areas supports the selection of standards important to your company. Safexpert uses this system

- for the setup and update of company favourites and
- in the search for standards.

### Example

Let us assume that you are interested in all of the standards from the **Packaging machines** area and the **Safety of machines** area.

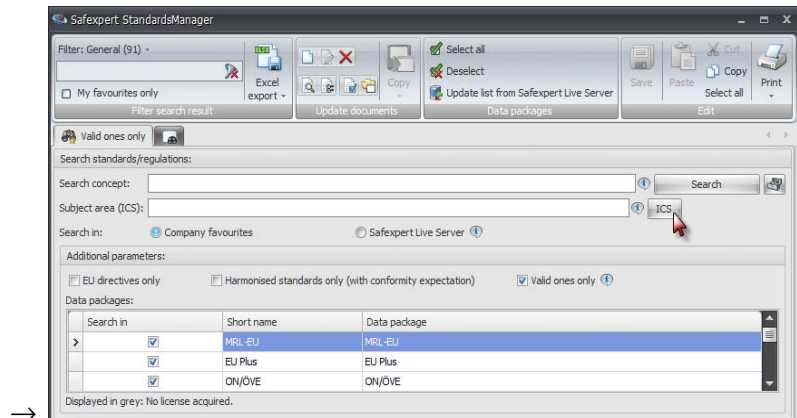
When setting up your company favourites, mark the two subject areas **13.110** and **55.200** and enter them directly in the search window, separated with a comma.

### Searching pertinent standards for ICS subjects

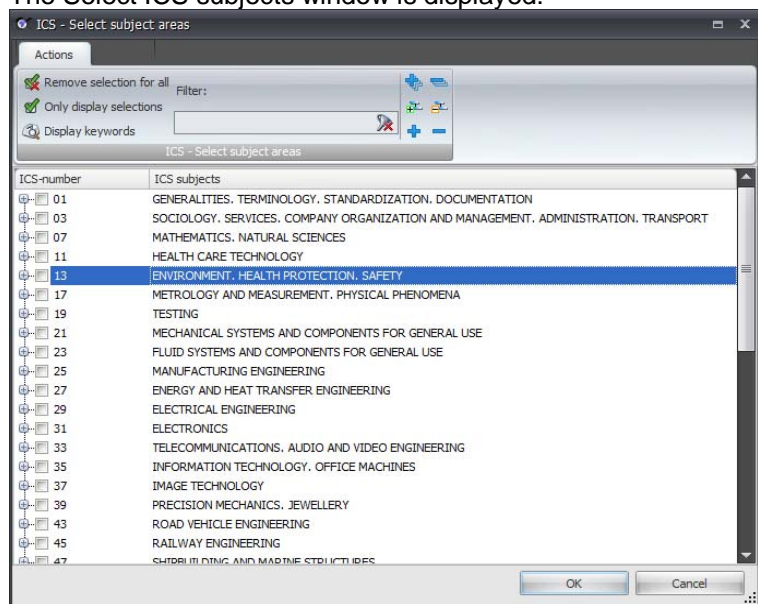
The **ICS - Select subject areas** assistant helps you locate the subject areas relevant to your areas.

## Procedure

- 1 In the Safexpert Standards manager, click on the ICS button:

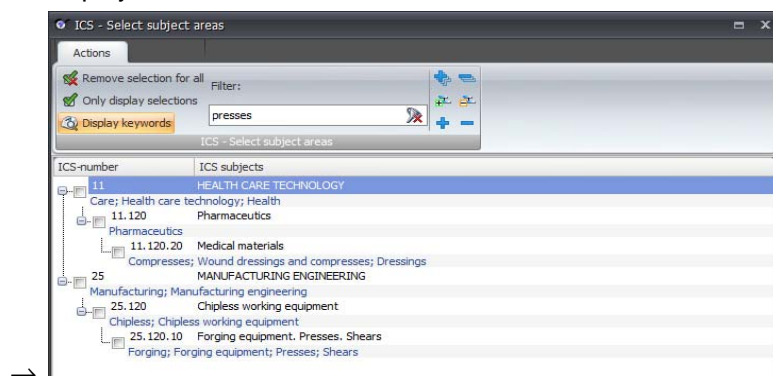


- The Select ICS subjects window is displayed:



- 2 Enter a search concept in the Filter field, e.g. "Press".

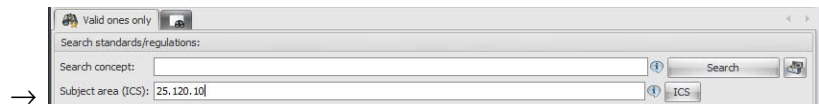
- Those ICS subjects containing the entered search concept are displayed:



- The search is not case-sensitive. The search is performed in the names of the ICS subject areas as well as in the corresponding keywords.

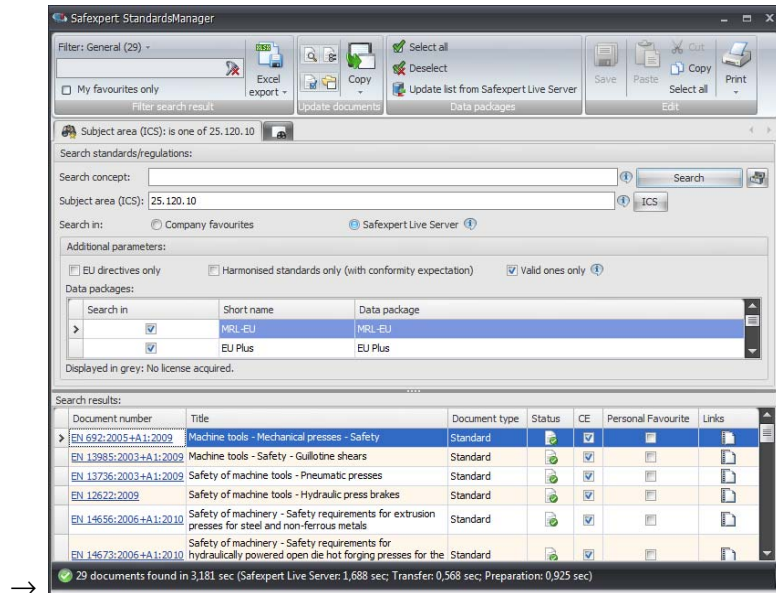
3 Mark the ICS number for the desired subject area and click on **OK**.

→ The selected ICS number is copied into the search window:

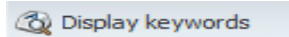


4 Click on **Search**.

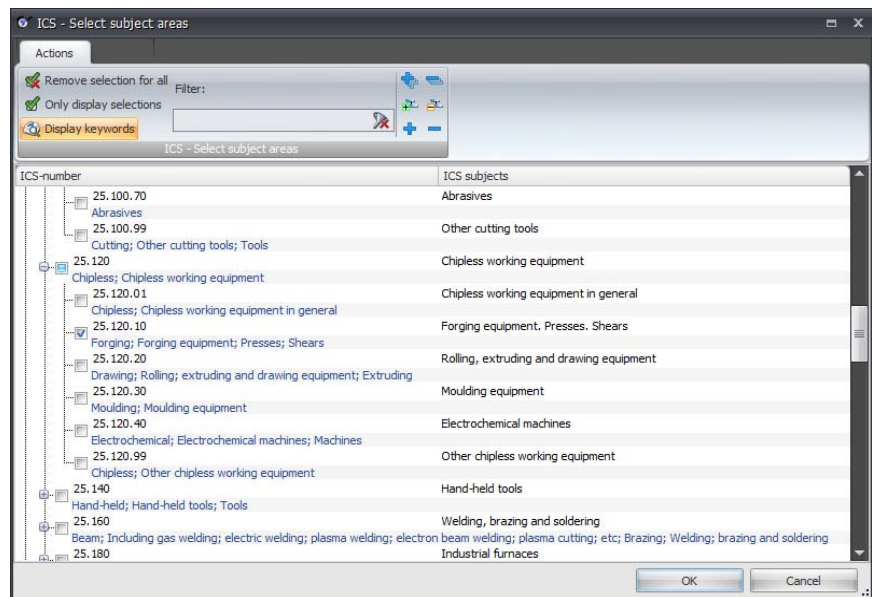
→ The search results are displayed:



## Display keywords



The keywords for every subject area are displayed:



## Delete filter



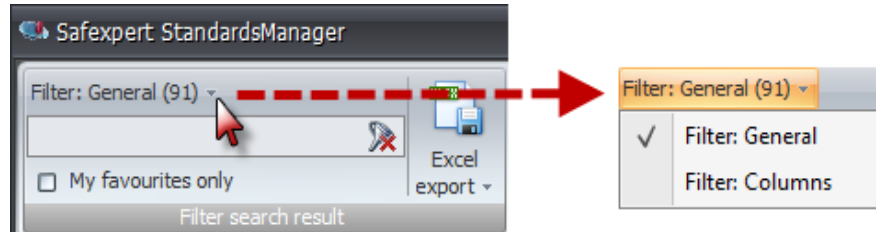
Deletes the text entry in the **Filter** field.

**Note: Standards are found for the selected subject area only if the corresponding records are contained in your licensed data packets!**

## 11.6.4 Filter search result

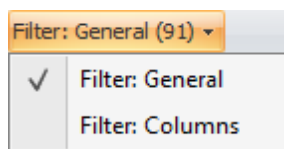
To facilitate finding the wanted documents, you can further restrict the search results in three convenient ways without sending another search query to the server:

- Filter: General
- Filter: Columns
- Display personal favourites only



Further restriction of the search results

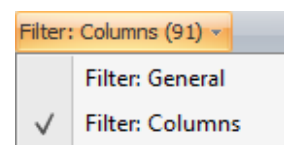
### Filter: General



A text entry in the Filter field leads to a search in all displayed columns of the table.

The number in parentheses indicates the number of hits that can be filtered again.

### Filter: Columns



An option allows entering a search text in every column heading. This allows restricting the filter to the respective column only in comparison to "Filter: General".

Click on the **Filter: General** button and select the **Filter: Columns** filter function.

### Display personal favourites only



Displays only those documents that you marked as personally important for yourself.

If no document is displayed, you either did not define a document as personal favourite or your personal favourites do not correspond to the other defined search parameters.

**Caution! If you did not define any personal favourites, the automatic notification via e-mail cannot be performed in case of standards changes! Recommendation: Set up your personal favourites according to section 11.7.6.**

### Delete filter



Deletes the text entry in the **Filter** field.

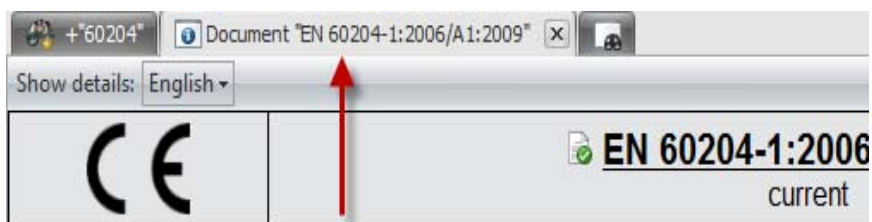
## 11.6.5 Search result - Show details



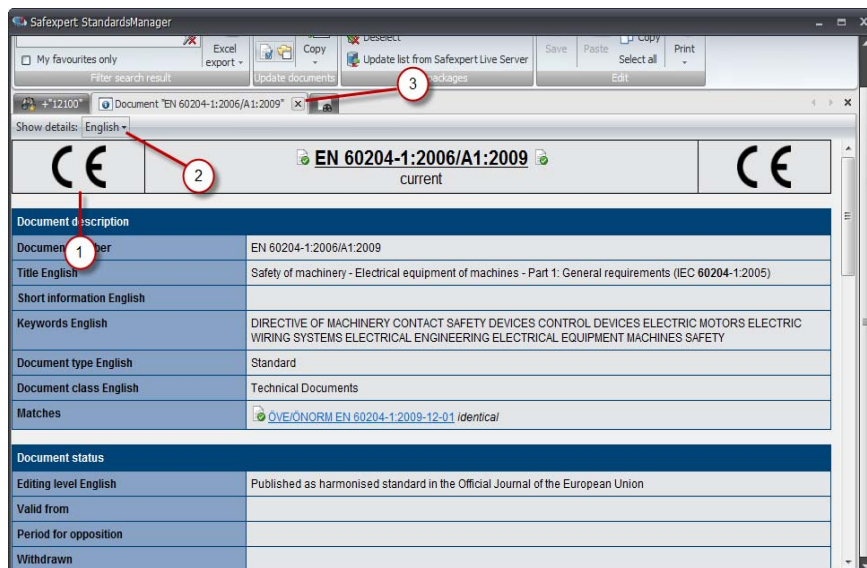
To display the detail information for a record, click on the respective **document number** in the Search result table or select the **Show details** function in the **Update documents** group.

Detailed data exist for every record. Since the detailed data are dependent on the publisher, not all of the fields have to contain information.

Detailed data for a document is displayed on a new tab in Standards manager.



Example: Tab with detailed data for EN 60204-1









Detailed data view

- (1) Documents that are listed in at least one EU Official Gazette and, therefore, have the presumption of conformity for a certain directive, are identified with the CE mark in the header.
- (2) If available, other national languages can be displayed for certain data fields.
- (3) Close the tab.

## Links to reference documents

The links to the reference documents feature different icons:

-  No licence rights available for the reference record
-  Linked document not available in the company favourites
-  **Current**
-  **Still applicable for CE marking during the transitional period**
-  **Withdrawn**
-  **Applicability uncertain**

## 11.7 Update documents

The commands available in the **Update documents** group depend on whether the search for standards / regulations is performed in the **Company favourites** or on the **Safexpert Live Server**.



*Standards manager - Group Update documents*

## 11.7.1 Incorporate own document

As a user with the corresponding rights, you can manually include personal documents in the company favourites. This is necessary if you do not have the licence rights for certain standards data or want to include documents in the company favourites that are not available at the Safexpert Live Server, such as plant standards.

**Caution! Personal documents are documents that are not managed on the Safexpert Live Server. Safexpert cannot automatically update them!**

**Use suitable internal processes to ensure that the personal documents in the company favourites are updated continuously and immediately.**

### Procedure



In the **Standards manager** main menu, select the **In the company favourites** function in the **Search standards/regulations** group.

Enter the reference data for your document in the fields.

*Safexpert Standards manager - Incorporate own document*

### Dates specified by the publisher

Corresponding dates can also be entered for personally defined documents. The following fields are available for this purpose.



- DOC** Cessation of presumption of conformity of superseded standard
- DOR** Date of ratification/adoption
- DAV** Date of availability
- DOA** Latest date to give notice of the existence of a standard
- DOP** Latest date that a standard must be applied
- DOW** Latest date by which a standard must be withdrawn

---

## 11.7.2 Edit own documents



User with the corresponding rights can edit the document data of self-created records at any time.

**Note: Records incorporated into the company favourites from the Safexpert Live Server cannot be changed by the user. Entering and copying alternative titles are exempt.**

---

### 11.7.3 Delete document



Deletes the records of the selected documents from the company favourites.

**Note:** Only a user with the corresponding user rights can delete selected documents.

---

### 11.7.4 Show details



Display detailed information about a selected document.

For more information, see section 11.6.5.

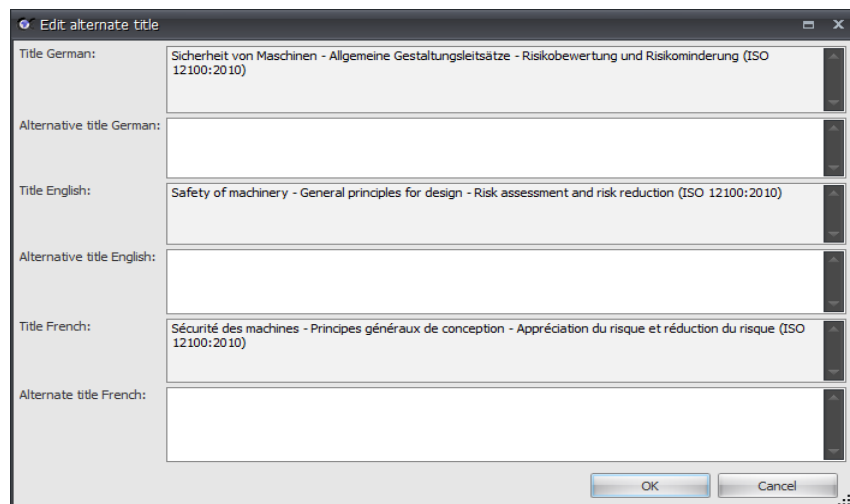
---

### 11.7.5 Edit alternate title




Every document can be assigned an alternative document title and it can be changed at any time. This alternative document title is then displayed in the **Search result** table in the **Title** column.

**Note: Only a user with the corresponding user rights can edit alternative document titles.**



Dialogue window: Edit alternate title

### Procedure

- 1 Open the **Safexpert Standards manager**.
- 2 Mark the document to be edited in the search result.
- 3 In the Documents group, select the **Edit alternate title**  function.  
→ The **Edit alternate title** dialogue window is displayed.
- 4 Edit the alternative document title.
- 5 Click on **OK**.

---

## 11.7.6 Specifying personal favourites



### Personal Favourite

In the Personal Favourite column, you define whether this document is important for you personally. To do so, mark the desired records and select the **Personal Favourite** function in the **Update documents** group.

### E-mail when your personal favourites change

In the context of interactively updating the company favourites by the system administrator, you will automatically be notified via e-mail about changes in the area of these documents if the necessary option has been enabled.

If you have not selected a single document as your personal favourite, you will be informed by e-mail if something changes within a company favourite document. Please also see section 12.3.2.

**Tip: Define your personal company favourites to avoid unnecessary update information about changes and also to make sure that important changes you make are not lost.**

---

## 11.7.7 Managing links



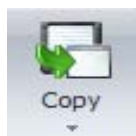
For every record, you can define links to any number of files, thereby gaining direct access to the original texts.

**Note:** Only a user with the corresponding user rights can manage links.

For more information, see section 11.8.2.

---

## 11.7.8 Copy documents



### Copy

Copying selected documents **to the company favourites** or **to the current project**.

Select the corresponding function to copy marked, located standards and regulations to the company favourites or directly to the current project.

**Note: Only a user with the corresponding user rights can copy documents to the company favourites.**

### Copying selected documents to company favourites

**Note: The "Copying selected documents to company favourites" function is available only if you searched on the Safexpert Live Server or Customer Server.**

Copying standards and regulations found in the company favourites is only possible if the logged-in user has obtained the relevant rights.

If the respective data records have already been added to the company favourites, they are not added again. However, any changes are applied.

### Copying selected documents to the project

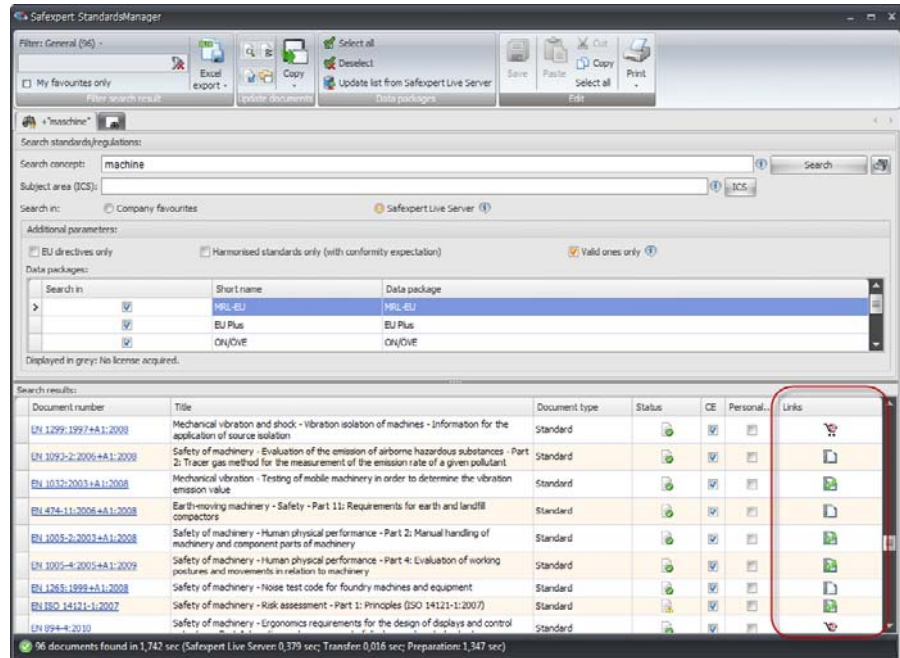
You can copy located standards and regulations directly to the respective project as **applied standards**.

If you have the right to accept company favourites, the documents are entered as company favourites at the same time, if it has not been done already.

## 11.8 Standards in the original text

The standards databases contain **only** references to the respective documents. In Safexpert Standards manager, it is possible to place any number of references (**links**) to files for every record. These links can also be dealt with by the users themselves.

The link is performed in the table of the search results in the **Links** column:



### Copyrights

**Note: It is the responsibility of the users to observe any applicable copyright.**

Similar to other products, standards, laws, directives and other regulations are developed and issued by different manufacturers. These manufacturers own the copyrights to their documents.

While certain documents, such as laws and directives for example, are available for free, corresponding licensing fees are paid for others. The different publishers are completely free in their pricing and licensing policies. For this reason, there are no uniform prices and the company's access authorisation and right of reproduction, respectively, are regulated differently from publisher to publisher.

In conjunction with the Austrian Standards Institute ([www.as-institute.com](http://www.as-institute.com)), we offer special standards packets from the **Safety of Machinery** area as well as additional standards.

---

## 11.8.1 Possible links and meaning of the symbols



### Connected links

Links to identical national documents were automatically copied for the record of this European document.

- By double-clicking on the symbol, the first of the linked documents is opened.
- Right-clicking displays a context menu with all linked documents.

For more information, see section 11.8.3.



### Links available

A direct link to a file exists for the record.

- By double-clicking on the symbol, the first of the linked documents is opened.
- Right-clicking displays a context menu with all linked documents.

For more information, see section 11.8.2 and 11.8.3.



### Linked file not available, can be delivered in conjunction with Safexpert

This document can be purchased from your Safexpert supplier.



### Manual links present

At least a manual link exists to a personal document.

- By double-clicking on the symbol, the first of the linked documents is opened.
- Right-clicking displays a context menu with all linked documents.



### No link available

Manual links can be created.



### No valid license available

Contact your Safexpert supplier if you want to purchase the license.

---

## 11.8.2 Managing links

For every document record, you can define links to any number of files, thereby gaining direct access to the original texts.

If you enter personal links, it is displayed in the **Links** column by the **Manual links present** symbol.

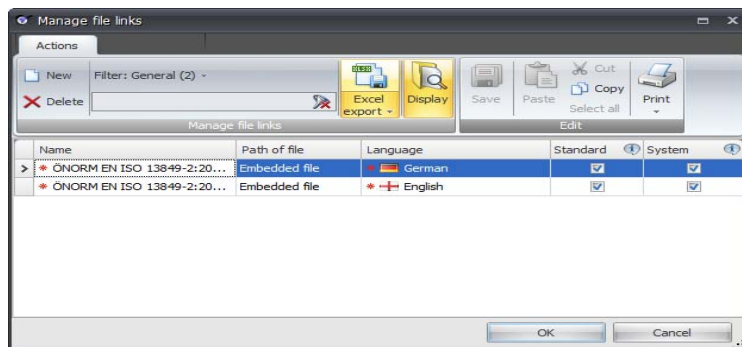
### Procedure:

- 1 Open the Safexpert Standards manager and search for the desired document **in the company favourites** or on the **Safexpert Live Server**.
- 2 Mark the desired record in the search results.



- 3 In the **Update documents** group or in the context menu, select the **Manage file links** function.

→ The **Managing file links** window is displayed.



→

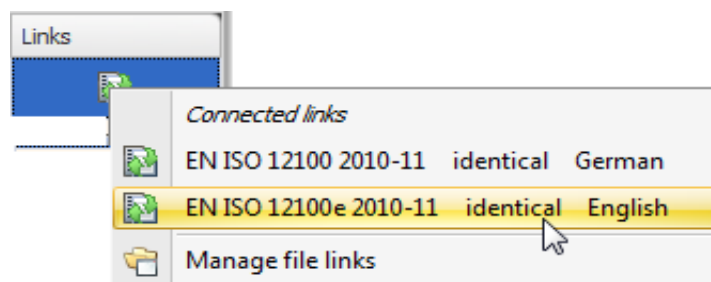
- 4 In the **Manage file links** group or in the context menu, select the **New** function.

→ The **Open** window is displayed

- 5 Select the file to be linked.

- 6 Adjust the language of the linked file.

### 11.8.3 Connected links



Managing links to documents (files)

**Note:** Harmonised European standards in the area of "Machine Safety" are established by the European standardisation bodies CEN or CENELEC (e.g. EN ISO 12100).

These documents are sent to the members (e.g. DIN, ON, BSI, SNV, AFNOR, etc.). These national bodies create their own documents (e.g. DIN EN ISO 12100, ÖNORM EN ISO 12100, etc.) and also own the copyrights for the respective documents.

In the **Links** column, **Links** are automatically copied to identical documents for the European documents (e.g. EN ISO 12100:2010) and the corresponding national documents (e.g. ÖNORM EN ISO 12100:2011) which are listed in the national documents in the **Matches** field. These links are identified by the symbols **Connected links** and **Links available**.

### 11.8.4 Update standards package via Internet

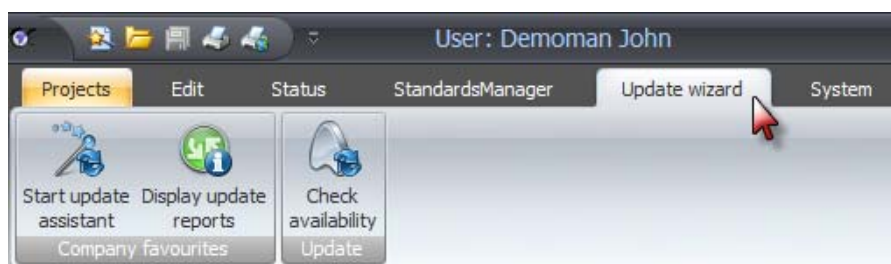
The standards packages **Safexpert Standard** and **Safexpert Standard Plus** are updated via the Internet.

**Note: When updating the standards information (references), the standards located on the Safexpert Live Server are transferred to your server in their original text, provided that you have the corresponding licensing rights.**

## Procedure

- 1 In the course of our Safexpert updating, we upload a new or changed standard in PDF format to our Internet standards database on the **Safexpert Live Server**.
- 2 On this server, we assign the corresponding access rights which you have received with your maintenance agreement for your Safexpert licence.
- 3 In the **Update wizard** main menu in the company favourites group, execute the **Start Update wizard** function.
- 4 Execute the steps for setting up or updating the company favourites. Details about the operating principle can be found in section 12.3.

## 12 Safexpert Update wizard



Safexpert update wizard main menu

The Safexpert update wizard provides support:

- for the initial configuration and for updating the company favourites,
- for updating Safexpert and
- for any licensing upgrade.

### 12.1 Safexpert Live Server

You configure your company favourites and update them based on the Internet database configured and continuously updated by the Safexpert data management on the Safexpert Live Server. You can also search directly in the database on the Safexpert Live Server.

**An Internet access is required for searching on the Safexpert Live Server! Information on establishing an Internet connection can be found in section 13.1.1.10.**

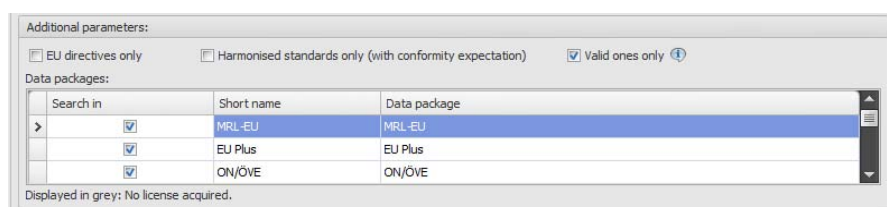
#### Content of the database on the Safexpert Live Server

The following are managed on the Safexpert Live Server:

- The bibliographical standards and regulations data contained in the provided data packets
- The standards provided in the standards packets in full text as PDF file
- Hazards lists
- Cross-reference lists
- Checklists
- Various system data such as interface information for Sistema

#### Data packets

The **Additional parameters** window section contains the list of data packets:



To refresh this list, right-click in the list and select **Update list from Safexpert Live Server**.

For any data packets displayed in grey, you do not have any license rights. To purchase additional license rights, please contact your Safexpert supplier. The release is carried out directly on the Safexpert Live Server. The installation on your system is done via Internet update (see chapter 12.4).



**Note: The full texts are not part of the references! It is possible, however, to create links to the original texts, e.g. in PDF format. For your own interests, please observe the copyrights of the respective publishers!**

**Exclusion of liability: The data are maintained and updated with the greatest care. Please understand that we cannot, however, accept any liability regarding the accuracy and completeness of the data.**

### "Machinery Directive (EU)" data packet

This package contains bibliographical data of European standards and technical specifications that were published in the official gazette of the EU for the purposes of the EU Machinery Directive.

### "EU Plus" data packet

This package contains bibliographical data of European standards and technical specifications that were published in the respective EU official gazette of the following EU Directives:

- Low-Voltage Directive,
- EMC Directive,
- ATEX Directive,
- Pressure Vessels Directive.

### "ON/ÖVE" data packet

The data for this data packet are provided by the Austrian Standards Plus GmbH ([www.as-plus.at](http://www.as-plus.at)).

This data packet may also be of interest to Safexpert users outside of Austria since many Austrian standards are identical national implementations of CEN, CENELEC or ISO standards. Hence, the **Matches with** data field also allows you to find identical European or international documents.

This packet contains standards information for mechanical and systems engineering as well as data for other subject areas, e.g. quality management, inspection systems, electrical engineering,...

---

## 12.2 Data delivery form

Not all companies allow all of their employees Internet access. For this reason, three varieties for receiving the data are offered:

### Internet

Access is obtained by entering a URL in the system options. This is preinstalled with the delivery of Safexpert.

It may be required that the IT administrator in your company deactivates the firewall for this purpose.

### Updating via the Internet

This installs a company-internal server at the customer. The company-specific database is set up on this server. This database is updated via Internet using the Safexpert Live Server.

### Updating via CD/DVD or e-mail

The system administrator receives the current data – depending on the amount of data either on CD/DVD or by e-mail. The system administrator then carries out the update.

---

## 12.3 Configuring and updating company favourites

The complete setup of the database on the Safexpert Live Server contains records that are unimportant for your company. For this reason, the Safexpert update wizard provides the option of preselecting company favourites by a user with the corresponding rights.

**Note: Only a person experienced with standards should set up and update company favourites.**

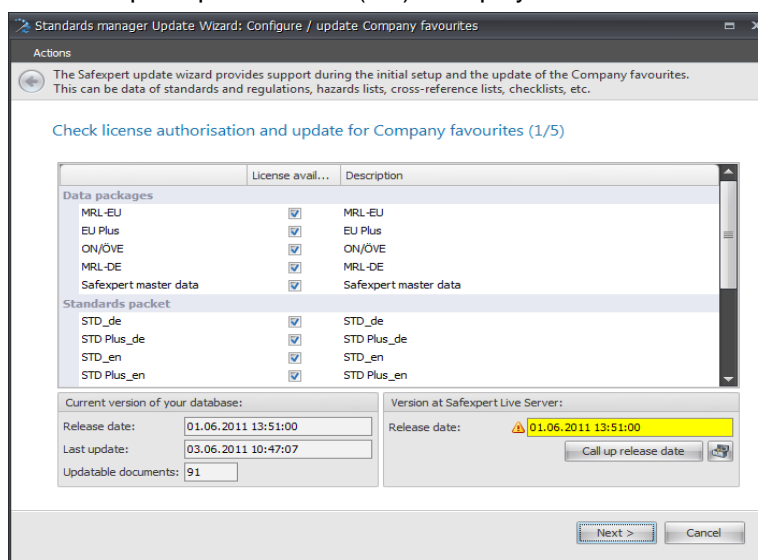
The Safexpert update wizard provides support for clarifying the following questions:

- Is the selected data in the company favourites still up to date?
- Which documents have been withdrawn since the last update?
- Which documents have been replaced by which documents?
- Which documents have been changed by which documents?
- Which standards have since been harmonised?
- Which documents from the relevant ICS number ranges have been recently added since the last update?
- Have spelling mistakes been corrected in the existing data since my last update?
- Which ongoing projects or template projects are affected by current changes to the standards and regulations?

## Procedure

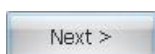
- 1 In the **Update wizard** main menu in the **Company favourites** group, select the **Start update assistant** function.

→ The Safexpert update wizard (1/5) is displayed:

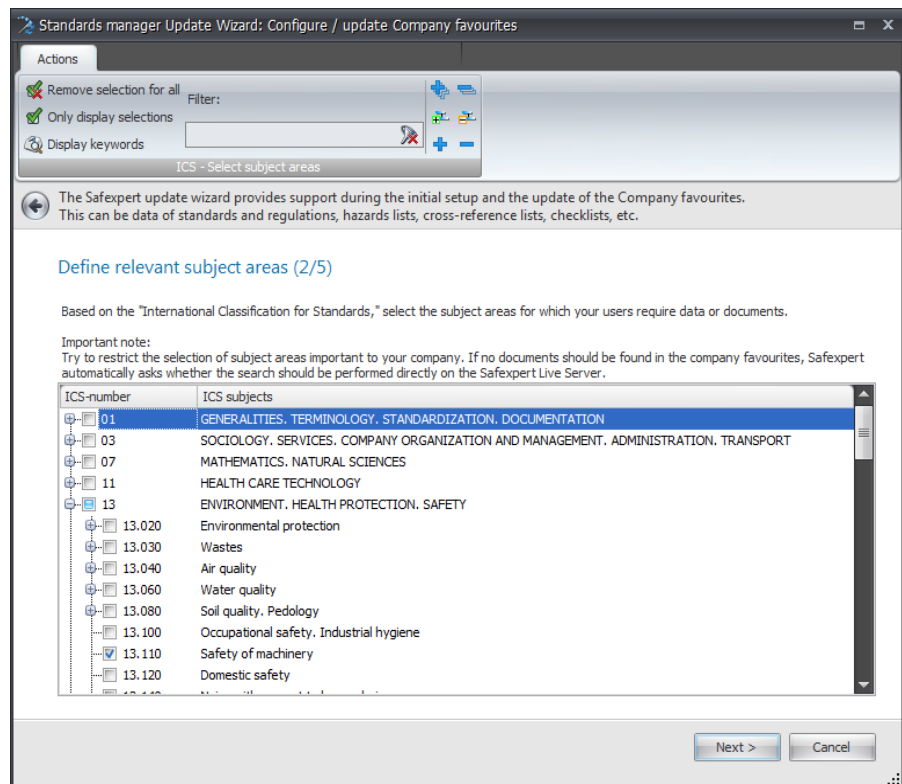


→

- 2 Follow the instructions of the **Safexpert update wizard**. Click on **Next >** to reach the next step of the wizard or on **Back** to display the previous step.



## Dialogue window - Define relevant subject areas (2/5)



Dialogue window: Define relevant subject areas

Select the subject area which is fundamentally of importance for your company. Also observe the description of the ICS classification, chapter 11.6.3.

The selected subject area during the last update is shown again. The subject area can be changed, if desired.

- When subject areas are deactivated, the documents contained in the company favourites are not deleted.
- When subject areas are added, the respective records are entered into the company favourites.

**Tip:** Reserve sufficient time for this step. This selection is made only once. Limit yourself to the documents frequently required in your organisation. The work with standards and other documents will be significantly facilitated and its quality improved!

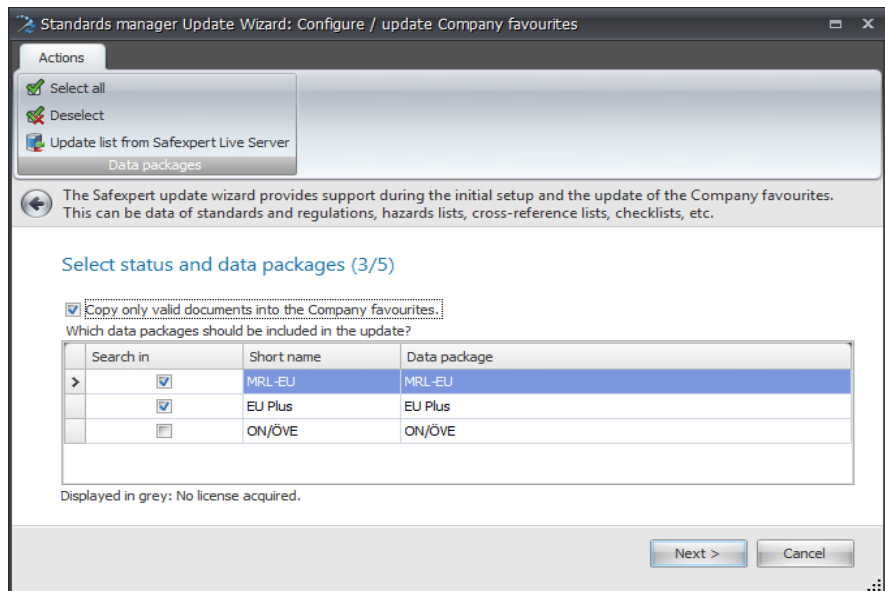
**Note: Documents are found for the selected field only if the corresponding records are contained in your licensed data packets! For this reason, please observe section 12.1.**

### Dialogue window - Select status and data packets (3/5)

Select the desired data packet. In this list, only the entries shown in black can be searched.

**Note: For any data packets displayed in grey, you do not have any license rights. To purchase additional license rights, please contact your Safexpert supplier.**

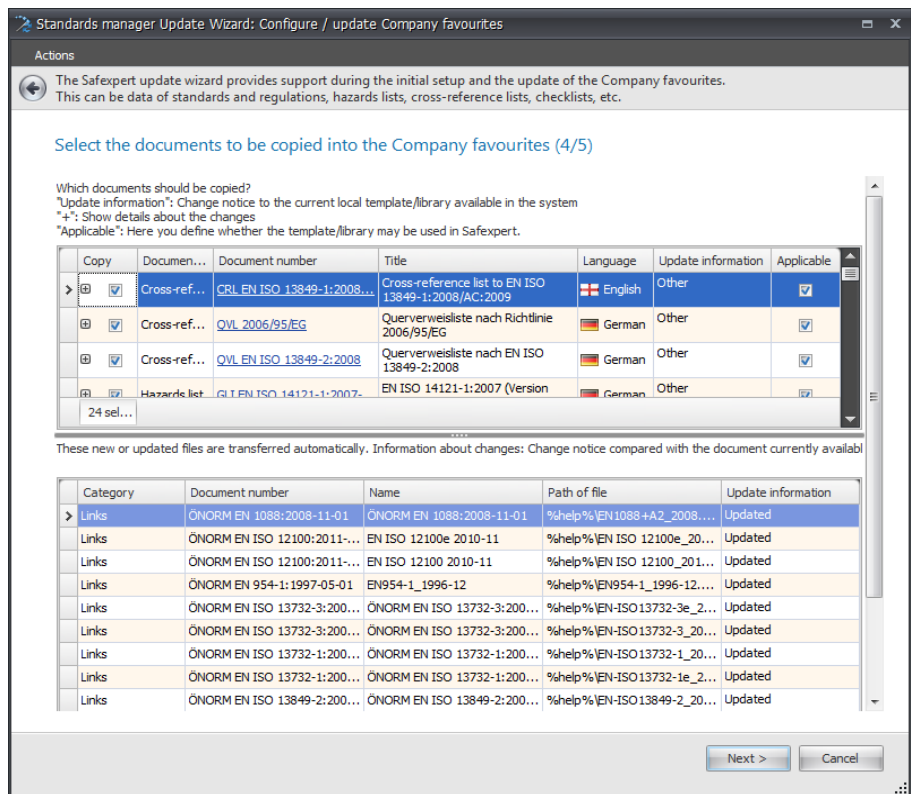
**Note: With respect to European standards, "Include only valid documents in company favourites" means that documents are also displayed that have been withdrawn by the standards publisher, but are still listed in the EU Official Gazette as applicable standards.**



Select status and data source

### Detail selection of which data should be copied (4/5)

**Note: The display of this dialogue window can take several minutes depending on Internet speed and data volume.**



Detail selection of which data should be copied

### Upper table

In the upper table, you select which references should be copied to the company favourites. No full texts of the documents are copied.



### Copy document to company favourites

Disable the check box if you do not want to copy the document into the company favourites.



### Show details about changes

It displays which differences exist between the data in the company favourites and those on the Safexpert Live Server.

Clicking on the document number opens the **Show details** dialogue window and shows detailed information about the document.

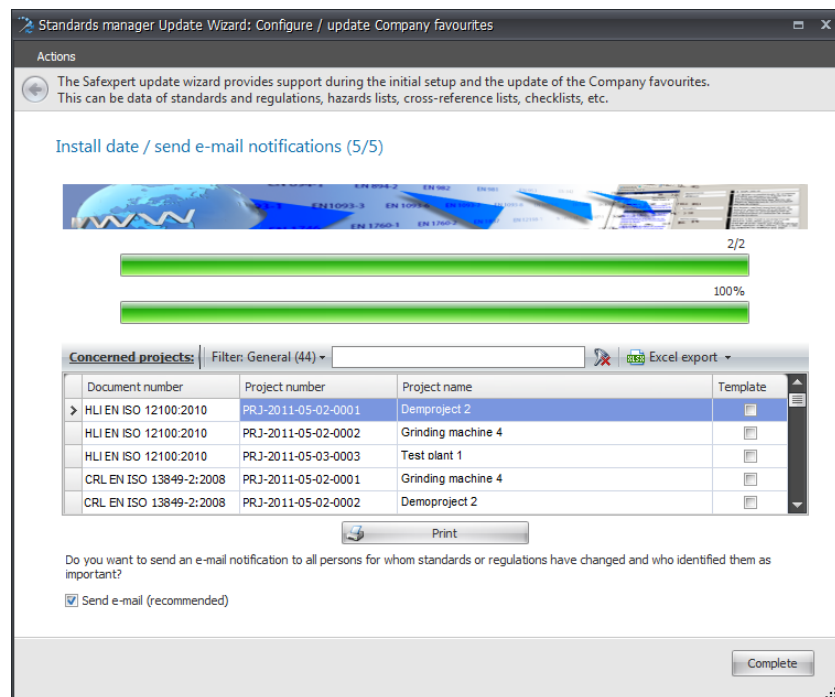
The **Update information** column shows update notes for documents that have already been accepted in the company favourites or No valid license if you do not have a maintenance agreement for updating the record.

### Lower table

The lower table shows which documents are automatically transferred in full text from the Safexpert Live Server to the local database. By copying the documents, they are also available to the users if no Internet connection is available.

### Dialogue window - Print update report / Send e-mail notifications (step 5)

**Note: The selected data are copied to the company favourites. This can take some time.**



*Print update report / send e-mail notifications* **Concerned projects table**

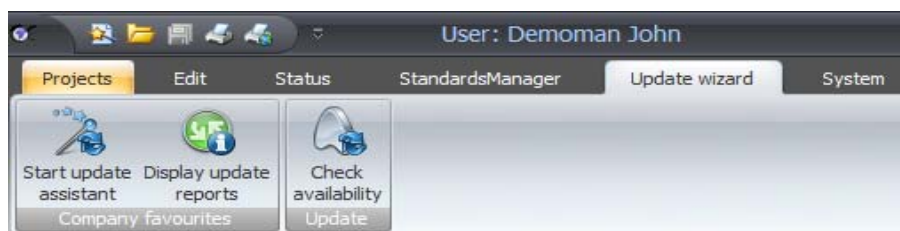
The table shows all the projects and project templates affected by the changes.

### Complete

If the Send e-mail check box is enabled, an e-mail is automatically sent to the respective Safexpert users.

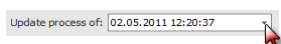
**Note: The notification of persons affected by standards changes is performed only if the persons defined their personal favourites and entered an e-mail address in the user management.**

## 12.3.1 Display update reports



Company favourites – Display update reports

### Procedure



- 1 In the **Update wizard** main menu, click on **Display update reports**.
- 2 In the **Update process of** area, select the desired update run (see chapter 12.3.1).

By default, the update run executed last is displayed upon opening this dialogue window.



**Only display changes to selected personal favourites at the time of update run.**

See chapter 11.7.6.

## 12.3.2 Informing users about changes

For users in companies, it is particularly important to apply current documents. In light of the multitude of documents and ongoing changes, it is very difficult to stay up to date.

Updating a standards database does not yet mean that the people in the company for whom this update is important will actually find out about it.

To achieve this, the Safexpert Standards manager features two particularly useful functions that go beyond the interactive update of the standards and regulations database:

- automatic e-mail notification and
- checking ongoing projects and template projects.

### Automatic e-mail notification

The automatic e-mail notification is performed if the Safexpert system administrator enabled the **Send e-mail (recommended)** check box as part of the automatic update run in the Safexpert update wizard in step 5.

Prerequisites:

- In the user management, a correct e-mail address must be entered for the respective Safexpert users.
- The company favourites have already been set up for the first time.

Users receive a notification if:

- documents CHANGED which the respective user identified as **Personal Favourite** – i.e. personally very important, or
- NO SINGLE document was identified by the user as **Personal Favourite**.

### Projects affected by changes to standards

In addition, every user is automatically notified during the update run in which ongoing projects and template projects the documents were changed.

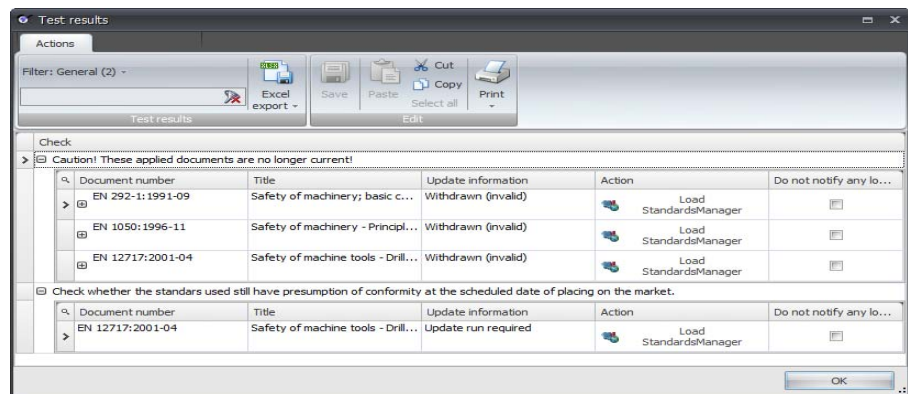
### 12.3.3 Check standards / regulations for relevance

For the following activities, Safexpert automatically checks whether the applied documents are still current:

- Opening projects
- Copying projects,
- Copying hazard locations to another project,
- Copying measures
- Accepting applied documents from an earlier project or template project.

#### Displaying the check results

This window is displayed if Safexpert determines during one of the aforementioned checks that standards, directives or other documents are no longer current.



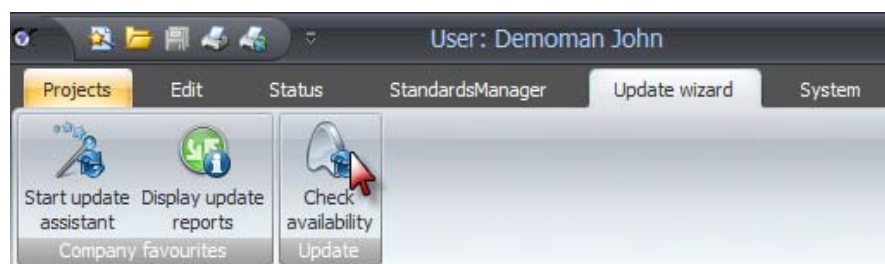
*Check applied documents for relevance*

If necessary, search in Safexpert Standards manager for the successor documents for withdrawn documents and copy them into your project.

**Important note: The check is performed based on the data entered in the company favourites. It is, therefore, particularly important to continually keep company favourites up to date!**

## 12.4 Internet update

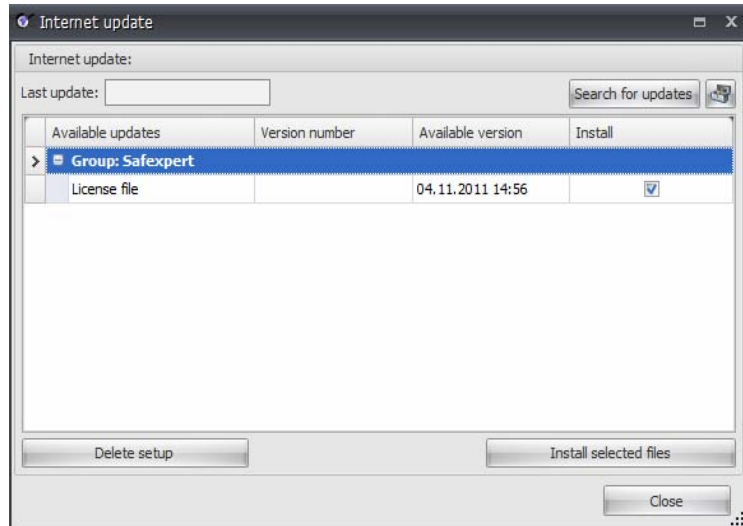
Safexpert features a convenient and simple system for installing updates or upgrading licensing rights.



*Internet update and licensing upgrade*

## Procedure

- 1 In the **Update wizard** main menu, click on **Check availability**.  
→ The Internet Update window is displayed.
- 2 Click on **Search for updates**.  
→ Any available newer versions or licensing upgrades are displayed:



- 3 Click on **Install selected files**.  
→ The data are transferred and the installation is executed. Follow the instructions on the screen.

## License verification

Before the update, the license numbers and the licensing key generated during the installation of the database are transferred to the Safexpert Live Server for the license verification. No customer or user data are transferred.



## 13 Setting up and managing the system

This chapter contains descriptions and instructions for adapting Safexpert to your individual needs.

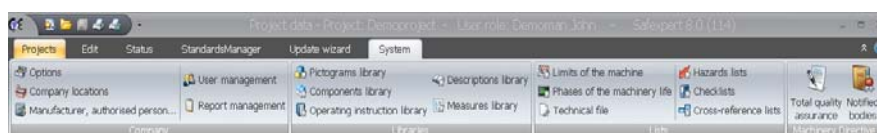
**Caution! It is important to differentiate between the roles of the Safexpert system administrator and the person responsible for IT! The responsible IT person ensures that the installation of Safexpert is correct within the IT environment (see chapter 3). The Safexpert administrator assumes the tasks described in this chapter.**

An optimal setup of Safexpert will simplify the subsequent work with the system.

Before you can edit the first project, you must first assign the access rights for Safexpert users (see section 13.1.4).

- You should also:
  - Enter manufacturer details (see section 13.1.3),
  - Configure libraries of components and devices (see section 13.2.2),
  - Configure company favourites (only if you purchased the "Standards manager" module) – (see section 12.3).

In the main menu, click on the **System** menu item. The multi-function bar with these groups is displayed:



System main menu - Multi-function bar

---

### Tasks of the system administrator

To avoid unintentional changes to the Safexpert system data files, these files can only be edited by the system administrator.

The system administrator has the following tasks:

- Carry out mandatory system settings
- Continually manage the system
- Make individual system adjustments
- Reinitialise the database
- Configuring and updating company favourites
- Keep Safexpert up to date (updates)
- Pass on important information to all designers
- etc.

---

### How to log in as system administrator

When you start Safexpert for the first time, you must create a user. This user is assigned the **Administrator with special rights** user role. You can change it in the user management; however, at least one Administrator with special rights must be created.

**If you have forgotten the password for login as administrator, you cannot reset it to the standard value.**

---

### Display logged-in users

Safexpert is intended for team work within a network. Certain functions of the system administrator can only be executed, if no further user is logged in to the system.

## Procedure

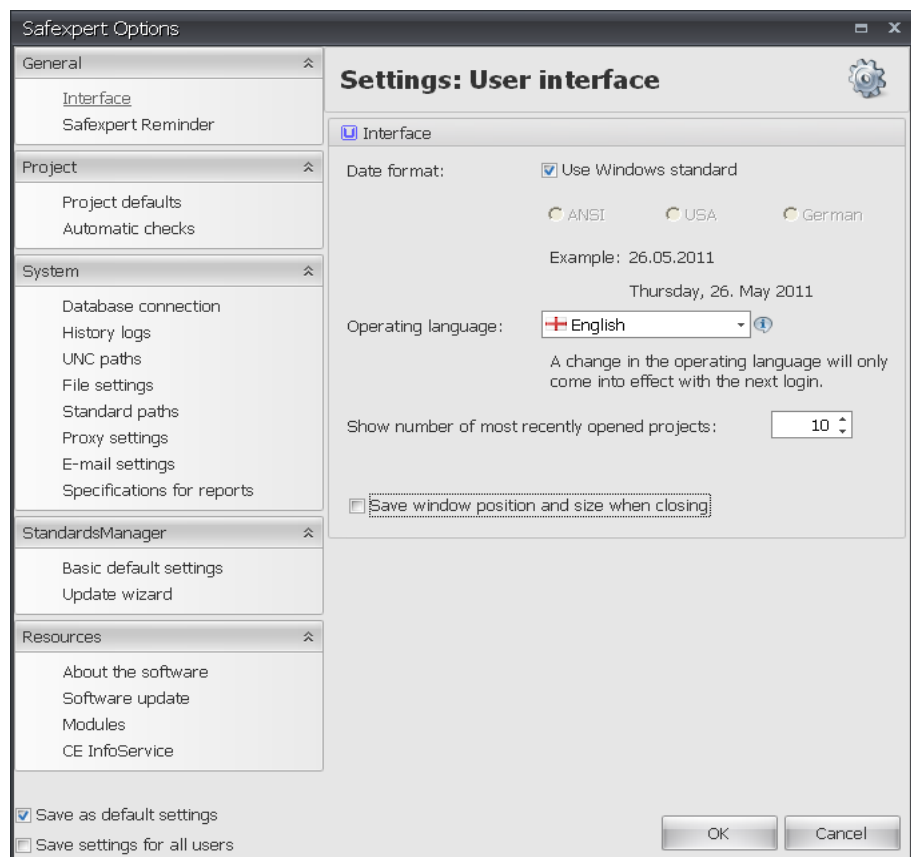
- 1 In the **Status** main menu, select the **Logged-in users** command.  
→ The list of logged-in users is displayed.

## 13.1 Company-relevant settings





System main menu - Multi-function bar

### 13.1.1 Safexpert Options



Safexpert Options window

The Safexpert Options offer two type of system settings:


-  **User-defined settings (User)**  
These settings are saved user-based and apply only to the logged-in user.
-  **Administrator settings**  
These settings apply to all users and can be changed only by users with administrator rights.

## Save as default settings

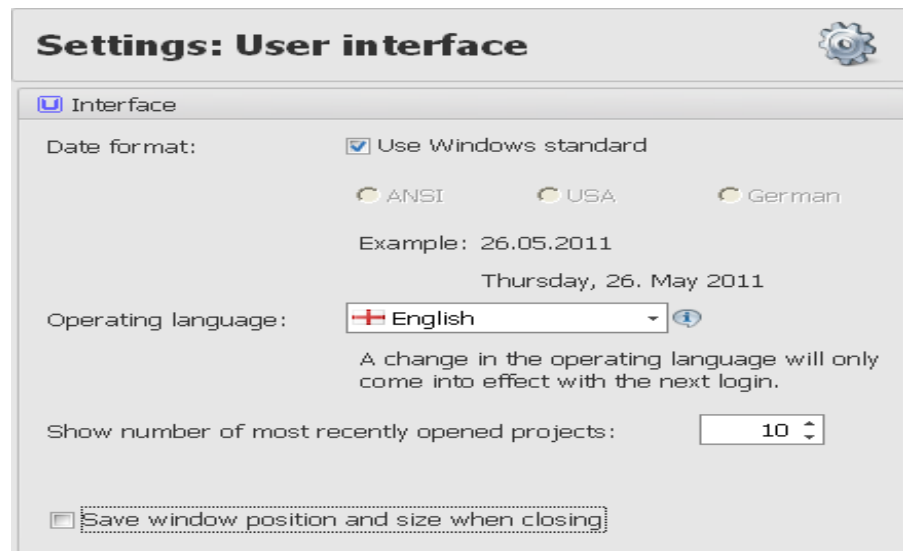
The settings are adopted as default settings for all users to be created in the future.

### Save settings for all users

The settings are adopted for all currently created users.

**Note: Many selectable options are self-explanatory. For this reason, no detailed description of the individual options is given. Please observe the notes in the Safexpert information system .**

## 13.1.1.1 General – Interface



### Date format

Safexpert windows often contain date fields. You can define which date format should be used.

### Operating language

Each Safexpert user can select his desired operating language.

This setting has no effect on the documentation language in projects.

**Note: Log in again so that the change takes effect.**

### Display the number of most recently used projects

The "Projects" main menu displays a list of the most recently used projects:

### Save window position and size when closing

If this option is enabled, the windows are displayed at the same positions and with the same size they had when closing the project when a project is opened again.

## 13.1.1.2 General – Safexpert Reminder

Safexpert provides the option of adding tasks at various locations that must be completed in the course of the project before the project can be finalised.

For the continuous tracking of tasks, Safexpert offers clearly arranged analysis options in the **Status** main menu. In addition, Safexpert provides two options of notifying users about pending deadlines using an automated approach:

- E-mail
- Taskbar (Systray):  
A notification is displayed in the Windows taskbar.

**Note: Die Safexpert Reminder function is also active if Safexpert has not been started. Just the "Safexpert Reminder" tray application must be running. It is automatically installed during the setup of Safexpert.**

In the general options, it can be defined which type of notification will automatically be set as default when creating a new task.

The user can randomly change the settings during the creation of a task. This does not change the default setting.

#### **Interval for checking whether new tasks are present:**

By default, this value is set to 5 minutes.

---

### **13.1.1.3 Project - Project defaults**

#### **Project number**

Here you can select whether and how the projects to be edited should be numbered. You can select from the following options:

- No default project number
- Project number acc. to pattern

The **Last project number** is automatically set to "0" depending on the type of numbering, e.g. if a new year or a new month starts.

#### **Machine number**

Here you can select whether and how the machine number should be entered when creating projects. You can select from the following options:

- Machine number not specified
- Machine number according to pattern

The **Last project number** is automatically set to "0" depending on the type of numbering, e.g. if a new year or a new month starts.

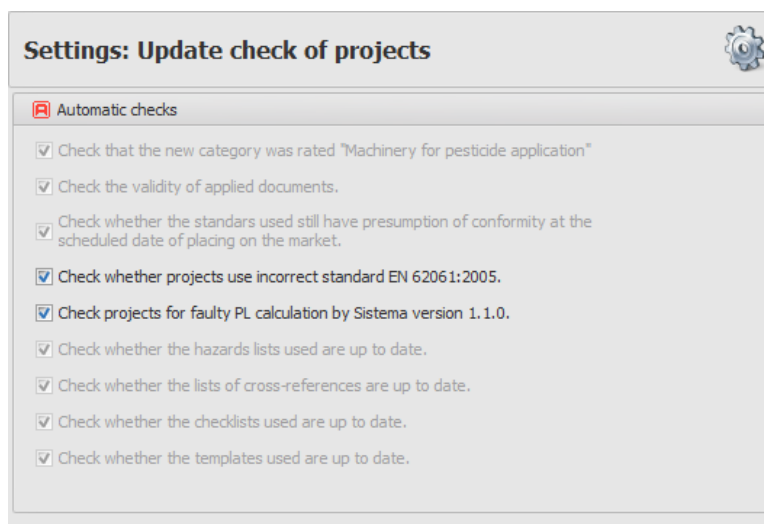
#### **Avoid repeat designations**

In case of unique project numbers, project names or machine numbers, Safexpert prevents the creation of projects with the same names.

---

### **13.1.1.4 Projects – Automatic checks**

Safexpert performs various checks when Safexpert is opened or a project is opened. The checks displayed in black can be disabled.



*Sample list of relevance checks*

These settings apply to all users.

When copying projects, these checks are always performed regardless of the settings.

The checks are performed in the specified order. Hence, several messages may occur at the same time.

**Caution! Many of these checks are performed based on the data in the company favourites. Ensure that the company favourites are kept up to date at all times.**

### Check whether the applied standards still feature presumption of conformity for the scheduled date of distribution.

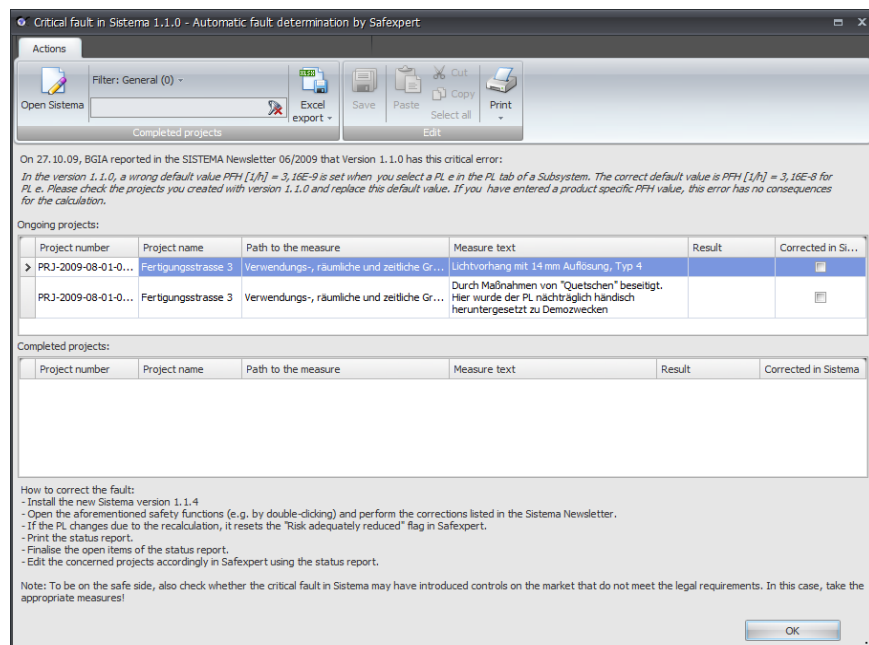
The system checks whether a successor document exists for applied standards. If this is the case, the successor document is checked whether a date for ending the presumption of conformity has been defined in the EU Official Gazette for the predecessor document (which is the standard applied in the project). If this is the case, Safexpert checks while opening a project whether the standards applied in the project still have the presumption of conformity for the scheduled date of distribution.

### Check project for application of defective standard EN 62061

EN 62061 was listed in the EU Official Journal on 12-31-2005. The German editions of EN 62061 were incorrect concerning some critical entries. This standard was corrected in the middle of 2006.

### Check project for faulty PL calculation of Sistema version 1.1.0

This check is performed during the opening of Safexpert and lists all the projects concerned:



Checks and effects of a critical error in Sistema 1.1.0

### Check whether the templates used are still current

It was checked whether lists or libraries used have been changed. These changes can be copied into the project.

#### 13.1.1.5 Database connection

In Safexpert, all data is saved in a database.

If Safexpert was installed on a stand-alone PC, the database is on the computer on which the installation was carried out. If Safexpert was installed in a network, the database should be on the server.

**Note: Please note that the access rights to the Safexpert directories in the network must be guaranteed on the operating system level.**

When starting, Safexpert automatically creates a link to the database which was used last. If Safexpert does not find the database, a window for selecting the database is displayed.

### Maintenance - Reorganisation

The reorganisation checks the database and released unused memory again. This is only possible if no other user is logged in.

If the **Reorganisation reminder** option is enabled, all Safexpert administrator are automatically reminded at the opening of Safexpert if no reorganisation of the database has been performed within the specified **Interval (days)**.

**Note: Perform a reorganisation on a regular basis to ensure an optimum performance of the database.**

---

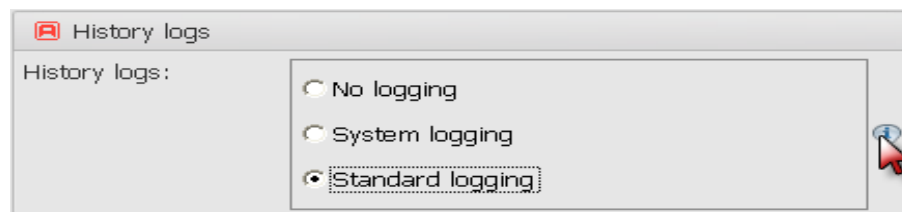
### 13.1.1.6 System – History logs

These settings are valid for all users who work with Safexpert.

#### History logs

When history protocols has been activated, Safexpert records the changes made in the CE guide. These records are used for quality assurance. The history protocols can be deactivated.

Details about the options are located in the Safexpert info system:



#### Logging

These options are used for any fault finding. They may be enabled only upon instruction by the Safexpert Hotline.

#### System log

The updates via Internet Update (see 12.4) are logged here.

---

### 13.1.1.7 System – UNC paths

At various locations, Safexpert offers the opportunity to establish links to files.

To uniquely identify the files on different computers, the UNC name (Universal Naming Convention) is entered in Safexpert if a link is placed to files on external computers.

#### Possible path information and its meaning

- **Use regular path**  
Access to data is done via drive letters, e.g. y:\directory\xy.
- **Use UNC path**  
Access to data is done via a UNC path.

#### Change UNC server information

This function is necessary only if UNC paths exist in the database and the server is being changed. If network paths in UNC format exist in the database, they are displayed on the left side of the selection box.

- 1 Click on the desired path.
- 2 In the **New server** field, enter the new or corrected server name (\\server name or \\IP address).
- 3 Click on **Update paths**.

**Note: Always use the name of the computer on which the data are located as the server name.**

---

#### 13.1.1.8 System – File settings

**Embedded files** can be saved in the database as zipped files to save storage capacity. But this setting requires more computing power when opening and saving the files.

**Maximum size:** Files can be embedded in the database only up to the specified size. This option allows the administrator to specify that files above this size limit must be linked. The limitation is particularly meaningful to reduce backup volumes or to increase network speed in slow VPN connections.

---

#### 13.1.1.9 System - Standard paths

These settings are suggested as default when exporting or importing projects or templates.

---

#### 13.1.1.10 System - Proxy settings

The proxy settings are required for access to the Internet.

Safexpert uses a default HTTP connection for access to the Safexpert Live Server. It uses port 80.

Access to the Internet is required for the following functions:

- Searching for documents on the Safexpert Live Server,
- Executing the Internet update,
- Configuring and updating the company favourites.

The proxy settings are automatically recognized by default. The proxy settings generally need to be changed only if you establish an Internet connection via a company network. But you may have to set up a proxy with information given to you by your administrator.

**Note: Since these settings are company-specific, the Safexpert Hotline may only be able to provide limited assistance!**

---

#### 13.1.1.11 System - E-mail settings

Safexpert features functions that can inform users of Safexpert via e-mail about important changes.

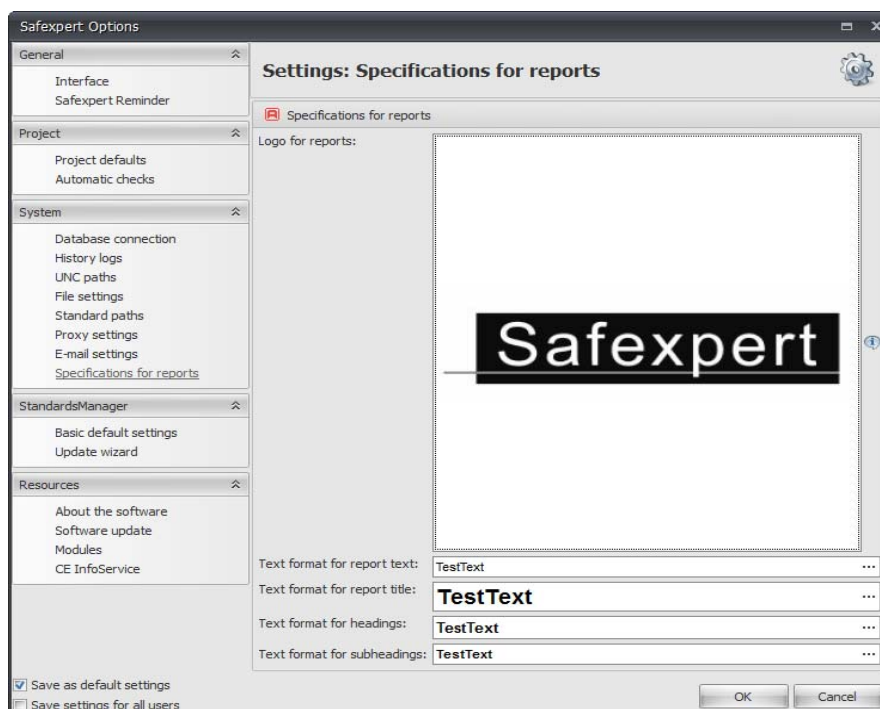
If necessary, contact your IT administrator to perform the e-mail settings.

---

#### 13.1.1.12 System - Specifications for reports

The layout for the printouts in Safexpert is defined in report templates (see section 13.1.5).

Some text formats as well as the logo to be used in printouts can be set here.



*Settings for report templates*

The imported logo is printed in the printouts with the size in which the logo was created in the report template. The aspect ratio of the logo is maintained.

### 13.1.1.13 Standards manager - Basic default settings

For continuous updating of the company favourites, Safexpert Standards manager requires the data that are updated as part of our maintenance agreements.

In this window, you define where this data can be found.

By default, **Use proxy settings** is enabled. In this case, Safexpert uses the specified proxy settings (see section 13.1.1.10).

If you disable **Use proxy settings**, you have direct access to the Internet, even if the Internet Explorer is configured for use of a proxy server. This is useful, for example, for intranet servers.

**Note: Change these settings only after consultation with our support.**

#### Time limits

These timeout values describe the time that is used in waiting for an Internet query before an error is initiated.

**Note: Change these settings only after consultation with our support.**

#### Search options

The setting determines the maximum number of search hits that should be transmitted by the Safexpert Live Server and displayed (e.g. for standards found). This reduces the response time. The user receives a notification how many hits were found overall. He can then display all the hits.



---

### 13.1.1.14 Standards manager – Update wizard

#### Data source

For continuous updating of the company favourites, Safexpert Standards manager requires the data that are updated as part of our maintenance agreements.

In this window, you define where this data can be found.

#### Safexpert Live Server

The database on the Safexpert Live Server is continually being updated by the manufacturer of Safexpert. It serves as the basis for updating the system at the customer. Among other things, the updated standards, hazards lists, cross-reference lists, checklists and software updates are updated on the Safexpert Live Server.

The path to the Safexpert Live Server is defined in the basic default settings (see section 13.1.1.13).

#### File

The mailing of the updated data on CD/DVD is a fee-based service. It is being offered for those companies that do not even allow an Internet connection for the reconciliation of company favourites.

#### Remind of standards update

If the **Standards update reminder** option is enabled, all Safexpert administrator are automatically reminded at the opening of Safexpert if no update of the **Company Favourites** has been performed within the specified **Interval (days)**. This is intended to prevent that obsolete documents, such as standards, regulations, cross-reference lists or checklists, are applied.

---

### 13.1.1.15 Resources

#### About the software

Here you can find the hotline and manufacturer addresses.

#### Software update

The settings for the Internet updates of Safexpert are performed here (see chapter 12).

You will also find information about the current release of the company favourites and the date of the last update of Safexpert.

#### Modules

It shows the Safexpert modules for which you have license rights.

#### CE InfoService

It contains the request form for the free CE InfoService.

---

## 13.1.2 Managing company locations

For each project, you can define whether users of an entire company location, certain departments or certain functions or personally named users may access the project (see section 5.1.3).

The company locations are updated here. When a new user is created, it can be defined for each user at which company location he or she is working (see section 13.1.4).

To create a new company location, select the **Create new address** function on the multi-function bar or in the context menu .

## Main address

When you create a new project, the data of the main manufacturer are automatically copied to the project data. The data can subsequently be changed in the project.

### 13.1.3 Managing manufacturers and representatives

These data are managed in this window:

- Company address
- Signatory of the EC Declaration
- Where applicable, representative within the EU
- Authorised representative to compile the technical file.

*Updating manufacturer details*

#### How to open the window

- 1 Log into Safexpert as the system administrator.
- 2 In the System main menu, select the **Manufacturer, authorised person...** function  
→ The **Manufacturer, authorised person...** window is displayed.

#### Main address

The entry identified as "Main address" is copied by default when a new project is being created.

#### Authorised person to compile the technical documentation

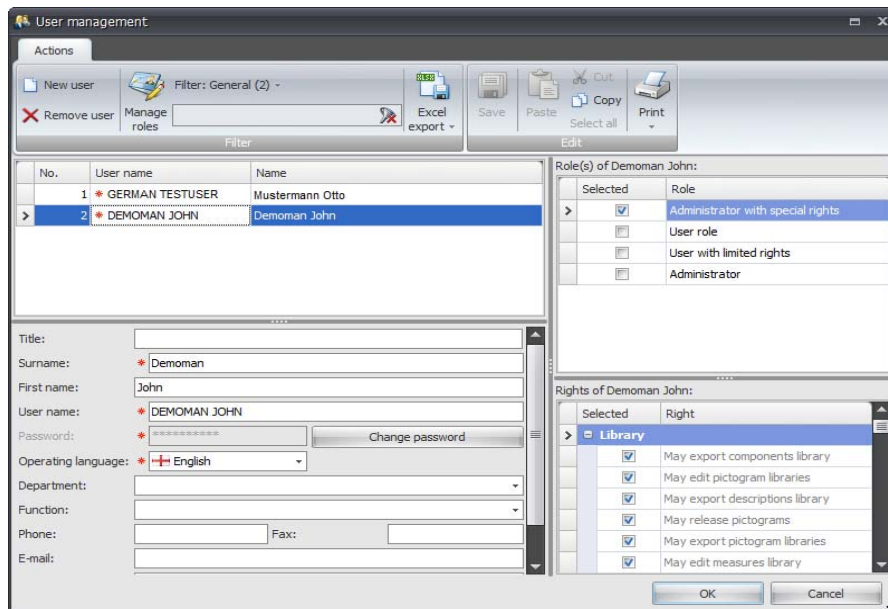
When you create a new project, enter the name and address of the person who is authorised to compile the technical documents.

These data are copied when a new project is created and can be overwritten in the project.

### 13.1.4 User management

Safexpert can be opened only by users who have previously been created in the user management.



To open the user management, select the **User management** function in the **System** main menu:



*Safexpert user management*

To add a user, select the **New user** function on the multi-function bar or in the context menu.

#### 13.1.4.1 User data

Enter the corresponding data. Mandatory fields are identified by a symbol: . Incorrect entries are identified by this symbol: .

##### **Surname, First name**

The entries in these fields are used to record the histories in the projects.

##### **User name**

You may enter any sequence of characters in this field, e.g. the name, an abbreviation, etc. This entry is required for login to Safexpert. The entry automatically uses capital letters.

##### **Password**

You may enter any sequence of characters in this field, e.g. the name, an abbreviation, etc. This entry is required for login to Safexpert.

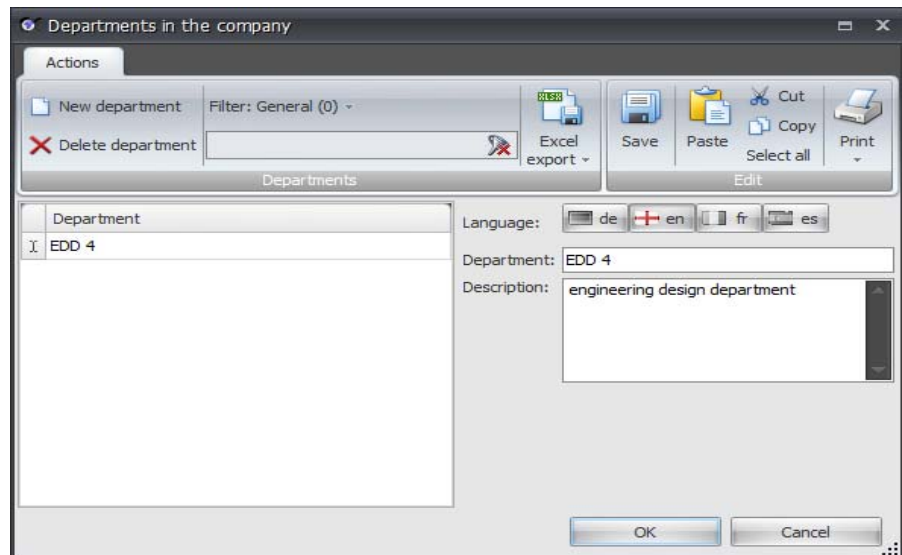
##### **Operating language**

The project language can be specified independent of the operating language when you create a project.

##### **Department, function, company location**

For each project, you can define whether users of an entire company location, certain departments or certain functions or personally named users may access the project (see section 5.1.3).

The departments, functions and company locations can be managed accordingly in separate lists in several languages and assigned to the individual Safexpert users.



Example: Updating the list of departments in a company

Managing the company locations can also be performed with the "Update company locations" function (see section 13.1.2).

### 13.1.4.2 User rights

#### User role

The defined user roles consist of typical user rights for different target groups. If you select a role, the corresponding rights are automatically selected and displayed in grey. Rights displayed in black can also be assigned.

#### User rights

The user rights can be assigned via roles or individually.

### 13.1.5 Report management

**Note: Since a new report designer was implemented starting with version Safexpert 8.0, it is not possible to copy own report templates from an earlier version. All system reports that existed in Safexpert 7.0 are also available from 8.0.**

Simple changes to reports, such as adding a logo, can be performed in the Safexpert Options (see section 13.1.1.12).

**Note: Changes to reports by means of the supplied report designer without extensive know-how in handling the report designer are generally doomed to fail.**

We kindly ask you to understand that the hotline cannot provide any training for Safexpert, CE marking, or the report designer. Please note our offers for seminars and special training.

#### System reports

Safexpert is delivered with standard reports (see section 10.3 and 10.4). These standard reports are identified as "System report" and cannot be changed by the user.

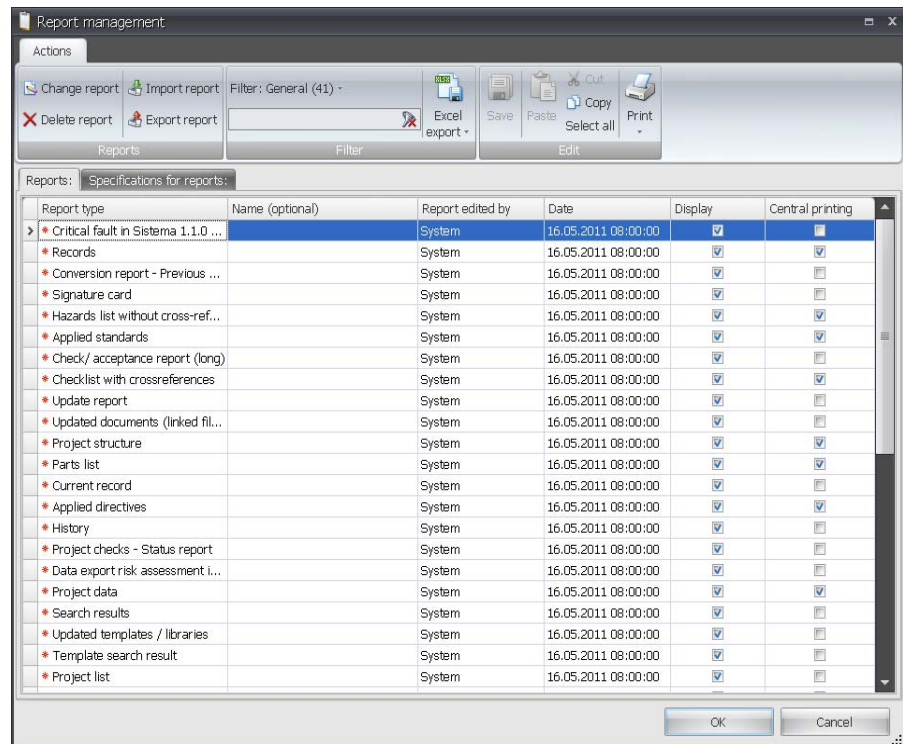
But these reports can be copied, and the copy can then be changed by the system administrator, so that reports can be adapted to suit your specific needs.

Safexpert groups the reports according to their functions. That is, if the "Print" function is selected, only those reports are provided for selection that are applicable to the respective printout (e.g. risk assessment, project overview, status etc.). Own reports receive the same group name as the system

report from which a copy was made. Hence, the own reports are automatically entered into the corresponding list of reports.

**Note: The Safexpert system administrator defines in the "Report management" window via the "Display" column whether a certain report is offered for printing.**

To open the report management, select the **Report management** function in the **System** main menu:

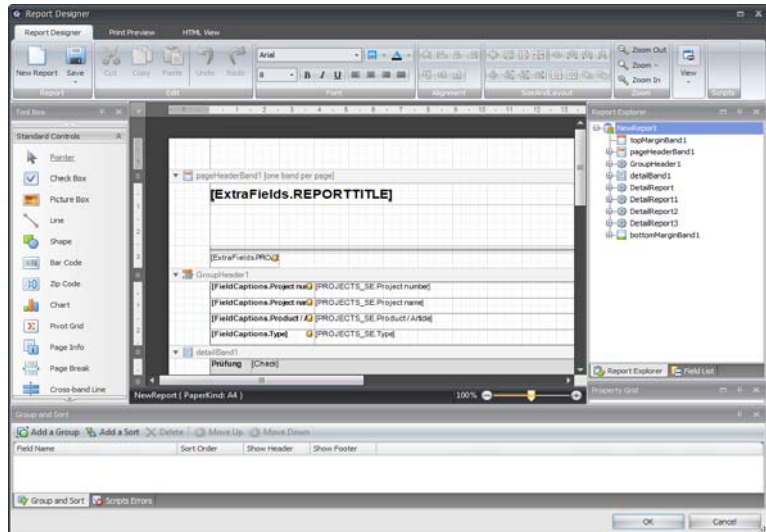


List of report templates available in Safexpert

## Create own reports

- 1 From the report list, select the report that should serve as the basis for the new report.
- 2 In the context menu or on the multifunction bar, select the functions Copy and Paste.  
→ The new report is added to the list of reports and highlighted.
- 3 Enter a name for the new report.

- 4 On the multi-function bar, select the **Change report** function.  
 → The Safexpert Report designer is opened with the selected report.



→ Define whether the report should be displayed to the users of Safexpert for selection and whether it should be available in Central printing (see section 10.2.4).

The report designer provided in Safexpert is the XtraReports™ Suite from Developer Express Inc. Additional information about the report designer can be found on the homepage <http://www.devexpress.com/Products/NET/Reporting/>.

## 13.2 Libraries

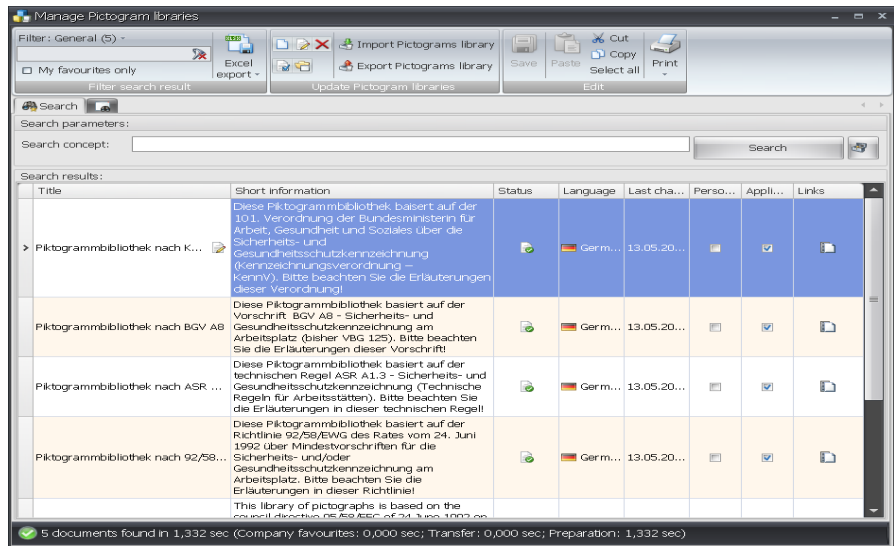


System main menu - Multi-function bar

### 13.2.1 Pictograms library

The Safexpert pictograms libraries contain numerous standardised or field-proven pictograms.

To open the Pictograms library, click on the Pictogram Library function in the System main menu .



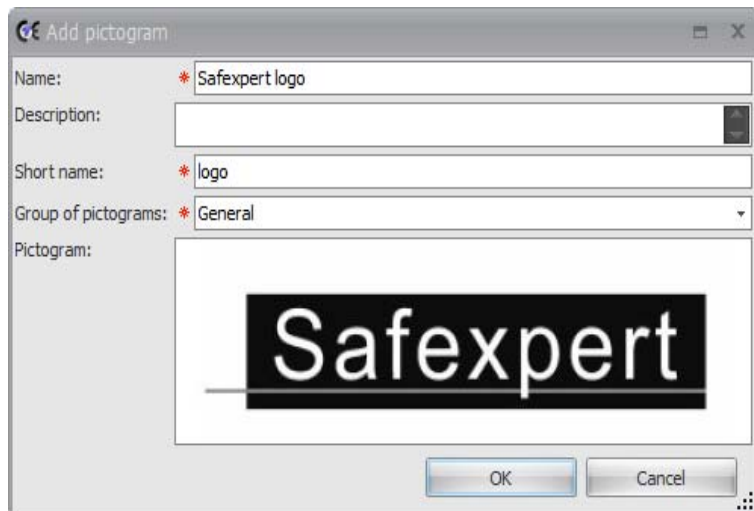
*Safexpert pictogram libraries*

Managing and updating the Safexpert pictogram libraries is done via the Safexpert Live Server.

### Create pictogram libraries



- 1 To do so, click on the **Create New Pictogram Library** function on the multi-function toolbar.  
→ The References tab is displayed.
- 2 Enter the references and click on **Detailed data**.
- 3 On the multifunction bar or in the context menu, select the **New – Pictogram** function.  
→ The Add Pictogram window is displayed:



- 4 To insert the symbol from the clipboard, select the **Paste** function from the context menu or select the **Load** function to insert the graphic from a file.
- 5 Click on **OK**.

## 13.2.2 Components library

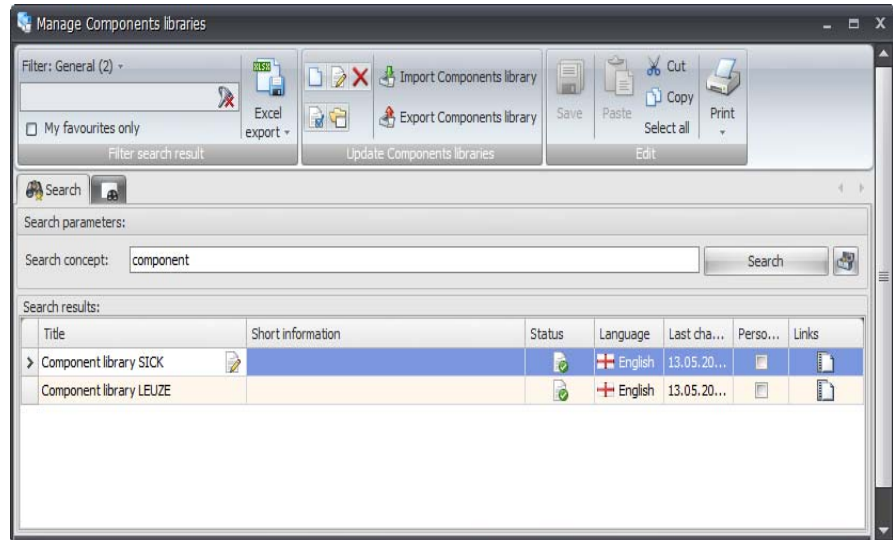
In libraries of components and devices, the system administrator can enter devices, components or equipment that could be important for the daily work of the Safexpert users.

Among other things, the risk category for which the device is suitable according to EN 954-1 is listed for each device.

In conjunction with the risk evaluation according to EN 954-1, this makes it possible to offer a well-organised selection of devices suitable for minimising risks.

**Caution: It is vital to correctly enter the risk category according to EN 954-1 indicated by the component manufacturer!**

To open a Library of components and devices, click on the **Library of components and devices** function in the System main menu..



*Safexpert libraries of components and devices*

Managing and updating the Safexpert libraries of components and devices is done via the Safexpert Live Server.

### Create own library of components and devices

-  **1** To do so, click on the **Create new library of components and devices** function on the multi-function toolbar.  
→ The References tab is displayed.
- 2** Enter the references and click on **Detailed data**.



- 3 On the multi-function bar, select the **New – Component** function.  
→ A new record for entering the component data is displayed:

- 
- 4 Enter the corresponding data.
- 5 Click on **OK**.

### Range of application

This field describes the application field of the component, e.g. "protective door monitoring", "prevention of access", ...

### Manufacturer's code

The manufacturer's code is used as the key for the best possible unique identification of a device or a series of devices.

### Help file and link destination

See chapter 1.2.6

### Internet address

Enter the address of the manufacturer's Internet site which may have additional information about the device.

### Category, PL, SIL

Provided that it is meaningful, the safety-related requirements met by the device are entered here.

---

## 13.2.3 Descriptions library

To open the descriptions library, select the **Measures library** function in the **System** main menu.

For additional information, see section 8.4

---

## 13.2.4 Measures library

To open the Measures library, select the Measures library function in the System main menu.

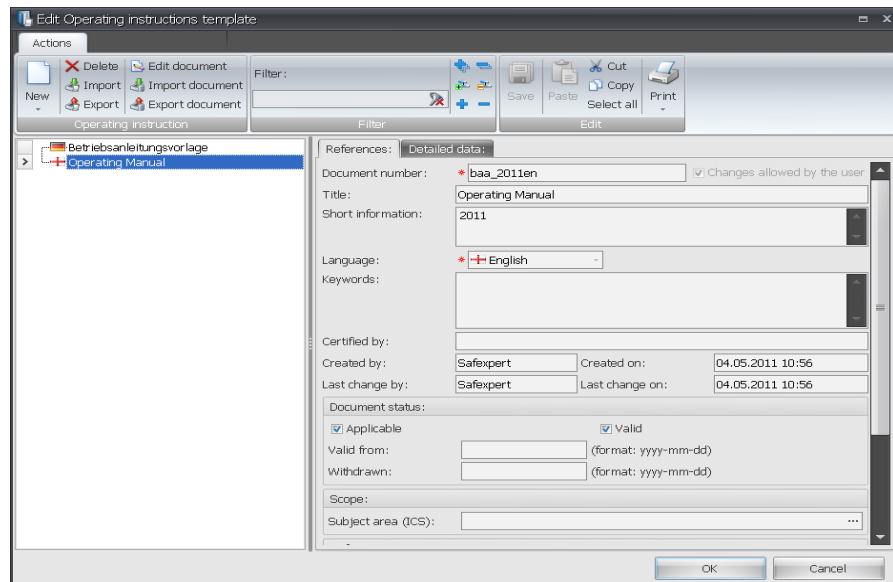
For additional information, see section 8.5

## 13.2.5 Instructions library

The instructions assistant is based on a word file which is used as a template for the instructions. It allows copying the safety notes from Safexpert and inserting them in the instructions (see section 8.2.3.11).

The instructions templates are managed in the instructions library.

To open an instructions library, click on the **Instructions library** function in the System main menu.



*Instructions library for managing instructions templates*

Based on the sample instructions, you may create templates adjusted to the needs of your company. Using corresponding templates, you can create documents for different purposes.

**Note: These instructions contain only a basic structure that must be adapted contextually and in content to what is required.**

### Importing and exporting instructions template

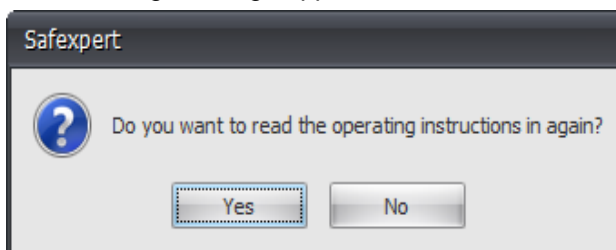
These functions are used for exchanging instructions templates between Safexpert databases.

---

### 13.2.5.1 Change existing instructions template

#### Procedure

- 1 In the Instructions library window, select the instructions template to be changed.
- 2 On the multi-function toolbar, click on **Edit document**.  
→ The instructions template is opened in Microsoft Word.
- 3 Make the desired changes in the document.
- 4 In Word, click on **Save** and close the window in Word that contains the file.  
→ The following message appears:



- 
- 5 Click on **Yes**.

---

### 13.2.5.2 Create new instructions template

#### Procedure

- 1 Create a Word document.
- 2 Add bookmarks to the Word document (Insert – Bookmark...) and assign names to them. The bookmarks are later imported into Safexpert with these names.
- 3 Assign the paragraph format template required for the measure text to the paragraphs containing the bookmarks. You can also assign a character format to the bookmark.
- 4 Save the Word document (\*.doc).
- 5 In the Instructions library window, select the **New – Instructions template** function on the multi-function bar.
- 6 Select the Word file to be imported and click on **Open**.  
→ The structure and bookmarks of the Word file are imported to the Safexpert database.
- 7 Adjust the data accordingly on the References tab and click on **Save**.

#### Important notes and tips:

- Do not insert bookmarks in tables. This will cause Safexpert to read the bookmarks several times.
- Bookmarks for system variables are not imported into Safexpert and may therefore be used in tables.
- Bookmarks for system variables are always replaced by the corresponding value. Assign these bookmarks to a single character only. If bookmarks are assigned to a word, the contents from Safexpert will replace only the first letter. You would then have to delete the remainder of the word from the document manually.

---

### 13.2.5.3 System variables for Word document templates

Safexpert provides the following system variables (bookmark/Safexpert project data). You can integrate them into your Word document template. To do so, simply insert bookmarks with the specified name.

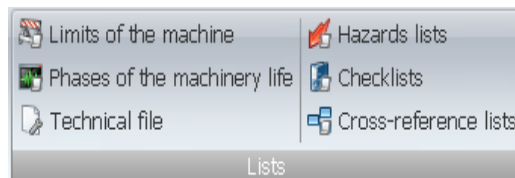
PrjNo_	Project number
PrjName_	Project name
PrjMade_	Project created by
PrjDate_	Project created on
PName_	Product name
PType_	Type
PSerNo_	Serial number
PFunct_	Function
PNote_	Note
POrder_	Order
PLSpan_	Life span
PFMisuse_	Foreseeable misuse
PIUse_	Intended use
PDisName1_	Manufacturer Name1
PDisName2_	Manufacturer Name2
PDisPoBox_	Manufacturer PO box
PDisPoCode_	Manufacturer postal code
PDisStreet_	Manufacturer address
PDisTown_	Manufacturer city
PDisPhone_	Manufacturer telephone
PDisFax_	Manufacturer fax
PDisMail_	Manufacturer E-mail
PSigCEName1_	Signatory name1
PSigCEFunc1_	Signatory function1
PSigCEName2_	Signatory name2
PSigCEFunc2_	Signatory function2
PRepName1_	Representative name1
PRepName2_	Representative name2
PRepPoBox_	Representative PO box
PRepStreet_	Representative address
PRepPoCode_	Representative postal code
PRepTown_	Representative city
PRepPhone_	Representative telephone
PRepFax_	Representative fax
PRepMail_	Representative e-mail
PNBName_	Notified body
PNBNo_	Notified body number
PNBStreet_	Notified body address
PNBPoCode_	Notified body PO box
PNBTown_	Notified body city
PNBCertNo_	Notified body certificate number
PFood_	Agri-foodstuffs machinery

PHand_	Portable hand-held and/or hand-guided machinery
PWood_	Machinery for working wood and analogous materials
PPrivate_	Machinery for use by private persons
PMobil_	Mobility of machinery
PLift_	Lifting operations
PUGround_	Machinery intended for underground work
PPerson_	Lifting or moving of persons

If you need the same system variable, e.g. the name of the manufacturer, in different locations in the Word document, insert the bookmark in one location and refer to it by means of cross-references.

You will have to assign content to the bookmark, otherwise it will not be possible to cross-reference it. Use only 1 letter. When the new document is generated by Safexpert, the letter is overwritten with the text of the respective system variable.

### 13.3 Manage lists as templates



System main menu - Multi-function bar

When a project is created, the following data is set up as standard:

- Limits of the machine
- Phases of the machinery life
- Checklist of technical documents
- Instructions checklist

These standard defaults can be adapted by the administrator.

**Caution: In case of any changes of the template lists, ensure that the conformity with the machinery directive is maintained.**

#### 13.3.1 Limits of the machine

##### How to add a limit of the machine

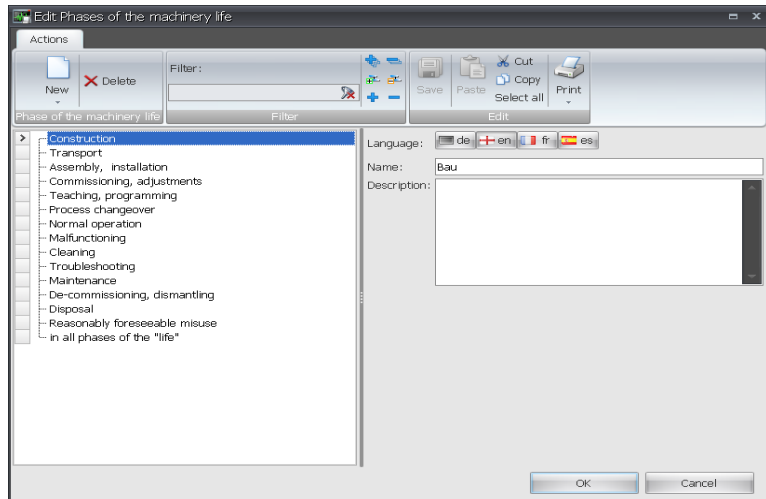
- 1 On the multifunction bar or in the context menu, select the **New – Limits of the machine** function.  
→ A new data record is added.
- 2 Enter a name and, if necessary, a description in all available languages.
- 3 Click on **Save**.

For additional information, see sections 5.1.2 and 7.4.1.

## 13.3.2 Phases of the machinery life

### How to add phases of the machinery life

- 1 Log into Safexpert as the "system administrator".
  - 2 On the multi-function bar in the **System** main menu, select the **Phases of the machinery life** function.
- The **Edit phases of the machinery life** window is displayed:



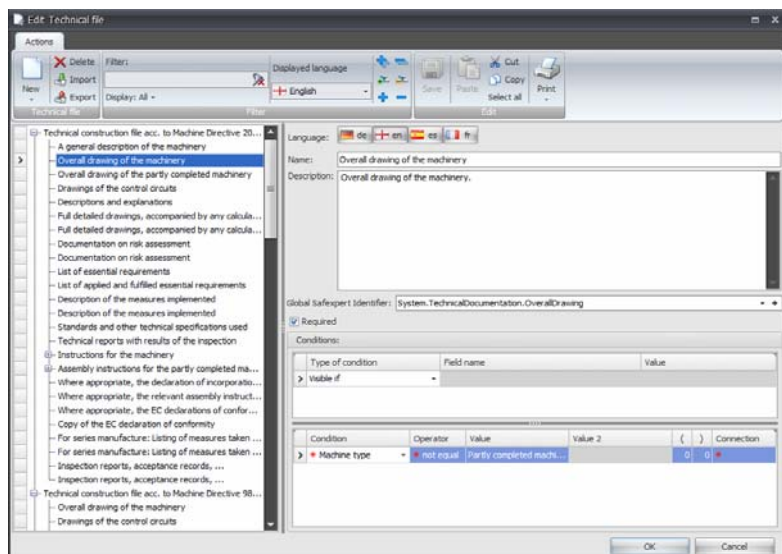
- 
- 3 Click on New – Phase of the machinery life.
  - 4 Enter a name and, if necessary, a description in all available languages.
  - 5 Click on **Save**.

## 13.3.3 Checklist of technical documents

When creating a new project, the data contained in this checklist are automatically copied to tab 5 of the CE guide (see section 7.6).

### Editing the checklist

- 1 Log into Safexpert as **System administrator**.
  - 2 On the multi-function bar in the **System** main menu, select the **Technical file** function.
- The **Edit technical file** window is displayed:



## Global Safexpert Identifier

This unique identifier is used in Safexpert to identify identical fields. This makes it possible, for example, to uniquely assign data that had to be entered according to the old Machinery Directive 98/37/EU to the requirements of the new Machinery Directive 2006/42/EU. This allows the data to be converted automatically.

### Required

Enable this option if the production of the corresponding documents is required in any case. If the option is not enabled, it means that the item is displayed in the checklist on tab 5 of the CE guide where the user decides whether the document is required.

### Condition

For each item, it can be defined under which conditions the item should be displayed.

---

## 13.3.4 Managing hazards lists

The hazards list forms the basis for the risk assessment.

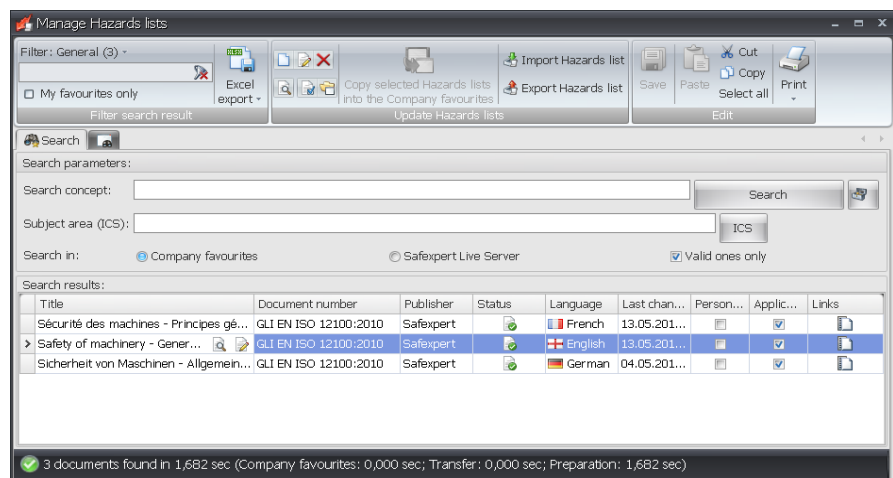
Safexpert is delivered with a hazards list by default according to the European standard EN ISO 12100, Annex B. This hazards list is managed and updated on the Safexpert Live Server.

### Language of the hazards list

Starting with Safexpert version 8.0, a separate hazards list is being maintained for every language. This allows maintaining the hazards lists in different languages independent of each other.

### How to open the "Manage hazards lists" window

To open the **Manage hazards lists** window, click on the **Hazards lists** function in the System main menu.



*Managing hazards lists*

Managing and updating the Safexpert hazards lists is done via the Safexpert Live Server.

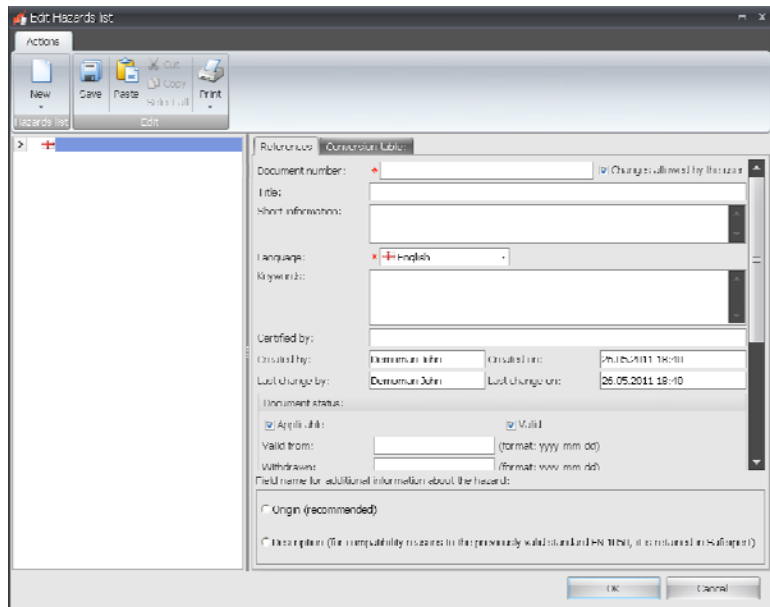
---

### 13.3.4.1 Create own hazards lists

Starting with Safexpert version 8.0, it should no longer be required to create your own hazards lists. A special, significantly more flexible system for creating and updating industry solutions was developed for Safexpert. See section 8.1.1

## Procedure

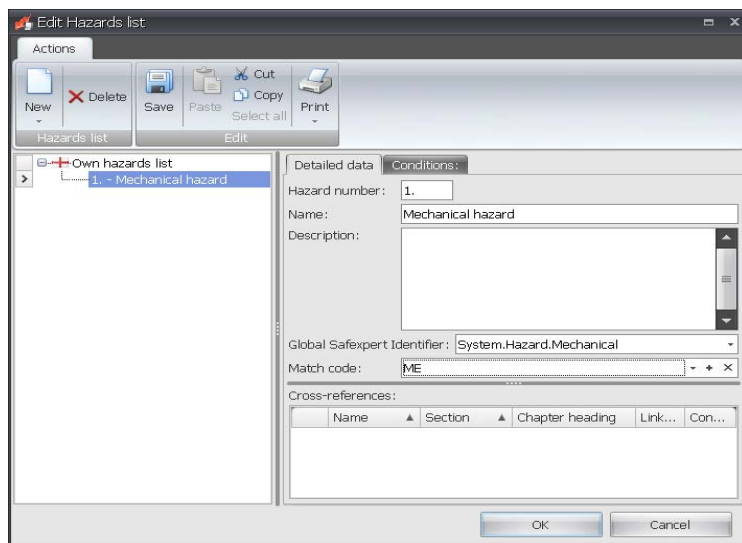
- 1 On the multi-function bar in the **Manage hazards list** window, click on the **Create new hazards list** function.  
→ The References tab is displayed:



→

- 2 Enter the References.
- 3 On the multi-function bar, select the function **New – Hazard group** or **New – Hazard**.

→ A new data record is added:



→

- 4 Enter the corresponding data.
- 5 Insert additional hazard copy groups and hazards to build up the hazard tree.
- 6 Click on **Save**.

### Global Safexpert Identifier in the hazards list

In the hazards list, GSI offers the opportunity to give every hazard a unique identification.

This allows defining in hazards lists which cross-references are displayed in the risk assessment if the user selects a hazard in the hazard tree (see section 8.2.6).

In addition, the assignment of a GSI to a hazard allows exchanging data of the risk assessment between projects.



## Cross-references

This window section displays direct as well as indirect cross-references. It is recommended not to enter any direct cross-references in cross-reference lists when working with GSI (see section 13.3.6).

If you still want to add direct cross-references, select the **Add direct cross-reference (from Standards manager)** command on the multi-function bar or in the context menu.

Name	Section	Chapter heading	Link des...	Conditions
EN ISO 12100:2010...	6.2.9	electrical hazards	/p=27	...

*Direct and indirect cross-references to hazard points*

**Note: If you add a direct cross-reference to a file, Safexpert cannot check in the course of the update processes whether the cross-references are still current!**

## Origin / description

During the identification of hazards, EN ISO 12100 subdivides into "Origin" and "Possible consequences":

Table A.1

No.	Type or group	Examples of hazards		Subclause of ISO 12100-1:2003 or ISO 12100-2:2003	
		Origin <sup>a</sup>	Potential consequences <sup>b</sup>		
1	<b>Mechanical hazards</b>	<ul style="list-style-type: none"> <li>— Acceleration, deceleration (kinetic energy)</li> <li>— Angular parts</li> <li>— Approach of a moving element to a fixed part</li> <li>— Cutting parts</li> <li>— Elastic elements</li> <li>— Falling objects</li> <li>— Gravity (stored energy)</li> <li>— Height from the ground</li> <li>— High pressure</li> <li>— Machinery mobility</li> <li>— Moving elements</li> <li>— Rotating elements</li> <li>— Rough, slippery surface</li> <li>— Sharp edges</li> <li>— Stability</li> <li>— Vacuum</li> </ul>	<ul style="list-style-type: none"> <li>— Being run over</li> <li>— Being thrown</li> <li>— Crushing</li> <li>— Cutting or severing</li> <li>— Drawing-in or trapping</li> <li>— Entanglement</li> <li>— Friction or abrasion</li> <li>— Impact</li> <li>— Injection</li> <li>— Shearing</li> <li>— Slipping, tripping and falling</li> <li>— Stabbing or puncture</li> <li>— Suffocation</li> </ul>	<ul style="list-style-type: none"> <li>4.2.1</li> <li>4.2.2</li> <li>4.10</li> </ul>	<ul style="list-style-type: none"> <li>4.2.1</li> <li>4.2.2</li> <li>4.3 a)</li> <li>4.3 b)</li> <li>4.6</li> <li>4.10</li> <li>5.1</li> <li>5.2</li> <li>5.3</li> <li>5.5.2</li> <li>5.5.4</li> <li>5.5.5</li> <li>5.5.6</li> <li>6.1</li> <li>6.3</li> <li>6.4</li> <li>6.5</li> </ul>

*Excerpt from EN ISO 12100, Annex B.1*

### 13.3.4.2 Edit

#### Procedure

- 1 On the multi-function bar in the **Manage hazards list** window, click on the **Edit hazards list** function.  
→ The References tab is displayed.
- 2 In the hazard tree, click on the entry to be changed and make the changes in the detailed data.
- 3 Click on **Save**.

### 13.3.4.3 Create conversion table

A conversion table is required to replace the (old) hazards list used with another (new) hazards list in existing projects. This requires that a hazard of the new hazard list must exist for every hazard of the old hazard list.

Conversion tables are assigned to a (new) hazards list. Hence, it is defined for every hazards list from which previous hazards lists a conversion can be performed.

#### Create conversion table

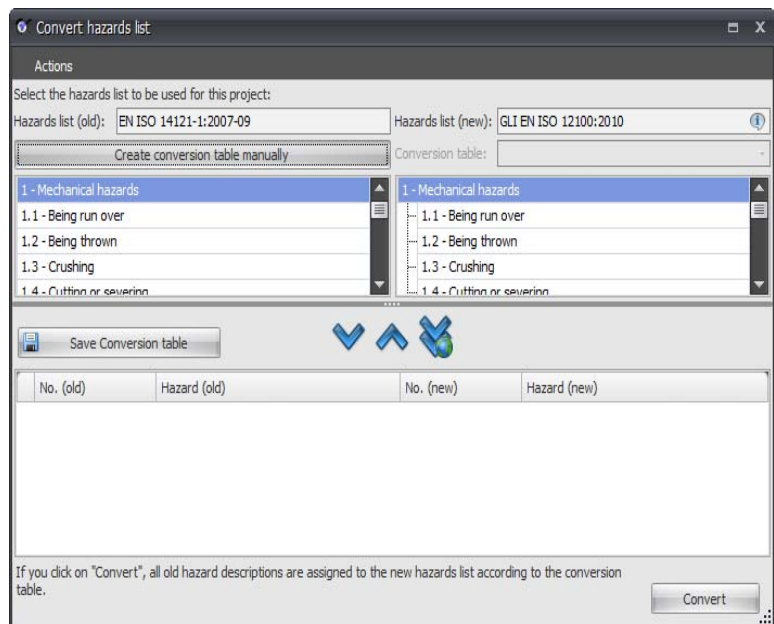
- 1 In the Manage hazards lists window, first mark the old hazards list and then the new one.

- 2 Select Create conversion table in the context menu.

→ The **References** window is displayed:

- 3 Enter the references and click on **OK**.

→ The "Create conversion table" window is displayed:



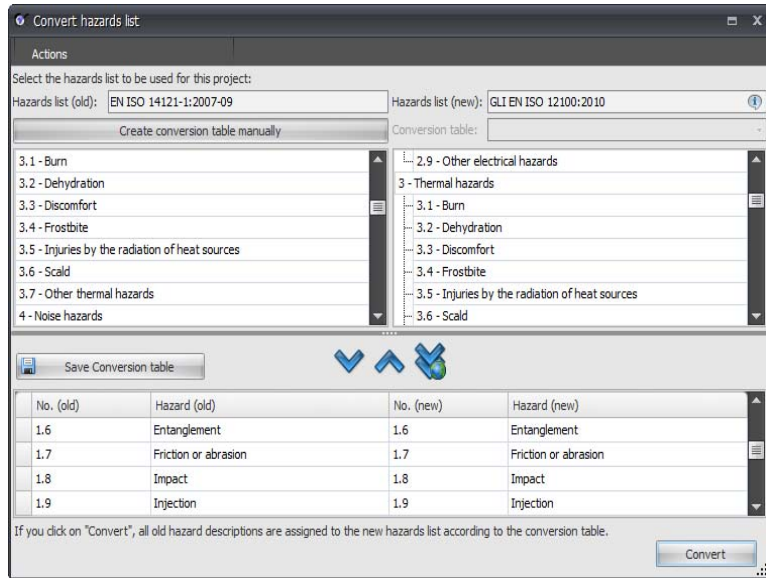
→

- 4 Select a hazard in the old hazards list, and define in the new hazards list to which hazard the hazard selected in the old hazards list should be assigned.



## 5 Select **Copy assignment**.

→ The assignments are displayed in the lower table:



## 6 Save the conversion table after all hazards of the old hazards list have been assigned to the new one.

### Create conversion table automatically based on GSI



By clicking on the **Assign automatically via GSI (Global Safexpert Identifier)** button, all hazards of the old hazards list that feature a GSI are assigned to the selected hazard in the new hazards list that features the same GSI.

Hazards that could not be assigned automatically can subsequently be assigned manually.

### 13.3.4.4 Project variables

With the new creation of a project, different project variables are filled based on various valuations of the user.

The project variables are used within a project for controlling measures or the free selection of suitable information.

When creating hazards lists, checklists or cross-reference lists, it can be defined under which conditions certain hazard points, checkpoints or cross-references can be displayed or selected depending on project variables.

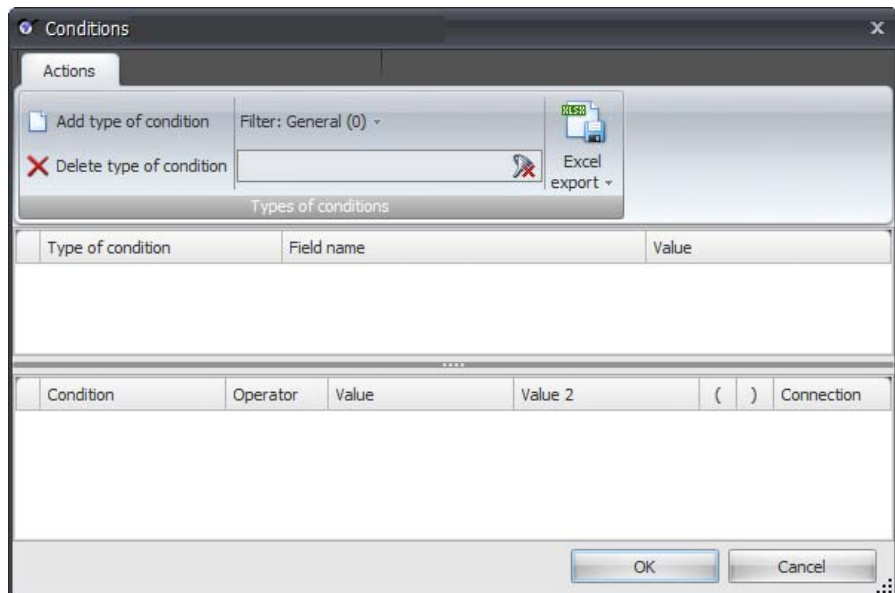
#### Define conditions

In various windows, a button for defining conditions is displayed.



*Condition field with and without content*

If you click on the condition field, the following window is displayed:



*Define conditions based on project variables*

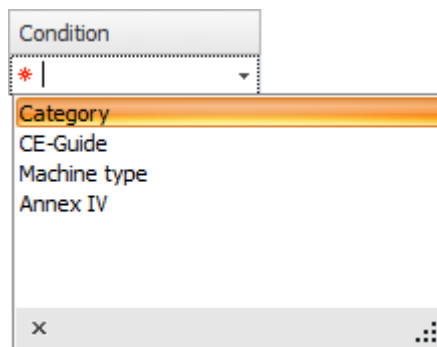
Click on Add type of condition and define the desired condition.

### **Groups of variables**

The project variables are divided into four groups of variables:

- Category
- CE guide
- Machine type
- Annex IV

The groups of variables are available in all windows in which conditions can be defined:



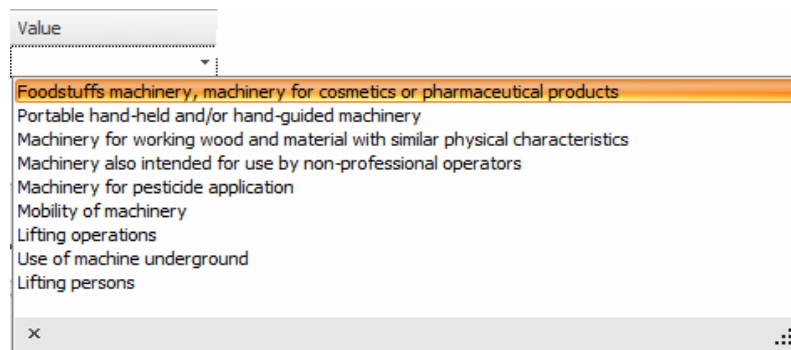
*Available groups of variables in Safexpert*

### **Category**

The following project variables are available in this group of variables:

- Foodstuffs machinery, machinery for cosmetics or pharmaceutical products
- Portable hand-held and/or hand-guided machinery
- Machinery for working wood and material with similar physical characteristics
- Machinery also intended for use by non-professional operators
- Machinery for distributing pesticides
- Mobility of machinery
- Lifting operations

- Use of machine underground
- Lifting persons



*Available project variables in the "Category" group of variables*

The project-specific assignment of these project variables is done in the project data on the Category tab (see section 5.1.5).

### **CE guide**

The following project variables are available in this group of variables:

#### **Machinery Directive 98/37/EU**

This variable is set if the date of distribution of the machine is earlier than 29 Dec 2009.

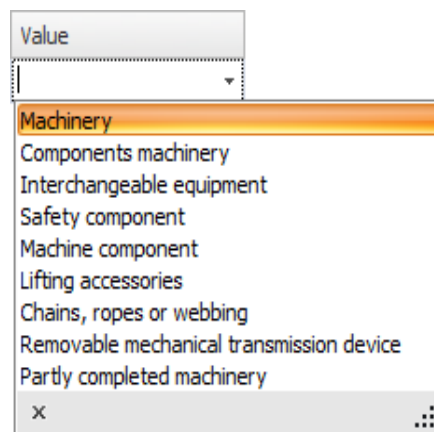
#### **Machinery Directive 2006/42/EU**

This variable is set if the date of distribution of the machine is entered as 29 Dec 2009 or later.

The project-specific assignment of these project variables is done in the project data on the Particulars of Machinery tab (see section 5.1.1).

### **Machine type**

This group of variables contains the project variables that are populated during the classification of the product in the CE guide (see section 7.1).



*Classification by machinery directive*

### **Annex IV**

This project variable contains the information whether the product falls under Annex IV of the Machinery Directive. The project-specific assignment is done during the classification of the product (see section 7.1).

### 13.3.5 Manage checklists

The system administrator can create any number of checklists. They can be created or imported. The users can copy these lists into projects to perform checks or acceptances.

The checklists are managed in the company favourites.

The system administrator must release a checklist to allow it to be copied into projects.

The system administrator can determine whether users may change the checklist during project processing (e.g. remove or add checkpoints,...).

Changing a checklist in a project does not change the template of the checklist.

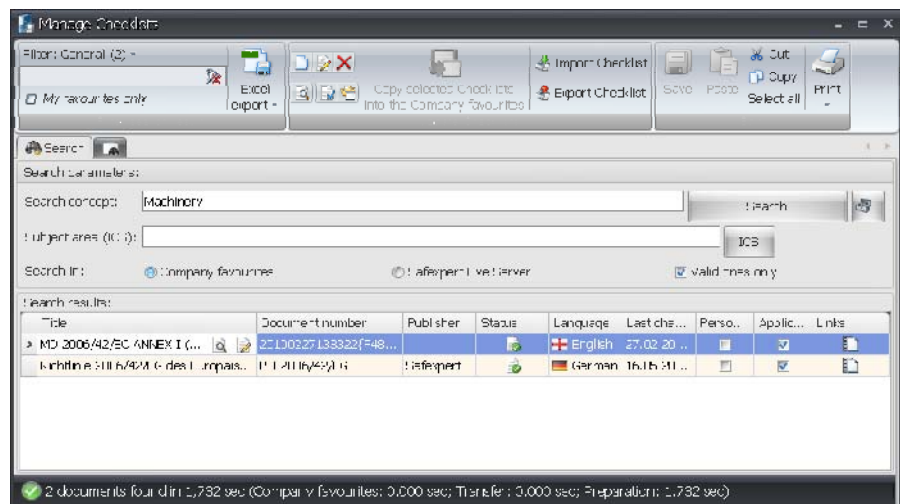
**Remark: The time effort for the creation of an own checklist can be relatively high. Nonetheless, this activity should be carried out carefully.**

**Missing or incorrectly assigned or badly documented checkpoints may falsify the check results or delay the process. For this reason, it is advisable to install a responsible "author" for the checklist, even if the checklist is actually drafted by a team of authors.**

The checklists that are offered by default in conjunction with Safexpert are managed and updated on the Safexpert Live Server.

#### How to open the "Manage checklists" window

To open the **Manage checklists** window, click on the **Checklists** function in the System main menu.



*Manage checklists*

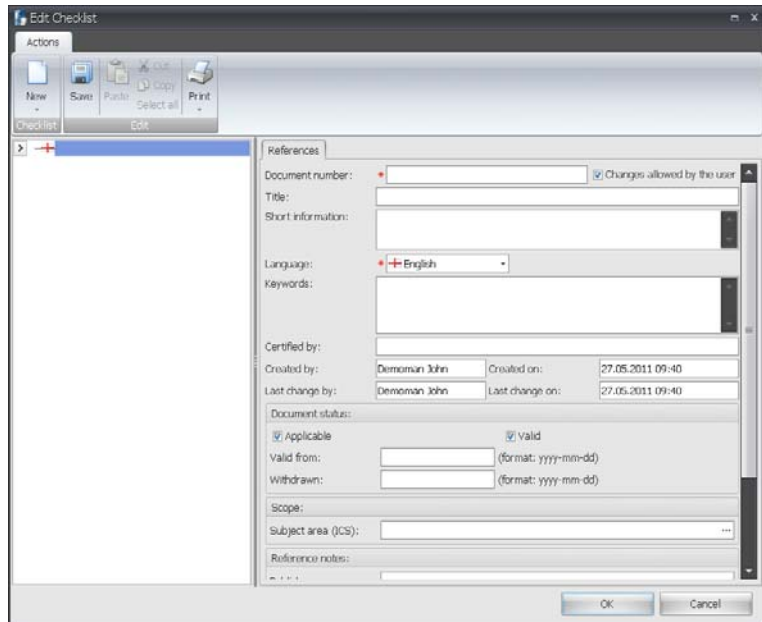
Managing and updating the Safexpert checklists is done via the Safexpert Live Server.

### 13.3.5.1 Create own checklist

#### Procedure

- 1 On the multi-function bar in the **Manage checklists** window, click on the **Create new checklist** function.

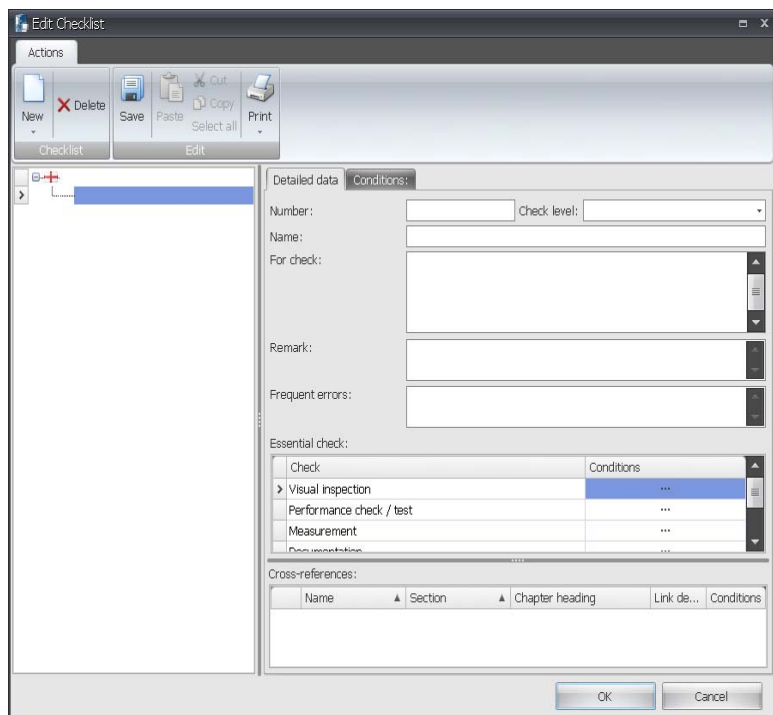
→ The References tab is displayed:



→

- 2 Enter the References.
- 3 On the multi-function bar, select the **New – Checkpoint** function.

→ A new data record is added:



→

- 4 Enter the corresponding data.
- 5 Insert additional checkpoints to build up the checklist.
- 6 Click on **Save**.

**Note: Changes to the checklists do NOT lead to changes to checklists in projects (and vice versa). There is not data connection between the checklist templates and the checklists copied to the project from those templates.**

### Number

This number is freely selectable and enhances orientation within checklists, especially if they are large.

When the checklist for the Machinery Directive was drawn up, we used the numbering from the corresponding Annex I of the directive. But one problem occurs in this case: For example, in section 1.7.4, the Machinery Directive describes the requirements for the operating instructions; in section 2.1, additional requirements are placed on the operating instructions.

If all the items are combined in a group for checking the operating instructions, the numbering is no longer consecutive in practice. Nevertheless, we selected the numbering according to the Machinery Directive to ensure the best possible match with the directive.

### Check level

To reduce the time needed for check and acceptance, you can define to which depth a check or acceptance is to be performed. For instance, it would be possible to perform coarse checks for suppliers known to be reliable, while products from new suppliers would require detailed checks.

### Name

The text entered in this field is displayed in the tree structure.

### To check

A description that is as short as possible and succinct can/should be entered here about what or how the checkpoint should be checked.

Supporting information on the procedures may be found in standards or other documents. These documents can be referenced in the "Cross-references" section.

**Caution! Despite such notes, checks and acceptances should be performed exclusively by competent test personnel.**

### Comment

The authors of the checklist can store special know-how for each checkpoint at this point which may be useful to the test personnel when checking the checkpoint.

### Frequent mistakes

On the **Frequent mistakes** tab, the authors of the checklist may record information concerning frequent errors that have been detected during checks.

**Note: Report any errors that are frequently occurring in practice to the authors of the checklist. They may then add the changes to the checklist. When new products are manufactured, it is recommended to refer to the current checklist, to ensure the same errors are not repeated. The checklists offered in conjunction with Safexpert are maintained and updated on the Safexpert Live Server.**

### Essential check

For each checkpoint, determine how the test personnel is to perform the check. On the "Check" tab, four types of checks are available for selection:

- Visual inspection
- Performance check / test
- Measurement
- Documentation

In the context menu, select **Delete check** or **Add check** to adjust the necessary check types.



For each checkpoint, it can be defined under which conditions the point should be displayed. See also section 13.3.4.4.

### Cross-references

Cross-references can be stored for each checkpoint. To do so, select the following command in the context menu

- **Add direct cross-reference (from Standards manager)** or
- **Add direct cross-reference (to file).**

#### Link destination

See chapter 1.2.6


#### Condition

See chapter 13.3.4.4

---

### 13.3.5.2 Edit checklists

#### Procedure



-  **1** On the multi-function bar in the **Manage checklists** window, click on the **Edit checklist** function.  
→ The References tab is displayed.
- 2** In the checklist, click on the entry to be changed and make the changes in the detailed data.
- 3** Click on **Save**.

---

### 13.3.6 Manage cross-reference lists

Cross-references support designers in the selection of suitable safety measures as well as for the check or acceptance of machines or systems.

Safexpert offers two types of cross-references:

-  Direct cross-references
-  Indirect cross-references

---

#### 13.3.6.1 Direct cross-references

##### Hazards lists

Direct cross-references are cross-references that are assigned to each individual hazard when creating hazards lists.

**Caution! The disadvantage of direct cross-references is that the entire hazards list must be changed with any change of a cross-reference. For this reason, it is recommended NOT to create any direct cross-references in hazards lists.**

Information about how you can still create direct cross-references can be found in section 13.3.4.1.

##### Checklists

In checklists, only direct cross-references can be assigned since checklists are generally documents used for checking products that have been introduced to distribution at a certain time. Hence, the cross-references in checklists may not be adjusted to the status of the current standards at a later time.

---

### 13.3.6.2 Indirect cross-references

Previously, cross-references to certain standard sections were managed in Safexpert for every hazard. The disadvantage was that any change in the standard affecting the cross-references resulted in updating the complete hazards list.

Starting with Safexpert 8.0, cross-reference lists can be maintained and updated independently.

#### Global Safexpert Identifier (GSI)

The link to the hazards list is done via the GSI (see section 13.3.4.1). This allows defining in hazards lists which cross-references are displayed in the risk assessment if the user selects a hazard in the hazard tree (see section 8.2.6).

This concept, which was specifically developed for Safexpert, also allows easily adding own documents, such as plant standards, design manuals, QM documents or even project-specific specifications, as cross-references to the hazards list.

**Caution! Personal documents are documents that are not managed on the Safexpert Live Server. Safexpert cannot automatically update them!**

**Use suitable internal processes to ensure that the personal documents in the company favourites are updated continuously and immediately.**

#### Safexpert cross-reference lists

The checklists supplied with Safexpert are offered and updated via the Safexpert Live Server. Among other things, these cross-reference lists are contained in the Safexpert Standard module and are automatically copied to the company favourites during the installation of Safexpert:

- Machinery Directive 2006/42/EU (German, English, French)
- Machinery Directive 98/37/EU (German, English, French)  
This list is required for historic projects.
- EN ISO 12100:2010 (German, English, French)

These lists are continuously updated as part of the offered maintenance contracts.

For simplified differentiation, the cross-reference lists are managed in groups like safety standards:

- Cross-reference list A, B and C standard:  
They have been created based on A, B or C standards.
- Cross-reference lists:  
All other cross-references are assigned to this group.

#### Industry solutions

Safexpert offers very powerful functions to represent the risk assessment according to the cross-reference lists contained in the company favourites.

This allows, for example, creating industry-specific cross-reference lists by C standards which provide particular support for the risk assessment and risk reduction (see section 8.1.1).

With the GSI concept described above, it is possible to create industry-specific cross-reference lists from third parties. They can easily be adopted into the company favourites with the **Import cross-reference lists** function in the **Manage cross-reference lists** window.

**Caution! Personal documents are documents that are not managed on the Safexpert Live Server. Safexpert cannot automatically update them!**

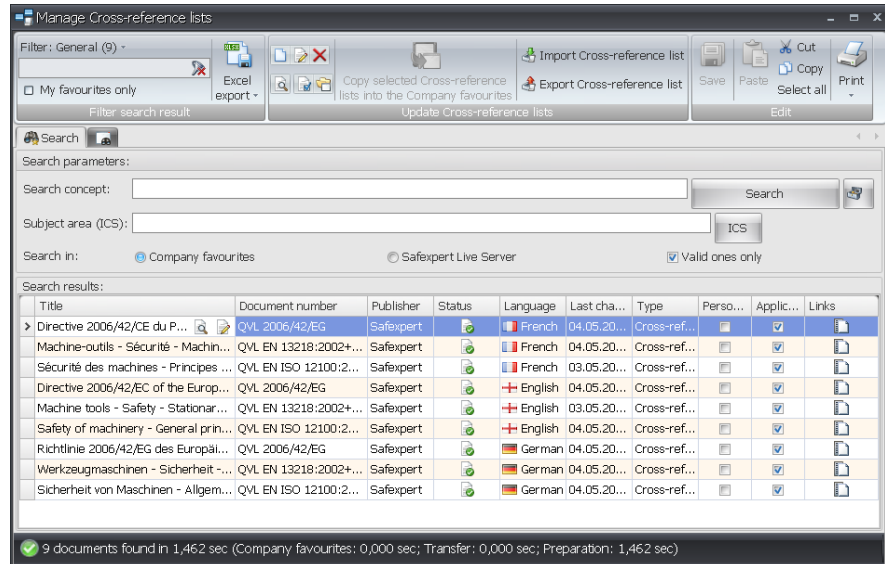
**Use suitable internal processes to ensure that the personal documents in the company favourites are updated continuously and immediately.**

To be able to automatically check specific cross-reference list C standards for relevance via the Safexpert update wizard in the course of the update runs, it is intended to offer cross-reference lists of selected third parties via the Safexpert Live Server.

To be able to find such cross-reference lists as quickly as possible, all the search and filter functions contained in the Standards manager are also available in the **Manage cross-reference lists** window. In particular, use the options for searching for ICS subjects (see section 11.6.3).

### How to open the "Manage cross-reference lists" window

To open the **Manage cross-reference lists** window, click on the **Cross-reference lists** function in the System main menu.

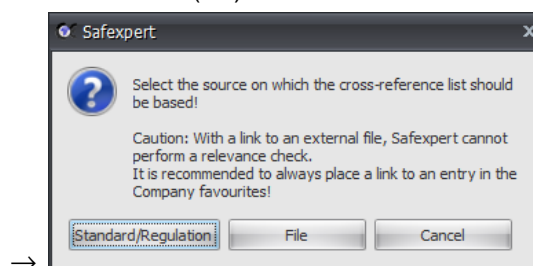


*Managing and updating cross-reference lists on the Safexpert Live Server*

The search for cross-reference lists is done in the same way as the search for standards (see 11.6), either in the company favourites or on the Safexpert Live Server. The search for ICS subjects is also available.

### How to create your own cross-reference list

- 1 In the **Manage cross-reference lists** window, click on the **Create new cross-reference list** function on the multi-function bar.
- 2 Decide whether the cross-reference list should be created based on a document managed in the company favourites or based on your own document (file):



**Caution! Personal documents are documents that are not managed on the Safexpert Live Server. Safexpert cannot automatically update them!**

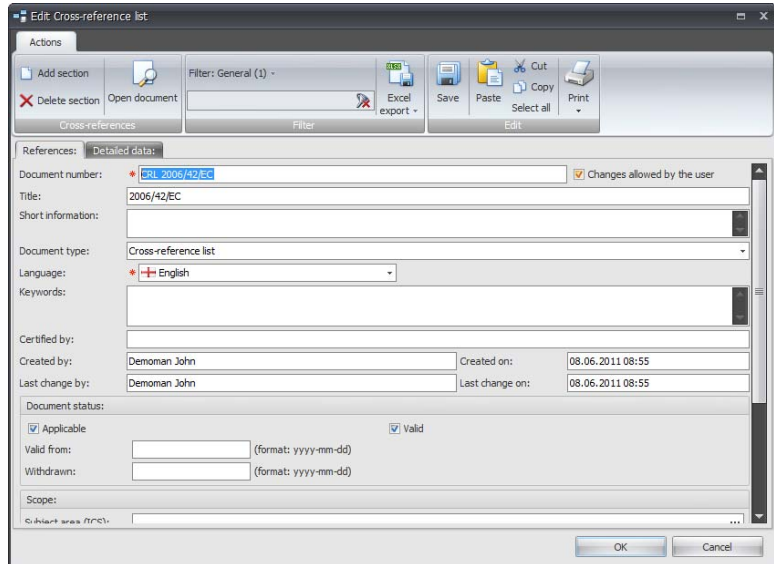
**Use suitable internal processes to ensure that the personal documents in the company favourites are updated continuously and immediately.**

**3** Click on **Standard/Regulation** or on **File**.

→ Standard/Regulation: The Safexpert Standards manager opens. Select the document on which the cross-reference list should be based, and click on **Copy** on the multi-function bar or in the context menu.

→ File: Select the file on which the cross-reference list should be based, and click on **Open**.

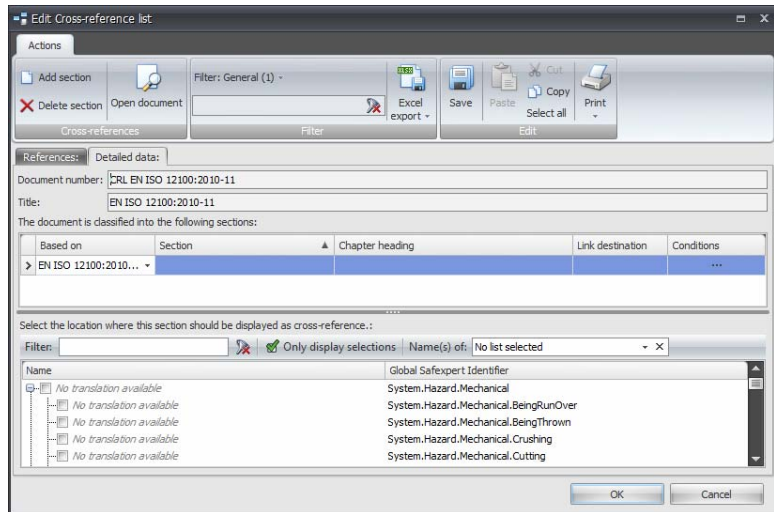
**4** → A new data record is added:



→

**5** Enter the corresponding data and click on **Detailed data**.

→ The Detailed data tab is displayed:



→

**6** Click on **Open document** on the multi-function bar.

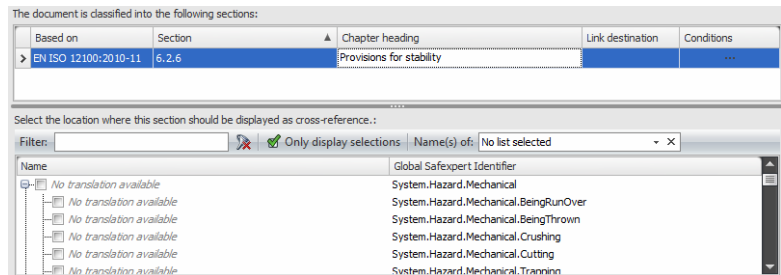
→ The document on which the cross-reference list is based is displayed:



→

**7** Insert the sections you want to make available as cross-reference:

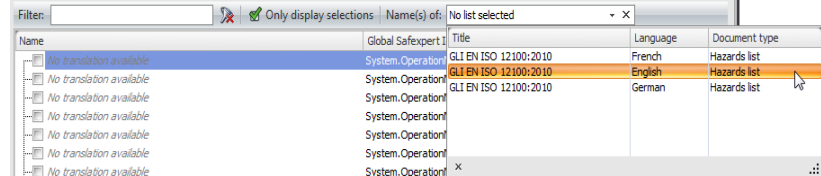
→ After entering a new section, the available GSI are displayed:



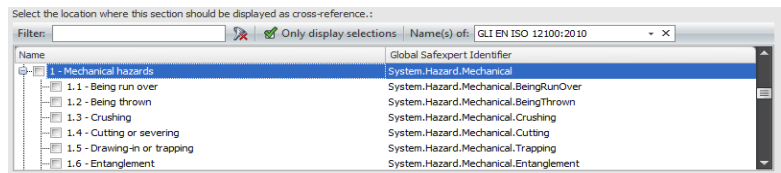
→

**8** Select a hazards list in the **Name(s) of** menu:

Select the location where this section should be displayed as cross-reference.:



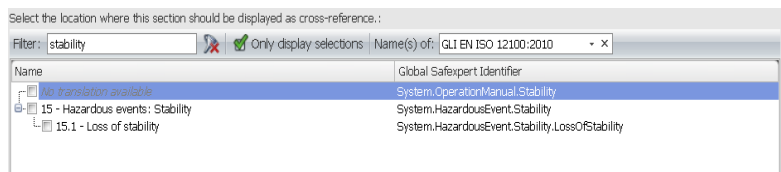
→ The left column displays the hazards that were assigned in the selected hazards list to the GSI displayed in the right column:



→

**9** Enter a search text in the Filter field:

→ Only those GSI are displayed that correspond to the filter criteria:



→

**10** Enable the  check box for all entries if the section should appear as cross-reference upon selecting the hazard in the risk assessment.

**11** Click on **Save**.

## Change existing cross-reference list

- 1 In the **Manage cross-reference lists** window, click on the **Edit cross-reference list** function on the multi-function bar.  
→ The References tab is displayed.
- 2 Click on detailed data and make the necessary changes.
- 3 Click on **Save**.

---

## 13.4 Machinery directive-specific default settings

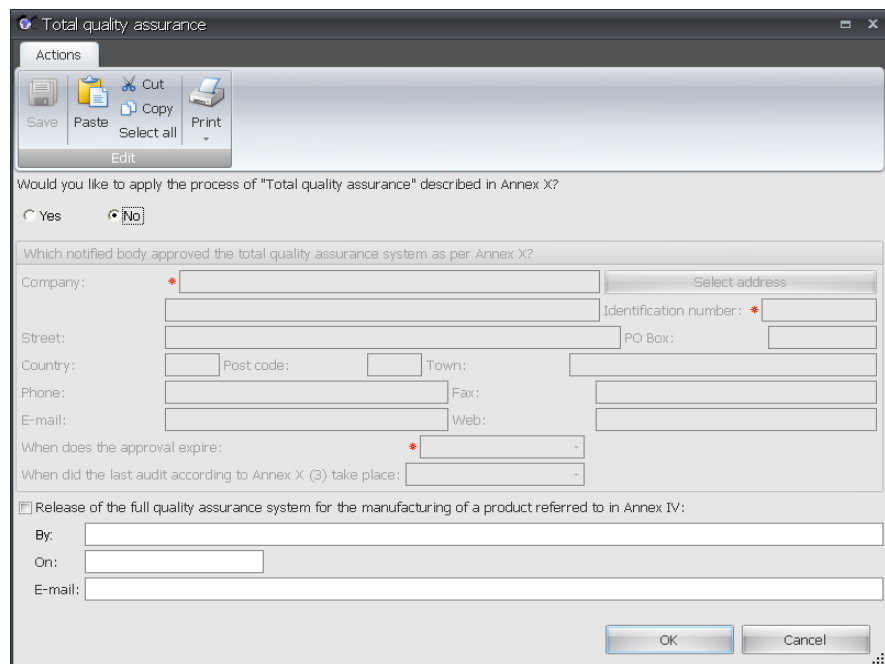


System main menu - Multi-function bar

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### 13.4.1 Total quality assurance

Perform the settings in this window if your company uses the conformity assessment procedure as per Annex X of the Machinery Directive 2006/42/EC.



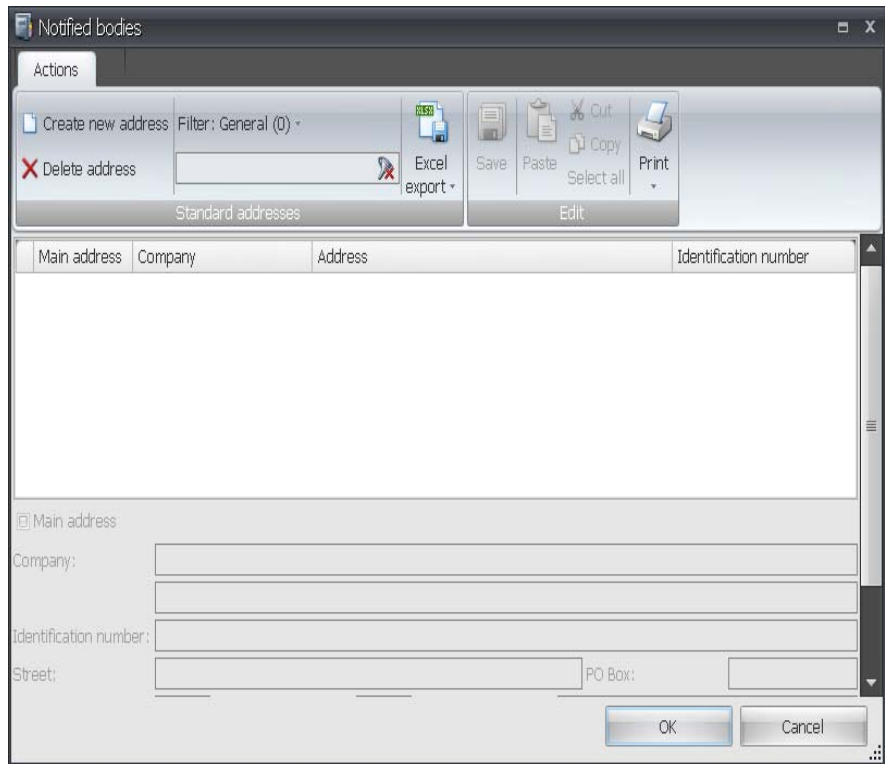
Define parameters for the conformity assessment procedure as per Annex X

---

### 13.4.2 Manage notified bodies

For Annex IV products, it may be necessary that you want to or have to include a notified body.

To display the **Notified body** window, click on **Notified body** in the **System** main menu.



*Window of the data of the notified body*

These data can be adopted in the CE guide on tab 6 (see section 7.7).

## Contract for the transfer of use

Contract on the use of software products for a fee between the company Leuze electronic GmbH + Co. KG, In der Braike 1, D-73277 Owen - Teck / Germany (henceforth referred to as LICENSOR) and the LICENSEE

The software installation is possible only after accepting this contract for the transfer of use. By installing this software, the Licensee explicitly acknowledges this license agreement.

### 1. Definitions

1.1 SOFTWARE: The "Safexpert" software system stored on a data carrier or provided for download in the respective version ordered, as well as all utilities, sample files, software documentation and other miscellaneous material that belongs to it.

1.2 SALES PARTNERS: Natural or legal entity and its corporate associated companies that have been authorised by the licensor via written contract to sell licensing rights to the software.

### 2. Rights

2.1 The LICENSOR grants the LICENSEE, subject to item 9 and the payment of compensation for use, the transferable right to use the SOFTWARE and the SOFTWARE DOCUMENTATION without time restriction and only according to item 2.3 in accordance with the conditions listed below.

2.2 Subject to adherence to separately concluded cooperation agreements, the LICENSOR grants the SALES PARTNERS the right to sell the rights to use of the SOFTWARE and the SOFTWARE DOCUMENTATION to third parties.

2.3 The LICENSEE has the right to permanently sell the SOFTWARE as well as any supplied updates to third parties or to surrender them as a present, provided that the receiving third party declares his or her consent that he or she also agrees with the present terms of contract.

In case of such a transfer, the new LICENSEE requires a new license code. The LICENSEE may obtain this license code from the LICENSOR or his or her SALES PARTNER for a processing fee of 70 Euro.

Due to the transfer to a new LICENSEE, the rights to use to the SOFTWARE expire for the old LICENSEE.

A different transfer of the software to a third party (renting, leasing) is not allowed.

2.4 The LICENSEE is not entitled to decompile or disassemble (Reverse Engineering) the SOFTWARE. This does not apply if the applicable law expressly allows such action.

2.5 The present agreement does not regulate the adaptation and further development of the software, as well as introducing or conducting training sessions by the LICENSOR.

2.6 The delivery of the software is done via Internet download by the LICENSEE. No claim for surrendering the source code exists.

2.7 The LICENSEE is responsible for ensuring that the minimum requirements of his or her computer environment are met, performing the software installation and ensuring the necessary compatibility.

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