

# Automated generation of user configurations and download of safe parameters

This info describes the automated generation of user configurations and the download of safe parameters for KEB safety modules.

In series production of the same machines, a prepared configuration data set can be automatically transferred during production. For example, from an intended control for it or from a computer with COMBIVIS 6 by means of a parameter list.

## Application

Create a download list with a user configuration and download of a safe parameter container from a PLC for KEB safety modules.

## Applicable for the following devices

Safety modules	Drive converter
02H6x10-00xx	xxH6ACx-xxBx
03H6x10-00xx	xxF6A3x-xxxx
	xxS6A3x-xxxx

## 1 Configuration of users on the safety module

One or more users must be created in order that configuration data can be transferred to the safety module. Here it is recommended to create at least 2 users.

- The first user has full user rights. This user can not only download a configuration but also manage users or read out a configuration.
- The second user shall only download the user rights configurations.

This procedure has the advantage that the user with the full rights can be kept secret. If subsequent changes of the configuration data shall be made, only the second user is required to do this.

### 1.1 Automatic configuration of the users by a parameter list

The following link contains a parameter list for automatic configuration of the users. In the example there are 2 users with IDs 11 and 21 created in the safety module.

[https://www.keb.de/fileadmin/media/Manuals/knowledge/Paralist/sw\\_dr\\_addtwouserstosafetymodule\\_mu.zip](https://www.keb.de/fileadmin/media/Manuals/knowledge/Paralist/sw_dr_addtwouserstosafetymodule_mu.zip)

The user with the ID 11 has full user rights. The user with the ID 21 has only the right to download new configurations.

**Procedure:**

1. Log in with user 1. Write value 1 to the address 1030h.
2. Write password 0xE35E00DFh („Default“) to address 1031h. The password is CRC32 coded.
3. Set the user management index to 0. The address is 0x1040h.
4. Write the new user ID. The address for the user ID is 1041h.
5. Write the password for the user. The address for the password is 1042h. The password for the user is CRC32 coded. The checksum can be generated with a CRC32 generator. An appropriate tool is available at the following website. <http://www.lammert-bies.nl/comm/info/crc-calculation.htm>.
6. Write the user rights for the user. Address for the user level is 1043h. The following user rights are available:

Value	Description of the user rights
0	No user rights
1	Add and change users
2	Writing of new configuration data
4	Reading of configuration data
6	Reading and writing of configuration data
7	Full user rights

The new user is created after this procedure. Now a login can be executed.

## 2 Download of configuration data

**NOTICE**

**Perform acceptance test and configuration check!**

- ▶ It must be ensured that an acceptance test and a configuration check are performed after automated download of the configuration data. See safety manual for the safety modules.

## 2.1 Overview of the procedure

The creation of new users by parameter list is described in chapter 1.1. A user must be configured in order to download new configuration data. Then the new configuration data with the newly created users can be loaded to the drive converter with safety module. The following figure shows this procedure.

Furthermore, a safety module address can be assigned, this is optional and described in chapter 3.

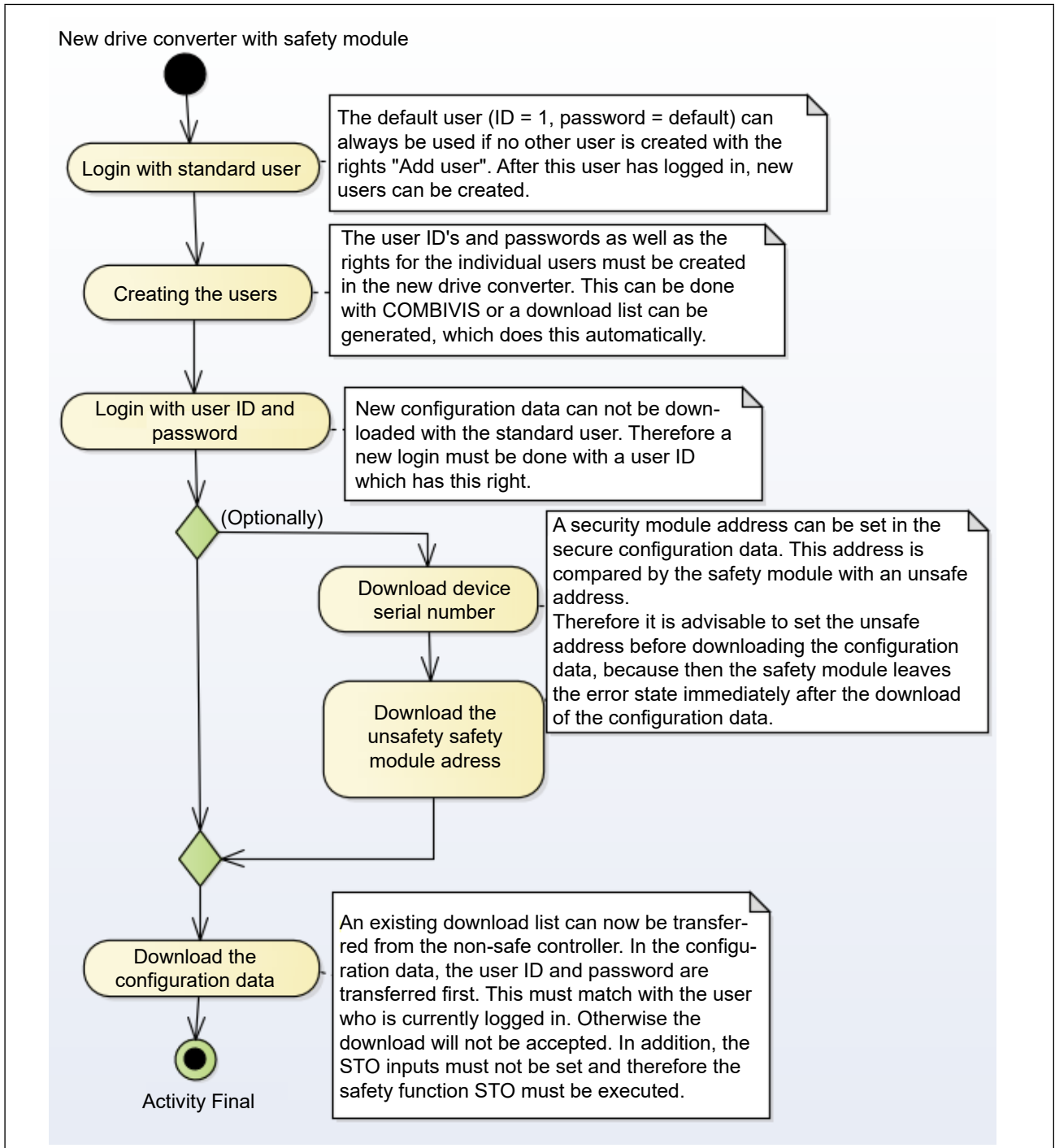


Figure 1: Automated commissioning of a safety module

## 2.2 Creation of a parameter list from the configuration data

After the configuration has been created in the KEB safety editor, it can be exported as parameter list. To do this, click the import/export button in the KEB safety editor and select the option "create parameter list for download".

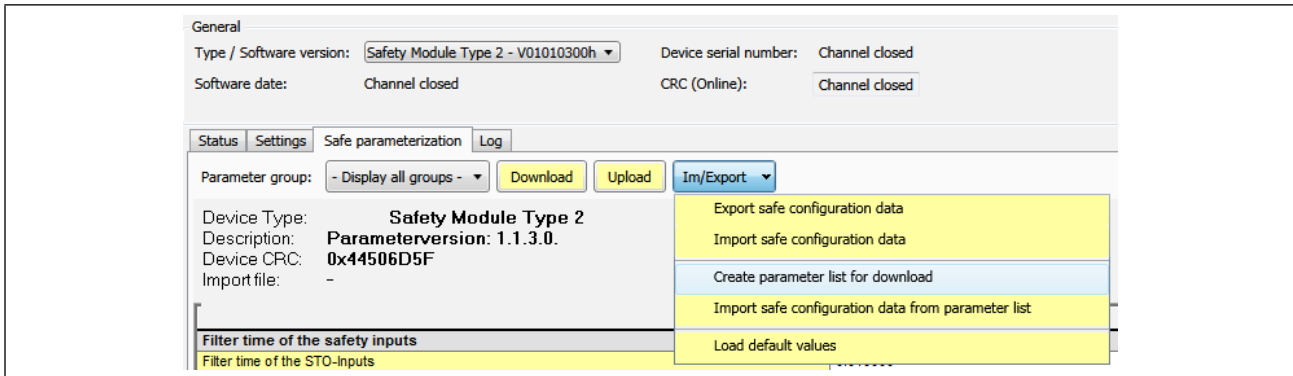


Figure 2: Creation of a parameter list for the download

After the export from the KEB safety editor the parameter list is displayed in COMBIVIS. This parameter list is exemplary shown in the following figure.

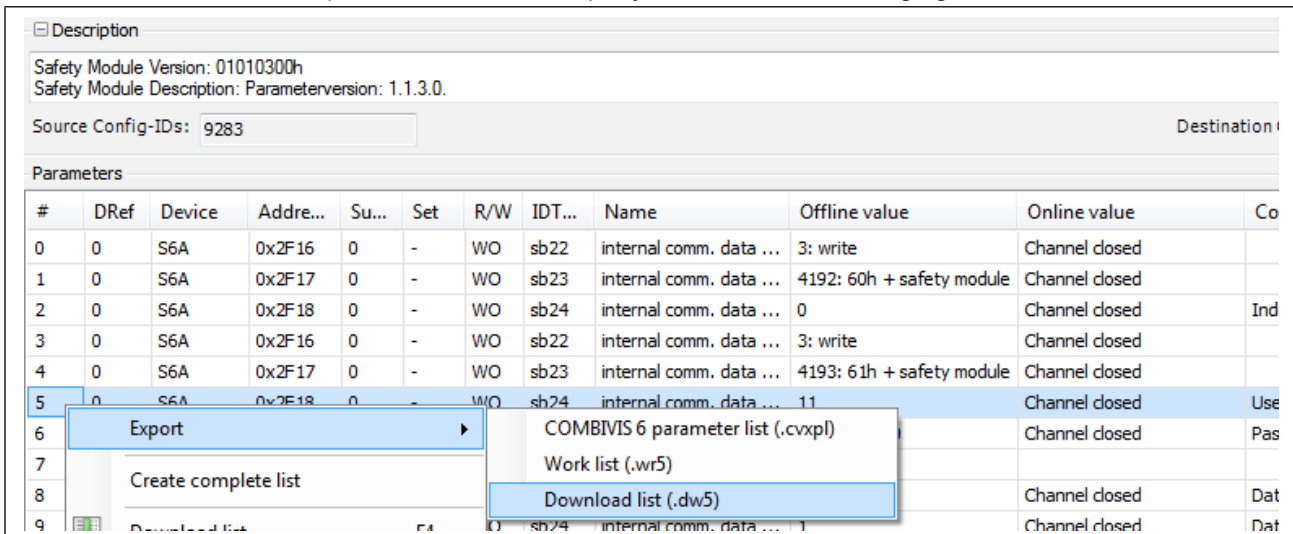


Figure 3: Example of a parameter list and the export to a download list in COMBIVIS

For example, this parameter list can be exported as .dw5.

## 2.3 Download of a parameter list with KEB control

In order that the parameter list is automatically loaded from a KEB control to the safety module there are preassembled components. These components are summarized in the COMBIVIS Studio 6 under the category KEB\_Parameterlist\_Handling.

The functionality of these components is not explained in detail in this document.

### 3 Configuration of the safety module address

The safety module's address has to be configured in the safe parameters as well as in the functional parameters.

The safety module stores this data internally und check upon each power-on, if the data is still matching. If a mismatch is detected, the fail-safe state is triggered.

A fail-safe state caused by this can be acknowledged by downloading a new safe parameter configuration to the safety module, which is why, during setting up the addresses, the functional address should be set first and the safe parameter configuration with the matching address sent afterwards.

<b>Fieldbus parameter</b>	
<b>Safety address</b>	0

Figure 4: Safety module address safe setting parameters

The download list can be used from the following link to adjust the unsafe safety module address.

[https://www.keb.de/fileadmin/media/Manuals/knowledge/Paralist/sw\\_dr\\_writesafetymoduleaddress\\_mu.zip](https://www.keb.de/fileadmin/media/Manuals/knowledge/Paralist/sw_dr_writesafetymoduleaddress_mu.zip)

The process can be depicted as follows:

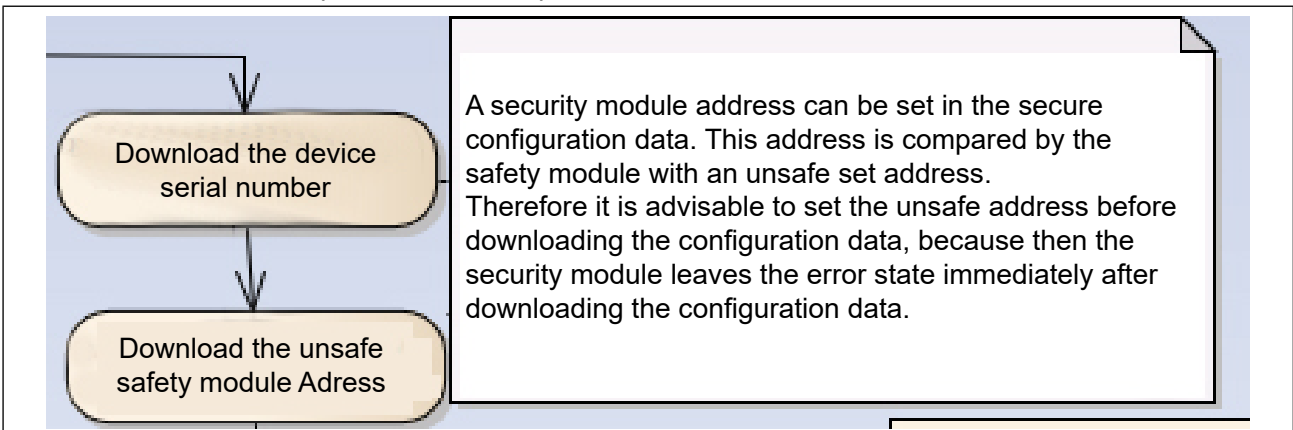


Figure 5: Configuration of the safety module address

## 4 Set the date and time of the safety module

After starting the safety module, it is once possible to set the time without entering an user name and password. This can be done automatically by control during start-up. The parameter list of the following link demonstrates this process.

[https://www.keb.de/fileadmin/media/Manuals/knowledge/Paralist/sw\\_dr\\_setrealtimeclock\\_mu.zip](https://www.keb.de/fileadmin/media/Manuals/knowledge/Paralist/sw_dr_setrealtimeclock_mu.zip)

### Procedure

Write the desired time in format seconds since 1.1.1970 (Unix Time Stamp) to the address 0x102Bh.

The time is set once and can then only be set again with the next power-on, unless an user is logged-in (also with user rights 0: no user rights).

## 5 Revision History

Version	Date	Description
01	2017-11	Creation of technical information