# SW-4862    Subscriber Database Editor 1.00
### Subscriber Database Editor for the TotalCrypt system

Pay TV systems so the TotalCrypt system generally operate as follows:

- The marketing group elaborates the propagation strategy of the service (special programs, movies, program packages, etc.) and starts the promotion campaign.
- The customer service receives the subscribers' orders and issues the descrambler modules.
- The invoicing program delivers the database (SubsList.dat file) to the technical staff. This will be loaded in to define those programs the individual subscribers are authorized to receive.

The SW-4862 Subscriber Database Editor software helps those, who have not got a proper invoicing software and want to do the subscriber register and the service settings themselves.


**Instruction manual**

**1.   Task and installation of the software**

The task of the SW-4862 software is storing the subscriber database (name, address and identification number of the Descrambler Module) and the list of individual authorizations as well as making the programming file (SubsList.dat) of the Pay TV system. The 1.0 version of the software is prepared for managing up to 10000 subscribers.

The SW-4862 software can be used independently or together with the SW-4861 software of the TotalCrypt system. During installation both software will be installed in the SW_4861 library. The order of installing the SW-4861 and SW-4862 software is optional; any of them can be installed after the other one. In case of reinstallation it is useful to save a copy of the former database as the installer overwrites the files with reserved names. The structure of the SW-4861 and SW-4862 software libraries is shown in Figure 1.
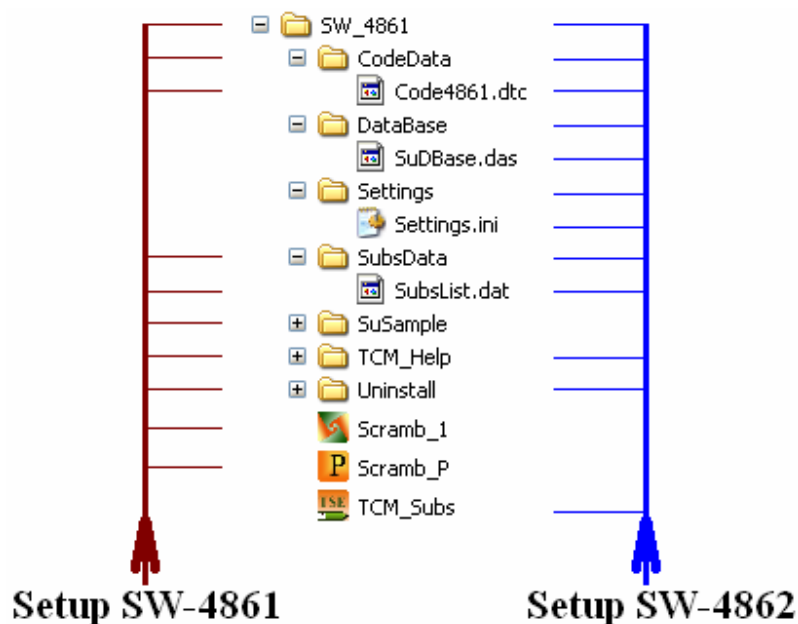


Figure 1
Library structure after installing the SW-4861 and SW-4862 software

## 2. The structure of the SW-4862 software

The SW-4862 software stores the subscriber data in one record each. The size of the record is 256 bytes, its structure is as follows:

- TCM Number: 4 byte integer variable, the MSB byte is not used
- EMM Code: 16 character variable in hexadecimal format for setting the state descriptor of the 64 descrambler modules. (Explanation: Descrambler 1 => LSB b0 bit)
- Subscriber Name and Address: max. 183 characters for storing the name and address
- Comment: 50 characters for storing optional operator information

Irrespectively of the settings the software has a memory space for storing 10000 records called Subscriber Database. On exit the records stored in the Subscriber Database will be saved in the SuDBase.das file automatically. On starting the software these records will be loaded in.


## 3. Using the SW-4862 software

Start the software by clicking the icon on the desktop. The appearing Control Panel (GUI) is set according to the content of the Settings.ini file and the subscriber data are loaded from the SuDBase.das file. Changing the settings and starting the operations can be done by clicking the item in the pull-down menu. The description of the menu items is as follows:

**File / New**   The software automatically saves the subscriber data in the SuDBase.~da file and asks verification for deleting the 10 000 records from the memory.

**File / Load Settings.ini file from …**   By choosing this item the software will load the ini file checked by the user.

**File / Load SubsList.dat file from …**   The user can examine a formerly prepared SubsList.dat programming file. During loading the name and address data will be deleted, since the file is not including these data.

**File / Load Subscriber Database file from …**   The data of the checked file will be loaded to the 10000 record memory. At small files some part of the memory remains empty.

**File / Save Settings.ini as … (Settings.ini).**   Saving the settings to file of ini format. The settings should not be saved to the Settings.ini file, because the software will overwrite it on exit. The Settings.ini file contains the date of saving as well, so the last use and setting of the software can be found out. When the user want to denominate the running software the name of the Project have to be written in the ini file. The ini file can be modified by any text editor.

**File / Save Subscriber List as … (SubsList.dat)** The software prepares the current SubsList.dat file for programming the TotalCrypt system. At making the file only the preset quantity of the records will be used (e.g. 2000). The records with TCM Number=0 will not be written in the file.

**File / Save Subscriber Database as … (SuDBase.das)** By choosing this item the software quickly saves the content of the 10000 records in FileStream format. This file format gets the 'das' extension automatically.

**File / Save Subscriber Database as … (*.ini for me)** The software allows saving the database in the well-known ini file with text. The time required for saving is proportional to the number of subscribers; it can take a few minutes in case of 10000 subscribers. For decreasing the saving time always only the preset number of subscriber records will be saved. This saving is for the User and the SW-4862 does not use it generally because the saving process is slow and the file size is large.

**File / Load Subscriber Database from … (my *.ini file)** The software allows loading the database from the *.ini file edited by the user. The last two menu items allow linking the SW-4862 software with any other software.

**Number of Subscriber / 200 … 10000 Subscriber** This item can set the software for managing 200, 500, 1000, 2000, 5000 or 10000 subscribers. The non-visible part of the database remains unvaried on changing over. Setting the correct number of subscribers can speed up the running of the software.

**Data Editor / Read Only** The Subscriber Database can be modified according to the operating modes of the Data Editor. In 'Read Only' mode the data cannot be changed.

**Data Editor / Free Editor** This mode allows changing all the data. The new data typed will be written in the Subscriber Database memory by pushing the 'Enter' key. After typing, correcting, etc. several data, select the 'Refresh Grid Data' item to find out whether the new data have really been entered.

**Data Editor / Edit TCM Number only.** Here the identification number of the TotalCrypt modules can be entered.

**Data Editor / Edit EMM Code only** Here the code for setting the mode of the Descrambler Modules can be modified.

**Data Editor / Edit Subscriber Name only** Here the data can be modified in the Subscriber Name and Address field as well as in the Comment field.

**Data Editor / Edit Mode of Descrambler 1 ... 64** Here in the 'View TCM Number and Descrambler 1 ... 64' the Descrambler modules can be adjusted one by one. Click the square to change the mode of the module. Each clicking inverts the permission for the operation of the Descrambler Module. The descrambling is enabled by the green field with the 'X' mark inside.

**Data Editor / Bar Code Reader** Using the Bar Code Reader: Set the Keyboard mode to English (EN), use the mouse to select the field of the TCM number to be filled and push the Enter button of the reader.

When the Bar Code Reader is 'On', the data processing of the TCM Number field will change. The first element of the character sequence will be discarded. The PI Key will be generated from the $1^{st}$ to the $3^{rd}$ characters and the SI Key from the $4^{th}$ to the $6^{th}$ characters. The TCM Number will be derived from the last six characters of the read data.

For checking the operation of the Bar Code Reader, the correctness of the read data, select an empty 'Name' field and push the reader button. In this field the read data can be seen without modification and they should be correspond to the characters printed under the Bar Code.
The code type is: Code 128 (Type A, B, C).

**View / Subscriber Name and EMM Code** The SW-4862 software allows modifying the data in two Views. In this View all the data can be seen but the EMM Code in hexadecimal format only. In systems working with program packages it is useful to make the codes of the packages in the first lines of the table, and then copy them to the subscribers with the copy and paste (Ctrl+C, Ctrl+V) function. In these sample lines 'TCM Number=0' should be written, the fields for text can be used without restriction.

**View / TCM Number and Descrambler 1 ... 64** This View is the same as the Subscriber List Editor (Demo) of the SW-4861 software but this is easier to use. The color of the selected row and column changes. For setting the Descrambler Modules select the Data Editor / Edit Mode of Descrambler 1 ... 64 menu.

**View / View PID Table**   Here the software searches for the CodeData.dtc file and shows the settings of the Pay TV Scrambler. If the file is not found it will help finding. The mode of displaying is the same as in the SW-4861. It can be switched off by another click.

**View / Refresh Grid Data**    Here the software refresh all data of the displayed table from the Subscriber Database. It is important to know that all operations (saving, file making, etc.) always happen from the Subscriber Database. The software uses the table for displaying and data entry only.

**Help**   The Help of the software can be displayed while running but it can be downloaded in pdf format from the www.cableworld.eu web site as well.

The software gives information on the current settings and the content of the selected record, in the field under the table.


**4.    Programming the scrambler**

- Type the subscriber's data
- Type or read with the Bar Code Reader the identification number of the TotalCrypt module given out.
- Set the code of the services ordered by the subscriber (EMM Code).
- After finishing the data entry make the SubsList.dat file and load the new data by the programmer to the Pay TV Scrambler.

For protecting the database it is useful to save the Subscriber Database regularly under file names different from the SuDBase.das.


**5.    Comments, further information**

We are pleased to receive (at cableworld@cableworld.hu) comments and remarks pertaining to our products and software and we take the included suggestions and ideas into consideration at further developments. At the same address we are ready to provide further information about the application of the products.