

ILLKO Studio

User's Manual

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1 Preface

The ILLKO Studio program is intended for support of inspections of electric equipment. It allows transmitting the measured values from the selected measuring devices for electric system inspections carried out by ILLKO, s.r.o. If REVEX device is referred to in the text below, it means REVEX 2051, REVEXprofi (II) and REVEXmax devices collectively if not stated otherwise.

2 Program functions

- Management of the database of electric equipment with the Customer, Location, Equipment and Measurement structure.
- Transmission of a list of equipment from a database in PC into REVEX and MDtest devices (except for REVEX 2051).
- Transmission of the measured values from REVEX and MDtest devices into a database in PC.
- The program contains FastReport® generator of lists which allows:
 - Creating, editing and printing of forms for inspection reports, lists of equipment, etc.
 - Exporting and printing of the results of inspections in PDF, HTML, JPG and other formats.
- Management of a database of the inspecting technicians and measuring devices.
- Import and export of the records on equipment in the CSV format for editing in external applications of the spreadsheet type and further processing.
- Export of the records on equipment in the XML format for further processing.
- Export of the records on equipment in the format for ILLKO Studio View browser.

3 Installation

3.1 Supported operating systems

- Windows 7, 8, 10, 11 (32-bit version, 64-bit version)

**WARNING**

Microsoft .NET Framework 4.8 interface has to be installed in the computer.

Good user knowledge of work with PC in Windows supported operating systems is necessary for work with the program and utilization of its functions. Knowledge of work with spreadsheets (such as MS Excel or LibreOffice Calc) is beneficial.

3.2 System requirements

- A computer with minimum 1GB RAM.
- At least 50 MB of free space on the hard disk for the program + space for data.
- A printer if you require output form printing.
- Recommended minimum monitor resolution: 1024x768 or 1280x720 pixels.

3.3 Program installation

- It is necessary to have the administrator's rights for program installation, i.e. to be logged in to a user's account with computer administrator's rights.
- Insert the installation CD in the CD-ROM drive or start the installation file downloaded from www.illko.cz (skip following 2 steps).
- If automatic start of programs from CD is permitted, the initial menu from which you can select program installation will be displayed.
- If automatic start of programs from CD is not permitted, start (e.g. using Explorer) the Autorun.exe file located in the root directory of the installation CD manually. The initial menu from which you can select program installation will be displayed.

- Follow the instructions of the installation wizard:
 - Select the language of the application at first. Click on the **Next** button after welcoming screen displaying.
 - Select **I accept the agreement** after reading the licence conditions in order to be able to continue installation. An inquiry for a destination path of the installed program is displayed after clicking on the **Next** button. If there is not any specific reason for a change of location, we recommend that you accept the offered destination. The wizard will then inquire about location of the program shortcuts in the Windows Start menu. If you do not wish to create a shortcut in the Start menu, check the **Don't create a Start Menu folder** item. The wizard will offer you the option to create a shortcut in the Windows work area in the next screen. Select a field identification at your discretion. Installation is then ready and can be started by clicking on the **Install** button.

**WARNING**

Program setting itself, forms and applied standards (VDE, EN, ...) is based on the selection of the language version of the installation program.

3.4 Program uninstallation

- Quit the ILLKO Studio program.
- It is necessary to have the administrator's rights for program uninstallation, i.e. to be logged in to a user's account with computer administrator's rights.
- Select **Start/Illko/ILLKO Studio/Uninstall** or select the ILLKO Studio program in the **Start/Control panels/Uninstall a Program** and select **Remove**.
- Follow the instructions of the uninstallation wizard.

**WARNING**

The **Documents/ILLKOStudio** folder will be retained.

3.5 Program activation

The ILLKO Studio program is normally distributed in DEMO version. It is necessary to enter an activation code manually or load it from a supported device (REVEXmax, REVEXprofi II or MDtest) for obtaining a full version. The window is displayed immediately after program start (Figure 1).

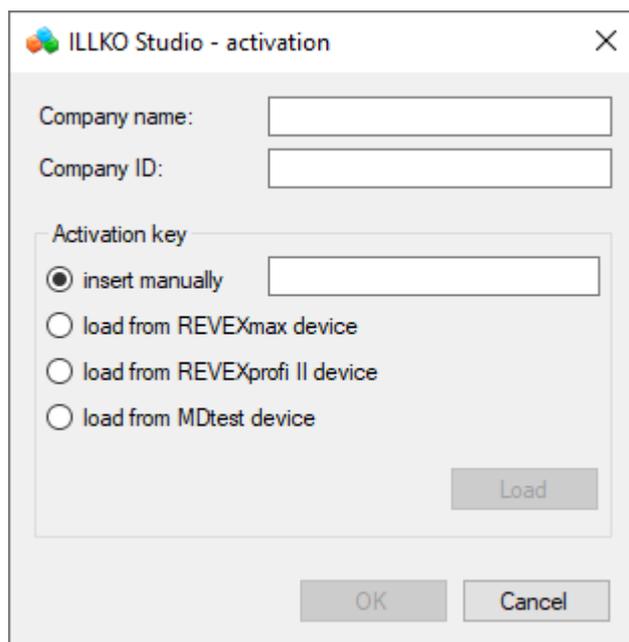


Figure 1: Program activation

3.6 Program data storage

The **Documents/ILLKOStudio** folder is created automatically after the first start of the program. All files necessary for program running are stored in this folder. The user can store files (databases) into any location on the computer hard disk, a portable media, etc.

Meaning of individual folders:

- backups (backup files)
- logs (logging in files)
- reports (listings for print)
- settings (program setting, user's notes etc.)

4 Program functions description

*Note: The term **Equipment** in the program refers to a common electric appliance, i.e. an appliance, tool, machine, welding machine, etc.*

4.1 Data structure

The program allows management of theoretically unlimited number of records (the actual number of records is restricted by the memory of the computer available and partially also by computer performance).

The program database is presented in a form of a tree structure similar to the structure of folders on computer hard disk. In order to allow easy arrangement of the records on the carried out inspections, the following data structure has been defined in the ILLKO Studio program:

4.1.1 Customer

The Customer is an organisation for which an inspection is carried out. Its record is located on the highest (root) level of the root structure. Customer contact data are saved in the record. The records on location (buildings, plants, ...) can be inserted in the customer record **only**. The customer record is contained **only once** in the database.

4.1.2 Location

The Location determines a place of physical occurrence of the inspected equipment. Records of the inspected equipment are inserted in the Location. Any location can be used also for inserting other locations (such as buildings, plants which contain offices, workshops, ...). If records of equipment are inserted in a location, it is not possible to insert a new location record simultaneously. The maximum location record nesting position is five (i.e. the customer + 4 locations).

4.1.3 Equipment

The Equipment record bears information on the identification number, name, kind, type, safety class, etc. (summarily identified as appliance heading). Records of the carried out inspections (measurements) are saved in the equipment record. ID – identification number is the most important part of the equipment heading. The equipment identification number is the only link between a physical equipment and its record in the database. The identification number is a chain of symbols represented by letters and numerals. A label with a bar code applied on the equipment or a RFID transponder (chip) for wireless identification positioned under the equipment plastic cover or attached to the appliance in a form of a pendant tag is an ideal medium for ID.

4.1.4 Measurement

Data (measured values) obtained using a measuring device during inspection together with the records of the inspector who has carried the inspection and of the measuring device with which the inspection has been carried out are saved in a measurement record. A record also contains the results of the inspection including assessment and description of defects, date and time of the inspection carried out. The measurement records are arranged on the basis of record date from the oldest to newest one and thus constitutes the history of inspections carried out on the appliance in this way. A measurement record can be inserted in the equipment record **only**.

4.2 Restrictions when creating database data structure

- A customer is contained only once in the database.
- A customer with at least one location must exist; otherwise, it is not possible to insert pieces of equipment in the database.
- A location can be inserted in the Customer record or in another location only.
- If a location contains equipment, it is not possible to insert another location in it.
- The appliance **with a unique ID** can be inserted only in the Location record.

4.3 Database files

Each database (or each customer) is saved in a separate file with ISD (ILLKO Studio Data) extension. Only 1 file (database) can be opened in the program at a time. However, multiple starts of the ILLKO Studio program are possible. The files are opened and saved in a standard way.

4.4 LOG file

The contents of the logging in file can be displayed in the **LOG file** separate window using the **View->Show LOG file** menu. A text listing of the program running is included in this file:

- list of the deleted items
- list of the moved items
- error messages
- information on program running

4.5 Program appearance

The database structure is displayed in the left-hand part of the window (Figure 2). Individual data items with respect to a selected database item (i.e. card) can be defined in the right-hand part of the window. It is also possible to switch between

individual windows using a keyboard: **ENTER** - access to the card, **ESC** - access to the tree structure.

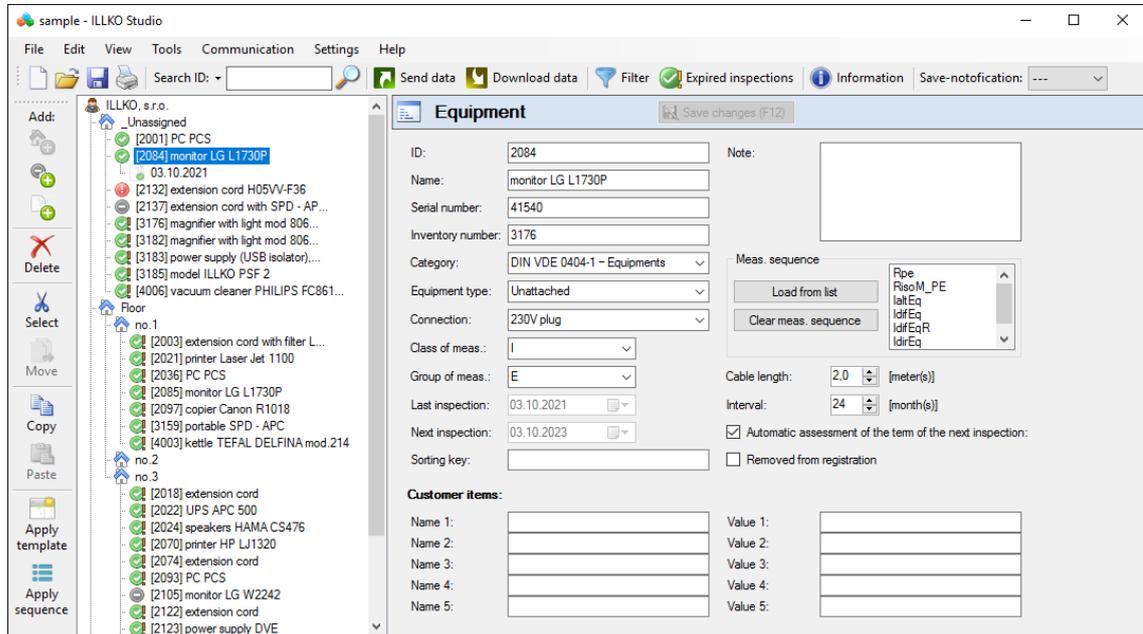


Figure 2: Program window

4.6 Icons

Customer		
Location		
Equipment		(passed)
		(passed - expired date of inspection, according to program setting)
		(failed)
		(N/A - inspection has not been carried out)
		(removed from registration - passed)
Measurement		(removed from registration - failed)
		(removed from registration - N/A)
		(passed)
Special		(failed)
		(it does not contain nested records)

4.7 Toolbars

4.7.1 Main toolbar

The main toolbar is always displayed (it cannot be deactivated). There are the basic items used for control of the complete program in the main toolbar.



Figure 3: Main toolbar

4.7.2 Auxiliary toolbar

The auxiliary toolbar can be deactivated or activated using the **View->Auxiliary toolbar** menu. There are the items used for operations with the Location, Equipment and Measurement records in the auxiliary toolbar. The items in the auxiliary toolbar are identical with those contained in the **Edit** menu or in a context menu (clicking on the respective record with the right mouse button).

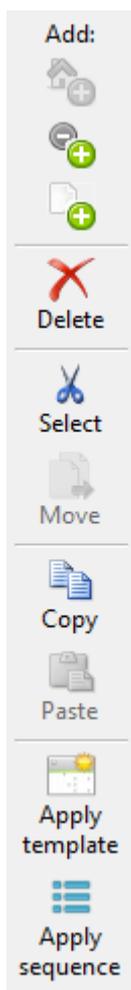


Figure 4: Auxiliary toolbar

4.7.3 Toolbar setting - icon size

Size of the icons in the main and auxiliary toolbars can be adjusted using the **View->Small icons** menu.

4.7.4 Toolbar setting - text descriptions

Displaying of the text descriptions of the main and auxiliary toolbars can be set (individually) using the **View->Labels - main toolbar** menu or **View->Labels - auxiliary toolbar** menu.

4.7.5 Toolbar positions

Both the main toolbar or the auxiliary toolbar can be positioned in any position in either top or left-hand window part. The following combinations are possible:

- 1 panel in the top, 1 panel in the left
- 2 panels in the top in a single row one after the other
- 2 panels in the top in two rows one under the other
- 2 panels in the left, in a single column one under the other
- 2 panels in the left, in two columns one beside the other

The toolbars can be moved by mouse button clicking on the  or  symbol on the left-hand or top edge of the toolbar and drawing in the demanded position. The toolbars may not cover one another.

5 Work with the program

5.1 Program updating

The program checks automatically at each start whether there is a new update of the program at the website www.illko.cz (if Internet connection is available). This information is displayed for the user in the top toolbar of the program (Figure 5). The update itself is carried out manually - the user downloads the corresponding installation program and carries performs update. Program setting remains retained.

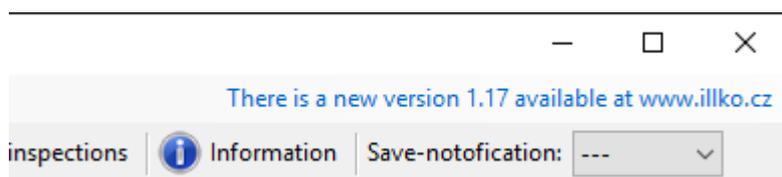


Figure 5: Automatic check of new program version availability

5.2 Program setting

Select the **Settings** item in the main menu. It is possible to modify the parameters as follows according to the tab selected (Figure 6):

- **General**

- language
- CSV file coding
- maximum length of the equipment name in the tree (the remaining symbols are substituted with symbol "...")
- newly created equipment ID prefix and length
- preset value for searching for expired inspections (number of days)
- automatic searching for expired inspections after program start
- highlighting of the expired inspections (different icon )

- **Templates** (pre-defined parameters for both new and existing appliances)

- creating a copy of the existing template
- the templates can also be imported/exported in the CSV format (individual items are the same as for the equipment and group name and template name are added)

- **Measurement sequences**

- the selected parameter is moved from the **Available methods** list in the **Selected methods** list using the  key
- the selected parameter can be removed from the **Selected methods** list using the  key
- the order of the selected methods can be defined using the  and  keys

- **Supplier** (it is used to enter the data necessary for form printing)

- **Technician** (a list of inspecting technicians - it is possible to insert also a signature in the form of a picture such as JPG)

- **Measuring devices**

- **Preset values** (it can be used for quick selection of the following items):

- category
- equipment type
- method of connection
- measurement class
- measurement group

- **Display mode** (it is possible to select which parameters should be displayed in the Filter window and in the Measurement tab when selecting the "Own selection" item)

- **Import/Export** (it is used to save and read the program setting)

**WARNING**

- If setting is changed, it is not necessary to restart the program (this does not apply to a language change and when importing a setting from a file).
- If a collision occurs (e.g. when serial numbers are identical for more measuring device), the change is not carried out and the user is notified with a message of error occurrence.

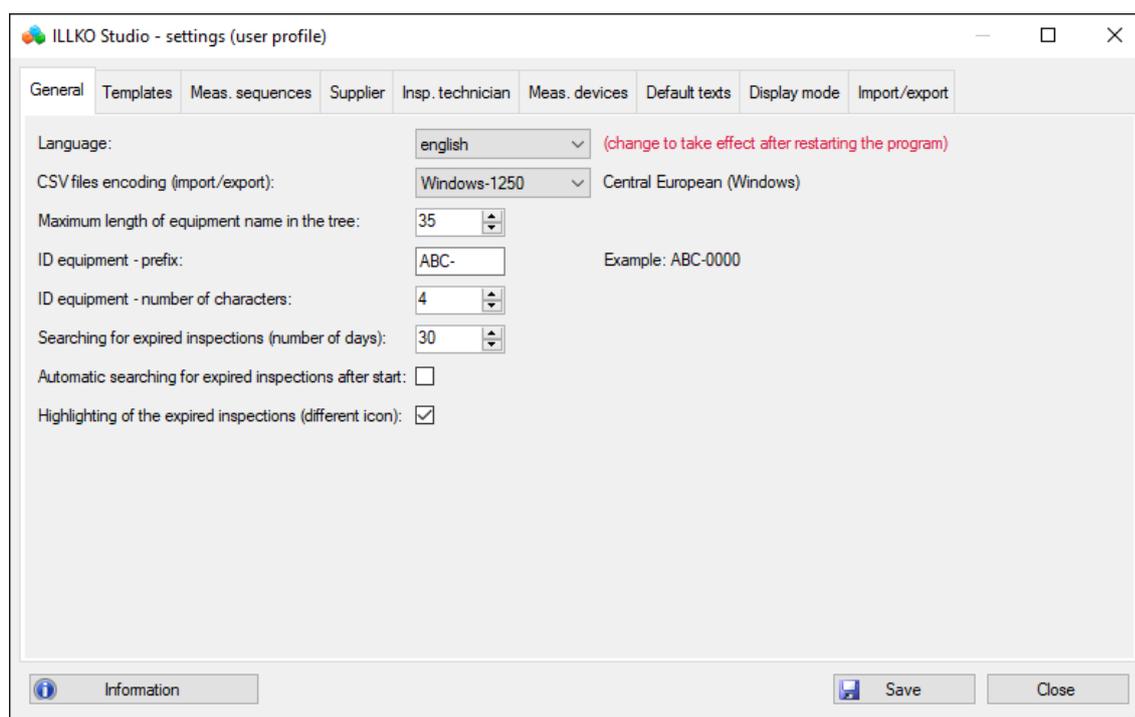


Figure 6: ILLKO Studio program setting (user profile)

5.3 Automatic notification of database saving

The function can be activated by selection of a time interval in the top toolbar of the program. If data is changed, the option to save the program is offered to the user according to the interval selected. The function can be deactivated by selecting the "-" value.

5.4 Creating of backup

A backup is created automatically at each database saving in a file (**Documents/ILLKOStudio/backups** folder). The backup name consists of the initial file name and date and time of saving. The user can restore the data from the backup using the **File->Restore from backup** main menu.

The size of the folder **Documents/ILLKOStudio/backups** is checked at each start; if 500 MB is exceeded, the user can display the directory and delete the unnecessary files.

5.5 Data import from previous programs

The program allows data importing from the REVIZEprofi V1.6 and V2.0 programs.

The imported data opens in a new database. It is necessary to select a customer before import itself (only **1 customer** can be present in the ILLKO Studio program database). After data import completing, the user can save the data in a file and import another customer from the same database.

5.6 Data import from CSV file

A CSV file can be imported into:

- an empty database
- an existing database

It is checked during import whether the appliance is present in the database. If it is the case, **appliance parameters are not changed** and only the measurement **with a different date of the inspection carried out** is added. If the equipment is not present in the database (an empty database or a new piece of equipment), the equipment is created and a measurement is assigned to it simultaneously (if it has been defined). The new equipment is saved in the defined location. If any appliance location is not defined in the CSV file, pieces of equipment are created automatically in the location called **_Unassigned**.



WARNING

Automatic moving of the existing pieces of equipment in another location can never take place!

Note: If an error occurs during import, this fact is indicated together with the number of the line on which the error occurred. A window with results (new/existing equipments, new/existing measurements) is displayed after import completing. The results are recorded also in the LOG file.

5.7 Data export in CSV and XML files

The user can export the files in either CSV or XML format. CSV file data is coded according to a definition in the setting. Individual data items are separated with ; and are defined with the quotation marks ".

Only the last measurement or all measurements can be exported in the CSV and XML files.



WARNING

Complete information on appliances and measurements (except for supplier's information) is exported in the CSV and XML files. It results from the above mentioned that any loss of information does not take place when exporting data in CSV, editing it in any spreadsheet and consequent importing in the ILLKO Studio program.

5.8 Data export for ILLKO Studio View browser

The complete database with the currently set supplier can be exported for the ILLKO Studio View browser in which the user can view, search for or print inspection reports for electric appliances **without the possibility to change individual items**. The file is protected against potential misuse (it is not possible to create a full-value database from it).

5.9 Item (record) creating

5.9.1 Customer

An item can neither be created nor deleted. It is present only once within the complete database.

5.9.2 Location

- using the key shortcut **Ctrl+L** (*location*)
- by clicking on the  icon in the auxiliary toolbar
- using a context menu (by right-hand mouse button clicking on the selected item) and selecting **Add location**
- using the main menu **Edit->Add location**

5.9.3 Equipment

- using the key shortcut **Ctrl+E** (*equipment*)
- by clicking on the  icon in the auxiliary toolbar
- using a context menu (by right-hand mouse button clicking on the selected item) and selecting **Add equipment**
- using the main menu **Edit->Add equipment**

Equipment can also be created by copying another equipment:

- using the key shortcuts **Ctrl+C** and **Ctrl+V**
- by clicking on the  and  icons in the auxiliary toolbar
- using a context menu (by right-hand mouse button clicking on the selected item) and selecting **Copy equipment/measurement** and **Paste equipment/measurement**
- using the main menu **Edit->Copy equipment/measurement** and **Edit->Paste equipment/measurement**

When creating a new piece of equipment, a list of templates (Figure 7) which should be applied to the newly created piece of equipment is offered automatically (this does not apply to equipment copying). Templates can be assigned to categories (if any category is specified, the template is displayed in the **__Unassigned** category). Window size can be changed. If the list of templates is not available or if you click on the **Cancel** button, empty equipment is created.

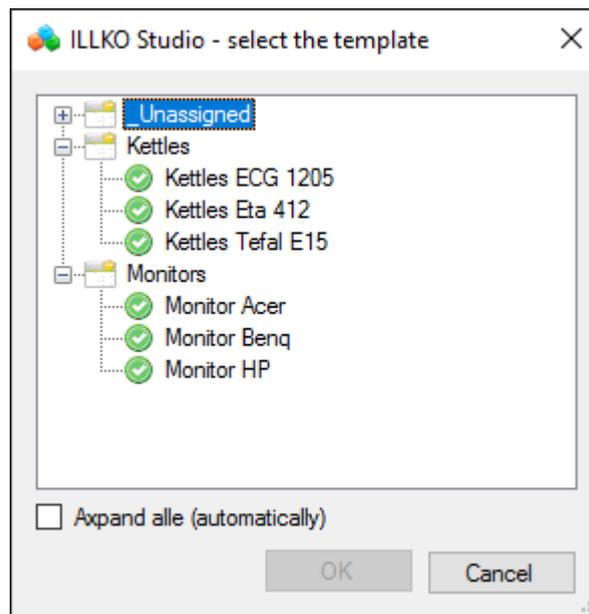


Figure 7: List of templates

5.9.4 Measurement

- using the key shortcut **Ctrl+M** (*measurement*)
- by clicking on the  icon in the auxiliary toolbar
- using a context menu (by right-hand mouse button clicking on the selected item) and selecting **Add measurement**
- using the main menu **Edit->Add measurement**

Measurement can also be created by copying another measurement:

- using the key shortcuts **Ctrl+C** and **Ctrl+V**
- by clicking on the  and  icons in the auxiliary toolbar
- using a context menu (by right-hand mouse button clicking on the selected item) and selecting **Copy equipment/measurement** and **Paste equipment/measurement**
- using the main menu **Edit->Copy equipment/measurement** and **Edit->Paste equipment/measurement**



WARNING

Information on the measuring device or other measuring devices and the inspector are deleted when copying a measurement. Measurement date is inserted according to PC setting.

5.10 Item editing

All items (Customer, Location, Equipment and Measurement) can be edited. Saving can be carried out by depressing the **Save changes** button or the **F12** key. When selecting (marking) another item in the tree, a window with inquiry will be displayed in the case of unsaved changes. The user can either save or discard the changes.

5.11 Item deleting

The **Location**, **Equipment** and **Measurement** can be deleted (including the nested records):

- by depressing the **Delete** key
- by clicking on the  icon in the auxiliary toolbar
- using a context menu (by right-hand mouse button clicking on the selected item) and selecting **Delete selected items**
- using the main menu **Edit->Delete selected items**

5.12 Item movement

The **Location** and **Equipment** can be moved (including the nested records) in another position by simple mouse dragging. Other possibilities of movement:

- using the key shortcuts **Ctrl+X** and **Ctrl+W**
- by clicking on the  and  icons in the auxiliary toolbar
- using a context menu (by right-hand mouse button clicking on the selected item) and selecting **Select items for moving a Move selected items**
- using the main menu **Edit->Select items for moving a Edit->Move selected items**

The program checks automatically whether the movement is possible (another nested location together with equipment may not be present in the location, etc.). It is necessary to confirm the movement in order to avoid accidental (unintentional) changes.

5.13 Apply template

It is possible to change the parameters of the selected pieces of equipment either individually or generally in the program:

- using the key shortcut **Ctrl+T** (*template*)
- by clicking on the  icon in the auxiliary toolbar
- using a context menu (by right-hand mouse button clicking on the selected item) and selecting **Apply template to equipment**
- using the main menu **Edit->Apply template to equipment**

When applying a template, equipment ID and its serial and inventory number will be retained. All the other parameters will be changed according to the template selected.

5.14 Apply sequence

It is possible to assign a measuring sequence for the selected pieces of equipment either individually or generally in the program:

- using the key shortcut **Ctrl+S** (*sequence*)
- by clicking on the  icon in the auxiliary toolbar
- using a context menu (by right-hand mouse button clicking on the selected item) and selecting **Apply sequence to equipment**
- using the main menu **Edit->Apply sequence to equipment**

5.15 Appliance search

It is possible to search for a piece of equipment simply according to a unique ID, inventory number, serial number or sorting key in the program main window. It is possible to enter either the complete chain or a chain with substitutional symbols: *the "_" symbol substitutes 1 symbol while the "%" symbol substitutes any number of symbols.*

5.16 Filter & equipment multiple modifications

Select a customer or only a location in the **Filter** window at first (it is possible to select using either CTRL key or SHIFT key even from more locations). Other nested locations are also included in the selection. If it is necessary to search for pieces of equipment according to a certain criterion, select the **Use filter** option and enter one or more criteria. It is possible to display the equipment by depressing the **Load and show equipment** button. The resulting list can be arranged in columns alphabetically.

Pieces of equipment can be selected using the CTRL or SHIFT keys (selection of all the listed pieces of equipment can be carried out using CTRL+A). The following operations can be carried out with this equipment:

- mass changes of parameters for the selected equipment
- printing
- sending equipment into a measuring device
- deleting

A mass modification of a parameter of equipments (Figure 8) can be carried out by enabling the given parameter (selection) and entering a value (the other data will be retained, i.e. the original data will remain). When reading a window (Figure 8), the texts (data) identical for all the selected pieces of equipment will be displayed. The different data is not displayed (blank text).

Note: All items are only "pre-filled" at template applying. For actual application of the changes, it is necessary to enable the required items using .

The screenshot shows a dialog box titled "ILLKO Studio - filter" with a subtitle "Change parameters of equipments". The dialog is organized into several sections:

- General Parameters:** A list of checkboxes on the left, each followed by a text input field or a dropdown menu. The items are: ID, Name, Serial number, Inventory number, Category, Equipment type, Connection, Class of meas., Group of meas., and Sorting key.
- Note:** A checkbox followed by a large text area.
- Measurement sequence:** A checkbox followed by a sub-dialog containing "Load from list" and "Cancel meas. sequence" buttons and a text area.
- Measurement Settings:** Checkboxes for "Cable length" (with a numeric spinner set to 0,0 and "[meter(s)]" label), "Interval" (with a numeric spinner set to 12 and "[month(s)]" label), and "Removed from registration".
- Customer items:** A section with five rows, each containing a checkbox, a "Name" label, and a text input field.

At the bottom of the dialog, there are three buttons: "Save" (with a floppy disk icon), "Cancel", and "Use template" (with a document icon). A status bar at the very bottom of the window indicates "Completed, number of records: 65".

Figure 8: Mass editing of equipment parameters

5.17 Filter & measurement mass modifications

The start of the procedure is identical with that in Section 5.16. It is necessary to switch the **Measurements for selected equipment** tab after selection of equipment from the table. It is again possible to make the selection more specific using a filter. The selected measurements can be **modified**, **printed** or **deleted**.

A mass modification of a parameter can be carried out using the same method as that described in Section 5.16.

5.18 Equipment name automatic proposal

When editing the **Name** in the Equipment tab or in Filter (mass modifications), a list of already used names is offered to the user after entering **at least 3 symbols** (Figure 9).

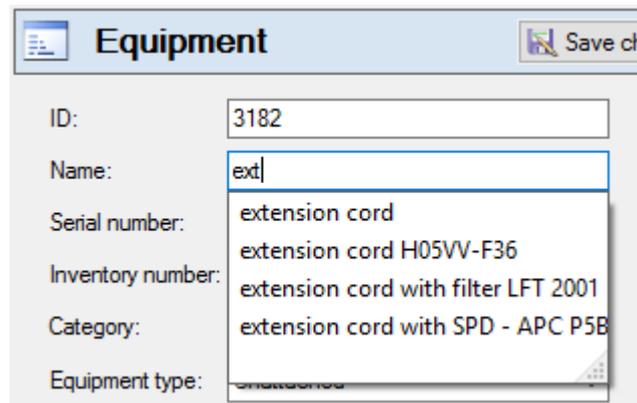


Figure 9: Equipment name automatic proposal

5.19 Searching for expired inspections

The program allows searching for expired inspections. Select the date from which searching should be made in the **Expired inspections** window (Figure 10) (when opening the window, the date is set automatically according to the preset number of days from the current date and searching is made).

The user also has the option to search for expired inspections from more databases (files) saved in the same folder. The results can be saved in a CSV file.



WARNING

When selecting more databases (files), the currently open database is not searched for - the database (or data) is present **in a temporary folder** of the Windows system and it may not correspond to the data saved in the file which has been used (read) in the program.

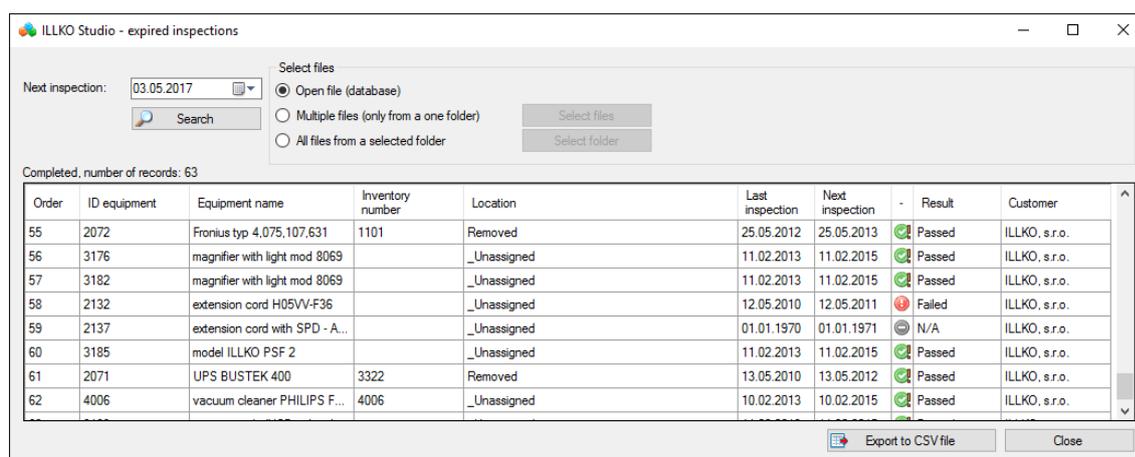


Figure 10: Searching for expired inspections

5.20 Report printing

The results can be printed using both pre-defined and customized reports in the FastReport® environment. Printing can be carried out by selecting the customer, location, equipment or measurements in the main window and depressing the **Print** button. It is also possible to print from the **Filter** window after selecting the pieces of equipment and measuring on the basis of the required parameters. In the **Print** window, it is possible to carry out:

- report selecting
- report renaming, copying or deleting
- report reading from a file
- report saving in a file
- report editing
- print customized setting
 - to print inspector's signature
 - to sort by location (standard arrangement is sorted by equipment ID)
 - to print all measurements (only the last measurement is printed in standard configuration)
 - to print including the equipment removed from registration

5.21 Report modification

The report consists of the individual objects in which it is possible to change text, size, font, border, etc. It is also possible to copy and move these objects.

A report modification can be carried out the following steps:

- select the suitable report and make copy by depressing the **Copy** button
- open the Editor by depressing the **Run editor** button
- left-hand mouse button clicking (2x) on the selected object
- change the text or select the database field using the **Data Sources** in the right part of the window

*Note: A plain text is inserted into the text field **directly**, database field is inserted into the text field **with the brackets** "[]". Text field allows the combination of plain text and database fields.*



WARNING

The reports are stored in separate files with FRX extension in the **Documents/ILLKOStudio/reports** folder.

Report editing is intended for the more experienced users. The information and instructions for operation of the Fast-Report® environment are available at www.fast-report.com

5.22 Information

The program contains a document in which the abbreviations of the measured parameters used are listed. This document is in the PDF format and can be displayed by selecting **Help->Information** in the main menu or using the button in **Settings** window.

5.23 User's notes in the program

The user can create his/her own notes. The window with comments can be displayed by selecting **Help->User's note** in the main menu. The text can be modified using the **Edit** button. The modifications made can be either discarded or saved.

6 Communication with measuring device

Communication with measuring device differs in dependence on the measuring device type:

- REVEX 2051 - data downloading only
- REVEXprofi (II) - data sending in the device as well as data downloading
- REVEXmax - data sending in the device as well as data downloading
- MDtest - data sending in the device as well as data downloading



WARNING

The ILLKO Studio program does not recognize location at communication with the REVEXprofi (II) device; i.e. the recorded equipment is displayed in the initial location in the device. When downloading data and consequent merging, **no automatic movement of equipment** between locations is carried out. New pieces of equipment are saved in the location with the identification **_Unassigned**.

6.1 Data sending in a device

Currently selected locations or pieces of equipment can be chosen by depressing the **Send data** or using the **F6** key and a window for data sending is displayed then (Figure 11). There is a number of selected pieces of equipment displayed in the bottom part. A measuring device type and a communication port (it depends upon device type) is to be selected then. The data is sent in the device by depressing the **Send** button or **F5** key. The name of the measuring device including its serial number and firmware is displayed in the bottom part of the window during transmission. If an error occurs during data transmission, a message is displayed.

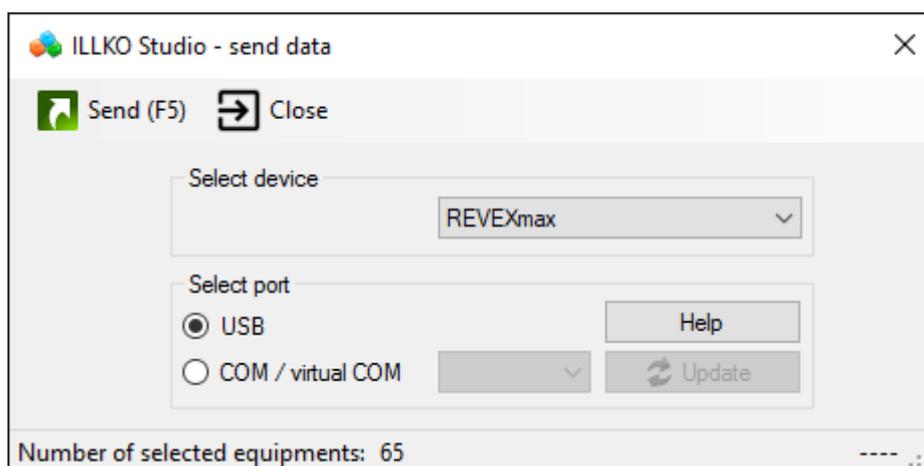


Figure 11: Data sending in a device

WARNING

- If it is not possible to establish communication with the measuring device, terminate all the programs communicating with the measuring device (such as REVIZEprofi 2 program) or check the installed driver. If the program persists, use another communication protocol (it depends upon device type).
- Inspector selection is carried out only at data downloading from the device.
- Information on the sequences for a specific piece of equipment is transmitted in the device; the sequences listed in the program setting (user profile) are also transmitted.

6.2 Data downloading from device

The window for data reception is displayed by depressing the **Download data** button or **F7** key (Figure 12). A measuring device type and a communication port (it depends upon device type) is to be selected then. The data is downloaded from the device by depressing the **Download data** button or **F5** key. The name of the device including its serial number and firmware is displayed in the bottom part of the window during transmission. The number of pieces of equipment read is displayed in the bottom part after transmission completing.

If an error occurs during data transmission, a message is displayed.

ILLKO Studio - download data

Download data (F5) Delete selected equipments Merge with basic database (F9) Save as CSV file (F10) Close

Select device: REVEXmax Select insp. technician: Select port: USB COM / virtual COM Help Update

Download all equipments

Mass change selected equipments

Total result Visual check Functional test Measurement

Index	ID equipment	Date	Time	Total result	Visual check	Functional test	Measurement
1	2003	20.09.2021	07:20	Passed	Passed	Passed	Passed
2	2016	20.09.2021	07:16	Passed	Passed	Passed	Passed
3	2017	20.09.2021	07:28	Passed	Passed	Passed	Passed
4	2018	20.09.2021	07:12	Passed	Passed	Passed	Passed

Name	Value
RisoM_PE	>100,0
IdrEq	0,000

Measuring device

Name: REVEXmax
 Serial number: W0004
 Calibration number: RMax-41/451N
 Validity: 4.2.2022
 Other measuring devices/fixtures:

Total result: Passed ID equipment: 2016
 Visual check: Passed Note:
 Functional test: Passed
 Measurement: Passed Date/time: 20.09.2021 07:16 Save equipment

Number of loaded equipments: 4 REVEXmax 1.06 (S/N: W0004)

Figure 12: Data downloading from device

It is possible to carry out the following operations with the downloaded data:

- to delete the marked pieces of equipment
- to change total result, visual check, functional test and measurement for the marked pieces of equipment generally
- to change total result, visual check, functional test and measurement, equipment ID, measurement date/time and comment with respect to measurement for a specific appliance
- to assign other measuring devices and fixtures for all measurements

The measuring device used is paired automatically with the data obtained from the program setting (user profile).

The downloaded data can be merged with the data in the current database immediately or such data can be exported in a CSV file.



WARNING

- Merging of the downloaded data with the data in the current database takes place on the basis of the same principle as CSV file import - the user is notified of the modifications carried out (number of new and existing records) after merging (import) completing. The information is recorded also in the LOG file.
- When downloading data from the REVEX 2051 device, a window is displayed during transmission where it is possible to select a specific measuring device and select deleting of the initial "0".
- If only one inspector is listed in the program setting, it is selected **automatically**. If this is not the case, it is necessary to select the inspector **manually**.

List of items

(used in XML, CSV files and lists for printing)

Customer & Supplier

<i>Company</i>	company name
<i>Street</i>	street
<i>City</i>	town or city
<i>PostCode</i>	postal code
<i>Country</i>	country or state
<i>Identifier</i>	company identification number
<i>VatId</i>	VAT identification number
<i>Name</i>	first name
<i>Surname</i>	surname
<i>Phone</i>	telephone number
<i>Fax</i>	fax number
<i>Email</i>	e-mail address
<i>Note</i>	note

Equipment

<i>IdText</i> ¹	ID
<i>Name</i>	equipment name
<i>SerialNumber</i>	serial number
<i>Inventory</i>	inventory number
<i>Category</i>	category
<i>EquipType</i>	equipment type
<i>Connection</i>	method of connection
<i>MeasClass</i>	measurement class
<i>MeasGroup</i>	measurement group
<i>CableLen</i>	cable length
<i>LastRev</i>	last inspection date
<i>NextRev</i>	next inspection date
<i>Interval</i>	interval between inspections [months]
<i>AutoRev</i>	automatic assessment of the term of the next inspection
<i>Result</i>	inspection result
<i>Tree1..4</i> ¹	location (max. 4 levels)
<i>TreeTotal</i>	total location (only in lists for printing)
<i>Note</i>	note
<i>SortingKey</i>	sorting key
<i>CustName1..5</i>	customer items - name (max. 5 items)
<i>CustValue1..5</i>	customer items - value (max. 5 items)
<i>Archive</i>	removed from registration
<i>Sequence</i>	measuring method (names separated with ",")

Measurement

<i>Date</i> ¹	inspection date
<i>Time</i>	inspection time
<i>ResultTotal</i> ¹	total inspection result
<i>ResultVisual</i> ¹	visual check
<i>ResultFunct</i> ¹	functional test
<i>ResultMeas</i> ¹	measurement result
	<i>Values of the "result" items:</i>
	- Failed
	- Passed
	- N/A
<i>TechName</i>	inspecting technician name
<i>TechSurname</i>	inspecting technician surname
<i>TechLicence</i>	inspecting technician licence
<i>TechPhone</i>	inspecting technician phone
<i>TechEmail</i>	inspecting technician e-mail address
<i>DevName</i>	measuring device name
<i>DevSerialNumber</i>	measuring device serial number
<i>DevCalibration</i>	measuring device calibration number
<i>DevValidity</i>	measuring device calibration validity
<i>DevNext</i>	other measuring devices and fixtures
<i>SortingKey</i>	sorting key (<i>in CSV, XML file: MeasSortingKey</i>)
<i>Note</i>	note (<i>in CSV, XML file: MeasNote</i>)
<i>...measured</i> <i>param. abbrev.</i>	mentioned directly in program - Information button

Templates

<i>Group</i>	template group - optional data item
<i>Id</i>	template name
<i>Name</i>	equipment name
<i>Category</i>	category
<i>EquipType</i>	equipment type
<i>Connection</i>	method of connection
<i>MeasClass</i>	measurement class
<i>MeasGroup</i>	measurement group
<i>Interval</i>	interval between inspections [months]
<i>CableLen</i>	cable length
<i>SortingKey</i>	sorting key
<i>Note</i>	note
<i>CustName1..5</i>	customer items - name (max. 5 items)
<i>CustValue1..5</i>	customer items - value (max. 5 items)
<i>AutoRev</i>	automatic assessment of the term of the next inspection
<i>Sequence</i>	measuring method (names separated with ",")

¹Columns which must **always be contained** in the imported CSV file. The values of items (except for IDtext) can also be blank.

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