DIVUS®
Show it. Control it.

DIVUS SYNCHRONIZER

User manual

Version 1.5.1 - REV01-20200619

GENERAL INFORMATION

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User instructions: Please read this manual before using it for the first time and keep it in a safe place for future reference.

Target group: The manual is written for users with previous knowledge of PC and automation technology.

PRESENTATION CONVENTIONS

[KEY]	Keystrokes of the user are shown in square brackets, e.g. [CTRL] or [DEL].
COURIER	Screen output is described in the Courier font, e.g. C:\>
COURIER FAT	Keyboard input by the user is described in Courier font bold, e.g. C:\> DIR
"„…“	Names of buttons, menus or other screen elements to be selected are displayed in "inverted commas".
PICTOGRAMS	The following pictograms are used in the manual to identify certain sections of text:
	Warning! Possibly dangerous situation. Damage to property can be the result.
	Notes Tips and supplementary information
	New Marks changes and new features

TABLE OF CONTENTS

1 INTRODUCTORY REMARKS 6

1.1 ABOUT THIS MANUAL 6

1.2 PREREQUISITES 6

1.3 EXEMPTIONS 6

1.4 INSTALLATION 7

1.4.1 INSTALLATION PROCEDURE 7

1.5 UPDATES 8

1.6 REMOVAL 8

1.7 SAFETY AND SECURITY 8

2 MAIN FUNCTIONS 9

2.1 DEVICE SCAN 9

2.2 ACTIVATE 10

2.3 DISCONNECT 10

2.4 CONTROL 10

2.5 SCREENSHOT 11

3 GRAPHICAL USER INTERFACE 12

3.1 START WINDOW AND GENERAL USER SURFACE 12

3.1.1 BEFORE CONNECTION (SPLASH SCREEN) 12

3.1.2 GENERAL INFORMATION 12

3.1.3 MENU 14

3.2 BACKUP/RESTORE 14

3.2.1 BACKUP 15

3.2.2 RESTORE 15

3.2.3 BACKUP/RESTORE – WORTH KNOWING 16

3.3 APPLICATIONS 17

3.3.1 LIST OF APPLICATIONS 17

3.3.2 INSTALLING OR UPDATING AN APPLICATION 17

3.3.3 REMOVE OR DOWNGRADE AN APPLICATION 18

3.3.4 BACKUP ONE OR MORE APPLICATIONS 18

3.3.5 RESTORE A BACKUP OF APPLICATIONS 18

3.4 UPLOADS 18

3.4.1 SUBFOLDERS 19

3.4.2 REFRESH MEDIA 19

3.4.3 DOWNLOAD VISION FILES 19

3.5 ADVANCED 20

3.5.1 LANGUAGE 20

3.5.2 REBOOT 21

3.5.3 FACTORY RESET 21

3.5.4 ADJUST BIT RATE 21

3.5.5 ADVANCED COMPATIBILITY MODE (DIVUS TOUCHZONE ONLY) 21

3.5.6 SET TIME ZONE 21

3.5.7 SET NTP SERVER 21

3.6 UPDATE 21

3.6.1 UPDATE DEVICE IMAGE 22

3.6.2 OFFLINE UPDATE FUNCTION 23

4 TROUBLESHOOTING 24

4.1 DISTINGUISHING DIVUS TOUCHZONE GENERATIONS 24

4.2 IF MESSAGES APPEAR DURING INSTALLATION... 24

4.3 IF A BACKUP/RESTORE FAILS... 26

4.4 IF YOU CANNOT CONNECT TO THE DIVUS TOUCH PANEL... 26

4.5 IF THE CONTROL WINDOW IS NOT DISPLAYED CORRECTLY... 26

5 APPENDIX 27

5.1 NOTES _____ 27

1 Introductory Remarks

1.1 ABOUT THIS MANUAL

This manual explains how to use the DIVUS SYNCHRONIZER, a software tool developed by DIVUS to support the system integrator in configuring DIVUS TOUCHZONE and DIVUS KNX IQ devices.

1.2 PREREQUISITES

You need a PC with Windows operating system and a network connection to the same network in which the DIVUS TOUCHZONE and/or DIVUS KNX IQ devices are located.

In addition, the DIVUS LAUNCHER setting (under "Advanced") "DIVUS Synchronizer Access" must be enabled. This setting can be found on TOUCHZONE 2nd generation from version 3.4 and 3rd generation from version 4.6 and on all KNX IQs.

Older software versions as well as TOUCHZONE of the 1st generation are not supported! In case of doubt, please refer to Chapter 4 information on differentiating between the TOUCHZONE generations.

If these requirements are met, the DIVUS Synchronizer gives you these options, among others:

- back up the configuration of each device and installed apps
- restore a backup to multiple devices
- download custom images or ringtones to devices
- Check the status of a device
- navigate through its GUI (to change settings or manage apps)

Attention: The "DIVUS Synchronizer access" is deactivated in the factory settings. If you enable it for a remote configuration session, don't forget to disable it after it completes.

1.3 EXEMPTIONS

There are also some things the DIVUS SYNCHRONIZER cannot do at the moment:

1) No apps can be backed up that explicitly deny this (i.e. the programmers have decided not to allow backups).

2) The following settings cannot currently be saved:

a. System language

b. Date / time settings

c. Network settings (IP address, host name)

d. Account settings - if any

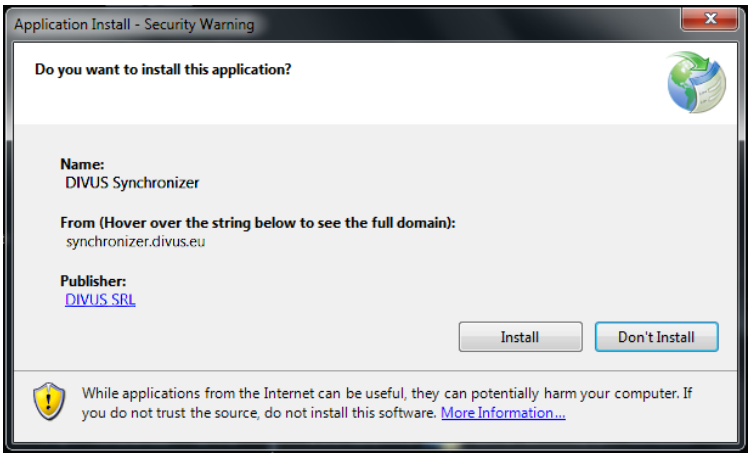
1.4 INSTALLATION

The DIVUS Synchronizer is installed directly from its own website.

http://synchronizer.divus.eu shows the latest version and offers it for installation.

1.4.1 INSTALLATION PROCEDURE

1. Connect to the above website
2. Select the button "Install" or the link to "launch".
3. After downloading, click either on the "setup.exe" or on the "DIVUS Synchronizer.application" file to start the installation.
4. For security reasons, check that in this step the publisher is *DIVUS SRL*.



This confirms that the installation package is effectively from DIVUS and has not been modified. If your window contains different data, please interrupt the installation and contact us.

5. Confirm further safety warnings as described in Chapter 4
6. After successful installation you will find the application in your start menu under the folder DIVUS GmbH and can start it from there.

1.5 UPDATES

The special installation mechanism also offers the possibility to download updates directly from the website. DIVUS Synchronizer will check if there are new versions at start-up and offer you to update. We recommend that you always update to the latest version, if available, before a working session.

1.6 REMOVAL

Just like any other application, you can remove DIVUS Synchronizer from a Windows system by double-clicking it from the list of installed applications (*apps and features* in Windows 10), selecting the "Remove" option, and then confirming.

1.7 SAFETY AND SECURITY

Network security is important for DIVUS. We always recommend ensuring that the configured devices are left in their safest state.

For remote access to a DIVUS TOUCHZONE or KNX IQ, at least two security levels must be penetrated before anything can be changed:

1. The *DIVUS Synchronizer access* is a setting of the DIVUS LAUNCHER that is delivered in the *DISABLED* state. You must activate it before using the Synchronizer. You cannot use the Synchronizer with DIVUS TOUCHZONE devices with an older software version that did not have this setting.

2. DIVUS TOUCHZONE and DIVUS KNX IQ have their own safety measures: To change general settings, you need access to the DIVUS LAUNCHER settings that require a system password. This allows you to access and change the individual settings.

3. The individual apps can also be password protected to avoid unwanted changes. All DIVUS apps offer this additional option.

Although there are several ways to make a device secure, the system integrator is responsible for actually using these settings, changing all default passwords to user-defined ones, and disabling DIVUS SYNCHRONIZER access before leaving the device to the customer.

These measures are advantageous for everyone: External network attackers are blocked and unwanted changes from the inside are also avoided. Please use them consistently!

2 Main functions

The main functions of DIVUS SYNCHRONIZER are:

DEVICES SCAN	This function is automatically executed cyclically. Available and compatible DIVUS devices automatically appear in the list of available devices. In addition, the refresh icon above the list can be used to manually perform a device scan at any time.
ACTIVATE	DIVUS SYNCHRONIZER tries to contact the device specified in the IP field. The same function can also be obtained by simply pressing the Enter key once the IP address has been fully typed in. If the activation is successful, the device will be added to the list on the left and may be chosen to connect and work on it.
DISCONNECT	This button disconnects the connection to the currently connected device.
CONTROL	This button opens a separate window that displays the screen of the connected device and allows real-time control of the device using mouse and keyboard.
SCREENSHOT	This button allows you to save a picture of the currently connected DIVUS device screen.

2.1 DEVICE SCAN

DIVUS TOUCHZONE from version 4.10 or DIVUS KNX IQ is required as counterpart for the device scan. These have the ability to register at the Synchronizer. Practically they appear directly in the list of available devices.

The scan is performed automatically every minute. Moreover, one can start the scan manually at any time. To do this, press the refresh icon under the list of available devices.

The device scan is based on a multicast protocol. If multicast is not allowed or supported on your network, the devices will not be able to communicate with the Synchronizer. In this case, you must call the devices directly via IP address. See next section.

Note: A prerequisite for the device scan (as well as for communication with the Synchronizer in general) is that the "DIVUS Synchronizer Access" has been activated in the advanced settings of the device. In addition, there must be no network device that suppresses multicast communication.

2.2 ACTIVATE

If the device scan does not list the desired device, you can try to contact it via IP address. Make sure that the "DIVUS Synchronizer Access" has been activated in its settings beforehand. You can also read its IP address in the general settings.

Enter the IP address of the device in the IP field. Then press the Enter key or the *Activate button*. If the IP address is not correct, a warning appears. Otherwise, an attempt is made to establish communication with the device. If the attempt was successful, the device appears in the list of available devices. If it does not appear, you can try further procedures. See Chapter 4.

Before you can work on a device, you must mark it in the list (it will turn green).

2.3 DISCONNECT

This button interrupts the communication with the currently connected device. It will also be removed from the list of available devices. After the next device scan, it may reappear there.

Normally you hardly need this function. In order to switch between several available devices, it is sufficient to mark the new device to connect to in the list.

2.4 CONTROL

This function allows you to view the image of the connected device in a separate window on your PC and control its interface in real time via mouse and keyboard. The direct operation from your PC saves a lot of time because you don't have to run from device to device and you don't need to configure devices typing on the relatively slow on-screen keyboard. Instead, you can simply "move" from one device to the next with a mouse click and type the input via your PC keyboard when required.

Note: If the display shows incorrectly or the transmission is too slow, it is possible to reduce the bit rate of the image stream under "Extended". See 3.5.4 and also see chapter 4.

Note: The connection via CONTROL window always runs parallel to the Synchronizer connection. Therefore, you can close its window without fear - even during an operation on the device or between device and Synchronizer - without such an interruption harming the procedure or connection of the Synchronizer.

2.5 SCREENSHOT

If you need to save a picture of what is currently displayed on the device, this function will help you. As usual, the prerequisite is that you have selected the desired device in the list. Then press the Screenshot button and select the storage location. There you will find the newly created image in PNG format.

3 Graphical user interface

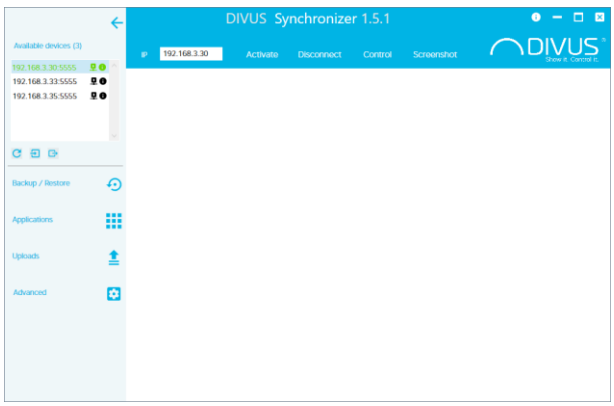
3.1 START WINDOW AND GENERAL USER SURFACE

3.1.1 BEFORE CONNECTION (SPLASH SCREEN)

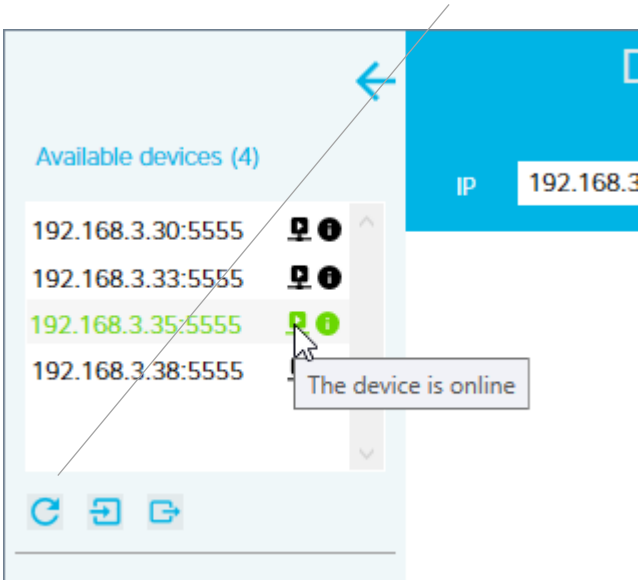
While loading the above splash screen is displayed. The first time you run it, Windows will bring an alert, whether the firewall should be opened for the program or not. Please Answer YES. See Chapter 4 for more details.

3.1.2 GENERAL INFORMATION

The DIVUS Synchronizer 1.5 consists of a light blue upper bar with the main functions and a menu on the left, where the connected devices are displayed and you have access to the individual functionalities.

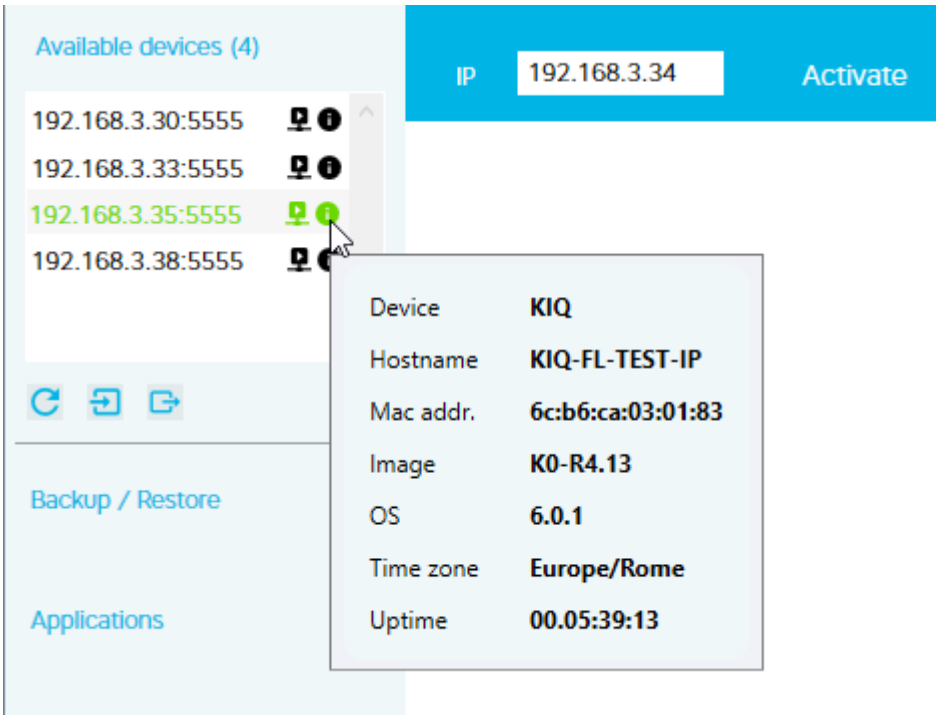


The available DIVUS devices that DIVUS SYNCHRONIZER has detected through an initial device scan are displayed at the top of the menu area. By using the *refresh icon on the* left, such a scan can be repeated at any time.



Each of the devices in the list shows two small icons to the right of the IP address. If you hold the mouse pointer over it, you will get certain information:

- The first symbol shows the status of the device: a small arrow means *Online*, a small X means *Offline*.
- The second (info) icon shows more information about the device, namely device type, host name, Mac address, image version, and operating system version.



Before you can use one of the many functions of the DIVUS SYNCHRONIZER, you must select a device from the list or manually enter a device that is not displayed in the IP field and activate it explicitly and then select it.

The active device is highlighted in green in the list.

3.1.3 MENU

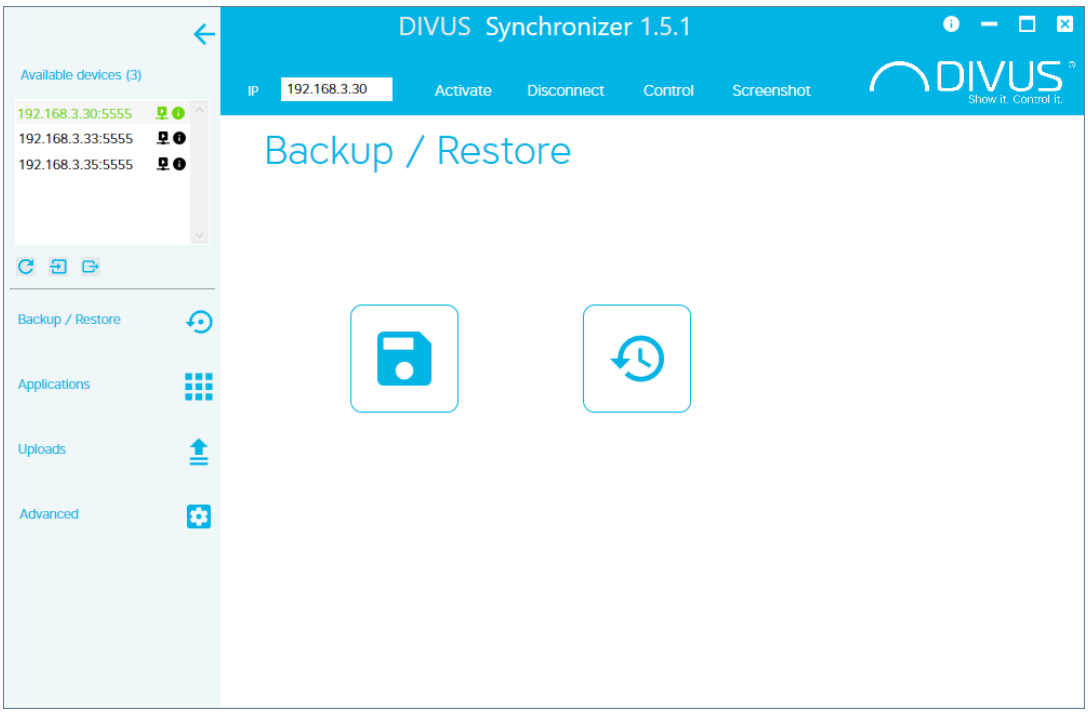
The menu items are:

- Backup/Restore
- Applications
- Uploads
- Extended

By clicking on the text or the icon you reach the respective area.

The menu can be collapsed using the left arrow at the top - the icons for accessing the individual pages remain visible. Another click on the icon above, if the menu is closed, it opens again.

3.2 BACKUP/RESTORE



The user interface is minimalistic: choose one of the two functions Backup (disk icon) or Restore (circle-arrow icon) by clicking on the corresponding icon. The following section describes how these then proceed.

You can find more information about the backup and restore logic in chapter 3.2.3.

3.2.1 BACKUP

1. Connect a device by selecting it from the list at the top left. The connected device is the one on which you then execute all further commands. It is highlighted in green. If you try to start the backup without first highlighting the target device, a message will warn you.

2. Select the name and location for the backup. Choose a name that makes it easier to recognize and distinguish the files afterwards.

3. The CONTROL window for the device is opened automatically and the backup procedure is started. Confirm the backup on the device by clicking on the button at the bottom right. The backup starts.

4. After starting the backup, you can close the CONTROL window. A bar in the Synchronizer shows the progress of the procedure.

5. A message to this effect will appear if the process is completed successfully. In addition, the frame of the backup icon turns green.

6. In case of an error you will also be informed by a message and the frame of the backup icon will turn red. In this case, make sure that no warning window or similar has interrupted the procedure on the device. Then try again.

3.2.2 RESTORE

1. Connect a device by selecting it from the list at the top left. The connected device is the one on which you then execute all further commands. It is highlighted in green. If you try to start the recovery without first marking the target device, a message will warn you about it.

2. Select the backup file to be restored.

3. The CONTROL window for the device is opened automatically and the recovery procedure is started. Confirm the recovery on the device by clicking on the button at the bottom right. The recovery starts.

4. After starting the recovery on the device, the operating window can be closed again.

5. If successful, the recovery icon frame turns green.

6. If an error occurs during recovery, the frame turns red. In this case, make sure that no warning or error message occupies the device and repeat the procedure.

3.2.3 BACKUP/RESTORE – WORTH KNOWING

In general, the backup and restore mechanism works like this:

IF	...THEN...
...a backup is restored to a device with *application X* that does not exist in the backup...	... nothing will happen with *application X*, while all applications included in the backup will be restored (i.e. added) with their settings.
...a backup of an application on a device with the same application is restored...	... the configuration of the application in the backup will take the place of the current one if the application version in the backup is equal to or newer than the one on the target device. Otherwise the configuration will not be changed.
...a backup is restored e.g. from a TOUCHZONE with DIVUS Launcher Version X to a TOUCHZONE with DIVUS Launcher Version Y (or vice versa) ...	... the DIVUS Launcher settings on the target device do not change. The other applications are restored and, once linked and opened via LAUNCHER, display the settings stored in the backup. If this is not the case, proceed as follows: First link the application(s) using the LAUNCHER and then repeat the restore.
...a backup is saved, but one or more user apps have the backup flag set to disabled...	... the backup and thus the recovered devices do not contain any of those apps.

3.3 APPLICATIONS

The application management of the connected DIVUS device is located here. The features of this page are:

3.3.1 LIST OF APPLICATIONS

Function: Control the installed applications with a list and more detailed information when you select an application from the list.

Explanation: When you select an application, the essential information about the application is displayed below the list: technical name, version, revision, installation and modification date. If you select multiple applications (by holding down the CTRL key while clicking), you will no longer see the details about the application clicked.

3.3.2 INSTALLING OR UPDATING AN APPLICATION

Function: Install or update an application using the apk file.

Explanation: Get the apk file of the desired application exclusively from trustworthy sources! Then select the apk file you have saved on your PC by clicking on the icon. The application will then be installed or, if it already exists, updated and you will be informed of the result. If the new installation was successful, the application is integrated in the list of installed applications. After an update, you can use the version number displayed to check that the new application version is active.

Attention: Installation of third-party applications is not possible on DIVUS KNX IQ. Although you can select and upload the apk of such an application as described, it will not be installed. With DIVUS KNX IQ, this function is only used to update the available applications.

3.3.3 REMOVE OR DOWNGRADE AN APPLICATION

Function: Remove or downgrade an application

Explanation: Depending on the selection in the list of applications, DIVUS Synchronizer already knows whether the application can be removed or not and whether the downgrade option exists. For applications that the user has installed, there is also the option to remove them later. This option is not available for pre-installed applications. If a pre-installed app has been updated, this update can be downgraded. This does not remove the application, but returns it to the previous, pre-installed version.

3.3.4 BACKUP ONE OR MORE APPLICATIONS

Function: Save one or more applications that have been marked in advance, including their settings.

Explanation: Except in special cases where developers have explicitly blocked the backup of their application, the current selection in the list of applications and settings can be saved onto your PC. The procedure is the same as described in**Fehler! Verweisquelle konnte nicht gefunden werden.** except for the marking.

3.3.5 RESTORE A BACKUP OF APPLICATIONS

Function: Restore the backup of one or more applications

Explanation: The procedure is the same as already described in chapter 3.2.2

3.4 UPLOADS

This page serves 3 special purposes:

1) upload images (e.g. to have the images of your own house or family as background in applications or as screensaver)

2) upload user-defined ringtones (e.g. so that the VIDEOPHONE 4 application uses your own sounds for ringing).

3) Upload (and download) VISION files. This function is available for DIVUS KNX IQ devices only, because only there the VISION application is installed.

The desired content can be uploaded using the classic method (click on the icon, select folder or file(s)) or by drag and drop (select folder or file(s), drag them into the window and drop them on the icon).

After uploading, the file (or files) is displayed on the right in a list. This confirms that the upload was successful. It also shows which files have been recognized as valid image, sound or VISION files. Unrecognized formats are filtered out.

Supported image formats are: *jpg* and *png*

Supported formats for ringtones are: *aac*, *flac*, *mp3*, *ogg* and *wav*.

Supported formats for VISION: kiq, esf

3.4.1 SUBFOLDERS

If you want to upload several contents and these are to be available separately on the device, you can use the function for uploading to a subfolder. Activate it first by checking the box and then enter a folder name of your choice. As long as the option remains activated, the following uploads will be saved in the entered folder.

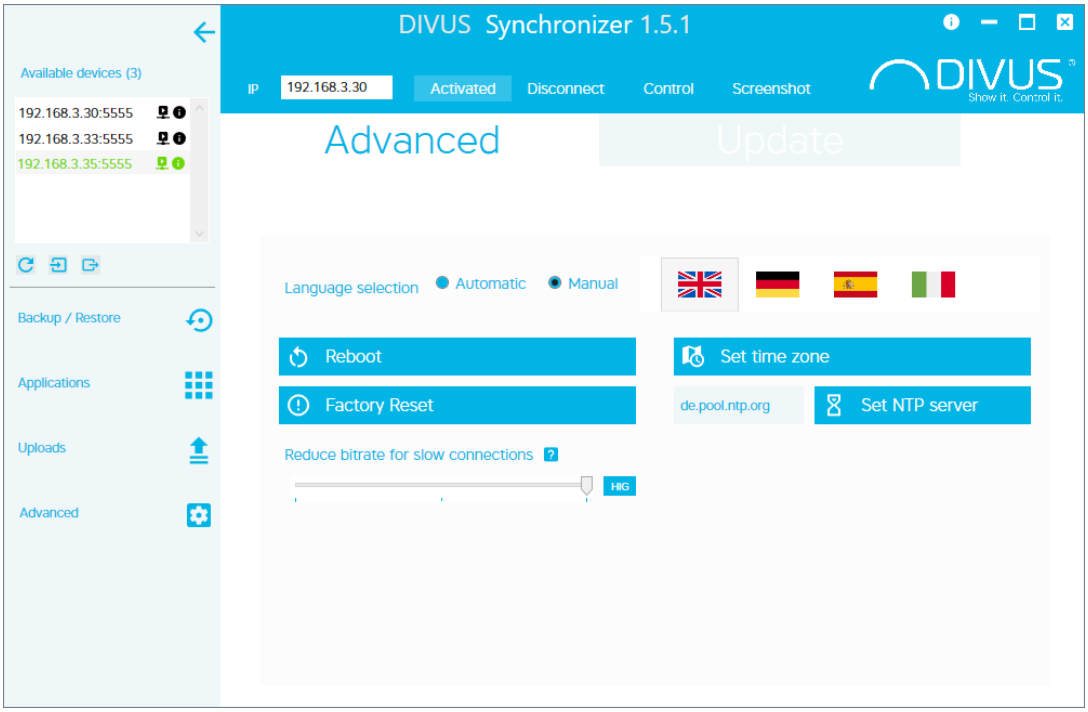
3.4.2 REFRESH MEDIA

The media content of the device is normally only updated and made available to the applications when the device is restarted. To use them without a restart, press the "Update media on device" button.

3.4.3 DOWNLOAD VISION FILES

This function allows to download the content of the VISION folder from the device as a zip-compressed folder. It is only visible when you are connected to a DIVUS KNX IQ device because only there the VISION application is installed.

3.5 ADVANCED



Advanced functions and settings can be found on this page. Depending on the model you will find here:

- Language settings
- Reboot (the connected device)
- Reset to factory settings
- Adjust bit rate (for the CONTROL window)
- Advanced Compatibility Mode Management (DIVUS TOUCHZONE V3 only)
- Set time zone
- Change NTP server

NEW The image update function was moved to a separate update tab in version 1.5.1, where the new offline update function is introduced. See chapter 3.6.

3.5.1 LANGUAGE

If you set the language selection to automatic, DIVUS Synchronizer tries to select the same language as used by the operating system. If this is not available, it will use English as fallback.

The following languages are available for direct, manual selection: English, German, Spanish and Italian.

After changing the language setting, the Synchronizer offers an immediate restart of the Synchronizer application itself to adopt the new language. If you do not want this, the changed settings will only become active the next time you restart the program.

3.5.2 REBOOT

This function restarts the connected / marked device immediately. The current "Advanced" window is then closed and the connection to the device is closed.

If you want to continue working on the same device after restarting, wait until it reappears in the list of connected devices and select it again to continue.

3.5.3 FACTORY RESET

This function deletes all user customizations and applications and returns the device to the delivery status. If necessary, you should run a backup before resetting it.

3.5.4 ADJUST BIT RATE

For remote connections as well as for devices with portrait orientation, you may have difficulties with the display in the CONTROL window; in such cases, adjust the bit rate here: from the pre-set level "HIG", reduce to "MED" or "LOW" until the stream is displayed correctly/smoothly. To test the changed setting, just close the CONTROL window if it is open, and then reopen it.

3.5.5 ADVANCED COMPATIBILITY MODE (DIVUS TOUCHZONE ONLY)

When the "Advanced" page is displayed, the system checks whether the extended compatibility mode is active or not on the connected device. Depending on the type, you are then offered to deactivate it (if it exists) or activate it (if it does not exist).

Activation takes about 5 minutes, while deactivation only takes a few seconds. In both cases, the device is rebooted at the end.

3.5.6 SET TIME ZONE

This function forwards the time zone of the PC to the connected device. The change is immediately applied on the device.

3.5.7 SET NTP SERVER

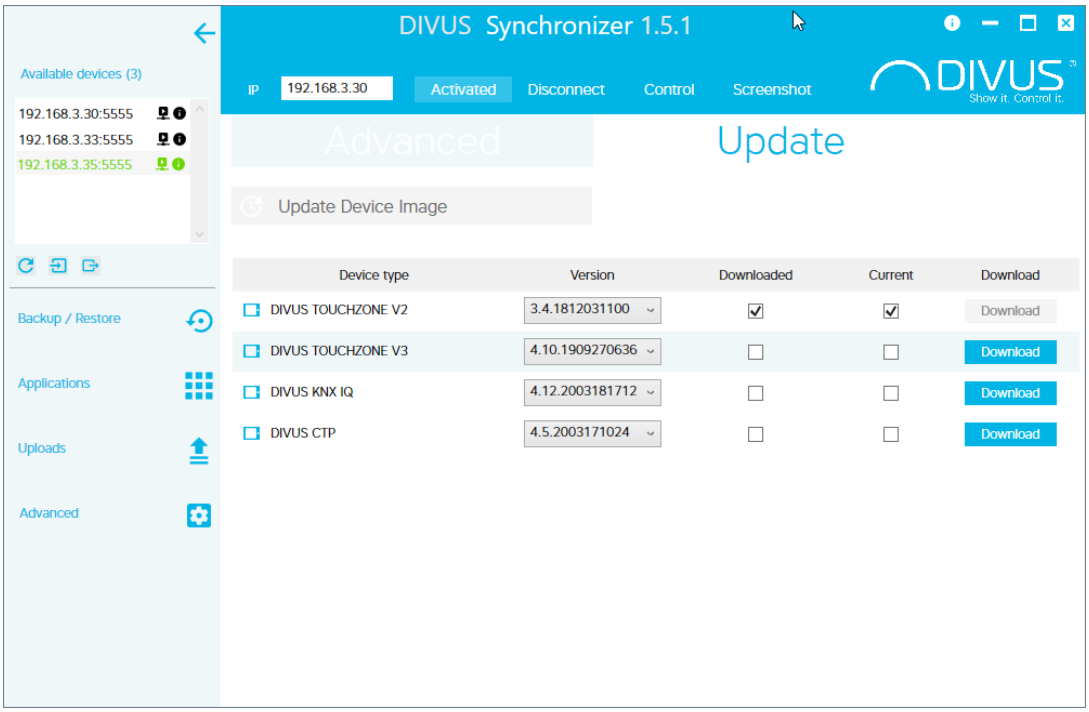
If needed, the default Google time server can be changed with a custom time server. Insert the domain name or the IP address and push the Set NTP server button.

Should you get an error message, please reboot the device and try again.

NEW

3.6 UPDATE

This second tab of the Advanced page was introduced in Version 1.5.1.



It contains 2 important functions:

- The update device image function to update the connected device
- The offline update function to download the desired update file(s)

3.6.1 UPDATE DEVICE IMAGE

If there is a newer version online than that of the connected device, the button is enabled and you may also read out the available version by holding the mouse cursor over the button. Otherwise it remains deactivated, as shown in the screenshot above.

The image update is of course activated by clicking on the button and then confirming. If this is the first time the desired update is performed, the update file is downloaded to the PC first. However, if the file has already been downloaded once, the Synchronizer uses its local copy. The update file is then loaded onto the device. This takes several minutes because it is a large file. After a last integrity check, the device is restarted and updated in the last step.

Note: A device image update allows you to perform the same procedure as the system update application via the Synchronizer - the so-called OTA update.

Note: The device image update does not delete data or applications. For safety's sake, it is nevertheless recommended to perform a backup (see chapter 3.2.1) before updating.

3.6.2 OFFLINE UPDATE FUNCTION

NEW

The offline update procedure makes it possible to update DIVUS devices to the latest firmware version even on sites where there is no Internet access.

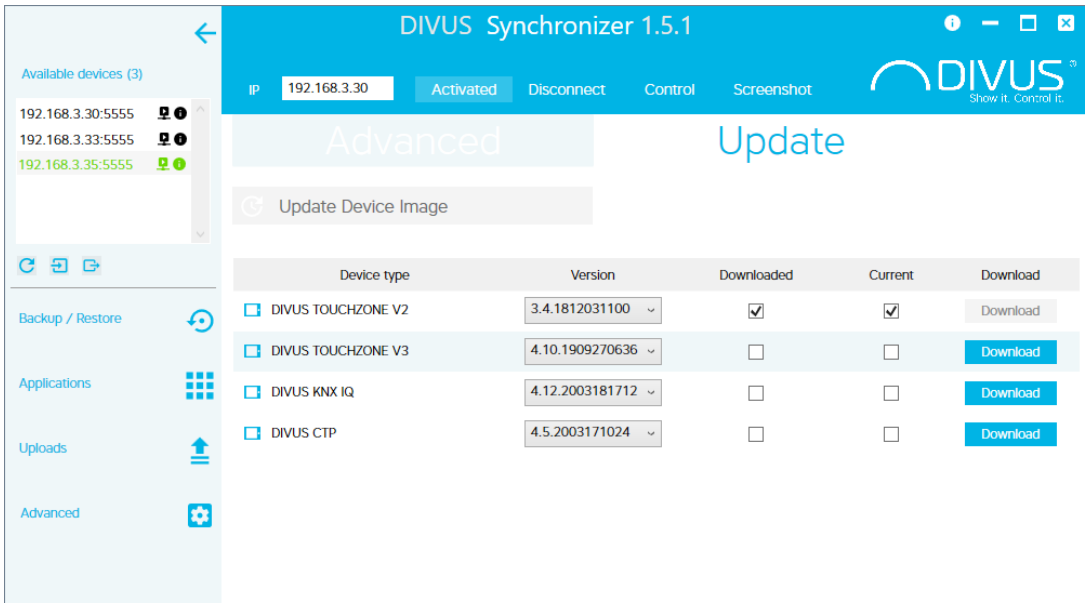
This table is provided for this purpose:

Device type	Version	Downloaded	Current	Download
DIVUS TOUCHZONE V2	3.4.1812031100	☑	☑	Download
DIVUS TOUCHZONE V3	4.10.1909270636	☐	☐	Download
DIVUS KNX IQ	4.12.2003181712	☐	☐	Download
DIVUS CTP	4.5.2003171024	☐	☐	Download

For devices that have intermediate versions (i.e. more than one possible maximum version), you can first select the desired version here and then download it by clicking the download button.

Completely downloaded files are checked and then stored on the PC for later use.

You can then see from the "Downloaded" and "Current" checkboxes whether update files are available and up-to-date for an offline update.



4 Troubleshooting

4.1 DISTINGUISHING DIVUS TOUCHZONE GENERATIONS

The devices can be distinguished externally by the metal frame:

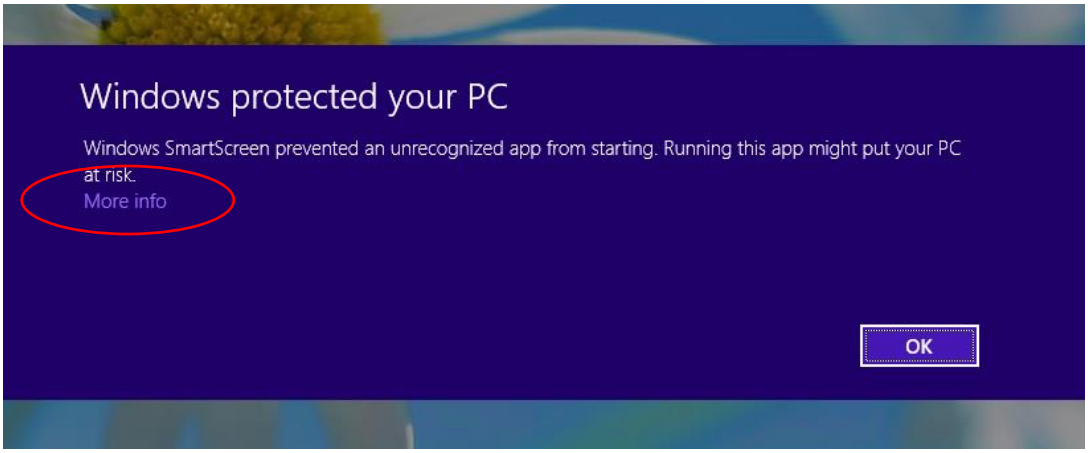
1. Generation (not supported)

2. Generation (supported from version 3.4)

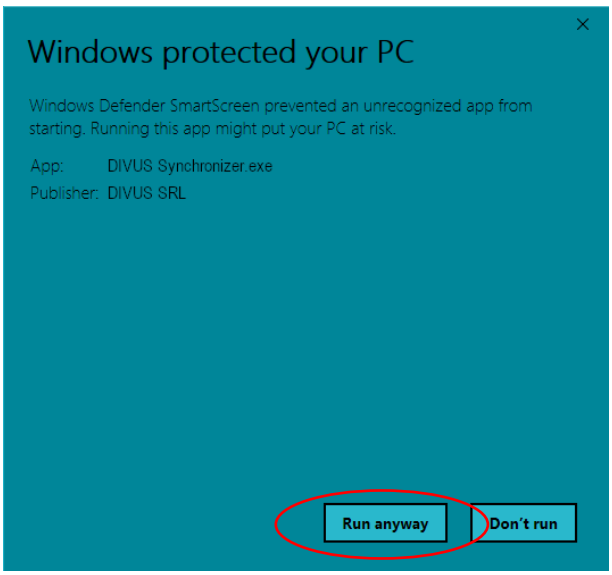
3. Generation (supported from version 4.6)

4.2 IF MESSAGES APPEAR DURING INSTALLATION...

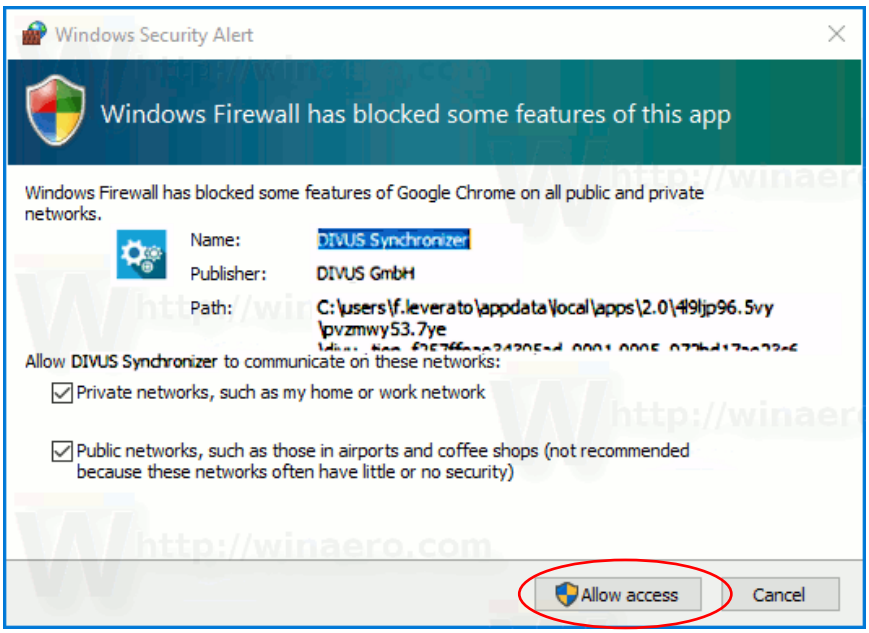
When this message appears:



Press "More Information" and then "Run anyway":



When this message appears, press "Allow access":



Important for both messages: the "publisher" must be indicated as shown in the screenshots. This guarantees that the origin is effectively DIVUS.

4.3 IF A BACKUP/RESTORE FAILS...

A backup may fail due to a network problem or an unpredictable message on the TOUCHZONE, preventing the automated process from completing. Running applications or displaying a message can in some cases also lead to backup or restore interruptions. If a backup fails, it is usually sufficient to repeat the process - the second time it will be successfully completed. The same applies to restore.

4.4 IF YOU CANNOT CONNECT TO THE DIVUS TOUCH PANEL...

If you have Synchronizer access enabled on the device, can ping the device from your PC, but still can't connect or can't connect anymore through Synchronizer, try:

1. to clear the *Synchronizer Access* check box on the TOUCHZONE, and then select it again. Then try connecting again.

2. If point 1. did not help, try restarting the device. It can happen that a device gets stuck (e.g. if communication is abruptly interrupted) and needs to be restarted to get going again.

3. Sometimes it is the PC's fault: if you have changed the network connection several times in the same working session (e.g. from LAN to WIFI or to another LAN), Windows may no longer manage multicast communication correctly, which is why the device scan is no longer successful. A simple restart of the PC solves such problems.

4. Sometimes even the Synchronizer can be to blame: Does another Synchronizer run in the same network parallel to your? Several parallel Synchronizers will "argue" over access to the devices and interfere with or interrupt each other. Since the technology does not support more than a simultaneous connection in the background, such situations must be avoided at all costs!

4.5 IF THE CONTROL WINDOW IS NOT DISPLAYED CORRECTLY...

...the problem is most likely too high a bit rate during image transmission. This can occur especially with devices with portrait orientation. Chapter 3.5.4 explains how to reduce the bit rate. There are three levels for the bitrate: **`HIG`** (high), **`MID`** (medium) and **`LOW`** (low).

After changing the bit rate, open the CONTROL window again and check whether the image is now displayed correctly. The same procedure can also be used if you have connected remotely (e.g. via *Teamviewer* or *VPN*) to the local network where the devices are running and this connection is relatively slow. Also in this case, the reduction of the bit rate may lead to an optimized operation.

In such cases it is also recommended to keep the CONTROL window open only for the absolutely necessary steps and to close it as soon as possible.

5 Appendix

5.1 NOTES