



DIVUS LAUNCHER 2

GENERAL INFORMATION

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The manual has been conceived and written for users who are experienced in the use of PCs and automation technology.




This version of the manual is based on the following version(s):

- TOUCHZONE image R4.18
- DIVUS LAUNCHER 2 v. 1.0.1 rev. 112

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CONVENTIONS

[KEYS]	Keys that are to be pressed by the user are given in square brackets, e.g. [CTRL] or [DEL]
COURIER	On-screen messages are given in the Courier font, e.g. c:\>
COURIER BOLD	Keyboard input to be made by the user are given in Courier bold, e.g. C:\>DIR .
"..."	Names of buttons to be pressed, menus or other onscreen elements and product names are given within double quotes. (e.g. "Configuration").
PICTOGRAMS	In this manual the following symbolic are used to indicate particular text blocs.
	Caution! A dangerous situation may arise that may cause damage to material.
	Hint Hints and additional notes
	New New features

The terms "DIVUS TOUCHZONE" and "DIVUS TZ" or simply "TZ" all point out the same product.

INDEX

1	INTRODUCTION	6
1.1	PREREQUISITES	6
1.2	FIRST START	7
2	MAIN VIEW	9
2.1	APP AREA	9
2.1.1	APP ASSIGNMENT	10
2.1.2	URL ASSIGNMENT	11
2.2	DASHBOARD	13
3	SETTINGS	15
3.1	GENERAL	16
3.1.1	NETWORK AND CONNECTIVITY	17
3.2	OVERALL DESIGN	18
3.3	DISPLAY / LOCKSCREEN	20
3.3.1	DISPLAY-OFF WAKE-UP THROUGH SENSOR	23
3.3.2	ADAPTIVE BRIGHTNESS	25
3.3.3	LOCKSCREEN	27
3.3.3.1	IMAGE	28
3.3.3.2	SLIDESHOW	28
3.3.3.3	KNXCONTROL (WEB)	29
3.3.3.4	KNXCONTROL (NATIVE)	30
3.3.3.5	GPIO	31
3.3.3.6	APP START	31
3.3.3.7	BRIGHTNESS OVERLAY	31
3.3.3.8	BLACK SCREEN	31
3.3.3.9	LOCKSCREEN DESIGN	32

3.4	DASHBOARD	33
3.4.1	CLOCK	33
3.4.2	DATE	34
3.4.3	MISCELLANEOUS	35
3.5	APP AREA	36
3.6	ADVANCED	39
3.6.1	ADVANCED	39
3.6.1.1	SYSTEM/USER PASSWORD	39
3.6.1.2	WELCOME MESSAGE	39
3.6.1.3	AUTOSTART	39
3.6.1.4	AUTOMATIC REBOOT	40
3.6.1.5	ADVANCED SECURITY FUNCTIONS	41
3.6.1.6	CACHE CLEANER	41
3.6.1.7	APP STARTER	41
3.6.1.8	APP GUARD	42
3.6.1.9	APP TERMINATOR	42
3.6.1.10	DEVICE ECHO CANCELLING	43
3.6.1.11	DIVUS SYNCHRONIZER ACCESS	43
3.6.2	ANDROID SYSTEM SETTINGS	44
3.7	INFORMATION	44

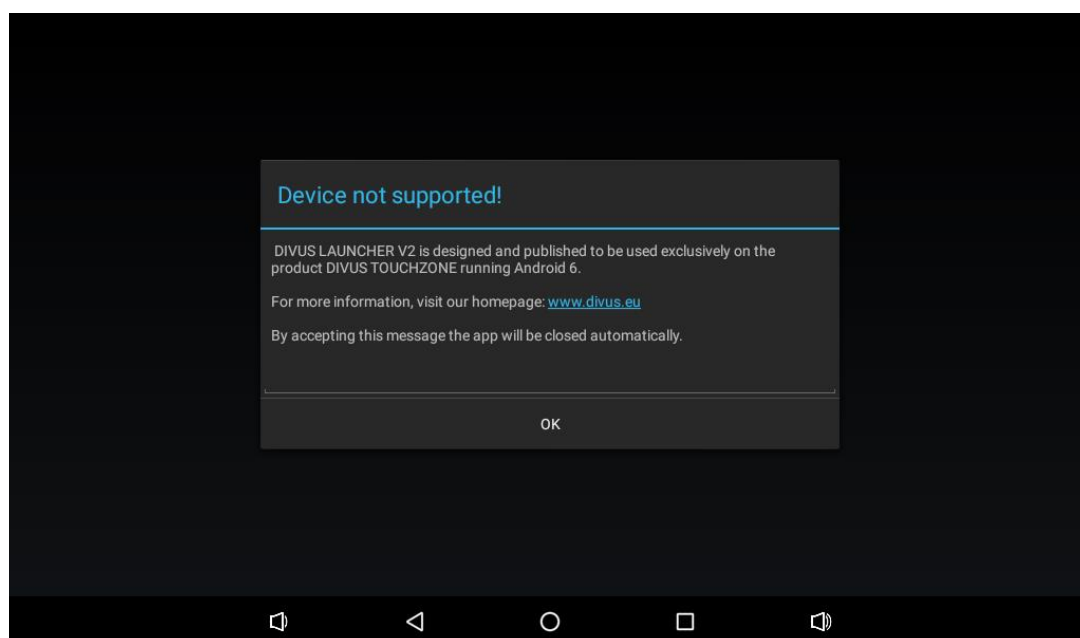
1 Introduction

The DIVUS LAUNCHER 2 app is the main app of DIVUS TOUCHZONE, which acts as the entry point for the device. The app provides access to other functionalities and settings of the device, and in its main screen it's possible to link to other apps or web URLs for easier access. The overall look and feel can be customized and adapted to the required needs. This new version of the app has an improved design and offers more functionalities and possibilities compared to the previous version. DIVUS LAUNCHER 2 is the heart and soul of DIVUS TOUCHZONE.

In Android there are so-called "launcher applications", which usually define a start screen and are the main entry point to all the other functionality of the device. Only one such app can be active at a time and the launcher app is usually started by default when the device has booted, or when the HOME button of the device is pressed. DIVUS LAUNCHER V2 is exactly such a launcher application.

1.1 PREREQUISITES

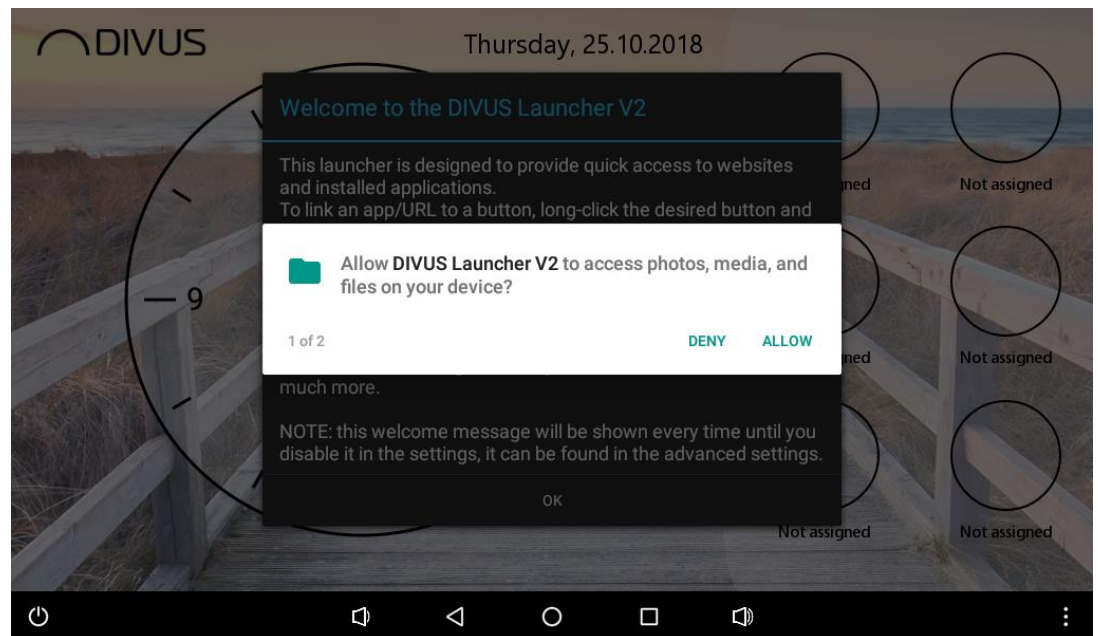
DIVUS LAUNCHER V2 requires Android 4.2 (API 17) or higher to run, the app will be unable to install on devices running a lower Android version. Additionally, DIVUS LAUNCHER V2 is designed to be used exclusively on the DIVUS TOUCHZONE running Android 6 – on other devices (which still satisfy the minimum required Android version) the app will still be able to install, but when launched it will show the following warning:



When a new launcher app is installed, the Android system should ask you which app should be used as default launcher application. If you are not sure if your device supports DIVUS LAUNCHER V2, as a test it is strongly recommended to select "only this time" when selecting DIVUS LAUNCHER V2.

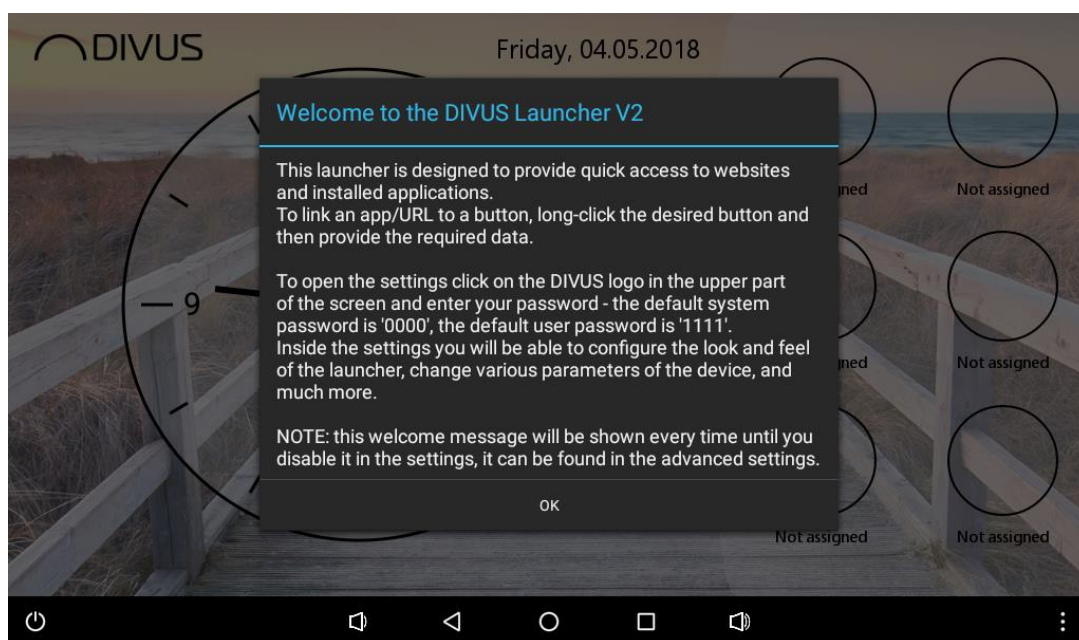
1.2 FIRST START

If your device supports DIVUS LAUNCHER V2, when launching the app, on some versions of Android some runtime permissions are asked and have to be manually allowed: DIVUS LAUNCHER V2 asks to access media on the device and accounts, this is required e.g. to change the background of the launcher and to manage the accounts on the device.



As long as some permissions are not granted, these missing permissions are asked at every start of the main view of the launcher until granted or denied permanently. When these permissions are not granted some functions of the app may not work! If the user decides to permanently deny these permissions then this dialog should not show up anymore. These permissions can also be granted/revoked manually in the settings on the application management page of DIVUS LAUNCHER V2.

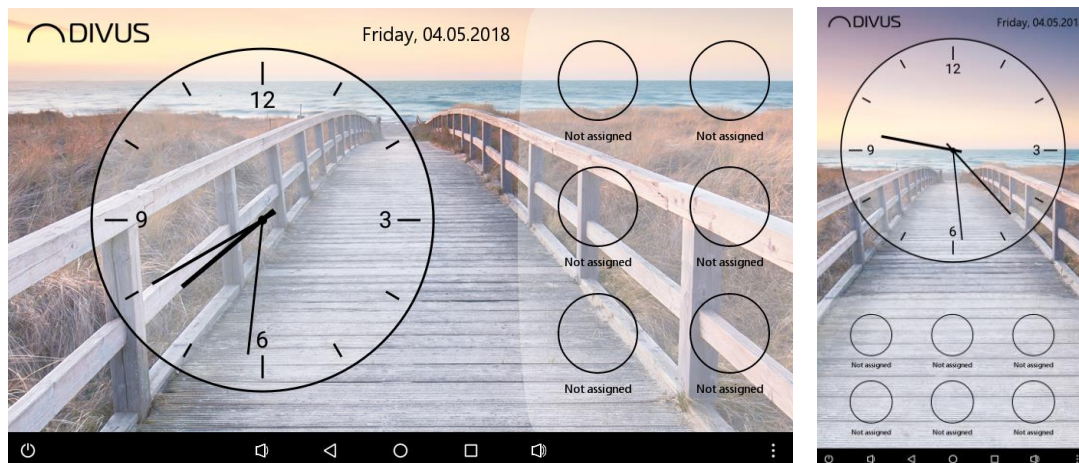
After the prompt for the permissions you will be greeted with the following screen, containing some limited/basic information on how to use the app:



This message will be shown every time DIVUS LAUNCHER V2 is launched, until it will be disabled in the settings. Detailed information on how to disable this message will be provided later in the manual.

2 Main view

The main view of DIVUS LAUNCHER V2 consists of 2 components: “dashboard” and “app area”. Depending on the used orientation, the dashboard will appear on the left/top half of the screen and the app area will appear on the right/bottom half of the screen.



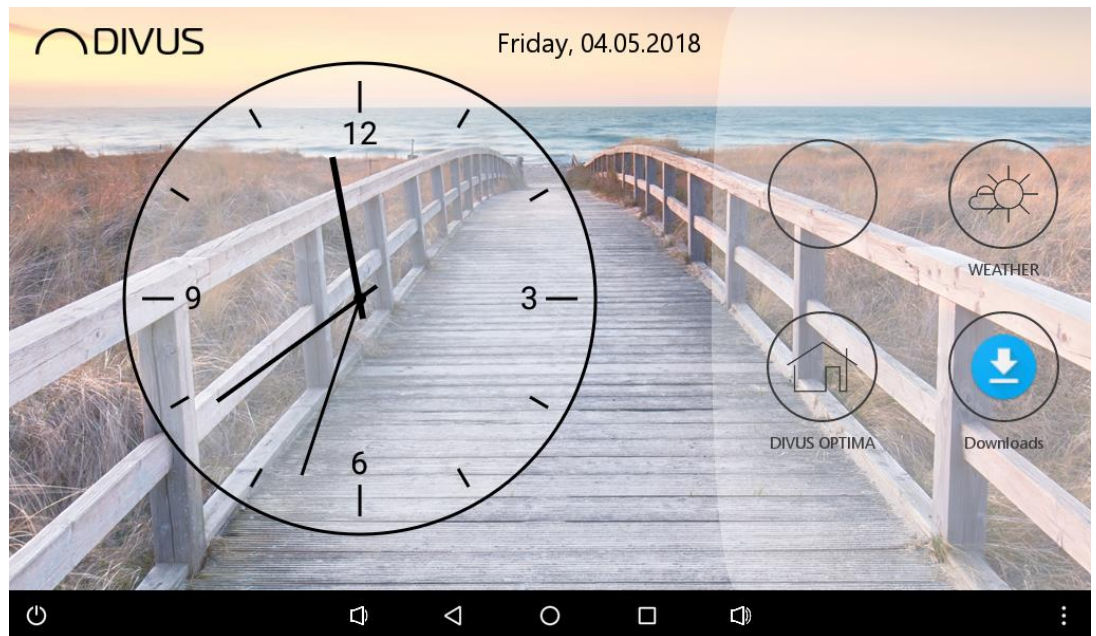
The dashboard is intended to show some basic non-interactable information to the user, whereas in the app area apps and URLs can be assigned for quick access. By default, the dashboard is configured to show the current date in a predefined format and current time with an analogue clock (in seconds-precision). The app area by default is empty and editable.



Look & feel as well as functionality of both dashboard and app area can be customized. The various settings will be discussed in detail later in the manual.

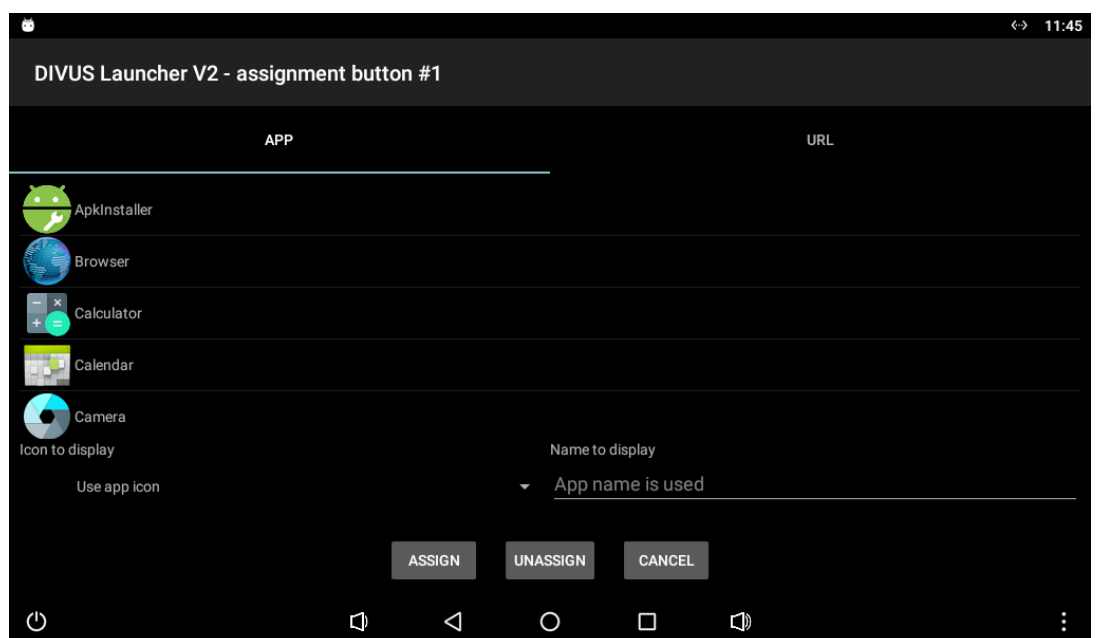
2.1 APP AREA

The app area consists of a grid of buttons over multiple pages intended to give quick access not only to installed applications, but also to online URLs. By default, there are 5 pages, each with a grid of 6 buttons which are unassigned and editable. Through a swipe-gesture it's possible to switch between the pages and by long-clicking a button it's possible to assign/unassign it. In the settings the number of pages and buttons can be edited and the buttons can also be configured e.g. to be locked or to be invisible if not assigned. Additionally, it's also possible to change the colour theme of the app area, independently from the rest of the main view. Below is an example of a customized app area.



2.1.1 APP ASSIGNMENT

To assign a button in the app area it's enough to long-click it, and by default the window to assign an app will appear (note that on top the app-tab is selected), as can be seen in the next screenshot.



In the middle of the window a list of all installed apps is visible, here it is possible to select the app which should be assigned to the button. By holding down the finger on the list it's possible to scroll up and down the list, and with a click the desired app can be selected, which will then be highlighted.

Below the list to the left there is a drop-down menu where it's possible to select which icon should be displayed for the assignment. By default, the app icon will be used (if available), alternatively it's possible to choose one of the many icons from the given set.

Below the list to the right there is a text field where it's possible to define which name should be displayed for the assignment. By default (when the field is empty) the app name will be used, alternatively it's possible to type a custom name to display. If it's desired that no name should appear at all, this can be done by setting just a whitespace as name.

On the bottom there are 3 buttons: "assign" will save the given data and assign the app to the button, "unassign" will unassign the button (works for both app and URL), "cancel" will leave the button unaltered as-is.



If configured to use the app icon and the app does not own an icon, then a default icon will be used.

2.1.2 URL ASSIGNMENT

Assigning an URL to a button works similar like assigning an app. Long-click on the button and the window to assign an app will show up. To assign an URL instead on top click on the URL tab and the window will change as follows:

On top there is the text field to insert the URL which should be assigned. The URL should always be fully specified, including with the required prefix e.g. http://.

Below the URL text field to the left there is a drop-down menu where it's possible to select which icon should be displayed for the assignment. By default, the website icon will be used (if available), alternatively it's possible to choose one of the many icons from the given set.

Below the URL text field to the right there is a text field where it's possible to define which name should be displayed for the assignment. By default (when the field is empty) the website title will be used (if available), alternatively it's possible to type a custom name to display. If it's desired that no name should appear at all, this can be done by setting just a whitespace as name.

On the bottom there are 3 buttons: "assign" will save the given data and assign the URL to the button, "unassign" will unassign the button (works for both app and URL), "cancel" will leave the button unaltered as-is.



If configured to use the website icon and the website does not own an icon, then a default icon will be used.



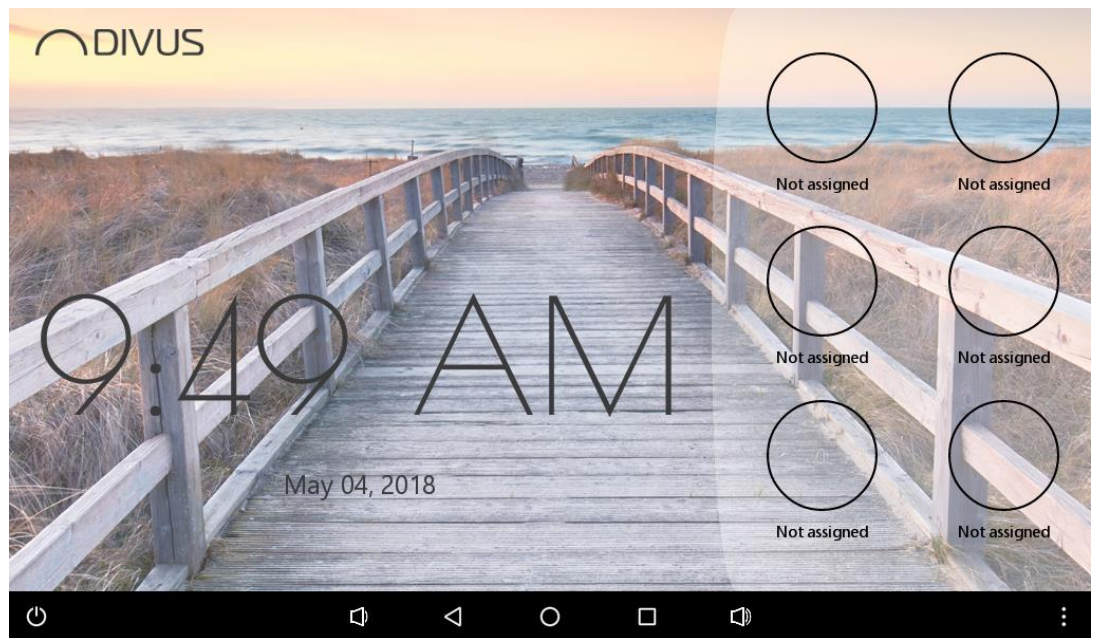
If configured to use the website title and the website does not own a title, then the URL itself will be used as name.



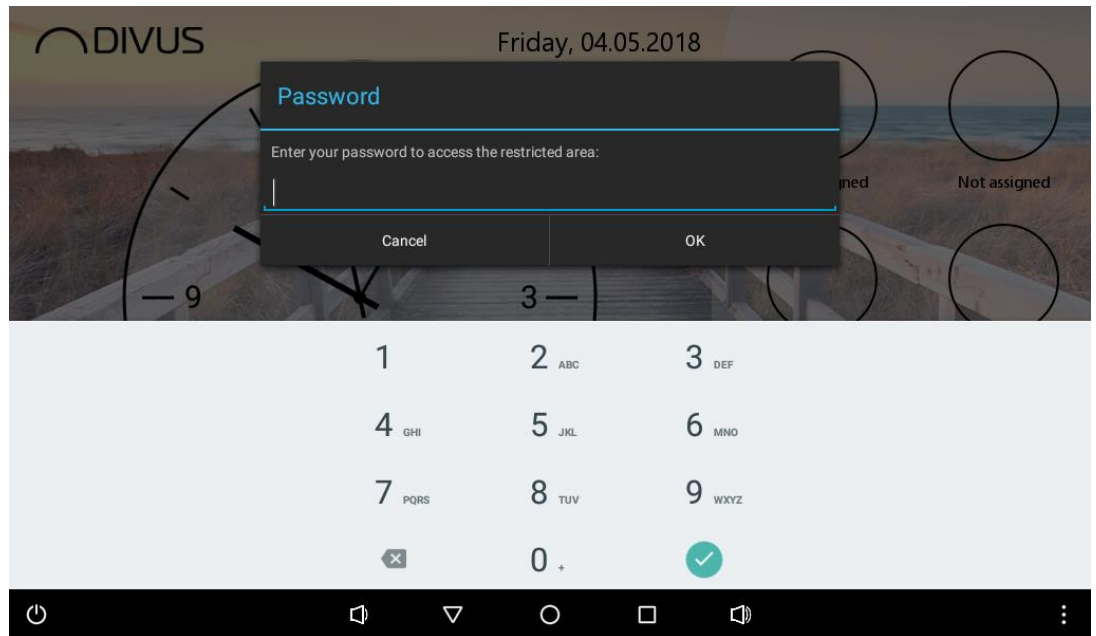
To display the website icon/title the given URL must be loaded, therefore there is a maximum loading time of 10 seconds when assigning an URL. If it takes longer than that to load the URL then the URL is considered unreachable. In that case icon/title may not be available and default data is used instead. Nevertheless, the URL assignment will be saved and can be used, no load timeout will be applied when accessing the URL afterwards.

2.2 DASHBOARD

The main components of the dashboard are the current time and the current date, intended to be easily seen by the user. By default, an analogue clock with seconds-hand is shown, however it is also possible to hide the seconds hand, show a digital clock instead or disable the clock altogether. The date format can also be customized or hidden. Additionally, it's also possible to change the colour theme of the dashboard, independently from the rest of the main view. Below is an example for a customized dashboard.



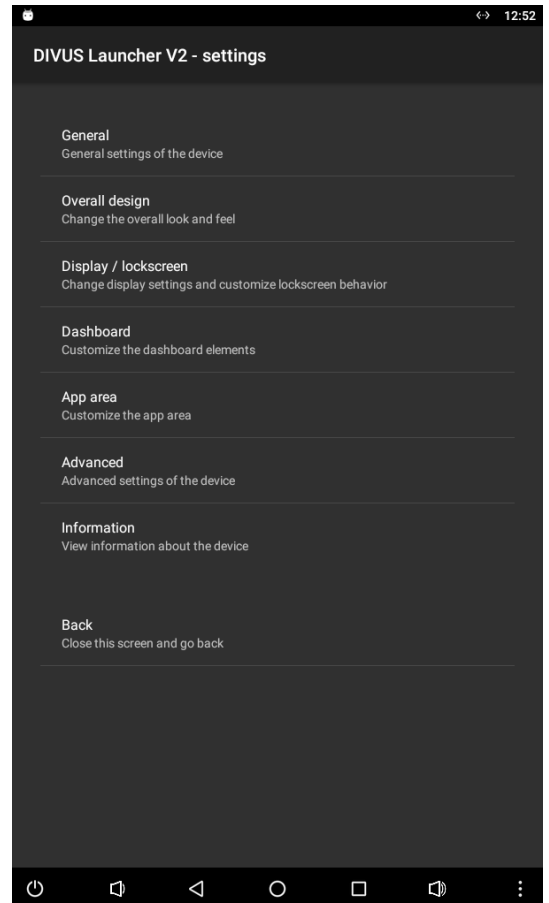
Through the top DIVUS logo it's possible to access the settings the of DIVUS LAUNCHER V2, alternatively also possible to be accessed through the menu if the device provides a physical/virtual menu button. Before being able to access the settings a password prompt is shown, the default system password is "0000" and the default user password is "1111", both can be edited in the settings. Access to the settings is only possible if a correct password is given.



3 Settings

The settings, accessible from the main view of DIVUS LAUNCHER V2 through the DIVUS logo or the menu, are divided in various categories which should provide an easier overview. The following screenshot shows the available main categories of settings:

- General
- Overall design
- Display / lockscreen
- Dashboard
- App area
- Advanced
- Information
- Back



When clicking the last entry, the settings page will close and the main view of DIVUS TOUCHZONE V2 is shown again.

The various settings are discussed in detail in the next pages.



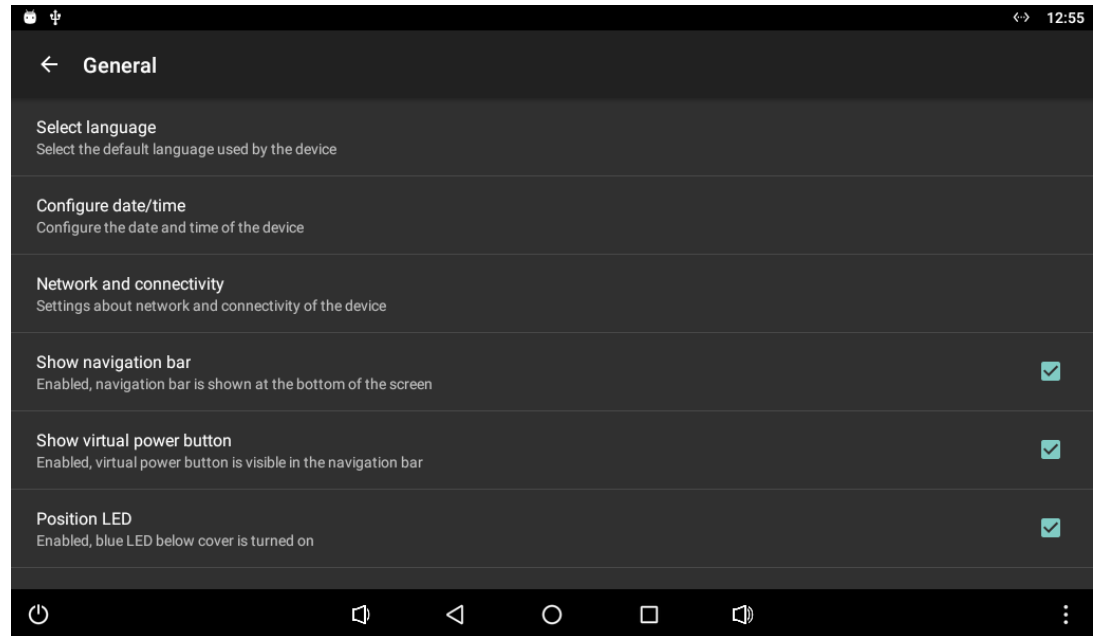
There are 2 access levels for the settings, each with its own password: system and user. Depending with which level you access some settings may be disabled or not. System access level is intended for system integrators and other technical people and provides full access to all settings. User access level provides restricted access to only "safe"/non-critical settings and is considered safe for end-users with no in-depth knowledge of the device.



The various settings can change depending on the device DIVUS LAUNCHER V2 is installed on. This manual will consider the app is installed on DIVUS TOUCHZONE with Android 6.

3.1 GENERAL

This category holds general settings which are mostly valid globally for the whole device, not only for DIVUS LAUNCHER V2.



The first 2 entries redirect to Android settings and allow to change the language of the device and access date/time settings of the device.



DIVUS LAUNCHER V2 has as default language English and contains translations for German and Italian, but the Android system offers many more languages. Should a language be selected which is not supported then DIVUS LAUNCHER V2 will be using English, but other apps or system components may be able to display the selected language.

The first checkbox sets the visibility of the navigation bar, which by default is visible. Should this be unchecked then the bottom navigation bar will no more be visible and its functions inaccessible.



The option to show/hide the navigation bar is only available when installed on DIVUS TOUCHZONE.

The next checkbox sets the visibility of the virtual power button in the navigation bar, which by default is visible. Should this be unchecked then the virtual power button in the navigation bar will no more be visible and its functions inaccessible.



The options to show/hide the virtual power button are only available when installed on DIVUS TOUCHZONE, starting from image version 4.7.

The next two checkboxes are used to control the RGB LED of the DIVUS TOUCHZONE. The first turns the blue LED on and off, useful for locating the TZ in dark rooms. The other can be used to signal network problems: when enabled and no network connection is detected, then the red LED will turn on.



The options for the LED are only available when installed on DIVUS TOUCHZONE.

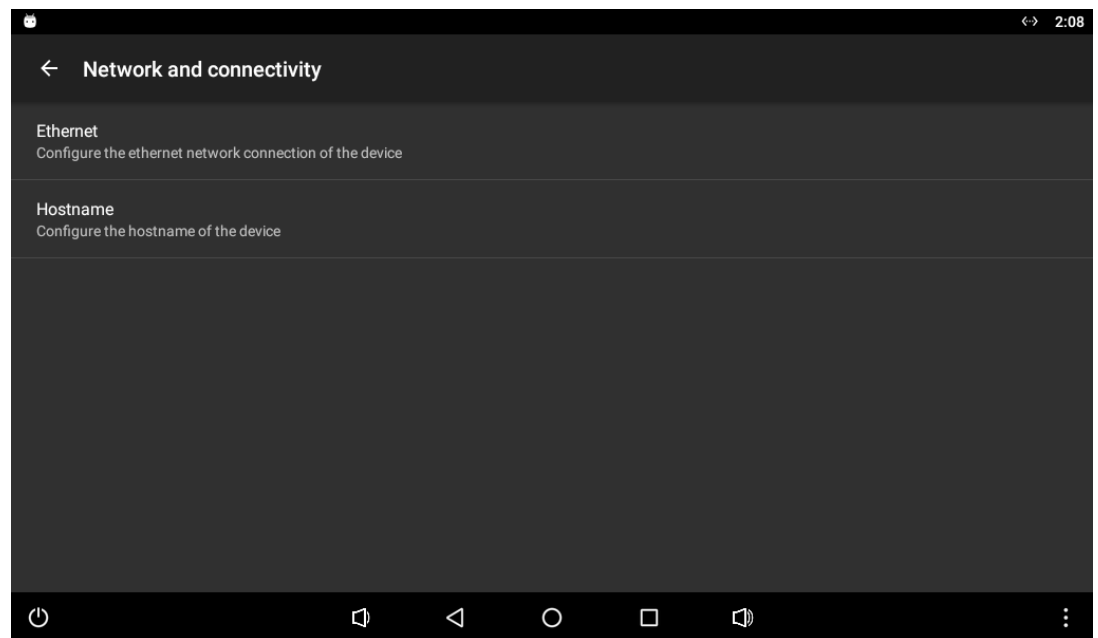
The last two settings allow to configure the Network-Time-Protocol (NTP) settings of the device, enabled by default. When enabled, the user has the possibility to specify an NTP server to connect to, the device will then synchronize it's time with the data provided by this server.



NTP functionality is not enabled on all devices.

3.1.1 NETWORK AND CONNECTIVITY

The “network and connectivity” setting opens a sub-menu with network and connectivity settings for the device, which provide settings for ethernet and hostname of the device.



The first entry will open an Android window where it is possible to see the MAC address of the ethernet port, see the current configuration and change it, or disable the ethernet port altogether. It is possible to operate the ethernet interface in both DHCP or static, for the static IP the corresponding data has to be provided.

The other setting allows change the hostname of the device. When the hostname is changed, a reboot of the device is required before the new hostname is used. Setting an empty hostname will revert back to the default value.



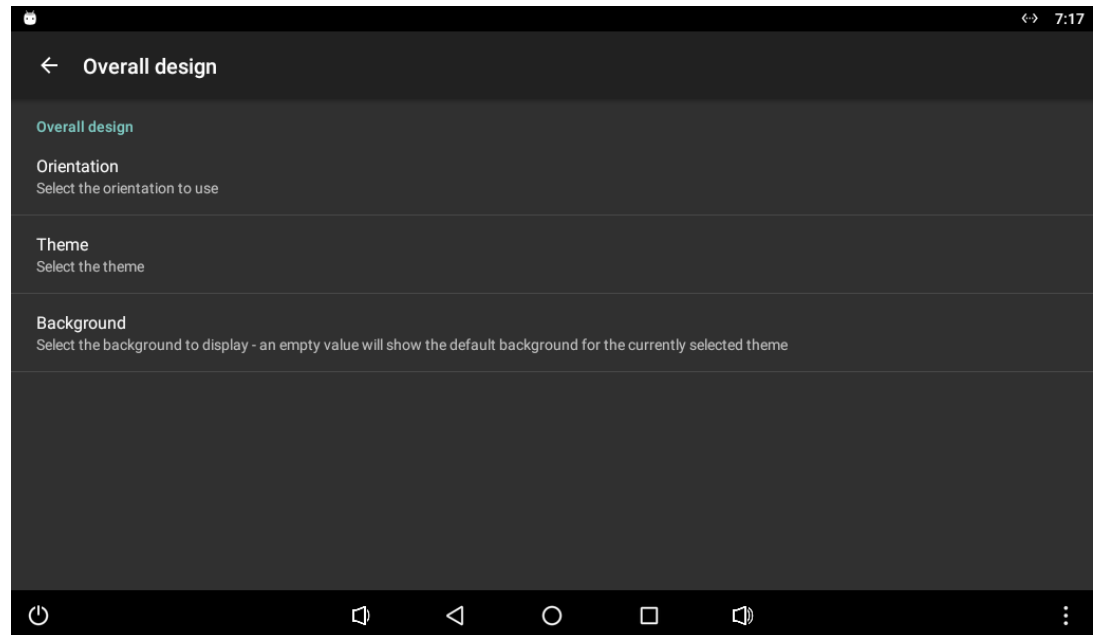
Access to Ethernet settings is only possible on devices which support it, like DIVUS TOUCHZONE.



Various restrictions apply to the hostname: it can't exceed 16 characters and can contain only letters, digits and "-". An invalid hostname can cause that the hostname may not be able to access the network properly.

3.2 OVERALL DESIGN

The category "overall design" contains some general settings which allow to change the overall design of the launcher.



The first setting allows to change the orientation of the launcher. The possible values are as follows:

- Sensor
- Vertical
- Horizontal
- Reverse vertical
- Reverse horizontal

Depending on the sensors present on the device, the default value is either sensor (if corresponding sensors are present) or vertical (if no sensors are present). Should no sensors be present, then the option sensor will not be present at all. DIVUS LAUNCHER V2 supports both landscape and portrait orientations, with the value sensor the launcher will rotate automatically depending on the sensor value. The other values will rotate the launcher in a fixed orientation, depending on the hardware orientation/settings of the device.

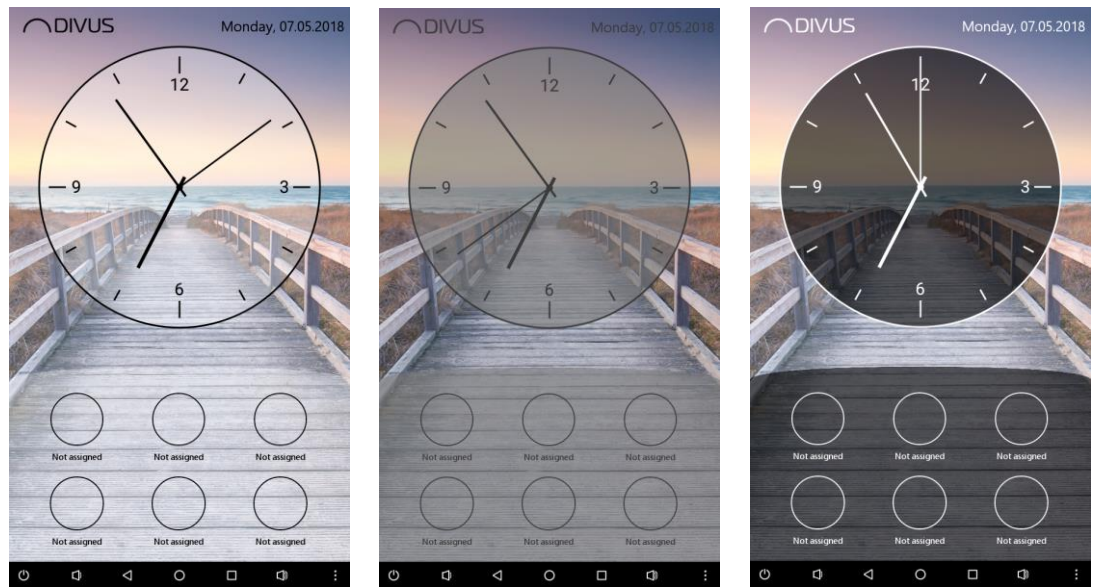


The selected orientation is mainly used in the main view of DIVUS LAUNCHER V2 and is not applied to other apps.



On some devices the reverse orientations may not be supported correctly and thus the regular orientation is used.

The next options allows to change the general theme of the launcher, the available values are: bright (default), gray and dark. This value mostly changes the background overlay of the dashboard and app area, and also the colors used in them (if no other theme is explicitly defined for dashboard and app area). Below is an example for each theme, from left to right: bright, gray, dark:



It is possible to select a main overall theme, and separate themes for dashboard and app area. In this case the main theme will only change the background overlay colours of dashboard and app area, the other colours will be as defined in the corresponding theme.

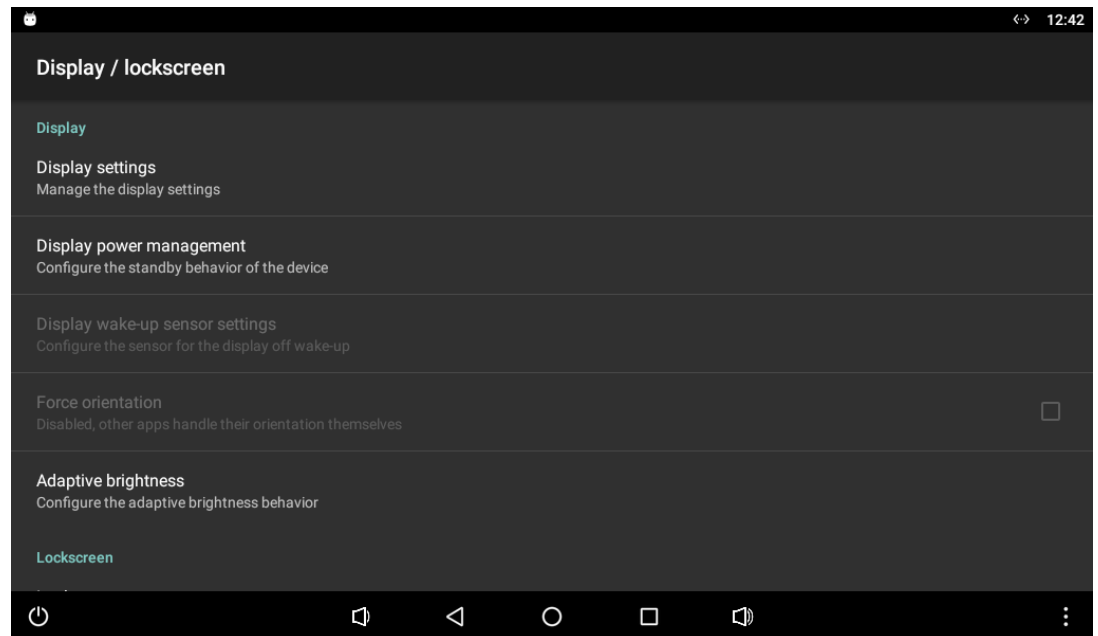
The last setting in this category allows to change the background image used in the launcher. When clicking this setting automatically the gallery will show up through which you can select one of the images found on the device. If you abort the image selection or just go back before selecting an image, then a dialog is shown where you can also manually enter the full path to the image to use. If you leave this field empty, or if the image is not able to load, then the default image for the selected main theme is used.



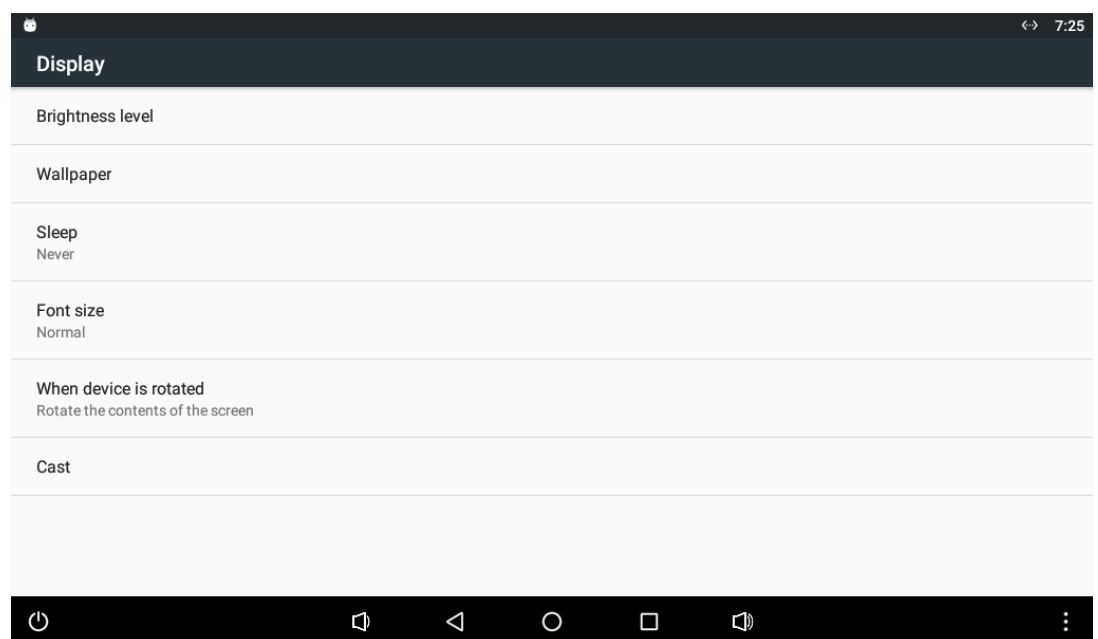
If you add/download a new image to the device it's possible that the new image will not show up in the gallery as the media framework of Android may hasn't registered that image yet. In that case reboot the device and the image should now be present.

3.3 DISPLAY / LOCKSCREEN

The category "display / lockscreen" provides various settings related to display and lockscreen, and is divided in 2 corresponding sections.



The first settings opens up an Android menu with various display settings.



- Brightness:

Here it's possible to configure the brightness of the display. On most devices it's also possible to pull down the status bar and find there a slider to change it too.

- Wallpaper:

Allows to change the default wallpaper which is shown, e.g. as background in the recents window.

- Sleep:

Defines the display-off timeout of the device, which by default is set to 2 minutes.

- Font size

Allows to change the font size used on the device, making the font smaller or bigger.

- When device is rotated

Allows to change how the device should behave when rotated.

- Cast

Allows to cast your screen on other devices which support it.

The next entry allows to change the display power management which defines how the devices should behave in standby, the possible values are:

- Keep display on

The display will never time out and will always remain on with the set brightness level.

- Dim display

When going into standby the display will dim to minimum brightness, at wake up (e.g. when screen is touched by the user) the display will again brighten up to the previous brightness.

- Turn display off

When going into standby the display will turn off and can only be woken up through the physical home button.

- Turn display off (wake up with sensor)

When going into standby the display will turn off and can only be woken up through the physical home button or through the proximity sensor. If the device does not have a proximity sensor then this value is not visible.



In order for the display dim/off behaviour to work correctly a sleep timeout has to be selected in the display settings. If the device is set to never sleep, then the display will always remain on, regardless of the selected display power management value.



Dim display is not available on DIVUS TOUCHZONE with Android 9.

The settings “display wake-up sensor settings” unlock if the display power management is set to “turn display off (wake up with sensor)” and works only in combination with that. If no proximity sensor is present on the device, then this option is not visible. Details on this function are provided in a separate chapter.

The next option allows to force the orientation of the DIVUS LAUNCHER V2 globally for the whole device, also for other apps. Just like the DIVUS LAUNCHER V2 also other apps are free to rotate as they like, and some devices are programmed to be shown in a fixed orientation only. As this may harm user experience on devices which can not be physically rotated, the launcher offers this option to force the orientation of DIVUS LAUNCHER V2 on all apps on the device. This option is disabled by default.



This option is only available if the orientation in the overall design is fixed, it is disabled for sensor orientation.



This option is only available on devices running Android Lollipop (API 21) or higher and is still experimental. Use this function with caution!

The next setting allows to configure the adaptive brightness, which allows to automatically set the display brightness depending on the surrounding brightness. Details on this function are provided in a separate chapter.

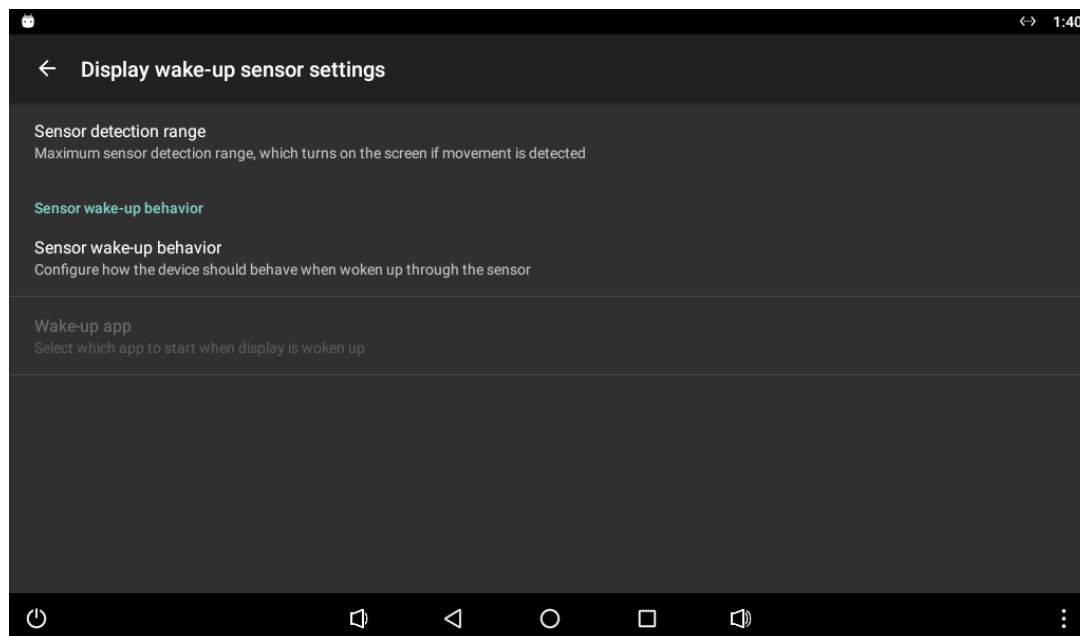


Adaptive brightness is only available when installed on DIVUS TOUCHZONE running Android 6 or higher.

The last set of settings allows to configure a lockscreen, which will be discussed in more detail later in the manual.

3.3.1 DISPLAY-OFF WAKE-UP THROUGH SENSOR

When DIVUS LAUNCHER V2 is installed on device with proximity sensor it's possible to wake-up the device from sleep through the proximity sensor, and customize the wake-up behavior. This is possible in the "display wake-up sensor settings", which become available if the display power management is set to "turn display off (wake up with sensor)". Below is an overview of the possible settings:



The first option allows to set the sensor detection range: if movement is detected within this range, then the configured display wake-up routine is executed if the display is currently turned off. If the display is already on while movement is detected, then the sleep timeout is reset and the device will be stopped from going to sleep. The possible values are as follows:

- Near (corresponds to roughly up to 50cm).
- Close-by (corresponds to roughly up to 1m).
- Far (default value, corresponds to roughly up to 2m).



Proximity sensor precision can change depending on the device.

The next settings allows to configure the sensor wake-up behavior in case movement is detected, with the following scenarios:

- Default behavior

This option just turns the display on again, the same as if the physical home button is pressed. Whenever possible the previously open app is shown. This value is selected by default.

- Show launcher

This option turns the display on again, but instead of showing the previously open app the main view of DIVUS LAUNCHER V2 is shown.

- Start lockscreen

This option turns the display on again, but instead of showing the previously open app the configured lockscreen is started. Closing the lockscreen will then show the main view of DIVUS LAUNCHER V2. This option is only available when a lockscreen is configured.

- Start app

This option turns the display on again, but instead of showing the previously open app the configured app is started. When this is selected, then an additional setting becomes available through which the app to start can be selected.



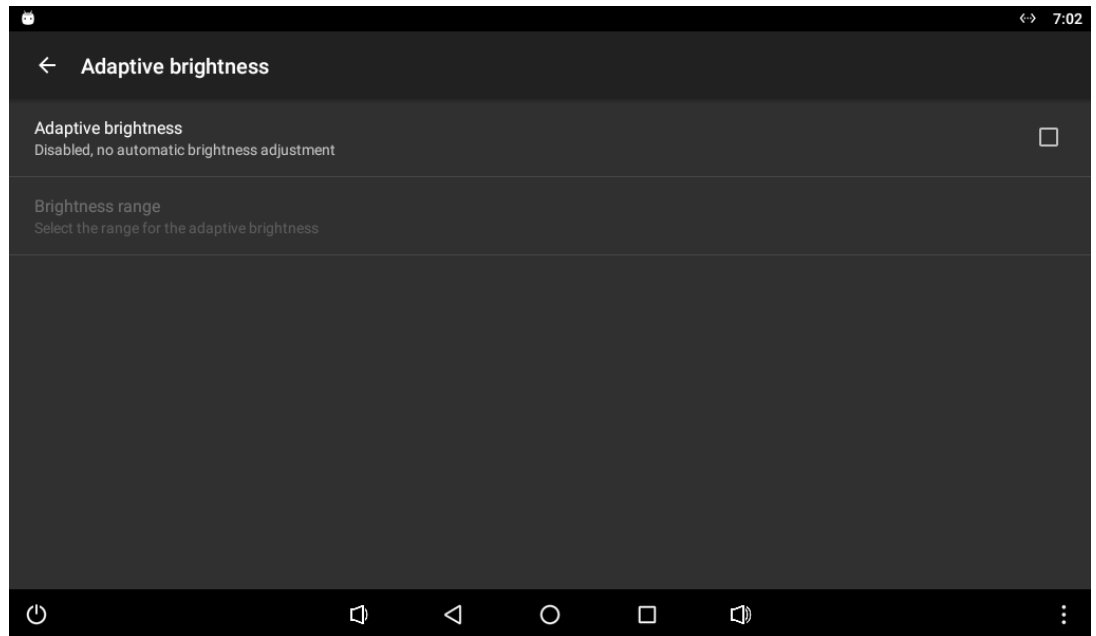
In order to avoid false-positives, the wake-up from display-off through sensor will not react on single movements: a fast movement like waving will not trigger this function. Instead a series of last known values will be considered and analysed and reaction will be based on that. Because of this this function does not trigger instantly on movement, but can be delayed by a few seconds.



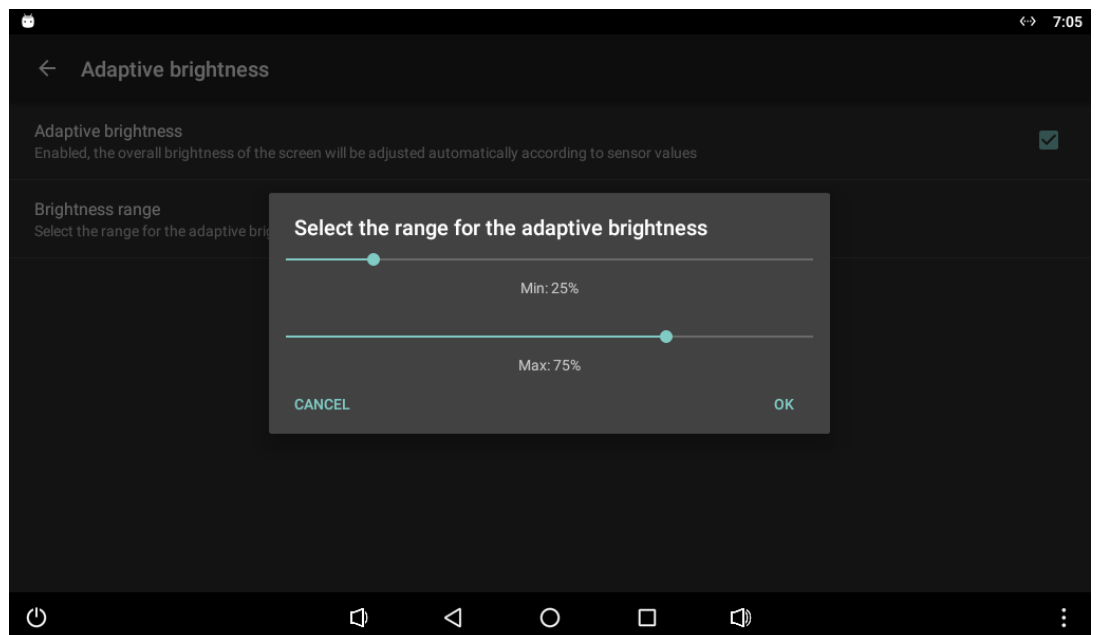
Before using this function on DIVUS TOUCHZONE consult the manual of DIVUS TOUCHZONE first.

3.3.2 ADAPTIVE BRIGHTNESS

If DIVUS LAUNCHER V2 is installed on DIVUS TOUCHZONE running Android 6 it is possible to automatically adjust the display brightness depending on the surrounding brightness in the room, as registered through the light sensor. This is possible in the “adaptive brightness” settings, which look as shown below.



The first option allows to enable the adaptive brightness function, which by default is disabled. By enabling the function the next setting becomes available, clicking on it will open the following dialog.



This dialog allows to set the range in which the adaptive brightness can operate: the display brightness will never be set below minimum value and will never exceed the maximum value. The minimum value (25% by default) can't be lower than 10% or higher than the maximum value, whereas the maximum values (75% by default) can't be lower than the minimum value and higher than 100%. Changing one of these sliders in the dialog will temporarily dim the display to the selected value, as a preview.

When the adaptive brightness is triggered the display brightness of the devices is automatically changed to match the surrounding brightness in the room. Based on registered sensor values the screen brightness will be set to a matching value between the configured minimum/maximum brightness range.



The minimum and maximum value correspond to the overall display brightness capabilities of the device and are independent from the currently set display brightness



The adaptive brightness function does not react on single changes in brightness, but instead a series of last know values will be considered and analysed. The display brightness is then changed in fixed intervals of 10s depending on the known sensor values and configured minimum/maximum brightness range.



When adaptive brightness is enabled it is still possible to change the display brightness manually, however this value will be overwritten the next time adaptive brightness is triggered.



Light sensor precision can change depending on the device.



When using the adaptive brightness it is advised to disable the display dim power management, as display dim will override the adaptive brightness function.



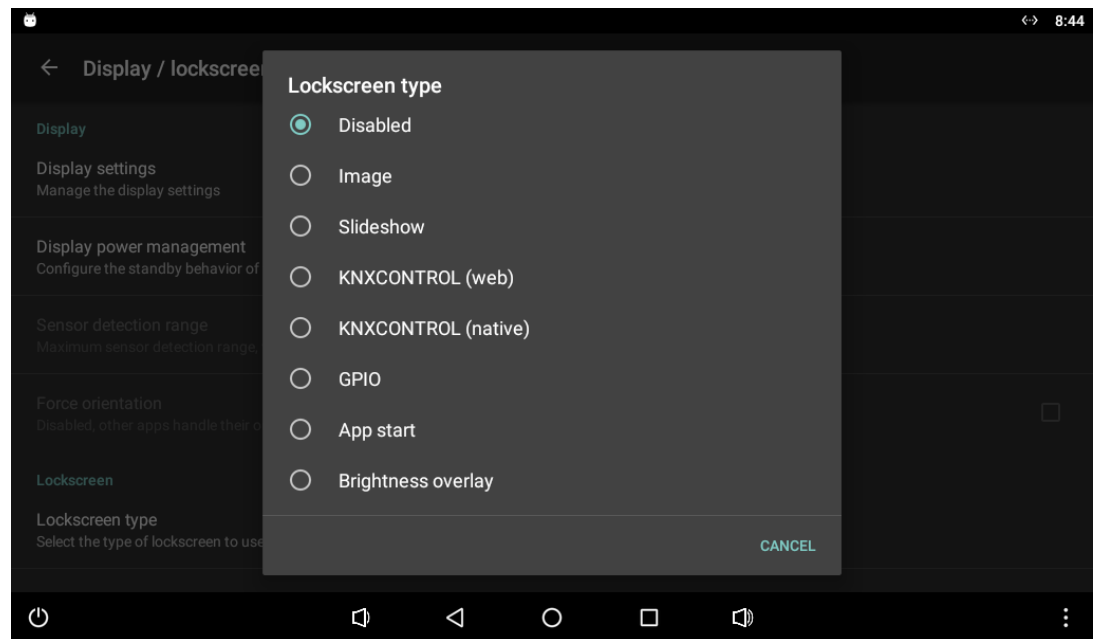
Adaptive brightness is only available when installed on DIVUS TOUCHZONE running Android 6.



Before using this function on DIVUS TOUCHZONE consult the manual of DIVUS TOUCHZONE first.

3.3.3 LOCKSCREEN

DIVUS LAUNCHER V2 offers a wide variety of lockscreen, which act like a screensaver and start after a set time of inactivity is detected. By default the lockscreen is disabled, but the following type of lockscreen are possible:



DIVUS LAUNCHER V2 will register user input on the screen and the lockscreen can be configured to start after a given amount of inactivity. Additionally it's possible to configure a password, which is required to provide before being able to close the lockscreen, else the lockscreen remains open. These two settings are valid for mostly all types of lockscreen, with some exceptions.



Depending on the device, before using the lockscreen it may be necessary to unlock it first, as the user has to give special permission which allows the lockscreen to draw on top of other apps.



When the lockscreen is closed DIVUS LAUNCHER V2 tries to open the previously open app, after a short delay. It can't be guaranteed that this succeeds or the exact same window as before opens.



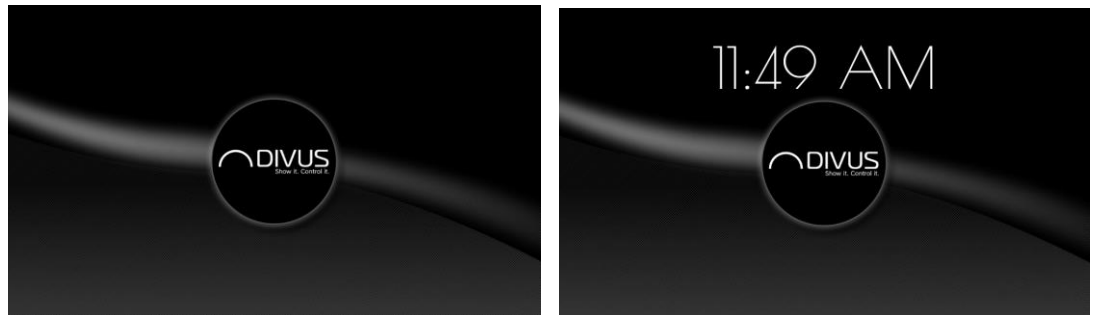
The lockscreen is only able to detect touches on the screen in order to calculate its timeout, thus it can happen that the lockscreen starts while the device is in (passive) use. Because of this it is advised to choose a generous timeout.



When using the lockscreen it is advised to disable the simple display off power management. The display off and wake-up through sensor however is safe to use.

3.3.3.1 IMAGE

This lockscreen allows to show a single image, and possibly also a digital clock showing the time.



There are just 2 options for this type of lockscreen, the image to display and if the clock should be shown or not. Similar as for the background image, also here when setting the image the gallery will open through which the image can be selected. If no image is set, or the set image can no more be found, then a default image is used. The clock uses automatically the time of the device and the format as configured for the device.

This lockscreen can be closed with a swipe or a touch on the screen.

3.3.3.2 SLIDESHOW

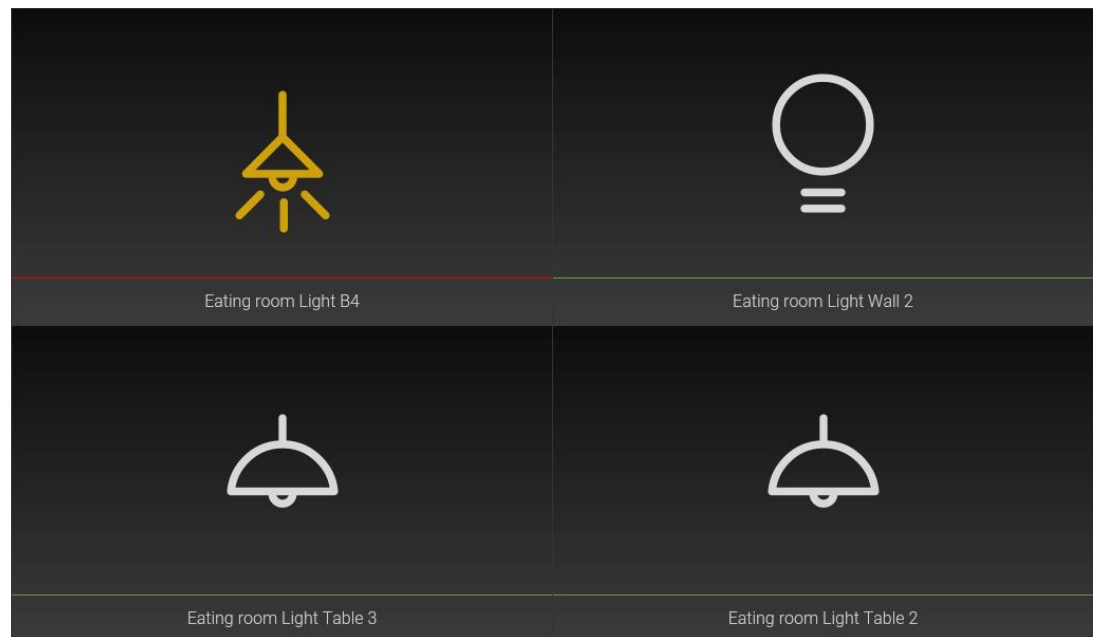
With the slideshow lockscreen it's possible to show a slideshow of many images, and possibly again also the current time.

Graphically it looks nearly the same like the image lockscreen, but instead of specifying a single image a folder is selected: the images contained in that folder are then displayed as slideshow. If the folder does not contain any images or can no more be found, then a default set of images is used. As additional setting also the time between switching from one picture to the next has to be defined. The clock works again the same as in the image lockscreen: can be shown or hidden, and uses the time format set for the device.

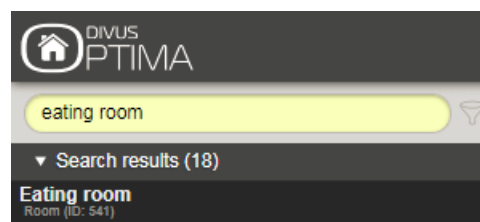
This lockscreen can be closed with a swipe or a touch on the screen.

3.3.3.3 KNXCONTROL (WEB)

This lockscreen allows to visualize and control the elements from a room inside the DIVUS KNXCONTROL device.



First of all, the IP address of the KNXCONTROL device to connect to are required, together with also username/password to access the server. Next the room ID to visualize and the number of buttons to show has to be configured. The room ID can be found inside the administration panel of the KNXCONTROL device, when searching for the desired room.



When starting the first time the lockscreen first requires to connect to the KNXCONTROL device and load the content to visualize, this can take a few minutes. Subsequent starts of the lockscreen are instantaneous as cached data is used. The last setting allows to explicitly delete all cached data for this lockscreen, thus forcing a reload of the contents at the next start.

This lockscreen can be closed with a swipe on the screen.



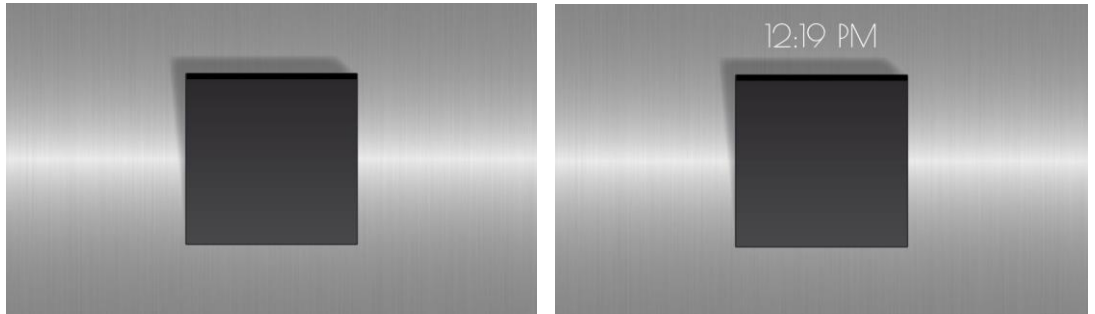
When used in combination with DIVUS HEARTBEAT, instead of specifying the IP of the KNXCONTROL device it's also possible to use the hostname of DIVUS HEARTBEAT and respective port, corresponding to the port forwarding to the KNXCONTROL device.



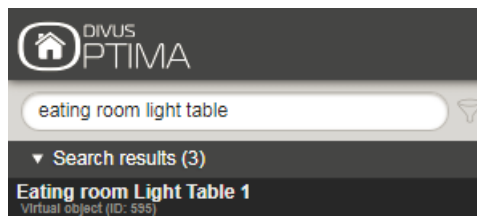
This lockscreen requires a DIVUS KNXCONTROL device.

3.3.3.4 KNXCONTROL (NATIVE)

This lockscreen allows to control a single object of the DIVUS KNXCONTROL device.



Similar to the KNXCONTROL web lockscreen also this lockscreen requires the IP address of the KNXCONTROL device to connect to, together with also username/password to access the server. But instead of the room ID, in this case the ID of the object to control has to be specified. This ID can be found inside the administration panel of the KNXCONTROL device, when searching for the desired object.



Additionally the design of this lockscreen can be customized (will be explained in another chapter) and a digital clock can be enabled, again using the time format of the device.

This lockscreen can be closed with a swipe on the screen.



When used in combination with DIVUS HEARTBEAT, instead of specifying the IP of the KNXCONTROL device it's also possible to use the hostname of DIVUS HEARTBEAT and respective port, corresponding to the port forwarding to the KNXCONTROL device.



This lockscreen requires a DIVUS KNXCONTROL device.

3.3.3.5 GPIO

This lockscreen allows to directly control a digital output of DIVUS TOUCHZONE to trigger external elements. Here it is required to insert the digital output which should be controlled and again it can be configured if to show a digital clock which uses the devices time format. Also here the design of the lockscreen can be customized (will be explained in another chapter). Graphically it looks the same as the KNXCONTROL native lockscreen.

This lockscreen can be closed with a swipe on the screen.



This lockscreen is available only on DIVUS TOUCHZONE.

3.3.3.6 APP START

With this lockscreen it's possible to select an app which should be started after the set timeout. If the app is already running, nothing happens, else the app is started. In this lockscreen no password for closing the lockscreen can be set as there is nothing to close.

3.3.3.7 BRIGHTNESS OVERLAY

This lockscreen can control the brightness of the screen. The required setting is the brightness of the screen, in the dialog which pops up a slider to select it is shown and the when moving the slider the screen already adjusts as preview. When the set timeout of inactivity is reached, the display will dim/brighten to the configured brightness and navigation bar will be hidden: the first click on the screen returns the display again to regular brightness and shows again the navigation bar, but does not trigger any underlaying action. In this lockscreen it's not possible to configure a password for closing the lockscreen.

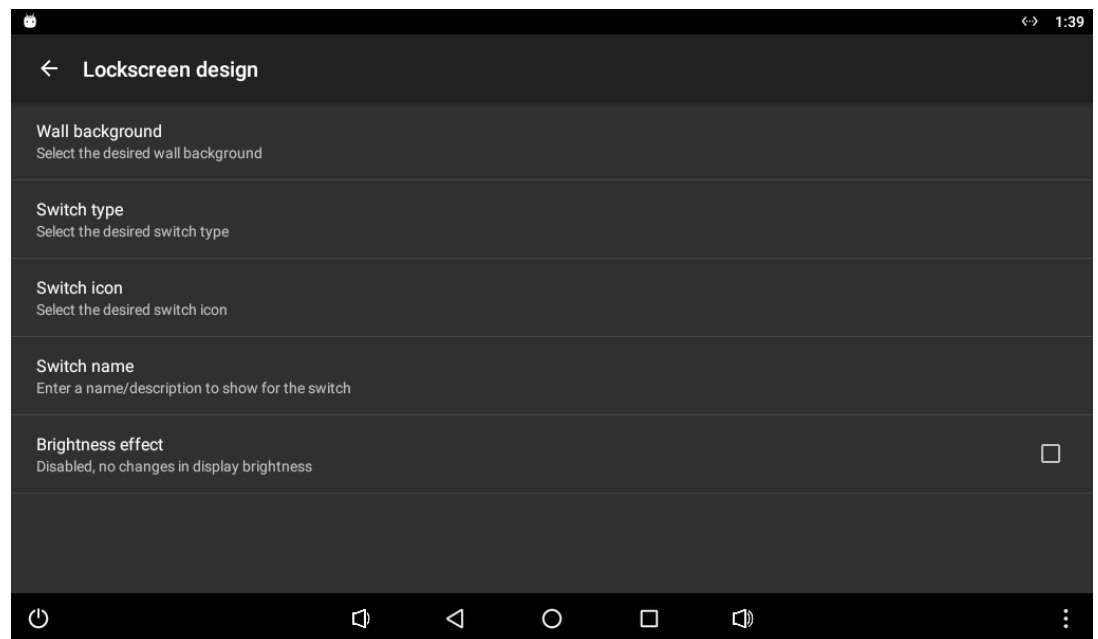
3.3.3.8 BLACK SCREEN

This lockscreen is an alternative to the display-off function: when this lockscreen is used, the display will dim to minimum brightness and a black screen is shown.

This lockscreen can be closed with a swipe or a touch on the screen.

3.3.3.9 LOCKSCREEN DESIGN

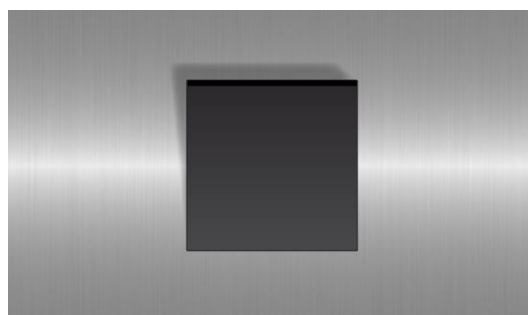
As discussed before, the lockscreen KNXCONTROL native and GPIO can have their own lockscreen design, the settings look as follows:



The first setting allows to select from a list of offered templates which kind of wall background to use. Similarly, the next option allows to select the type of switch to use. The next setting gives the option to select an icon to display inside the icon. Next, there is also the possibility to give the switch a name which is shown.

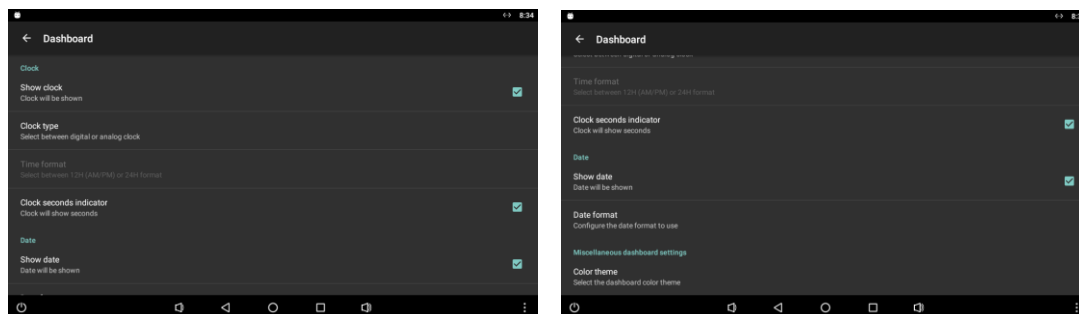
The last setting when enabled gives a brightness feedback on the state of the switch: if when pressing the switch turns something on then the display turns briefly brighter, if when pressing the switch turns something off then the display turns briefly darker, during standby the display remains at medium brightness.

Below are some examples for various designs, to the left the default one and to the right a custom one.



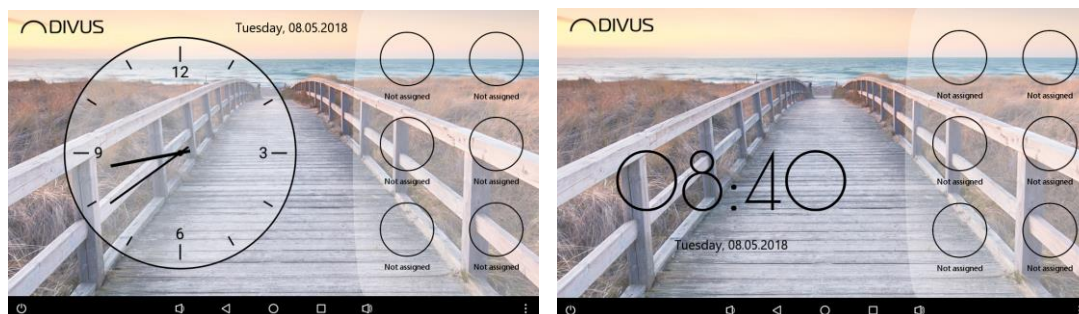
3.4 DASHBOARD

This section holds various settings to customize the dashboard, which mostly include the time and date.



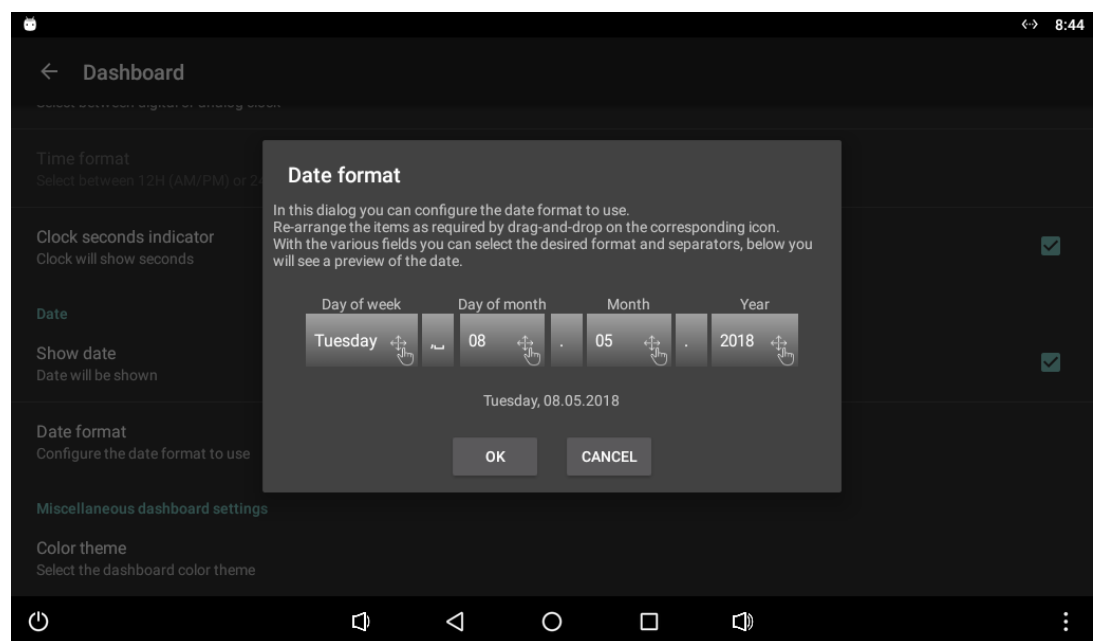
3.4.1 CLOCK

The clock of the dashboard can be customized as desired. First of all, it can be configured to be enabled or disabled. When enabled, it's possible to choose between a digital or analog clock. Should the analog clock be selected, it's possible to set whether the seconds-indicator is shown or not. If instead the digital clock is selected, then it can be set whether to use the 12H AM/PM or the 24H format. By default the analog clock with seconds-indicator is enabled. Below are as an example on the left the analog clock without seconds-indicator, and on the right the digital clock in 24H format.

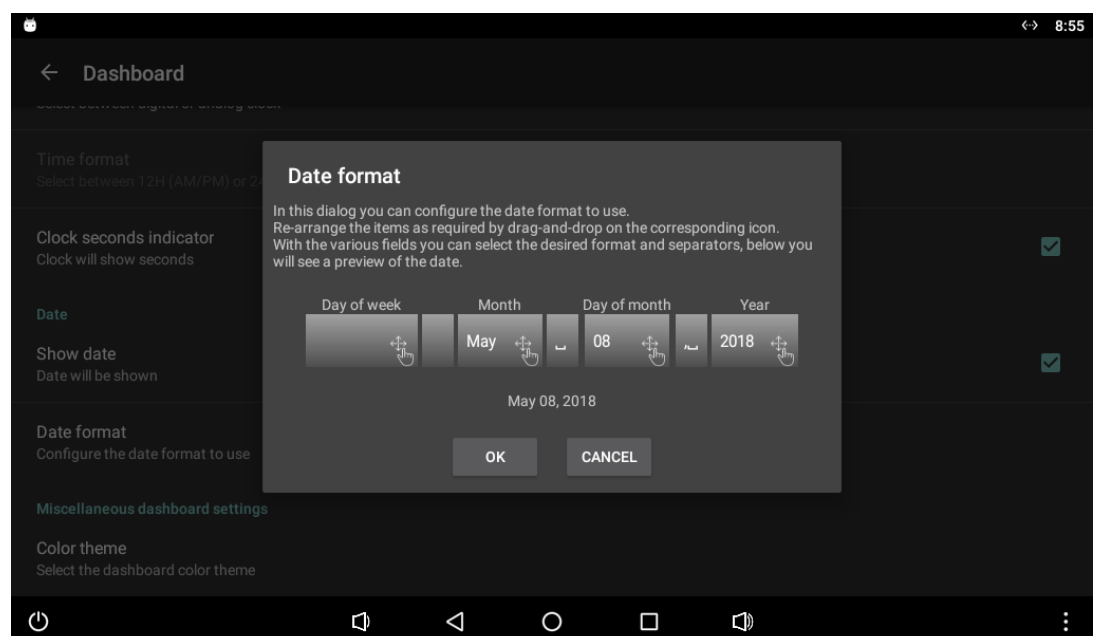


3.4.2 DATE

The date is either shown on the top right or on bottom of the dashboard, depending on the currently selected clock. Similar to the clock, also the date can be configured to be enabled or disabled. The only other setting for the date is to configure it's format, which is highly customizable. When clicking on the corresponding setting the following dialog is show:



The date consists of mostly of 7 components: the day of week, the day of month, month, year, and corresponding separators between the fields. The date components offer various possible values to identify that field, and by drag-and-drop on the corresponding icon they can be rearranged between them. If some field is not desired, it can also be left empty and thus it won't show up in the final date. Below the structure there is also a previous of



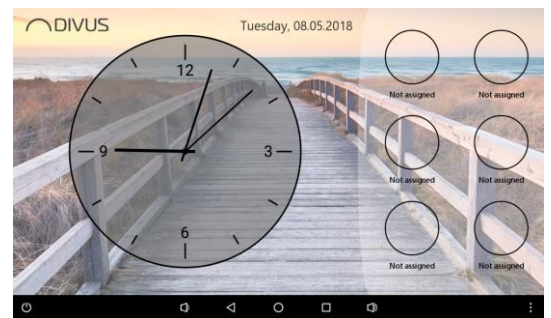
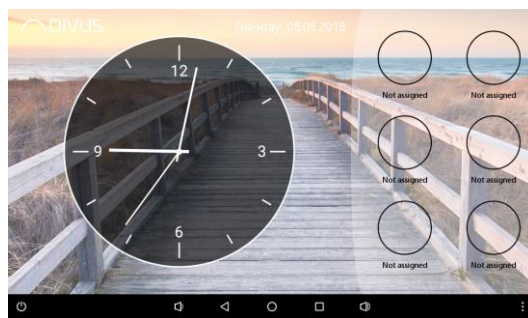
the currently arranged date. The dialog uses the current date during configuration. Below is an example to display the date as “MMMM DD, YYYY”.



The displayed date makes use of the Android framework, and thus supports every language as supported by the Android system, regardless of what languages are supported by DIVUS LAUNCHER V2.

3.4.3 MISCELLANEOUS

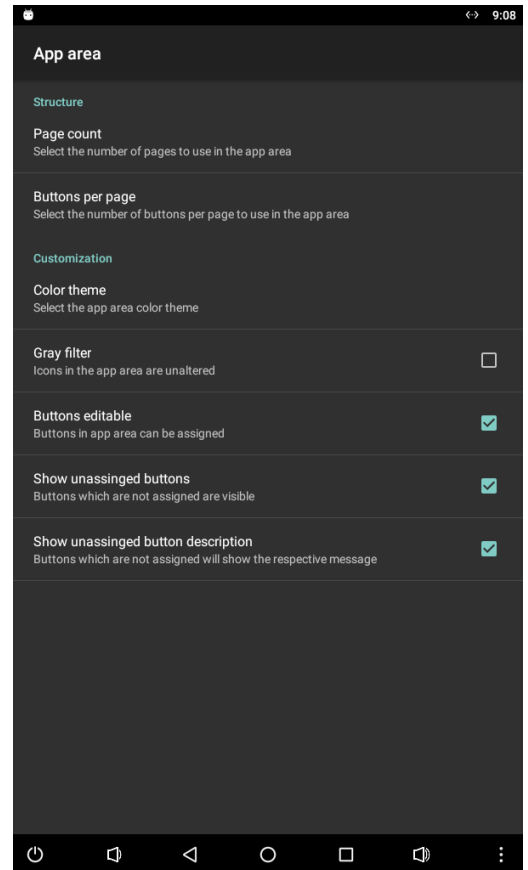
One remaining setting is the color theme of the dashboard, which can be changed separately from the main theme and the app area theme. Changing this setting allows to define which color to use for the dashboard, by default it uses the same colors matching the main theme. With the main theme as bright, below is an example of the dashboard with white (left) and gray (right) color themes.



3.5 APP AREA

This category of setting is all about the customization of the app area. The settings are divided into the structure of the app area, and various settings to change its appearance and behavior. Briefly summarized, the available settings are the following:

- Page count
- Buttons per page
- Color theme
- Gray filter
- Buttons editable
- Show unassigned buttons
- Show unassigned buttons description

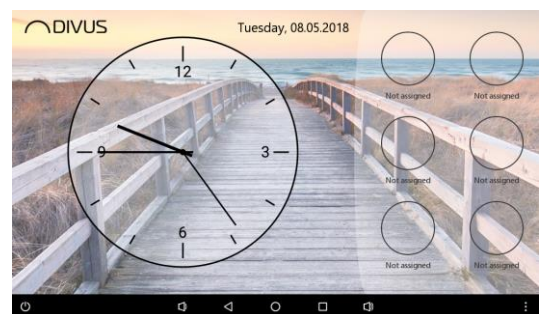
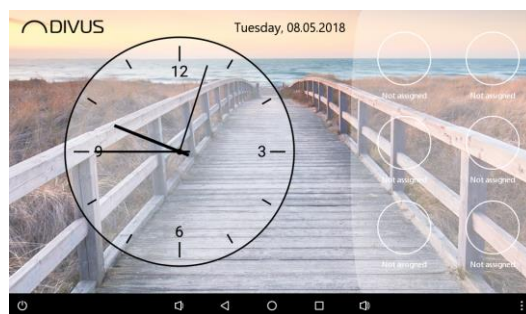


These settings will now be discussed in details.

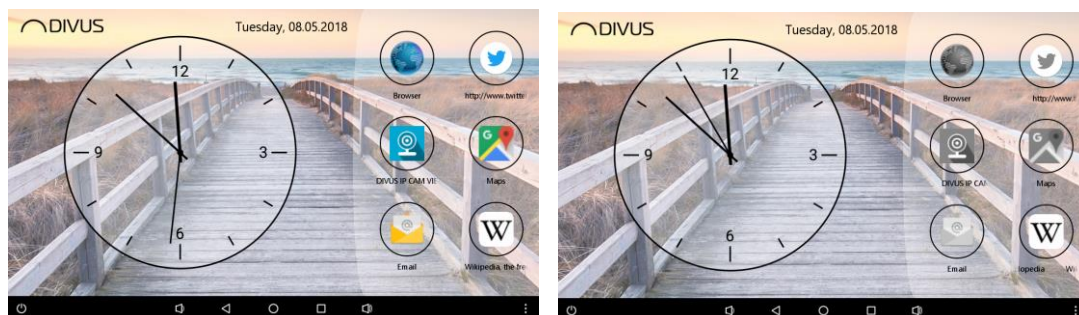
The first two settings allow to change the overall structure of the app area, by changing the number of pages and the amount of buttons per page. By default there are 5 pages with 6 buttons each. By using a combination of these settings, it's possible to link minimum 1 and maximum 60 apps/URLs. Below is an example of the configuration 4 buttons per page.



Also for the app area it's possible to change the color theme, irrespective from the main theme and dashboard. The background overlay of the app area is still defined by the main theme, but the color of the buttons/texts can be changed to be different from the main theme. With the main theme bright, the below examples show a white (left) and gray (right) app area color theme.

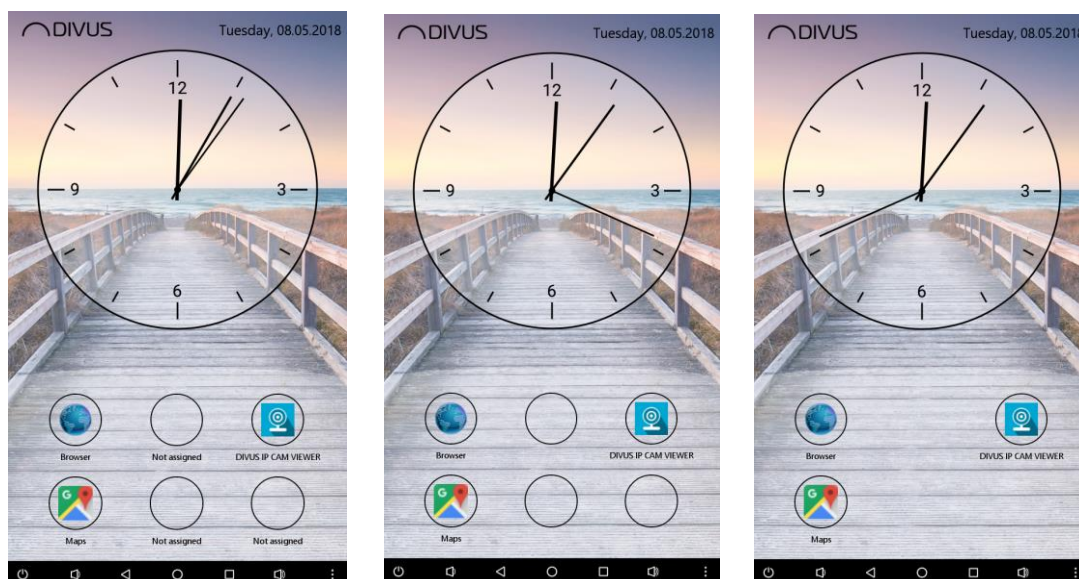


The next option allows to enable a gray filter for the icons displayed in the app area, for all pages. When enabled the icons will appear monochromatic, when disabled the icons remain unaltered. This effect mostly applies only to the app/URL icons. Custom icons which can be selected instead of the native one are not affected by this setting, as they are already monochromatic. Below to the left is an example with disabled filter, and to the right with enabled gray filter.



The next settings allows to enabled/disable the assignment of the buttons. By default this button is enabled and buttons in the app area can be assigned by doing a long-click on them. When this option is disabled, then long-clicking on a button will no more open the dialog to assign/unassign the button, the button remains locked in its current configuration.

The next 2 settings allow to configure how unassigned buttons should appear. By default the unassigned buttons are empty but visible, and show a corresponding description below them. When the “show unassigned buttons” setting is disabled, then the buttons which are not assigned are not visible at all, but they can still be assigned by doing a long-click on them. Setting the unassigned buttons as invisible nullifies the setting of the button description. If unassigned buttons are to remain visible, then the setting “show unassigned button description” allows to hide the corresponding description, but the overall button remains visible. Below are some examples of various configurations: on the left the default configuration with both buttons and description visible, in the middle the buttons are visible but the description is hidden, and on the right unassigned buttons are hidden.



3.6 ADVANCED

In this section all the advanced settings of the DIVUS LAUNCHER V2 are present, which are divided into (truly) advanced settings and simple access to other Android settings.

3.6.1 ADVANCED

3.6.1.1 SYSTEM/USER PASSWORD

As mentioned before, access to the settings of DIVUS LAUNCHER V2 is protected by password: the default system password is "0000", the default user password is "1111". System access has access over all settings present in the DIVUS LAUNCHER V2, user access has only limited access to those settings which don't alter the behaviour of the device or DIVUS LAUNCHER V2, and are thus deemed "safe" for regular user with no/little technical knowledge.

Those passwords can be configured, when changing them it is required to provide the current current password, and type the new password twice.



Should both passwords match then the access to the settings is always at system level, user access is thus nullified until the passwords are different.



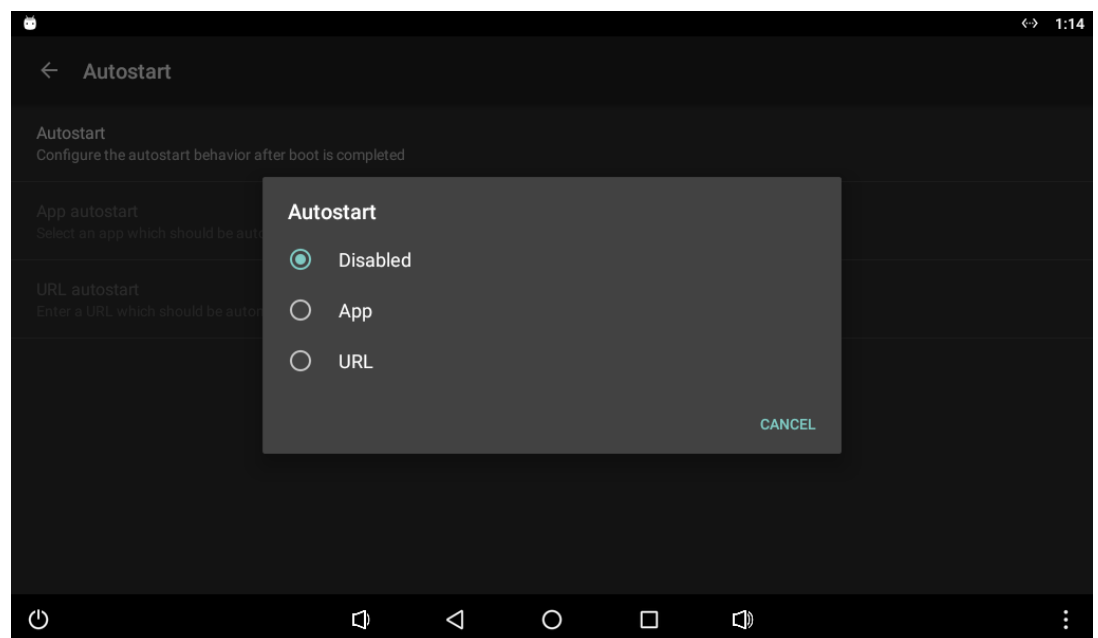
Passwords should always be kept private and not shared with unauthorized personnel.

3.6.1.2 WELCOME MESSAGE

By default at every start of DIVUS LAUNCHER V2 the welcome message is displayed. This option can be disabled here and the message will no more display.

3.6.1.3 AUTOSTART

In this submenu it's possible to configure the autostart behaviour for the device.



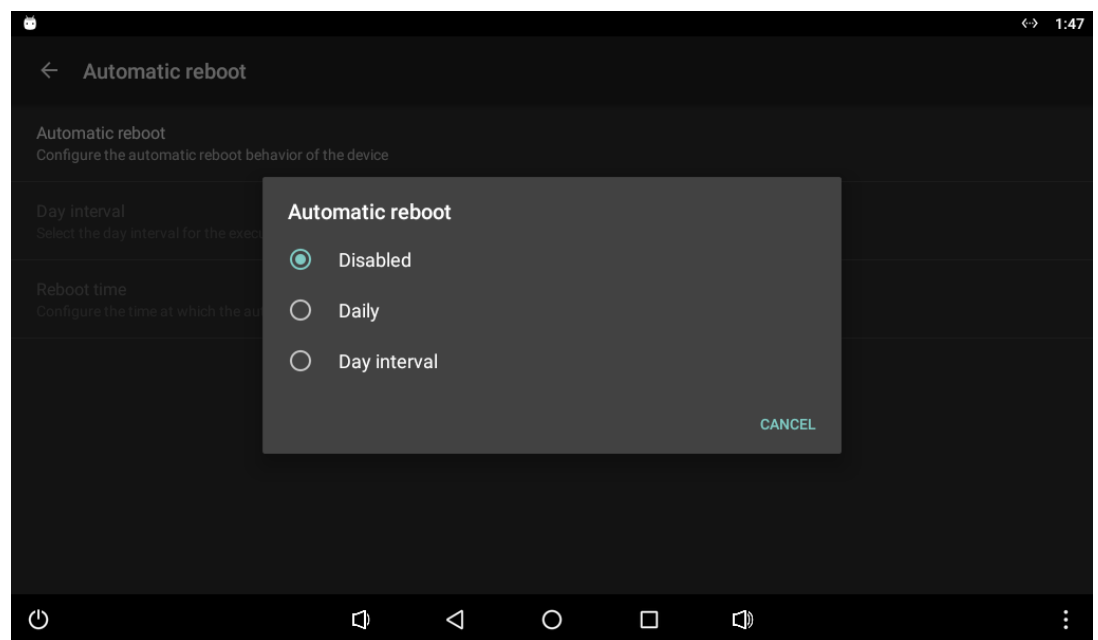
By default it is disabled, but it's possible to configure either an app or URL as autostart. When selecting one of those options either an app from the list of installed apps has to be selected, or the full URL to open has to be provided. Once this setting is enabled at the start of device the desired app/URL is started.



This autostart is executed with a short delay, in order to guarantee that other services and components which may be relied on by the app/URL are running. When selecting multiple apps, there is a 5s interval between each app.

3.6.1.4 AUTOMATIC REBOOT

This function allows the device to perform automatic reboots in periodic intervals.



By default set to a 20 day interval at 05:00, however it's possible to disable or select either daily reboots or reboots with day interval. In both cases the time at which the reboot has to be performed has to be set, only with the day interval also day interval itself has to be selected. During operation whenever the condition is satisfied, the device will perform a reboot.



Automatic reboot is possible only for DIVUS TOUCHZONE with image supporting this feature.

3.6.1.5 ADVANCED SECURITY FUNCTIONS

In this section various advanced security functions can be found.

3.6.1.6 CACHE CLEANER

The cache cleaner is a surveillance function which allows to automatically delete cached data in a periodic interval. When enabled, the interval in which the cache cleaner operates has to be set. Whenever that interval is reached DIVUS LAUNCHER V2 will proceed to delete all cached data on the device.



If used incorrectly this function can cause the device or apps to misbehave, use this function with caution!



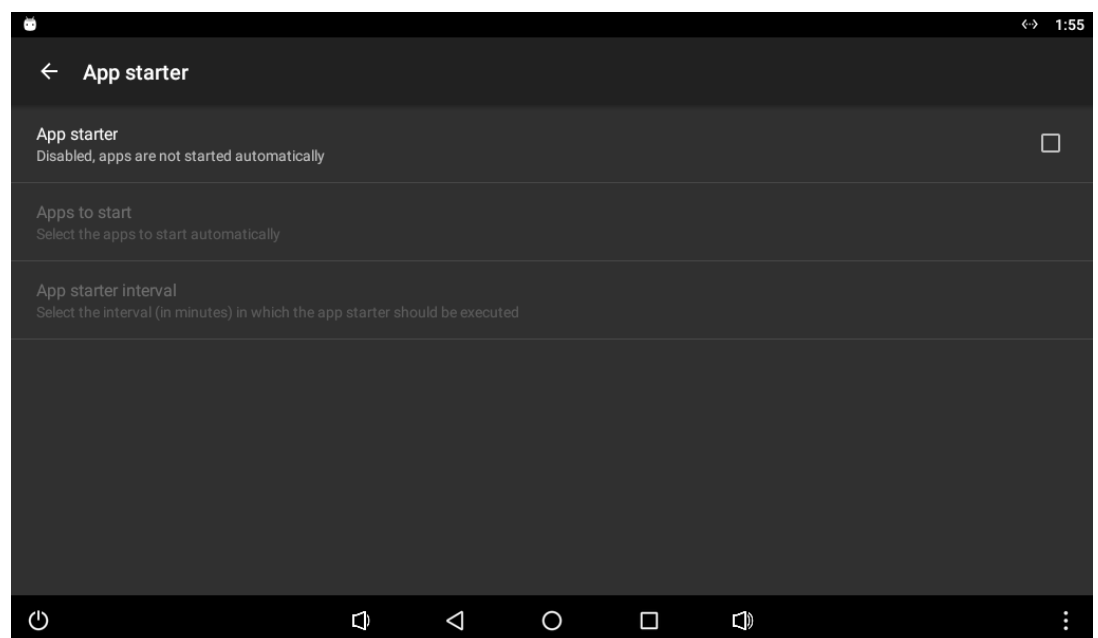
Using this function in combination with other DIVUS apps, especially DIVUS OPTIMA, is strongly discouraged.



This function is available only when installed on DIVUS TOUCHZONE.

3.6.1.7 APP STARTER

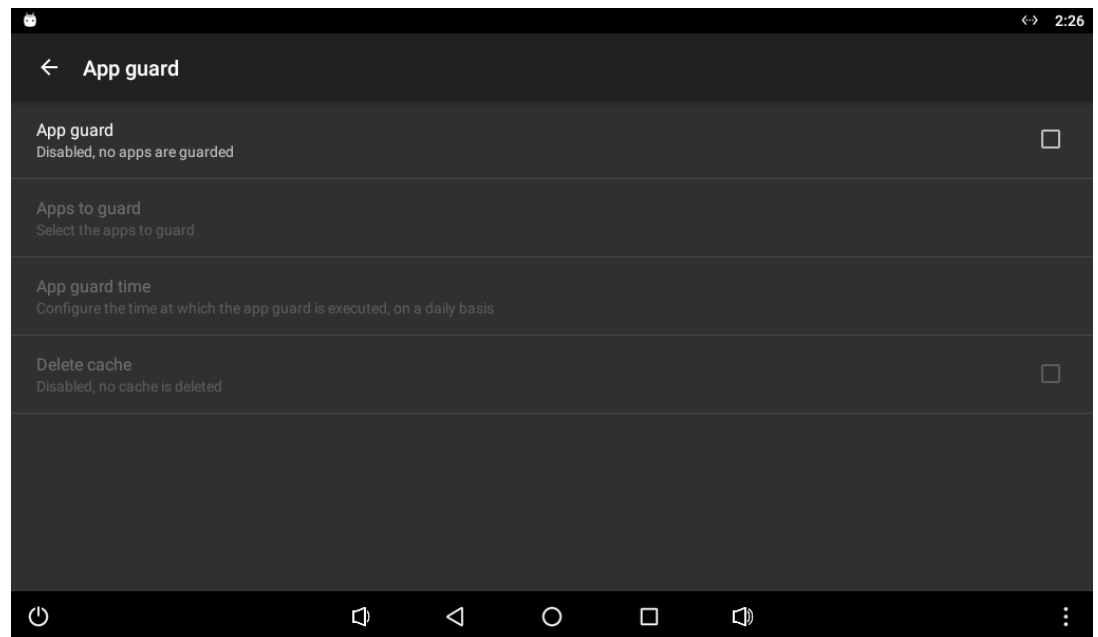
The app starter allows to periodically start selected apps.



By default it is disabled, however when enabled it's possible to select which apps to start automatically with this function, and the interval in minutes of when to execute this function. In the set interval DIVUS LAUNCHER V2 will check which of these apps are already running, and will start the apps which are currently not running.

3.6.1.8 APP GUARD

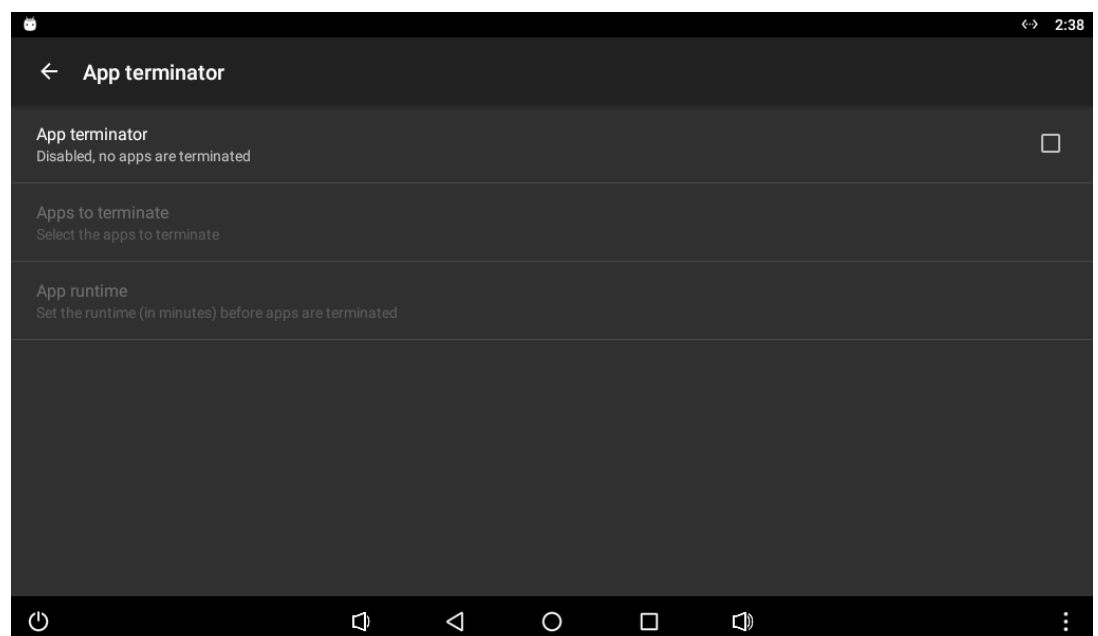
The app guard is a surveillance function which guards the selected apps and restarts them at a set time.



When enabled, the apps which have to be guarded are to be selected as well as at which time the app guard should be executed. Optionally it's also possible to enable cache deletion. The app guard runs once daily at the set time: first the main view of DIVUS LAUNCHER V2 is shown, next all the selected apps are terminated, optionally if selected the cache is deleted, and last the selected apps are started again.

3.6.1.9 APP TERMINATOR

The app terminator is another surveillance function which is used to terminated the selected apps.



By default this function is disabled, when enabled the app which should be terminated have to be selected, as well as how long they can run before they are to be terminated. When the app terminator detects that the app has been running longer than the allowed runtime, then the app will be terminated. If an app to terminate happens to be in foreground, then before terminating the app the main view of DIVUS LAUNCHER V2 is opened.



The minimum app terminator runtime may not be less than 15min.



The app terminator can't know if an app which is to be terminated is currently actively used by the user, thus the app might be terminated while in active use by the user.



Some apps may have running background services which can't be terminated or will restart themselves automatically.



A terminated app may be left in an inconsistent state as it can be interrupted mid-operation, thus use this function with caution!

3.6.1.10 DEVICE ECHO CANCELLING

When DIVUS LAUNCHER V2 is installed on DIVUS TOUCHZONE running Android 6 there is this additional option to enable/disable the device echo cancelling capabilities, disabled by default. Under certain circumstances this may improve audio quality during intercom/SIP communication.



When this setting is changed a reboot of the device is required for the new configuration to be applied.



This option is only available when installed on DIVUS TOUCHZONE running Android 6, with image version R4.4 or higher.

3.6.1.11 DIVUS SYNCHRONIZER ACCESS

This Option is used to allow/deny DIVUS SYNCHRONIZER access to the device, disabled by default. DIVUS SYNCHRONIZER won't be able to access the device as long as this setting is disabled. It's possible to allow access to the device only for a limited time only, or unlimited.



For additional information consult the DIVUS SYNCHRONIZER manual.



This option is only available when installed on DIVUS TOUCHZONE running Android 6, with image version R4.5 or higher.

3.6.2 ANDROID SYSTEM SETTINGS

The last set of advanced settings simply provides access to other Android system settings:

- Overview of installed applications, with the possibility to delete them. Additional information like used space for each app is also visible.
- Access to volume control and related settings.
- Management of storage, overview of used storage and statistics.
- Account management, with the possibility to modify existing accounts or create new ones.



Full access to all Android system setting is reserved for DIVUS employees only.

3.7 INFORMATION

This section of the settings holds some general information about DIVUS LAUNCHER V2 and the device. In the first part there are general information like app version, copyright info and a link to DIVUS privacy policy. The next part holds information about the device, like Android version and image version of the device. The last section holds contact information on how to contact DIVUS, including telephone, e-mail and homepage. This information is mostly used in case of support.