

TECHNOVIA

SLIDESHOW

Owner's Manual

Digital signage stick

October 2026
Review edition

Setup, playback, scheduling and advanced software reference.

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Using your manual

Using this manual

Use this manual to connect your Technovia SLIDESHOW digital signage stick, add content and manage what appears on your screen.

FIND A TOPIC

Choose a chapter from the contents or search for a task, setting or file type. On a phone, use the Contents button to open the chapter list. Download the PDF for an offline copy.

YOUR TECHNOVIA SYSTEM

Technovia SLIDESHOW combines an Android signage player with Slideshow-based software. This guide covers the software documentation available on 4 October 2026. Check **Information > About software** for your installed version.

Features depend on the installed Technovia software build, Android version, available ports and connected display. A feature appearing in this manual does not establish that it is fitted to every stick.

START HERE

1. [Connect your stick](#) to the display and power.
2. [Add your first files](#) and check playback.
3. [Open the local web interface](#) for playlists, layouts and schedules.
4. [Configure automatic startup](#) and test a restart.

ILLUSTRATIONS & MENU NAMES

Reference screenshots are retained from the software documentation and may show original Slideshow branding. Menu labels, file names, programming identifiers and protocol names are kept where needed to follow the instructions. Use the labels shown on your installed version.

REFERENCE MATERIAL

Hardware reviews describe other manufacturers' products and their tested configurations. They are not specifications or test results for the Technovia stick. Release notes describe upstream software, not confirmation that your branded build includes each release.

The software provider's policies and commercial programmes are included separately as reference material. References to free software, supplier prices or supplier support arrangements do not define Technovia's hardware pricing, warranty or service terms.

ABOUT THIS EDITION

This review edition retains the detailed software articles, examples and available illustrations, with Technovia branding where relevant. The quick-start instructions are tailored to a signage stick. Hardware ratings and the installed software configuration should be checked against your supplied unit before customer release.

Using your manual

Connect your stick

Connect the stick to an HDMI display and a suitable USB power supply, then check the picture before adding your signage content.

CONNECT THE DISPLAY & POWER

1. Insert the stick's HDMI connector into a free HDMI input. Use a suitable HDMI extension if the connection needs more clearance.
2. Connect the stick's power lead to a supply that meets the voltage and current ratings on the unit or its supplied instructions.
3. If powering from the television's USB socket, check that it supplies sufficient power. Some sockets switch off with the television; others remain powered.
4. Select the matching HDMI input on the display and wait for Android and the Technovia SLIDESHOW app to load.

CONNECT TO WI-FI

Use Android's Wi-Fi settings to join your network. Connect the phone or computer you will use for management to the same local network. Guest networks may prevent devices from communicating with each other.

Locally stored media can play without internet access. Internet-based web pages, live streams, weather and cloud synchronisation need access to their respective services.

CHECK THE DISPLAY

Use a simple image or short video to confirm that the picture fills the intended area. Set the display to its normal pixel mapping or signage mode where available. For a vertical installation, configure [screen layout rotation](#).

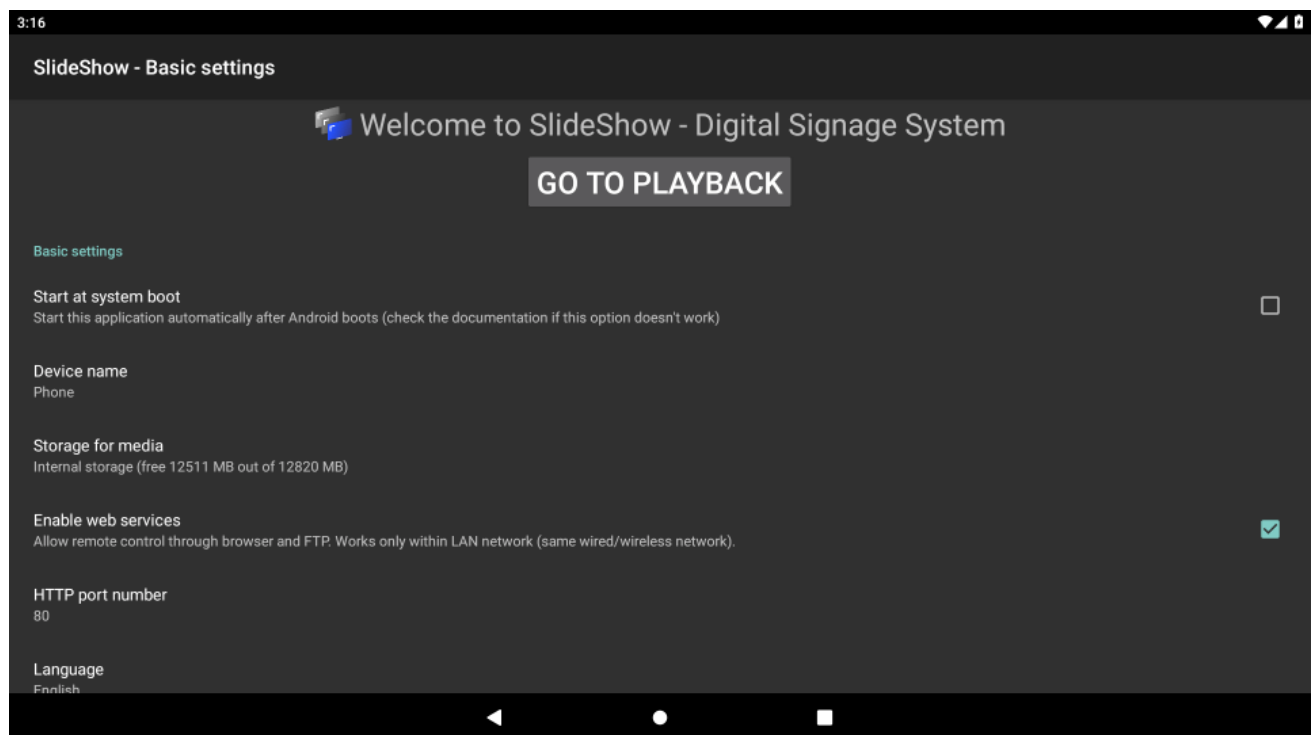
POSITION THE STICK

Keep the stick and cables secure, avoid strain on the HDMI socket and leave space for ventilation. Keep any antenna clear of metal obstructions. Follow the operating limits provided with the hardware.

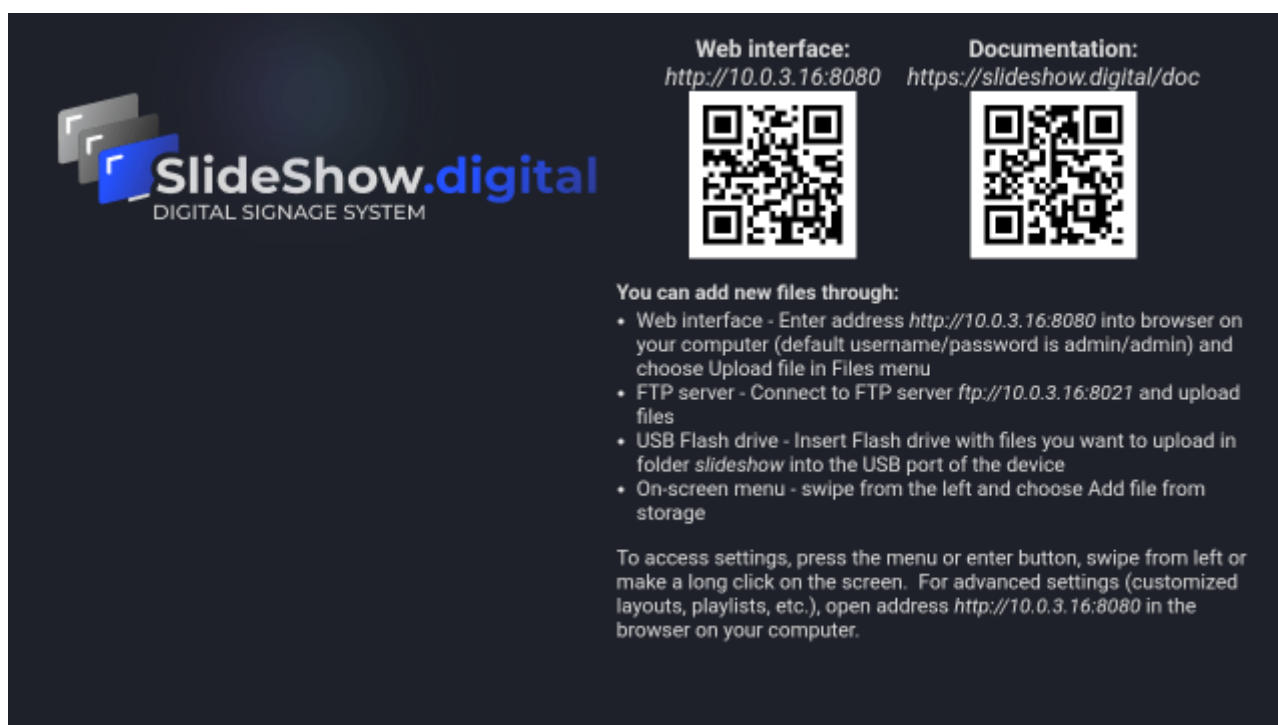
Getting started

First playback

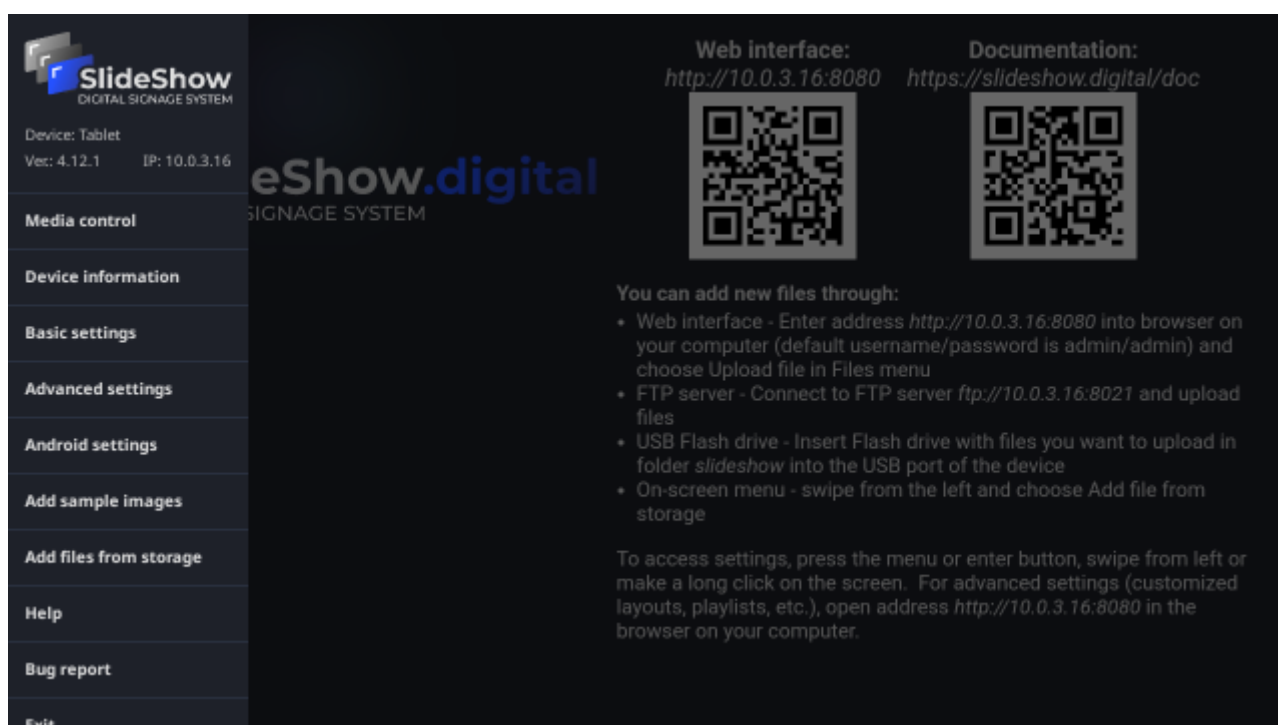
1. Connect your Technovia signage stick to the display and power, and select the correct HDMI input.
2. Open the Technovia SLIDESHOW app supplied with your stick. If it needs reinstalling, obtain the matching Technovia installation package from Technovia.
3. After granting the necessary permissions you will get the following screen with basic settings. Review them, adjust if needed and press the Go to playback button.



4. Following screen will be displayed. Technovia SLIDESHOW is now ready to be used, you can upload first files using any of the methods mentioned on the screen.

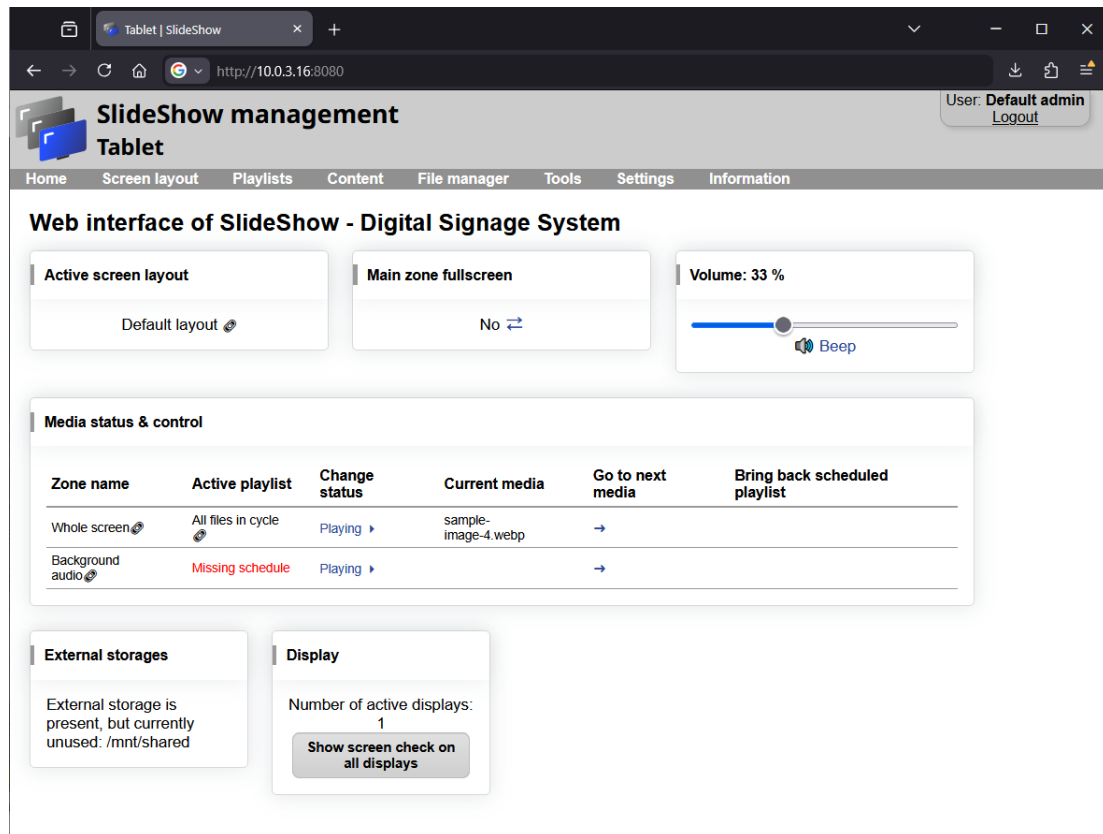


5. If you want to access settings again, press the menu button on your device or remote control and select Basic settings. You can open the menu also by swiping from the left side of the screen or pressing Enter key on a connected USB keyboard.

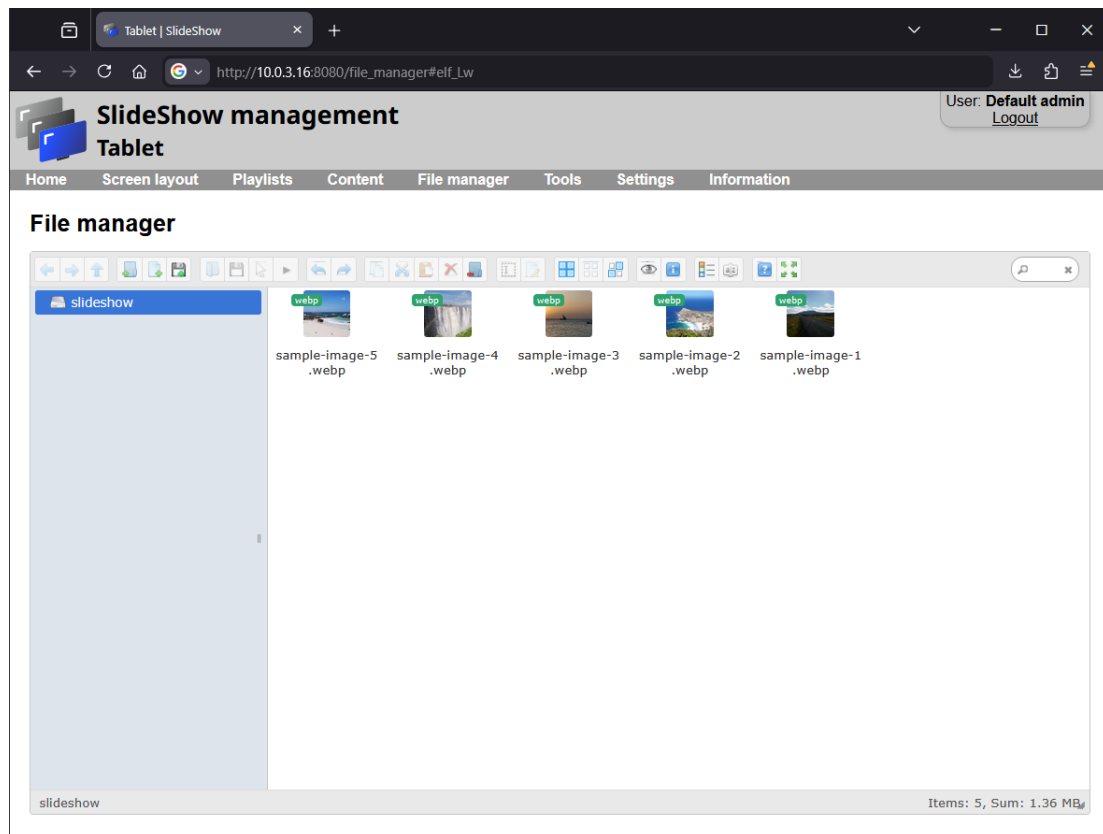


6. If your Android device is connected to the local network (through Wi-Fi or Ethernet cable), you can access Technovia SLIDESHOW's web interface through browser on your computer. Just enter the URL address of the web interface displayed on the screen (above the first QR code) to the browser on your computer. If Technovia SLIDESHOW is already displaying some other files, you can reopen the screen with URL address through the on-screen menu → Help, or using keyboard shortcut h or Space.

The default username / password for the web interface is admin / admin. You can manage advanced configuration and settings there, review statistics and check logs.



7. You can upload new files through the web interface → menu File Manager. Add files which you would like to play through Technovia SLIDESHOW using drag and drop them from your computer to the File manager.



8. Explore the documentation and video tutorials to find out more about features

[Watch video tutorial](#)

Original technical reference: <https://slideshow.digital/get-started/tutorial/>

Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Manage your stick in a browser

If your Android device is connected to a local network, you can manage Technovia SLIDESHOW from a computer, phone, or tablet within the same LAN. Note that the interfaces mentioned below work only from the same local network (LAN). If you want to manage Technovia SLIDESHOW remotely, you can set up file synchronization from your HTTP/FTP server, Google Drive or Dropbox.

WEB INTERFACE

Technovia SLIDESHOW's web interface is the main interface for managing all the Technovia SLIDESHOW's advanced features.

ONLY LOCAL ACCESS

The web interface is accessible only within the same local network. It is not accessible remotely through the internet.

ACCESS

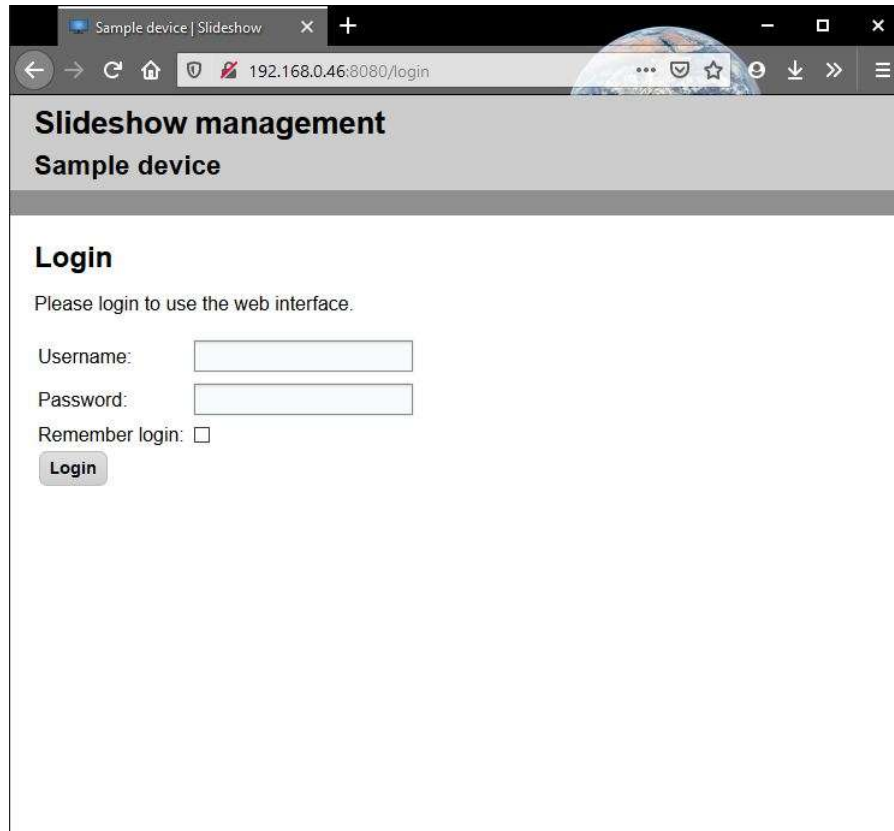
Web interface can be accessed from the web browser on your computer. You can find the address, on which the web interface is accessible, via on-screen menu → Help. It is usually `http://{device's IP address}` for rooted devices and `http://{device's IP address}:8080` for non-rooted devices.

If the Android device has several networks (e.g., Wi-Fi + Wired, or Wi-Fi + 4G data), Technovia SLIDESHOW will listen on all the networks, but will display only a single IP address on the screen. If you are on the same network as the Android device and can't connect to the address displayed by Technovia SLIDESHOW, please verify / disconnect other networks.

The port number for web interface can be changed via web interface → menu Settings → Device settings → HTTP port number or HTTPS port number or on-screen menu → Basic settings → HTTP port number. If you want to use port number below 1024, the device has to be rooted and port 8080 (for HTTP) / 8443 (for HTTPS) has to be free on the device (see this blog post for explanation).

CREDENTIALS

Default username / password is admin / admin. It can be changed after logging in, either via menu Settings → Users or Settings → Password change. If you forgot the password, you can reset it on the login page within 10 minutes after the Android device is started. For security reasons, resetting the password requires direct access to the Android device.



Web interface - login page

WEB INTERFACE VIA HTTPS

Technovia SLIDESHOW also supports secured HTTPS protocol for web interface. The address is usually `https://{device's IP address}` for rooted devices and `https://{device's IP address}:8443` for non-rooted devices. By default, Technovia SLIDESHOW generates self-signed SSL certificate on the first start, so browsers will display security alert before accessing the page. You can upload your own SSL certificate for HTTPS in [PKCS12 format](#) (includes both a private key and certificate) via web interface → menu Settings → Device settings → Certificate for HTTPS.

Certificate for HTTPS

If you want to use own server certificate for HTTPS interface (instead of auto-generated self-signed certificate), you can upload it here in PKCS12 format. Conversion into PKCS12 can be for example done through OpenSSL command: `openssl pkcs12 -export -out certificate.pfx -inkey privateKey.key -in certificate.crt -certfile fullchain.crt`.

A dialog box for uploading a certificate. It contains a label 'File with the certificate:' followed by a text input field and a 'Browse...' button. Below this is a label 'Password for certificate:' followed by a text input field. At the bottom left is a 'Save' button.

File with the certificate: Browse...

Password for certificate:

Save

Dialog for uploading certificate for HTTPS

NOTE: PORT NUMBERS

On Linux-based operating system (such as Android), port numbers 0 to 1023 are called restricted. Under normal circumstances, only administrator (also called root) can start an application which will be listening to on any of these ports. The reason for this is that many of the port numbers in range 0 to 1023 are commonly used as default ports for various protocols. It would be insecure if a regular user (non-administrator) could start an application listening on port 80 (HTTP port) and block the actual HTTP server.

That's why on non-rooted devices, Technovia SLIDESHOW starts web interface on port 8080 and FTP interface on port 8021. You can change these port numbers, but it is not possible to change them below 1024 due to security restrictions mentioned above.

On rooted devices, Technovia SLIDESHOW can listen on ports below 1024 using root access, but only indirectly. That means that the web interface is still actually listening on port 8080 and using root access, Technovia SLIDESHOW asks Android for local redirection from port 80 to port 8080. That means if your browser connects to port 80 on the device, Android will internally redirect it to port 8080 for Technovia SLIDESHOW. Similar redirection is made for HTTPS (443 → 8443) and FTP (21 → 8021).

On application start, Technovia SLIDESHOW automatically detects whether the device is rooted or not. If you open Help in on-screen menu, you will always see the correct (working) address for web and FTP interface.

Original technical reference: <https://slideshow.digital/documentation/network-access/web-interface/>
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Getting started

Media storage & USB updates

By default, Technovia SLIDESHOW saves all files uploaded for playing into device's internal storage, in the folder `/slideshow/slideshow`.

SD CARD OR USB FLASH DRIVE AS A PERMANENT STORAGE

If the size of your device's internal storage is not sufficient and the device has an SD card or MicroSD card slot, or a USB port, you can use it as a file storage for Technovia SLIDESHOW, by changing the setting `Storage for media` either via web interface → menu `Settings` → `Device settings` or on-screen menu → `Basic settings`. You can check whether Technovia SLIDESHOW can detect the SD card or USB drive in `Device information`, under `External storages`.

The exact folder on SD card / USB drive, where Technovia SLIDESHOW keeps the files can be either `/slideshow` or `/android/data/sk.mimac.slideshow/files/slideshow`, depending on the Android version (due to security policy of Android, which is out of our hands). The software documentation recommends formatting the storage to either EXT4 or FAT32, support of other file systems depends on your Android device.

Only the files for playing will be saved on SD card / USB drive. Configuration and logs will always stay in the device's internal storage. After changing the `Storage for media` setting, you will have to re-upload all files for playing, they are not copied automatically between internal and external storage.

USB FLASH DRIVE AS A SOURCE FOR COPYING OR TEMPORARY PLAYBACK

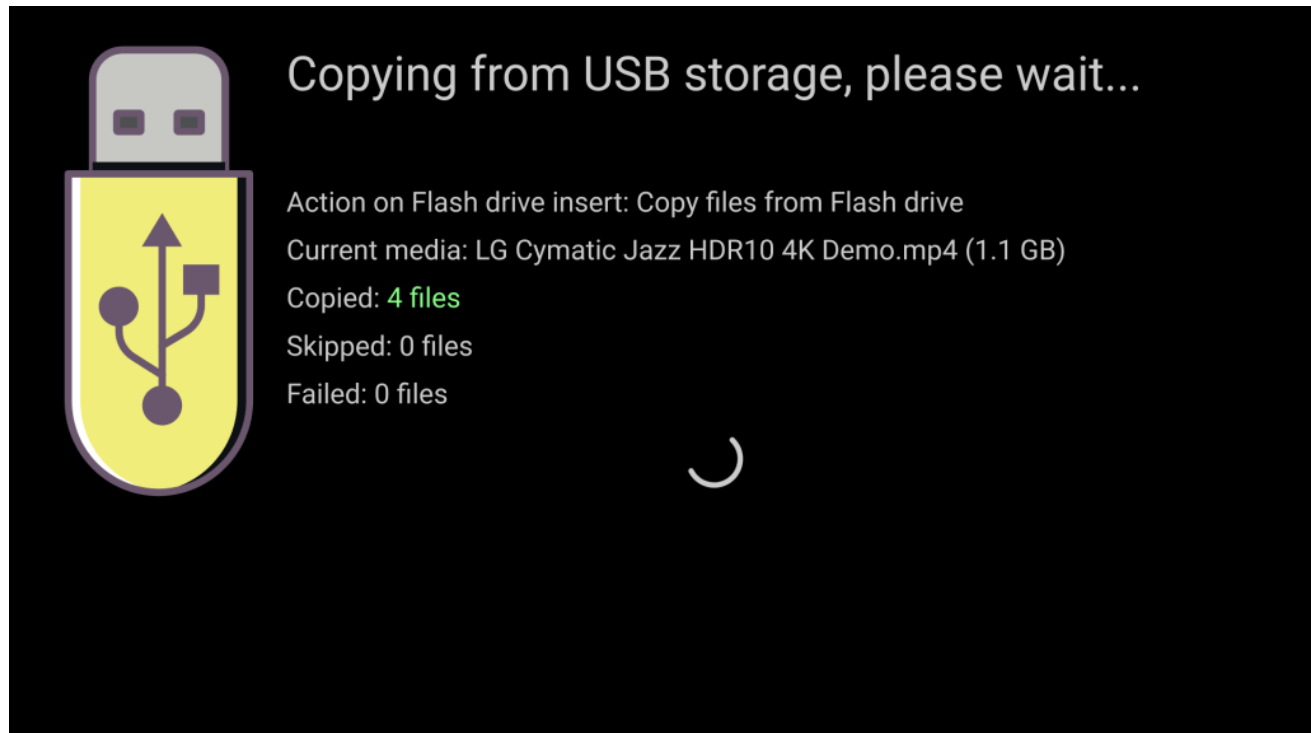
Technovia SLIDESHOW can detect when you plug in USB Flash Drive into your Android device (into USB host port) and depending on the setting `Action on Flash drive insert` one of the following things can happen:

- **Do nothing** – Technovia SLIDESHOW will "ignore" the flash drive and continue playing media files from internal memory.
- **Copy files from Flash drive** – Technovia SLIDESHOW will pause the current playlist and copy all files from the flash drive into internal memory, overwriting files with the same name.
- **Delete files from device and copy from Flash drive** – same as a previous option, but deletes all already uploaded files first (irreversibly!).
- **Play files from Flash drive** – Technovia SLIDESHOW will pause the current playlist in the main zone and play files from the flash drive in alphabetical order until the flash drive is unplugged. If there are any other zones in the layout, their content won't be affected.

You can choose which folder to use on the flash drive in setting **Folder on Flash drive**. This can be used as a simple security feature, as Technovia SLIDESHOW will ignore any flash drive not containing a folder with this name. Leaving this setting empty will cause Technovia SLIDESHOW to copy or play files from the root folder of the flash drive, including hidden files and folders. At least one file should be present in the folder, in order for Technovia SLIDESHOW to detect it correctly.

Flash drives formatted to either EXT4 or FAT32 should be supported by all versions of Android. Support of other file systems depends on your Android device.

If you add [setup.csv](#) file to USB flash drive, it will be recognized and processed before copying files.



Screen while copying files from USB flash drive

VIDEO TUTORIAL

[Watch video tutorial](#)

Original technical reference: <https://slideshow.digital/documentation/configuration/file-storage/>
Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Getting started

Remote control & keyboard

It is possible to assign various actions to pressing different keys on a USB keyboard connected to the Android device or on a remote control (if the particular Android device has one). This way it is possible to fully customize remote control for interactively controlling playback in Technovia SLIDESHOW.

Keyboard shortcuts can be modified via the [web interface](#) → menu **Settings** → **Key mapping**. You can back up and restore the modified shortcuts using [XML configuration backup](#) (section **Key mapping**).

To disable all keyboard shortcuts, navigate to the web interface → menu **Settings** → **Device settings** and check **Disable keyboard**.

DEFAULT KEYBOARD SHORTCUTS

The following defaults apply to the Android version. Key names correspond to a USB keyboard or to the buttons of a remote control.

Key	Function & Notes
A	Show software settings (available also from on-screen menu → Basic settings)
B	Beep (test for speakers)
D	Show display settings (Android settings)
F	Toggle fullscreen layout (only if there is more than one zone in the layout)
H SPACE	Show help (available also from on-screen menu → Help)
I	Show information about the device (available also from on-screen menu → Device information)
L	Swap screen layout horizontally or vertically (only if there is more than one zone in the layout)
R	Reload the application (close & reopen)
S	Show WiFi settings (Android settings)
W	Show advanced settings (same as web interface; available also from on-screen menu → Advanced settings)
Arrow Right BACKSPACE FORWARD	Show next content / file

Key	Function & Notes
Arrow Left BACKWARDS	Show previous content / file (only if alphabetical playback is active)
Arrow Up	Press and hold: pause the playlist (or video) for duration of hold
PAUSE PLAY	Pause or resume playlist (or video) in the main zone
PAGE UP	Change the length of currently shown content to 1 second longer
PAGE DOWN	Change the length of currently shown content to 1 second shorter
DELETE	Delete currently displayed file (use carefully)
ENTER MENU	Open the on-screen menu (also by swiping from left side of the screen)
Numbers 0–9, F10, F11, F12	Change the current playlist in the main zone to the one with this number (playlist numbers 0–12; set via web interface → Playlists → Edit playlist)
Volume keys	Volume up/down, mute (as expected)

VIDEO TUTORIAL

[Watch video tutorial](#)

Original technical reference: <https://slideshow.digital/documentation/interactivity/keyboard/>
Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Supported media types

Below is the list of file types, formats and codecs supported by the current version of Technovia SLIDESHOW software:

Type	File name extensions	Supported formats	Notes
Image	jpg, jpeg, png, bmp, gif, webp, svg, heic, heif	JPEG, PNG, Bitmap, GIF, WebP, SVG, HEIC/HEIF (only on Android 9+)	See https://developer.android.com/guide/topics/media/media-formats#image-formats for more details. Files with resolution more than twice the size of the zone are first scaled down, in order to save the memory. Animated GIFs and WEBPs are supported only on Android 9+.
Video	mpg, mpeg, avi, mp4, 3gp, mkv, ts, flv, f4v, webm, wmv, m2v, m4v, mov	Usually MPEG-2, MPEG-4, H.264, H.265	The exact codec and bitrate support is highly dependent on the hardware and support by the manufacturer of the device. More details.
Audio	aac, flac, mp3, wav, ogg, mid	AAC, FLAC, MP3, PCM/WAVE, Vorbis, MIDI	See https://developer.android.com/guide/topics/media/media-formats#audio-codecs for more details.
PDF	pdf		Depending on the setting Display PDF as scrollable , all pages are either displayed as one long list or one after another
HTML	html, htm, xhtml		More details Supported HTML/CSS/JavaScript features depend on the version of Android System WebView app.
Excel	xls, xlsx	Excel 97-2003, Excel 2007 and newer	It is possible to change styling of the table via web interface → menu Settings → Device settings → CSS style for Excel .

Type	File name extensions	Supported formats	Notes
Webpage link	url	Text file with a link	More details URL link file containing shortcut to web page or text file with single line containing web page URL. Only pages which are successfully loaded are displayed. Supported HTML/CSS/JavaScript features depend on the version of Android System WebView app.
Text	txt	Plain text in UTF-8 encoding	For displaying as moving text.
RSS	rss, xml	RSS, Atom	With UTF-8 encoding.
Stream	–	HTTP/HTTPS/RTSP/RTMP live stream	Support of particular codecs depends on the hardware. More details
Archive	zip, tar, ar	ZIP (Store, Deflate or Deflate64), TAR, AR	Used just for downloading/synchronizing multiple files together. Archive files are always unpacked immediately after upload.
Google Docs	–	Google Docs, Google Sheets, Google Slides	Automatically converted to PDF when downloaded to the device directly from Google Drive. Conversion can be adjusted through setting Google Docs convert settings .

Technovia SLIDESHOW distinguishes various file types only by the file name extension. If any uploaded file is not displayed, check if its file extension is listed in the table above. File name extension is case-insensitive (doesn't matter if it is in upper or lower case).

Original technical reference: <https://slideshow.digital/documentation/playback/supported-media-types/>
 Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Content & playlists

Content and playlists allow you to customize what is displayed on the screen.

You can manage these settings from Technovia SLIDESHOW's [web interface](#).

CONTENT

Content describes what exactly should be played or displayed on the screen. There are several types of content:

- **Single file** - play exactly one file stored in the device's internal memory
- **Files alphabetically** - play one or more [files](#) stored in the device's internal memory in alphabetical order. You can group files based on the folder they are in, prefix of their name or their extension.
- **Files randomly** - play one or more files stored in the device's internal memory in random order (a special algorithm is used, so you won't get the same file two consecutive times). You can group files based on the folder they are in, prefix of their name or their extension.
- **Audio/video stream** - network stream containing audio or video (e.g. webcam feed, [internet radio](#), internet TV, [video stream](#))
- **Date/time** - displays current date and/or time. Device's internal clock and time zone is used.
- **Weather** - displays weather forecast or current weather from an [online service](#)
- **RSS messages** - displays [RSS feeds](#) (e.g. news)
- **Plain text** - displays single line of static text, without any formatting
- **Nothing** - just zone background is displayed (solid color or linear / radial gradient), useful for advanced screen layouts
- **Today's name day** - display first name that currently celebrates [name day](#)
- **Video input** - preview from [camera or HDMI input](#)
- **YouTube video** - online video from YouTube
- **Android widget** - [widget](#) installed in the Android operating system

For types **Files alphabetically** and **Files randomly** you can enter the field Path in several formats according to which files you would like to pick, even combine the formats:

- Only one file, by entering file name directly, as is (e.g. image1.jpg). You can also use File manager (via menu File manager) -- right click on a file -- Create new content from here, which will pre-fill the entire path.

- All files in one folder, by entering folder name and a wildcard sign (e.g. folder1/*). You can also use File manager (via menu File manager) -- right click on a folder -- Create new content from here, which will pre-fill the entire path.
- All files in one folder and its subfolders, by entering folder name and a double wildcard (e.g. folder1/**).
- All files in all folders and subfolders, by entering a double wildcard (**).
- Several paths, separated by colon sign (e.g. folder1/*:folder2/*)

Content can be created and edited through menu Content.

PLAYLIST

Playlist consists of one or more content, which is played in the set order in an endless cycle, until the playlist is changed (either manually or due to schedule). During the cycle, each content is resolved to only a single file, image or stream. This is then played for a set amount of seconds (except for audio files, video files and moving RSS messages, which are always played for their full length). After finishing the content, the playlist moves on to the next content. There are three types of playlists based on how the audio is played:

- **Mute** - no audio is played from the videos and streams in this playlist
- **From video** - audio is played if video or video stream is displayed
- **Audio playlist** - special playlist for only audio files/streams, playlist with this type cannot be assigned to a screen layout zone, see [Audio playlists schedule](#)

After creating a content, playlist containing the new content is created automatically as well. If you want to use just one content in the playlist, it is not necessary to create a separate playlist.

Playlists can be created and edited through menu Playlists.

Original technical reference: <https://slideshow.digital/documentation/configuration/playback-configuration/content-playlist/>
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Video playback

Technovia SLIDESHOW contains several different video players, each using a different method to render videos on the screen. As there is a great variety between hardware video decoders of various manufacturers, each device model might work best with a different video player.

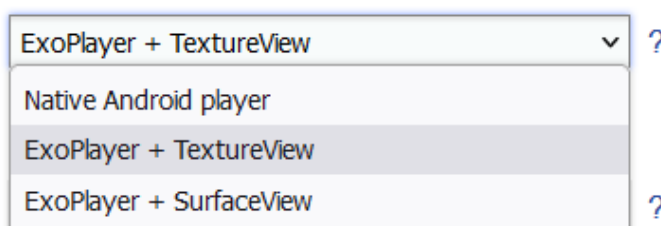
By default, ExoPlayer + TextureView is used. If you want to change the video player, you can do so via web interface → menu Settings → Device settings → setting Video player type. Reload the app or refresh your screen layout to apply the change.

Video player type:

Preload content in playlist:

Video input compatibility mode:

Video timeout:



Choice of video players in Device settings

NATIVE ANDROID PLAYER

Most conservative option, which uses Android's native video player. You can find a list of supported codecs and containers on <https://developer.android.com/guide/topics/media/media-formats#video-codecs>. The exact codec and bitrate support is highly dependent on the hardware. Use this option if ExoPlayer doesn't work correctly on your device.

EXOPLAYER

Technovia SLIDESHOW also contains a video player based on ExoPlayer project. It supports the same codecs as a standard video player, but the support of video containers varies, for example, AVI and WMV are supported only by the native Android player.

It supports the following features on top of the native video player:

- **Shorter lag between videos:** if there are two videos one after another to be displayed on the screen, ExoPlayer supports pre-buffering the next video in the playlist. Thanks to this pre-buffering, the time between end of the first video and start of the second is down to approximately 40 milliseconds (highly depends on the actual device), which is barely visible to the users. In order for the pre-buffering to work, setting Preload content in playlist has to be enabled in the Device settings.
- **Scaling videos:** the videos within the zone are scaled with the same options as images ([more information](#)).

- **Rotating videos:** together with rotating the screen layout, it also rotates the video in the correct way ([more information](#)).
- **Better support for video streams:** ExoPlayer has better support for streaming through network protocols, e.g. HTTP / RTSP / UDP / RTMP ([more information](#)).

You can choose whether you would like to use ExoPlayer in combination with TextureView (supports overlaying two videos on top of each other) or SurfaceView (supports 4K output on devices without 4K framebuffer, support HDR on devices with HDR support).

RECOMMENDED VIDEO FORMAT

If you would like to encode your video in the best way, the software documentation recommends the following settings. They are based on our testing and should be compatible with all usages on all devices running Technovia SLIDESHOW.

- Container: MP4 (MPEG-4 Part 14)
- Video codec: H.264 (MPEG-4 AVC)
- Audio codec: AAC (stereo)
- Resolution: the same as the resolution of the device

The actual list of video decoders detected on your Android device can be viewed through the web interface → menu Information → About device → see the list at the bottom. Please note that this list is reported by the device, there is no guarantee that the video playback will work flawlessly with these decoders.

Available video decoders (as reported by the device):

Decoder name	Codec	Max instances	Max width	Max height	Max FPS	Max bitrate	Hardware accelerated
c2.rk.avc.decoder	video/avc - H.264	32	7680 px	4320 px	60	78125 Kbps	Yes
c2.rk.h263.decoder	video/3gpp - H.263	32	352 px	288 px	60	2000 Kbps	Yes
c2.rk.hevc.decoder	video/hevc - H.265	32	7680 px	4320 px	60	78125 Kbps	Yes
c2.rk.m4v.decoder	video/mp4v-es - MPEG-4	32	448 px	448 px	60	375 Kbps	Yes
c2.rk.mpeg2.decoder	video/mpeg2 - MPEG-2	32	1920 px	1088 px	60	78125 Kbps	Yes
c2.rk.vp8.decoder	video/x-vnd.on2.vp8 - VP8	32	1920 px	1088 px	60	19531 Kbps	Yes
c2.rk.vp9.decoder	video/x-vnd.on2.vp9 - VP9	32	4096 px	2160 px	60	58593 Kbps	Yes
c2.android.avc.decoder	video/avc - H.264	32	1280 px	720 px	960	39062 Kbps	No
c2.android.h263.decoder	video/3gpp - H.263	32	352 px	288 px	30	375 Kbps	No
c2.android.hevc.decoder	video/hevc - H.265	1	1280 px	720 px	960	4882 Kbps	No
c2.android.mpeg4.decoder	video/mp4v-es - MPEG-4	2	352 px	288 px	60	375 Kbps	No
c2.android.vp8.decoder	video/x-vnd.on2.vp8 - VP8	1	1280 px	720 px	960	9765 Kbps	No
c2.android.vp9.decoder	video/x-vnd.on2.vp9 - VP9	1	1280 px	720 px	960	4882 Kbps	No

List of supported codecs on a sample device

Original technical reference: <https://slideshow.digital/documentation/playback/video-playback/>
 Original documentation © 2026 Milan Fabian. Adapted for Technovia.

4K playback

RESOLUTION DEPENDS ON HARDWARE

4K HDMI output does not guarantee 4K rendering for every type of signage content. Confirm the capabilities of your particular Technovia stick.

There are currently many Android boxes on the market advertising 4K display support. But how good is this support in reality?

QUICK RECAP ABOUT RESOLUTIONS

In this article, I am using several abbreviation for various screen resolutions:

- **4K** - usually resolution 3840×2160 pixels is used, also known as 2160p. Used on the most of new TVs. Requires at least HDMI 1.4 for 30 Hz or HDMI 2.0 for 60 Hz, meaning output device (Android box), cable and input device (TV) must support this version of HDMI.
- **Full HD** - 1920×1080 pixels, also known as 1080p. Practically commercial minimum today.
- **HD** - 1280×720 pixels, also known as 720p. Older standard, currently almost out-of-use.



Comparison of sizes of various resolutions: 4k, Full HD and HD

INTRODUCTION -- WHAT IS A FRAMEBUFFER?

Framebuffer or screen buffer is a portion of internal memory containing all pixels that should be displayed on the screen, in form of a bitmap.

Operating system or application writes all the graphic on the user interface to the framebuffer. Afterwards it calls framebuffer flush, which causes the graphic card to actually display the content of the framebuffer on your screen. Operating system or application then continues preparing next frame in the framebuffer.

FRAMEBUFFER SIZE ON ANDROID BOXES

So back to the original question -- how does the 4K support look like on an average 2019-2020's Android box?

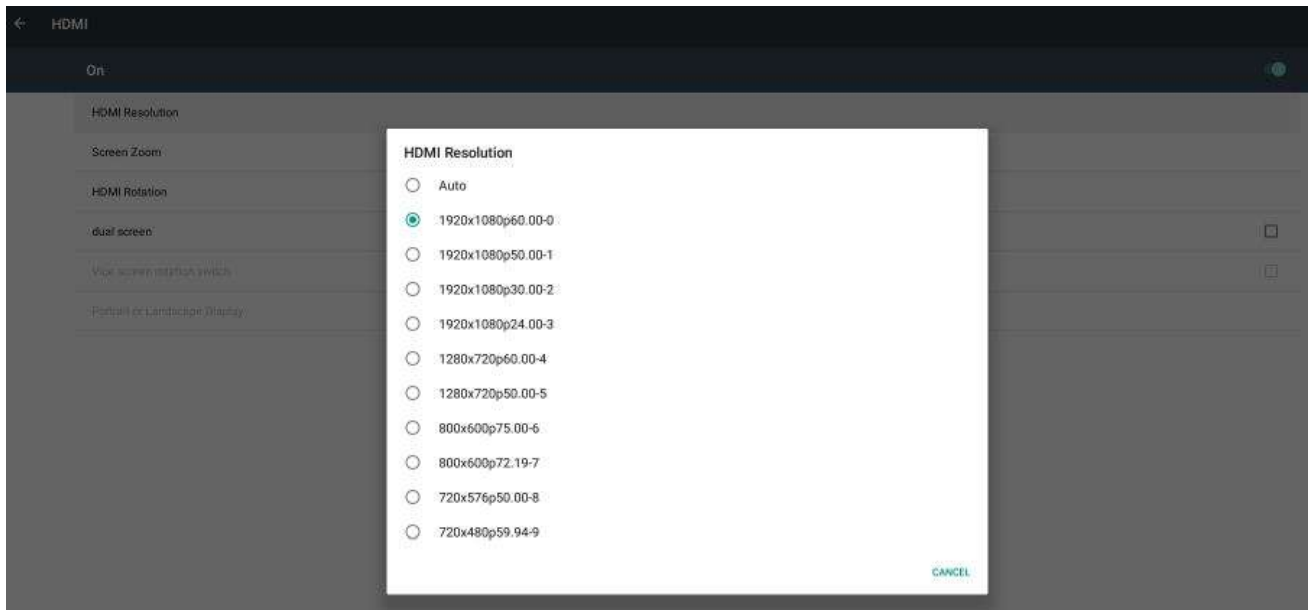
- HDMI 2.0 support for 4K 60 Hz output -- **mostly yes**
- Support for hardware accelerated decoding of 4K videos -- **yes**
- 4K internal framebuffer -- **mostly no, size is fixed to Full HD**

The problem with 4K support of Android boxes is that most of them support it only for playing videos, the rest of the content is displayed in Full HD. This is because no matter what the actual resolution of the screen is, the internal framebuffer is fixed to Full HD resolution. Your monitor or TV can report that the picture resolution is 4K and while technically correct, it is only a resolution of the HDMI signal.

The reason for keeping the framebuffer at Full HD resolution is performance. As 4K has four times as many pixels as Full HD, most of the graphic cards used in the current Android boxes would have hard time keeping up and the user interface would be too laggy. So the manufacturers decided to keep the framebuffer resolution at Full HD and take advantage only of the graphic card's 4K video decoding capability.

Because of the fixed framebuffer size, Technovia SLIDESHOW app will always report the screen resolution as 1920 × 1080 px (on About device page or while editing a screen layout) and will render **all images, text, HTML pages, etc. with this resolution**. Only videos which are going through hardware accelerated decoding are displayed in 4K (if the box supports it), because the hardware acceleration on graphic card usually goes around the internal framebuffer.

There is an equivalent situation with some old devices (for example, Geniatech ATV510B), which supports Full HD with video decoding and on HDMI output, but its internal framebuffer has a fixed resolution of 1280 × 720 px.



On RK3288 box, you can choose between various HDMI output resolutions, but no matter what you choose, framebuffer resolution stays at 1920 × 1080 px

CONCLUSION

The main point of this article is to warn potential buyers of various Android boxes, that choosing any Android box claiming to have 4K support may not be the best idea for digital signage. Always do research before choosing the right hardware.

Original technical reference: <https://slideshow.digital/documentation/playback/video-playback/4k-videos/>
Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Web pages

Technovia SLIDESHOW app can display web pages and HTML files directly on the screen using an Android device.

DISPLAYING WEB PAGE

Entire web pages from the internet can be displayed using a file with `.url` file extension. If Technovia SLIDESHOW detects such a file, it will read the URL address and display the containing website on the screen.

The format of the `.url` file can be:

- Plain text file with a single line containing the URL address of the website
- URL file created by File manager in Technovia SLIDESHOW's web interface (right-click → New file → URL) and edited (right-click → Edit file → Enter web page)
- URL file created in Windows (see <https://fileinfo.com/extension/url>)

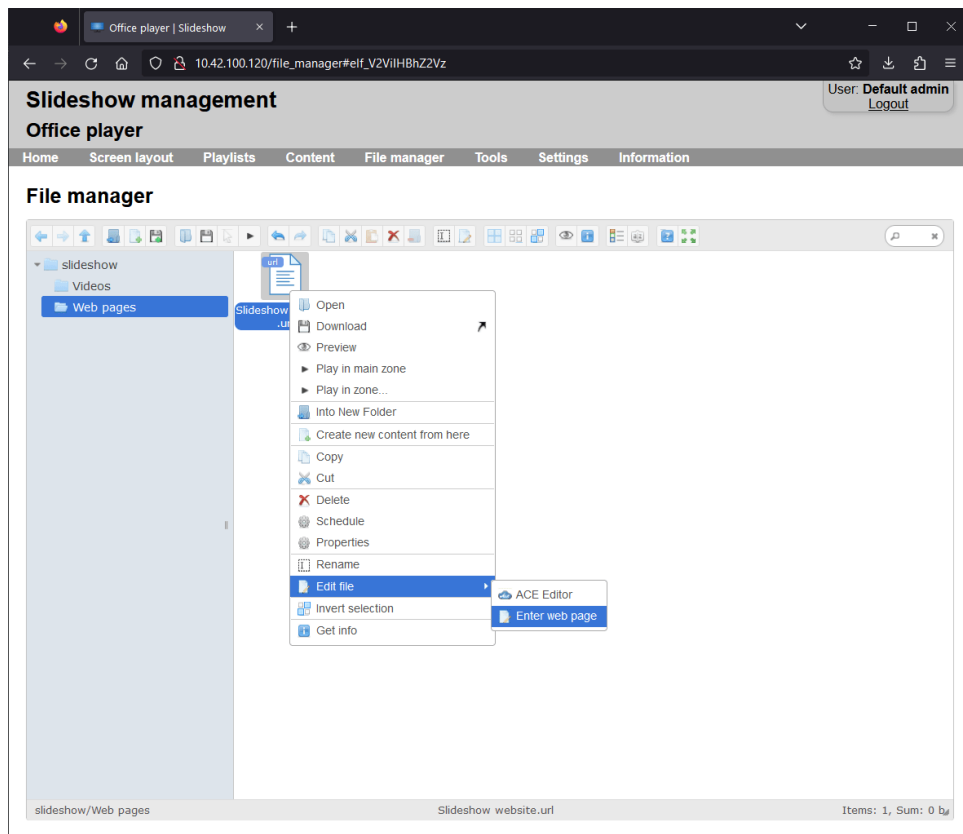
Online websites can be displayed on the screen only if the device running Technovia SLIDESHOW app is connected to the internet. Only pages which are successfully loaded are displayed on the screen. If you are an IT specialist, you can use this functionality for example for displaying Zabbix or Grafana dashboards.

Password-protected web pages

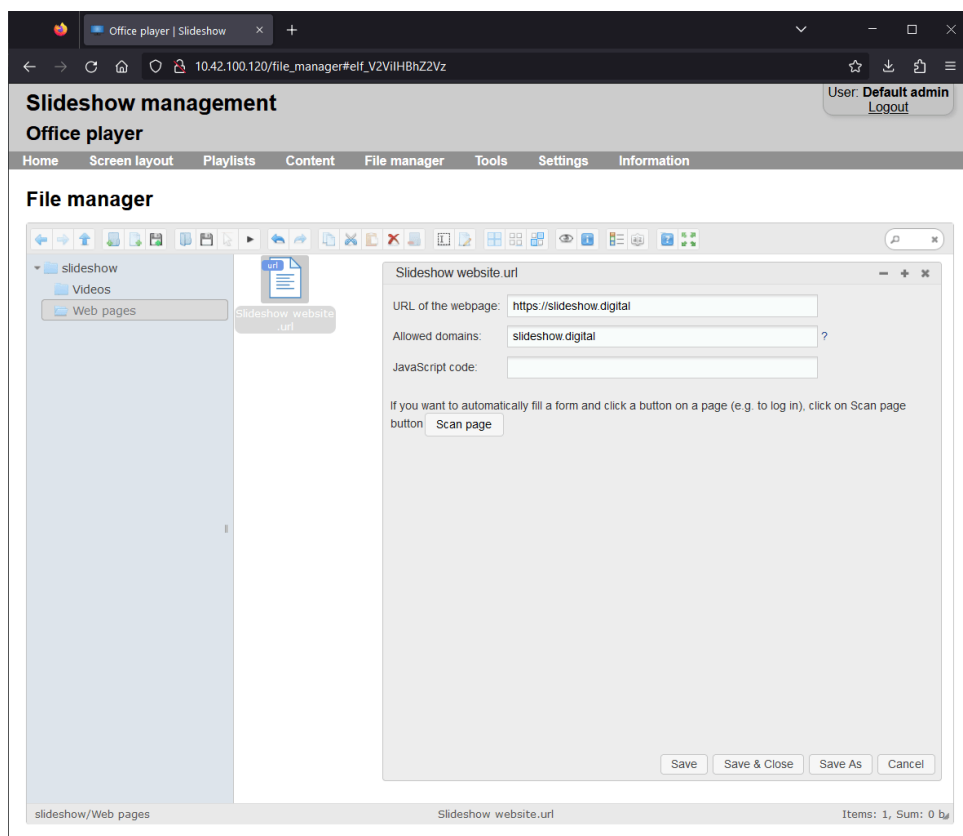
Password-protected web pages can be displayed using two methods:

- Pages protected with HTTP basic authentication can be displayed by entering the URL in format `https://username:password@webpage.domain`, for example `https://user:pass123@example.com`. In case the username or password contains a special character, it has to be URL-encoded.
- Pages protected with a login form, you can use the Enter web page editor in File Manager. Click on the Scan page button, fill in the details and click on Save. As there are many various methods for a login form, this method might not work on all pages.

Accessible domains can be restricted via the Enter web page editor, by filling Available domains. If you leave this field empty, all domains are allowed. Multiple domains can be separated by comma (,). In case you fill some domains, Technovia SLIDESHOW will allow redirecting only to links in the listed domains, including their subdomains. Loading external JavaScript, CSS and font files is not restricted by this domain list.



Opening Enter web page in File manager



Dialog for entering the web page

User Agent

User-Agent HTTP header used for requesting external web pages can be changed with a [setting](#) User agent for HTTP requests. The default User-Agent based on the actual browser core (which is used if the setting is empty) is the best option for most use-cases.

DISPLAYING HTML FILE

Technovia SLIDESHOW can directly render files with .html file extension. The HTML file can contain regular HTML code, including iframes and JavaScript, which gives you vast possibilities. The exact supported set HTML/CSS/JavaScript features depend on the version of Android System WebView app.

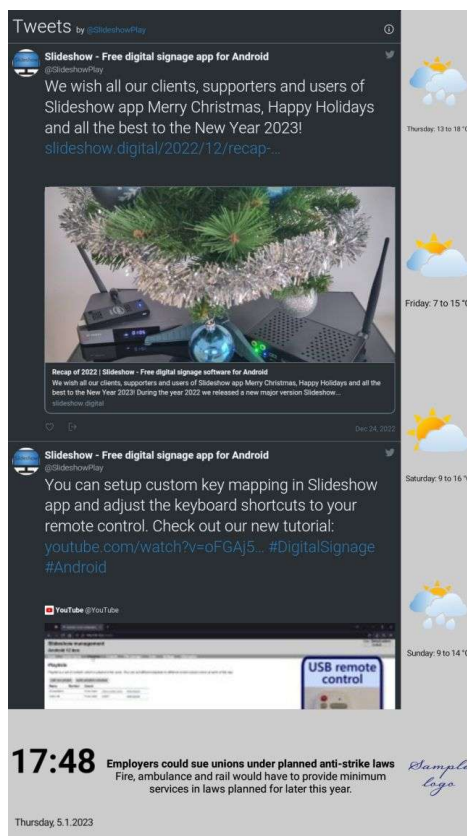
The default background is transparent, in order to allow HTML overlay. If you would like to have a non-transparent background, add `style="background-color: white"` to the `<body>` tag of the HTML file.

HTML files can be also directly edited in a WYSIWYG editor via the web interface → menu File Manager → right-click an HTML file → Edit file → CKEditor. Other editors are available as well, including plain-text editor TextArea.

DISPLAYING HTML WIDGETS

As an example, using Twitter Publish, you can create an HTML snippet with your Twitter feed, save it as an HTML file to Technovia SLIDESHOW and display the Twitter feed on the screen. You can find example with Technovia SLIDESHOW's Twitter below: content of the HTML file on the left and the result as rendered by Technovia SLIDESHOW app on the screen on the right.

```
<html>
  <style>body, html {margin: 0}</style>
  <body>
    <a class="twitter-timeline" data-lang="en" data-width="960"
      data-height="1080" data-theme="dark"
      href="https://twitter.com/SlideshowPlay?ref_src=twsrc%5Etfw">
      Tweets by SlideshowPlay
    </a>
    <script async src="https://platform.twitter.com/widgets.js" charset="utf-8">
    </script>
  </body>
</html>
```



Twitter feed as a widget

WEBVIEW COMPONENT

Technovia SLIDESHOW is using WebView component to render the web pages. The WebView component can be updated separately from Android system and Technovia SLIDESHOW app. The default WebView component is based on Chrome browser, you can change the provider via Android settings → Developer options → WebView implementation.

KEEP WEBVIEW UPDATED

Keeping the WebView component up to date is important for displaying web pages that require the most recent version of the web browser.

- Updating via Google Play Store: <https://play.google.com/store/apps/details?id=com.google.android.webview>
- Updating via direct APK installation: <https://www.apkmirror.com/apk/google-inc/android-system-webview/>

VIDEO TUTORIAL

[Watch video tutorial](#)

Original technical reference: <https://slideshow.digital/documentation/playback/web-pages/>

Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Synchronized playback

WIRED NETWORK REQUIRED

Multi-device synchronised playback requires a wired LAN and suitable compatible hardware. It is not supported over Wi-Fi.

Synchronized playback means displaying media on two or more screens at the same time. For example, the same video is started at the same moment on two TVs, or two sets of pictures are always changed at the same moment.

Technovia SLIDESHOW supports synchronized playback either across multiple screen layout zones on the same device or across multiple devices on the same local network.

SYNCHRONIZING DEVICES

For synchronized playback across multiple devices, all devices have to be on the same local network, connected via LAN cable (Wi-Fi is not supported for synchronized playback) and communication between devices has to be set up. Synchronized playback will work only between devices with the same `Devices` group code [setting](#).

The software documentation recommends using the same hardware and firmware version for synchronized playback across multiple players, for example, the same model of Android boxes. As video loading differs a lot between various devices, the delay between starting video playback on two devices from various manufacturers might be too high (more than 200 milliseconds). Using the same model of display is also important in order to reduce the lag.

When using the same device model, the delay between synchronized playback on multiple devices is usually lower than 50 milliseconds, which is not visible to regular viewers.

SYNCHRONIZING PLAYLISTS

Playlists that should be played synchronously should have the same `Sync` code set. This can be changed via Technovia SLIDESHOW's web interface → menu `Playlists` → `Edit playlist` → `Sync` code. If no `Sync` code is set, the playback won't be synchronized.

The software documentation recommends using content type `Files` alphabetically instead of `Files` randomly for synchronized playback. Enabling `Preload` content in playlist [setting](#) is also encouraged.

CHECKLIST FOR SYNCHRONIZED PLAYBACK ACROSS MULTIPLE DEVICES

1. Navigate to menu `Settings` → `Other devices`, set up the same `Devices group code` on all devices and verify that you can see all devices in the list on this page.
2. Edit the playlist that should be played synchronously, set the same `Sync code` and `Content duration` on all devices.
3. Verify that there is either the same number of content in the playlist, or (in case of files) that the content type is `Files alphabetically` (not `Files randomly`) and that there are the same number of files in this content across all devices.
4. Activate the playlist on all devices, preferably adjust the schedules as well.

VIDEO TUTORIAL

[Watch video tutorial](#)

[Watch video tutorial](#)

Original technical reference: <https://slideshow.digital/documentation/playback/synchronized-playback/>
Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Background audio

Technovia SLIDESHOW can play background audio independently of what is shown on the screen. You can use it in two ways:

- **In addition to regular screen playback** – for example, background music in a shop while promotional images and videos are displayed on the screen.
- **As a headless music player** – without any screen connected, with the sound going directly to speakers via HDMI, 3.5 mm audio jack or S/PDIF optical output (depending on the [device](#)).

Background audio is played from a special **audio playlist**, which is not assigned to any screen layout zone. Instead, it has its own [audio playlists schedule](#), so the music can change throughout the day regardless of the screen content.

SUPPORTED AUDIO SOURCES

Technovia SLIDESHOW supports background audio in the form of:

- **Audio files** stored in the device's internal memory (e.g., MP3, AAC, FLAC, WAV, OGG, MIDI) – see [supported media types](#) for the full list.
- **Network audio streams** – e.g., internet radio stations streamed via HTTP / HTTPS.

SETTING UP BACKGROUND AUDIO

All steps can be done via Technovia SLIDESHOW's [web interface](#):

1. **Upload audio files** to the device via menu File Manager (skip this step if you are using an audio stream).
2. **Create content** via menu Content that describes what should be played, for example:
 - `Single file` – play one specific audio file,
 - `Files alphabetically` or `Files randomly` – play multiple audio files, e.g., all files in a particular folder,
 - `Audio/video stream` – play an [internet radio or other audio stream](#).
3. **Edit the playlist** (the playlist is created automatically together with the content, or you can create your own via menu Playlists) and set Sound to Audio playlist.
4. **Schedule the audio playlist** via menu Playlists → button `Audio playlists schedule`. Only playlists with type Audio playlist can be selected here.

AUDIO PLAYLISTS AND SCREEN LAYOUT ZONES

A playlist with the `Audio playlist` type contains only audio files or streams and cannot be assigned to a screen layout zone. Conversely, regular playlists cannot be scheduled as background audio. See [Content and playlists](#) for more details about playlist types.

Audio files are always played for their full length, regardless of the duration set in the content. When the playlist reaches its end, it starts again from the beginning in an endless cycle, until a different audio playlist is scheduled.

COMBINING BACKGROUND AUDIO WITH VIDEOS

When background audio is playing while a video with sound is displayed on the screen, both audio sources would be heard at the same time. To prevent this, you can:

- enable the setting `Mute video for audio playlist` (web interface → menu `Settings` → section [On-screen formatting](#)), which mutes audio from all videos on the screen while any audio playlist is active, or
- set `Sound of the screen playlists` to `Mute`, so only the background audio is heard.

If a network stream containing video is used in an audio playlist, only its audio part is played and the video part is ignored.

CONTROLLING VOLUME AND PLAYBACK

Background audio can also be controlled using the web interface's home page, for example volume control, pausing & resuming and switching to the next track.

Audio playback can also be controlled via the [REST API](#) or by automation via [triggers](#).

VIDEO TUTORIAL

[Watch video tutorial](#)

Original technical reference: <https://slideshow.digital/documentation/playback/background-audio/>
Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Audio streams

Technovia SLIDESHOW supports playing HTTP audio streams as a background audio using content with type `Audio/video stream`.

Only HTTP / HTTPS audio streams are supported. Audio stream URLs for various internet radios can be found, for example, on <https://streamurl.link>, or on the website of your favorite radio. The URL has to point directly to the audio stream, not to a website containing an embedded audio player.

If the stream also has a video part, and it is set as an audio playlist, the video part of the stream will be ignored and only audio will be played.

SETTING UP AUDIO STREAM

Steps necessary to set up playing audio streams through Technovia SLIDESHOW's web interface:

1. Create new content with the following setup:
 - Type: `Audio/video stream`
 - Path: direct URL of audio stream of your choosing
2. Edit automatically created playlist and set Sound to `Audio playlist`.
3. Go to menu `Playlists` → button `Audio playlists schedule` and set up schedule for the audio playlist

VIDEO TUTORIAL

[Watch video tutorial](#)

Original technical reference: <https://slideshow.digital/documentation/playback/special-content/audio-stream/>
Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Video streams

Technovia SLIDESHOW supports playing HTTP and RTSP video streams on the screen using content with type `Audio/video stream`.

HTTP or RTSP video stream can be produced for example using VLC media player on Windows or Linux, from an IP security camera or other sources.

If you would like to display YouTube video or YouTube live stream, use content type `YouTube video` instead of `Audio/video stream`.

If you would like to display live image from a different device with HDMI output, you can use content type `Video input` on supported devices.

The software documentation recommends setting video player type to ExoPlayer for displaying video streams, as it has much better support for live streams than the native Android video player. However, support of stream containers and codecs is still highly dependent on the device, in reality not every device has good support for live streams. On some devices, there are even differences between the native video player and ExoPlayer. The software documentation recommends thorough testing before you start using video streams for your customers.

Slideshow management

User: **Default admin**
Logout

Test device

HomeScreen layoutPlaylistsContentFile managerToolsSettingsInformation

Add new content

You can create new content with a single file or folder from the File manager as well, just right click a file or folder and select Create new content.

Name:

Video stream

?

Type:

Audio/video stream

▼

Path:

http://10.42.100.80:8085/video

?

Description text:

?

Text color:

#333333

?

Save

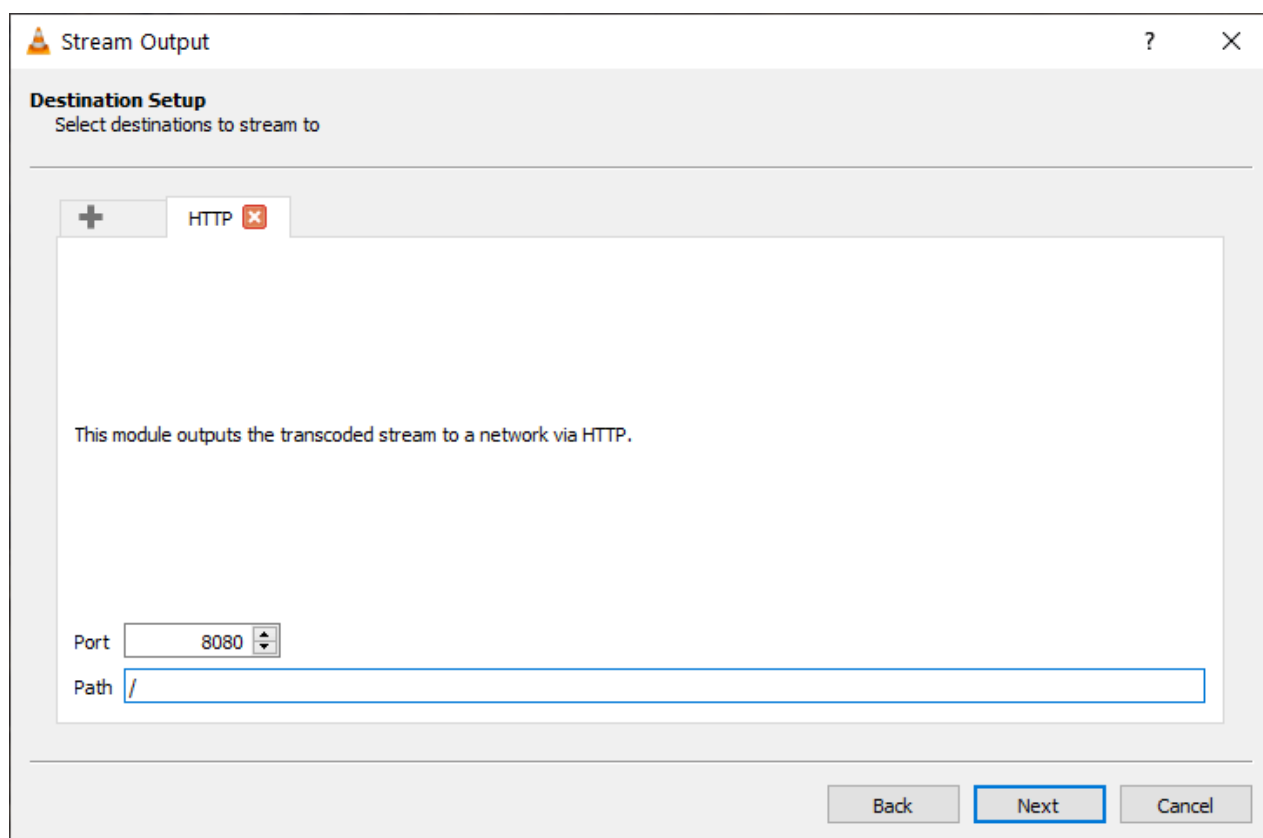
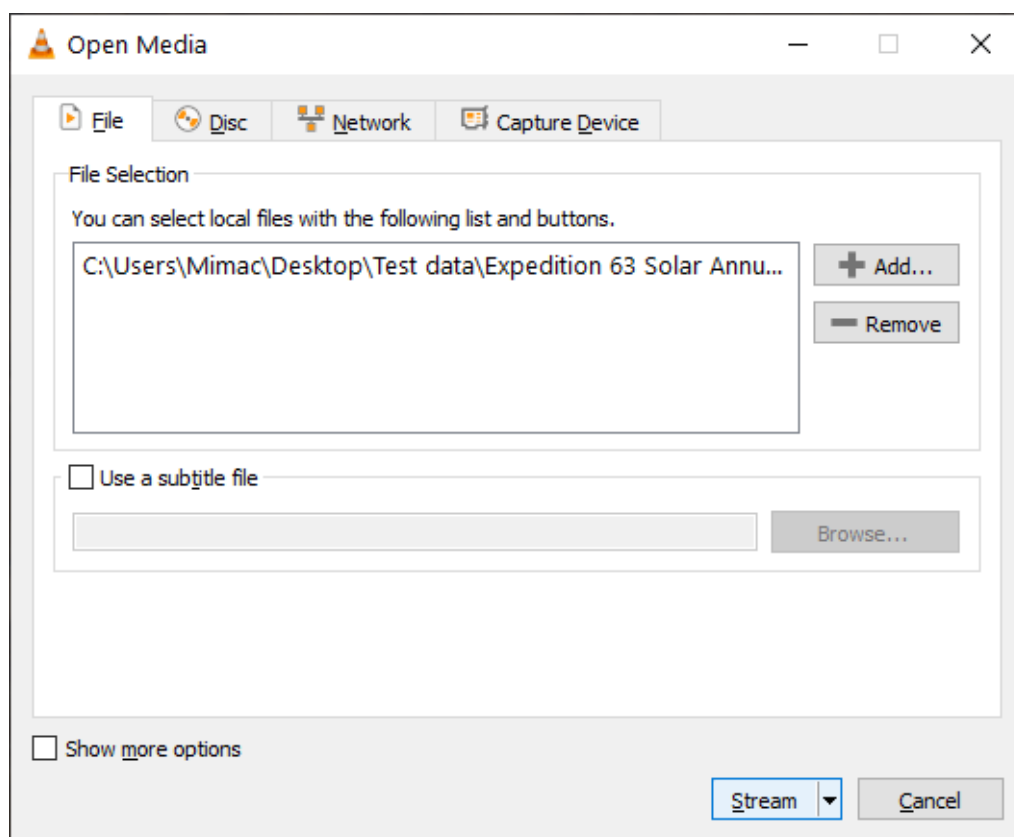
Back

Creating new content with type `Audio/video stream`

STREAMING FROM VLC

If you want to stream video in your local network, the software documentation recommends trying one of the two great applications: [VLC media player](#) and [FFmpeg](#). Both are free and open source.

VLC media player is a player you can use for regular playback of videos and movies. Among many other advanced features, it can also stream files, webcam or even your desktop through the network. You can set up streaming from menu `Media → Stream...`, pick a source, click on `Stream` and configure HTTP streaming destination, which is supported by Technovia SLIDESHOW. The resulting stream URL address will be `http://{IP address of your computer}:8080/` (provided you didn't change the port or path while setting it up).



Choosing the stream source (notice various sources in tabs on the top) and setting up HTTP streaming destination in VLC.

FFmpeg is powerful command line software for processing audio and video files. Using **ffserver** (one of its tools), you can stream video files and other video sources as HTTP stream. The setup of streaming is harder than with VLC, but as it is command-line-based, you can create a startup script and automatize the streaming.

Once you have the streaming source ready, you can connect multiple devices with Technovia SLIDESHOW to the same stream and have the same content on multiple screens at almost the same time.

Displaying the stream in Technovia SLIDESHOW

After you setup video streaming source, you can quickly test it on Technovia SLIDESHOW. Just open the web interface → menu **Tools** → **Show message**, in the section **Show file on screen** pick **Audio/video stream**, enter the stream address and click on **Show on screen now**. Video should be displayed on the screen (in the main panel) within a few seconds.

Show file on screen

☐ File from memory ☒ Audio/video stream

File name / stream address:

Length of showing in minutes:



Show on screen now

Testing video stream from Slideshow

It will always take a few seconds until the video is displayed on the screen, as Technovia SLIDESHOW has to cache the video for smooth playback. If there is a black screen for longer than 10 seconds, you can check Technovia SLIDESHOW's [logs](#). Common problems are:

- Technovia SLIDESHOW can't access the video stream because the firewall on the source computer is blocking the connection. In that case, allow the particular port in the firewall, or turn it off completely for the duration of the test.
- Format or codec of the source file is not supported by Android. Try transcoding the stream, H.264 + MP3 encapsulated in MP4 format is one of the safest ways.

If the test is successful, you can add new content with type **Audio/video stream** and assign it to the playlist of your choosing.

Add new item

You can create new item with single file or folder from the File manager as well.

Name:

Type: 

Path: ?

New item with type Stream

VIDEO TUTORIAL

[Watch video tutorial](#)

Original technical reference: <https://slideshow.digital/documentation/playback/special-content/video-stream/>
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Video input

INPUT HARDWARE REQUIRED

An HDMI output connector is not an HDMI input. Camera or HDMI capture requires hardware explicitly supported by the software.

Technovia SLIDESHOW can display current feed from a camera connected to the Android device or from an HDMI input on the screen using content with type `Video input`.

In order to display the content of video input on the screen, Technovia SLIDESHOW requires permission to access the camera. You can grant this permission from the on-screen menu → `Basic settings` → `Request camera permission`. If this option is missing from the Basic settings, the permission has been already granted, and it is not necessary to grant it again.

List of currently connected video input devices as well as their maximum resolution can be viewed via the web interface → menu `Information` → `About device` → entry `Video input device`. Technovia SLIDESHOW always picks the most suitable resolution based on the dimensions and aspect ratio of the zone where the picture is displayed.

Video input can't be used at the same time as face detection from the same camera, as two services can't use the same camera at the same time (Android operating system doesn't allow it).

Add new content

You can create new content with a single file or folder from the File manager as well, just right click a file or folder and select `Create new content`.

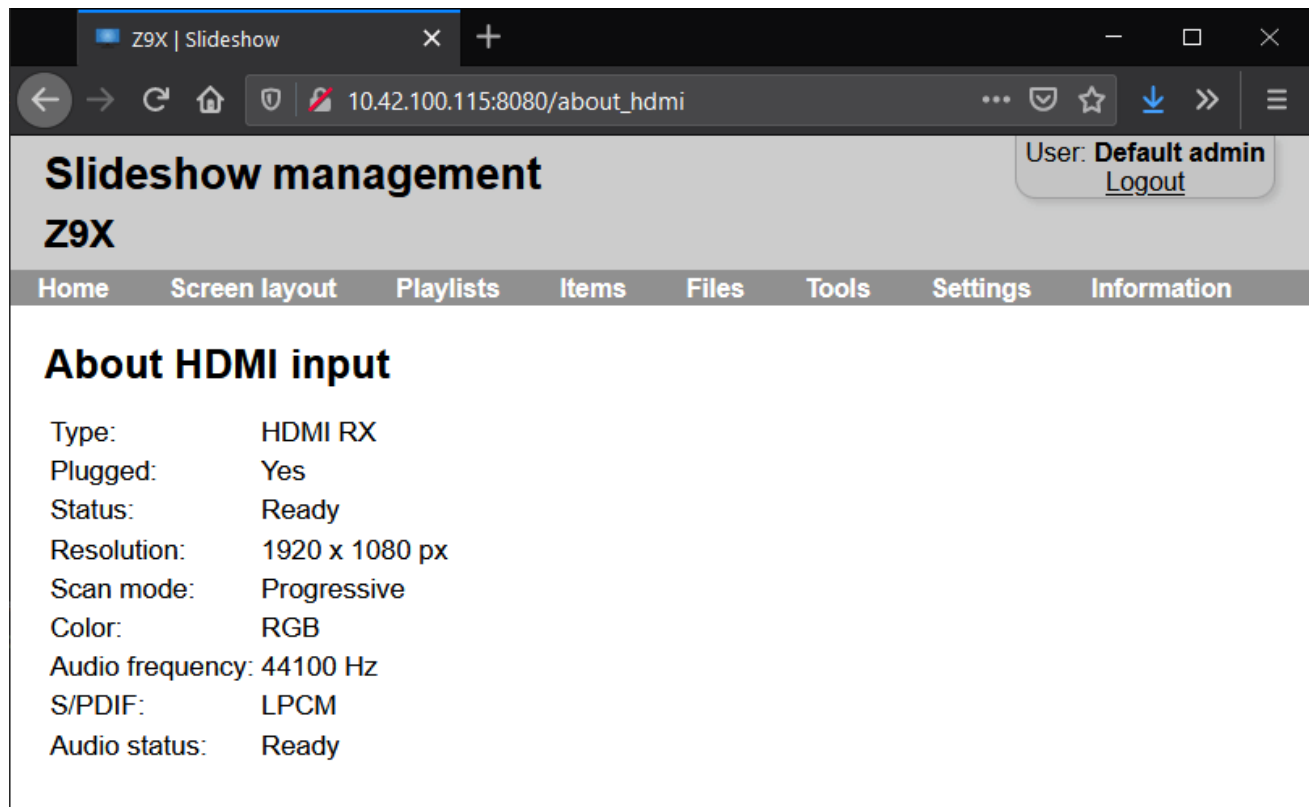
Name:	Camera	?
Type:	Video input	▼
Description text:		?
Text color:	#333333	?
Video input device:	Rear camera /dev/video250 (3840 x 2160 px)	▼ ?
Rotation:	0	⬆ ⬇ ⬆ ?
Save Back		

Web interface for editing content with type `Video input`

HDMI INPUT

Displaying content from the HDMI input port is currently supported only on devices based on Realtek RTD1619DR chip (tested only on Zidoo Z9X box). It can be activated by creating content with Video input device set to Realtek HDMI IN. If you don't see this Video input device in the list on the Edit content page, your device is not supported. Video as well as audio from the HDMI input is supported.

The current status of the HDMI input can be verified through the web interface → menu Information → About device → entry Video input device → link Realtek HDMI IN.



Details about HDMI input in Slideshow's web interface

Original technical reference: <https://slideshow.digital/documentation/playback/special-content/video-input/>

Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Screen layouts & zones

Using screen layouts and zones, you can set up what content you would like to display on the screen. They can be created and edited through Technovia SLIDESHOW's [web interface](#) → menu Screen layout.

ZONE

Zone is a rectangular area on the screen. It has a defined position on the screen, in percentage of width and height. You can set up the following parameters for each zone:

- Position and size, either in percentage or in pixels (automatically recalculated)
- Background color, which can be semi-transparent, or linear / radial color gradient consisting of two colors
- Border lines, their width and color
- [Transition](#) between two consecutive images
- Rounded corners

Each zone has one or more [playlists](#) assigned through [schedules](#), that means that the zone can display different playlists on different hours of the day or different days of the week.

Zone can be configured through the Edit screen layout page, by double-clicking a particular zone.

Whole screen

Panel name:

Background color:

Main panel: ☒ ?

Left: % px

Top: % px

Width: % px

Height: % px

Transition type: ?

Transition length: ms

Border line: px

Border color:

Top left radius: px

Top right radius: px

Bottom left radius: px

Bottom right radius: px

Configuration of a single zone

SCREEN LAYOUT

Screen layout describes what the entire screen looks like. It consists of one or several zones, which can also overlap. You can use transparent or semi-transparent background color for overlapping zones. The zones are rendered in the exact order as they are displayed on the Edit screen layout page, the last zone in the list is displayed at the top of the screen. You can reorder the zones by dragging them in the list below the screen layout builder

You can schedule different screen layouts on different parts of the day or different days of week.

Through menu Screen layout → button Sample screen layouts you can quickly choose from a few predefined screen layouts and use them on your device.

Screen layout

Name:

Rotation: ?

Current screen resolution is 1920 x 1080

Drag a panel to move its position, drag panel's border to resize it and double-click a panel to edit its attributes.

Main panel

Weather panel

Date-time panel

RSS panel

Logo panel

↑ Main panel	Left: 0%, Top: 0%, Width: 84%, Height: 84%
↑ Logo panel	Left: 84%, Top: 84%, Width: 16%, Height: 16%
↑ RSS panel	Left: 20%, Top: 84%, Width: 64%, Height: 16%
↑ Weather panel	Left: 84%, Top: 0%, Width: 16%, Height: 84%
↑ Date-time panel	Left: 0%, Top: 84%, Width: 20%, Height: 16%

Add new panel

Configuration page of a screen layout

VIDEO TUTORIAL

[Watch video tutorial](#)

Original technical reference: <https://slideshow.digital/documentation/configuration/playback-configuration/screen-layout/>
Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Layout examples

Technovia SLIDESHOW offers you limitless possibilities for various screen layouts. Here are some examples for your inspiration, together with a screenshot of the Screen layout configuration from the web interface for each example.

CHOOSE A LAYOUT FOR YOUR SCREEN

Layout	Typical content	Set up
One main area	A sequence of promotional images or videos.	Assign one playlist to a full-screen zone.
Main area with a side panel	Promotions beside weather, time or news.	Use separate zones and start with the With side panels sample where available.
Main area with a ticker	Images or videos above a scrolling news strip.	Create a narrow zone and assign RSS messages content using a scrolling style.
Clock overlay	Media with the time visible above it.	Place a date/time zone above the media zone and use a transparent background.

USE THE BUILT-IN SAMPLES

Open **Screen layout > Sample screen layouts** in the web interface. Select a suitable starting point, adjust zone dimensions and assign your own playlists. Test text size, contrast and video performance on the installed display.

Original technical reference: <https://slideshow.digital/documentation/configuration/playback-configuration/screen-layout/inspiration-for-layouts/>

Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Layout & playlist schedules

Scheduling is used in two places in Technovia SLIDESHOW app: for screen layouts schedule (which screen layout should be displayed when) and for playlists schedule (which playlist should be displayed when and in which screen layout zone).

You can manage all these settings from Technovia SLIDESHOW's [web interface](#).

SCREEN LAYOUTS SCHEDULE

You can setup schedule for screen layouts in order to display different screen layouts on different parts of the day or different days of week. Technovia SLIDESHOW will automatically check the screen layout schedule each minute, so after changing the schedule, it might take up to a minute to see the change on the screen of the Android device.

You can manage the schedules via menu Screen layout → button Screen layouts schedule.

If your device supports screen power off, you can use Power off option in Screen layout schedules during the time the display should be completely off. The hardware support can be verified and tested via menu Settings → Screen power. Enabling the [setting](#) "Keep the background service" is highly recommended, so the app can re-launch itself at the time the screen should be powered back on.

Slideshow management

User: Default admin
Logout

Android box

HomeScreen layoutPlaylistsContentFile managerToolsSettingsInformation

Screen layouts schedule

Time schedule for screen layouts which should be shown on the screen. If no screen layout is scheduled, nothing will be displayed on the screen. Will be used only if setting "Use screen layout intervals" is disabled.

Screen layout	Time from	Time to	Days of week	Date from	Date to	Priority	
Special Monday layout	12 : 00 AM	11 : 59 PM	MonTueWedThuFriSatSun	mm / dd / yyyy	mm / dd / yyyy	High	X
Default layout	12 : 00 AM	11 : 59 PM	MonTueWedThuFriSatSun	mm / dd / yyyy	mm / dd / yyyy	Low	X

+ Add row

Save

Back

Schedule preview

< Today >

14 Mon

15 Tue

16 Wed

17 Thu

18 Fri

19 Sat

20 Sun

1 am

2 am

3 am

4 am

5 am

6 am

7 am

8 am

9 am

10 am

11 am

12 pm

13:13

2 pm

3 pm

4 pm

5 pm

6 pm

7 pm

8 pm

9 pm

10 pm

11 pm

Special Monday layout

Default layout

Default layout

Default layout

Default layout

Default layout

Default layout

Page for editing screen layouts schedule

SCREEN LAYOUTS INTERVALS

If you enable Use screen layout intervals through menu Settings → Device settings, Technovia SLIDESHOW will use screen layout intervals to determine which screen layout should be displayed, instead of screen layout schedule. Intervals in minutes can be then set via menu Screen layout → Edit screen layout → Interval. The check whether to change a layout on the screen is performed automatically on the background every 10 seconds.

Settings Wait with screen layout change and Reset order on playlist change are often used with these intervals. Enabling Wait with screen layout change can be used for letting videos (or other content) play until the end before changing the layout. Disabling Reset order on playlist change is beneficial if the layout changes often and it is not required to start the playlist from the beginning of each change.

PLAYLISTS SCHEDULE

Each screen layout zone has a schedule for playlists, that means that the zone can display different playlists on different parts of the day or different days of week. Technovia SLIDESHOW will automatically switch the playlist when the next content from the playlist should be displayed.

You can assign playlists to a zone via menu Screen layout – Edit screen layout – double click a zone – Playlists schedule for zone.

Slideshow management User: Default admin
Logout

Android box

Home Screen layout Playlists Content File manager Tools Settings Information

Playlists schedule for zone Whole screen

✓ Playlists schedule was successfully saved

Time schedule for playlists, which should be shown in this screen layout zone. If no playlist is scheduled, nothing will be displayed in this zone.

Playlist	Time from	Time to	Days of week	Date from	Date to	Priority	
Screensaver images	08 : 35 PM	11 : 59 PM	Mon Tue Wed Thu Fri Sat Sun	mm / dd / yyyy	mm / dd / yyyy	High	X
Screensaver images	12 : 00 AM	05 : 25 AM	Mon Tue Wed Thu Fri Sat Sun	mm / dd / yyyy	mm / dd / yyyy	High	X
Marketing videos	12 : 00 AM	11 : 59 PM	Mon Tue Wed Thu Fri Sat Sun	mm / dd / yyyy	mm / dd / yyyy	Low	X
Promotional banners	12 : 00 AM	11 : 59 PM	Mon Tue Wed Thu Fri Sat Sun	mm / dd / yyyy	mm / dd / yyyy	Low	X

+ Add row

Save Back

Schedule preview

< Today >

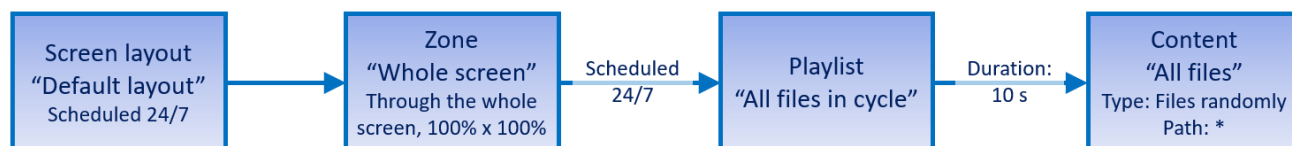
Page for editing playlists schedule

AUDIO PLAYLISTS SCHEDULE

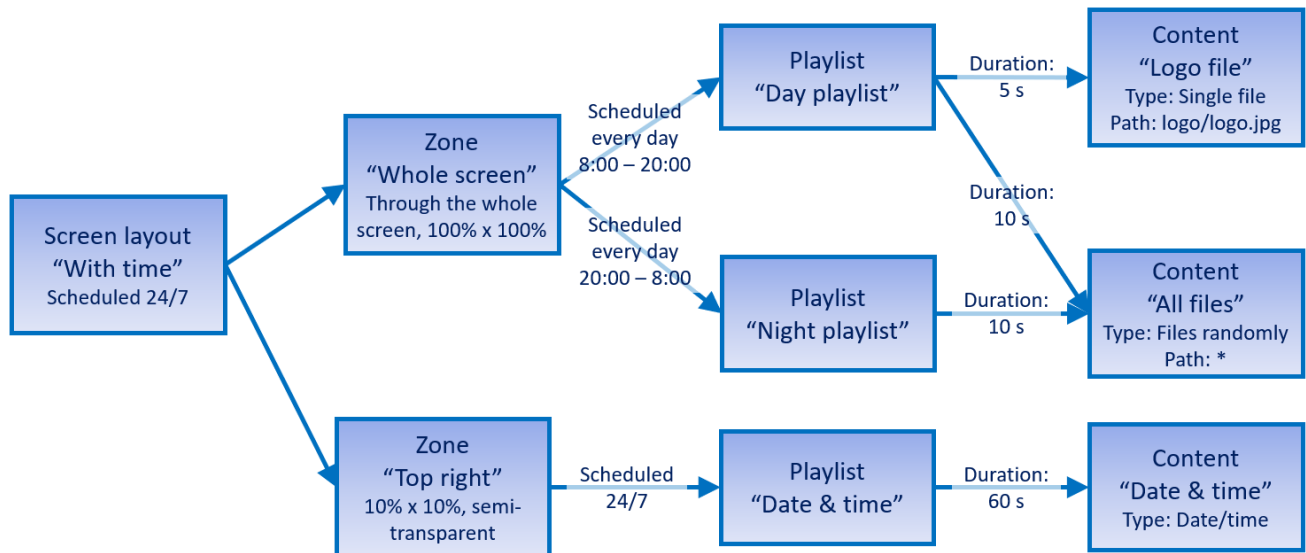
There is a special scheduling for audio playlists, they are not connected to any screen layout zone, as this kind of playlists acts as **background audio**. You can set up the schedule via the web interface → menu Playlists → button Audio playlists schedule. Only playlists with type Audio playlist can be assigned to background audio.

DIAGRAMS FOR BETTER CLARIFICATION

Below are diagrams for two sample configurations:



Visualization of the default configuration - this is how content, playlists, zones and screen layouts are setup when you install Slideshow



Visualization of little bit more complex setup: two zones on the screen, one zone has different playlist during day and night, the day playlists switches between two different contents

VIDEO TUTORIAL

[Watch video tutorial](#)

Original technical reference: <https://slideshow.digital/documentation/configuration/playback-configuration/layout-playlist-scheduling/>
Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Transitions & animations

TRANSITIONS

Technovia SLIDESHOW allows you to set up various transitions (or animations) between two consecutively displayed images or PDFs in one zone.

Transitions can be set up via web interface → menu Screen layout → Edit screen layout, after double-clicking a particular zone. You can choose different transition types and lengths for each zone. The software documentation recommends using length between 300 and 2000 milliseconds for the best effect. After saving the transition settings, refresh the screen layout to apply changes immediately.

Available transition types

- **No animation** – there will be no animation between two images, they will change immediately
- **Fade out** – dissolve the previous image
- **Crossfade** – smooth transition / dissolve between images, background may be partially visible
- **To right** – old image moves to the right
- **To left** – old image moves to the left
- **To top** – old image moves to the top
- **To bottom** – old image moves to the bottom
- **Shrink** – old image shrinks to the center
- **Rotate & shrink** – old image shrinks to the center while rotating
- **Enlarge & crossfade** – old image enlarges and fades out
- **Explode** – old image explodes into 3×3 parts
- **Fold** – old image folds to the left border
- **Horizontal flip** – the images flips horizontally (along Y axis)
- **Vertical flip** – the images flips vertically (along X axis)
- **Hide** – old image will be hidden and new images will be displayed after the animation length, displaying only the background in the meantime
- **Inside cube (from right)** – simulates a 3D cube from inside, transition is always from right
- **Inside cube (random direction)** – simulates a 3D cube from inside, transition is from random direction (right, left, top or bottom)
- **Outside cube (from right)** – simulates a 3D cube from outside, transition is always from right
- **Outside cube (random direction)** – simulates a 3D cube from outside, transition is from random direction (right, left, top or bottom)

- **Random** – picks random animation each time from all available except No animation and Hide

Transition of large screen areas requires significant CPU power to render smoothly, so it may lag on slower devices.

EXAMPLES OF SOME OF THE AVAILABLE TRANSITIONS

[View transition video example online](#)

Fade out transition

[View transition video example online](#)

Enlarge & crossfade transition

[View transition video example online](#)

To left transition

[View transition video example online](#)

Rotate & shrink transition

[View transition video example online](#)

Inside cube transition

[View transition video example online](#)

Outside cube transition

ANIMATIONS

Images and PDFs displayed on the screen can be animated, for example slowly zooming in or out, or slowly moving to the side. Animations can be set up through the web interface → menu Content → Edit → Image animation types & speed. If multiple animation types are selected, a random one will be used for each image.

Sample screen layout With animation and time (menu Screen layout → button Sample screen layouts) can be used as a starting point for setting up animations. Not all combinations of transitions and animations are working smoothly on all devices. The software documentation recommends testing your combination before using it live.

[Watch video tutorial](#)

Original technical reference: <https://slideshow.digital/documentation/playback/on-screen-formatting/transitions-animations/>
Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Scaling images and videos

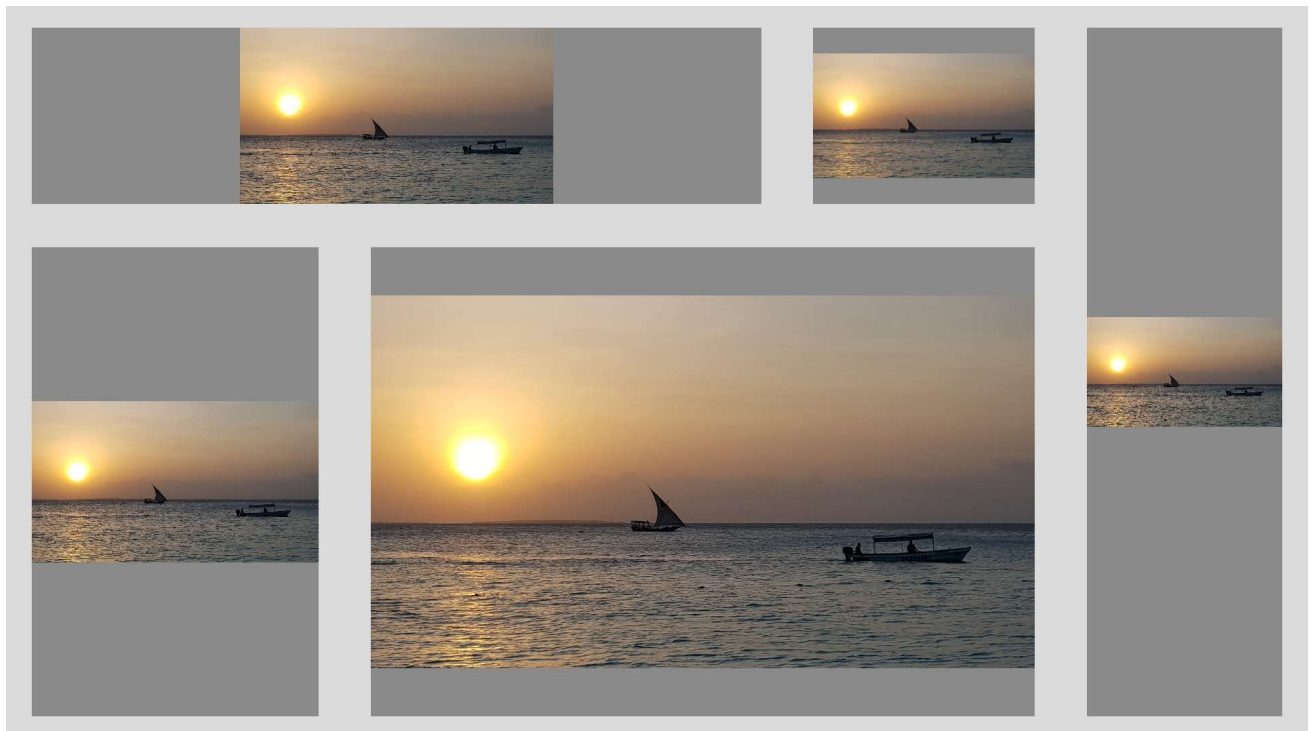
If resolution of image or video doesn't match the resolution of the zone where it should be displayed, Technovia SLIDESHOW can scale the picture using various methods, which differ in how much is the picture scaled up or down and whether the aspect ratio is preserved.

The method for scaling can be set globally via web interface → menu Settings → Device settings → item Image scale type or on-screen menu → Basic settings → item Image scale type. Scaling videos works only if you are using video player type Exoplayer.

You can find examples of various scaling types below for the reference. They each display the same image in several different zones, each zone has dark grey background.

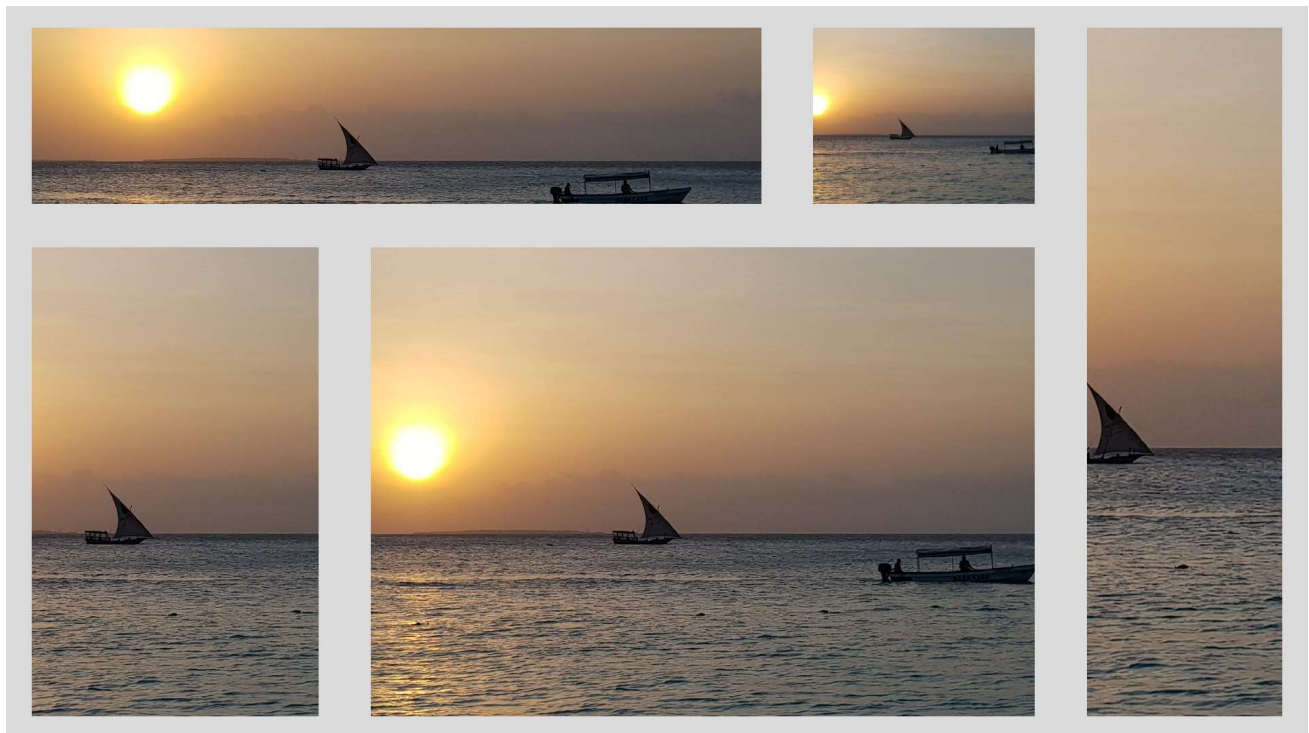
FIT CENTER

Maintains the original aspect ratio. Scales the image so both width and height are the same or smaller as the zone. Might display some of the background of the zone.



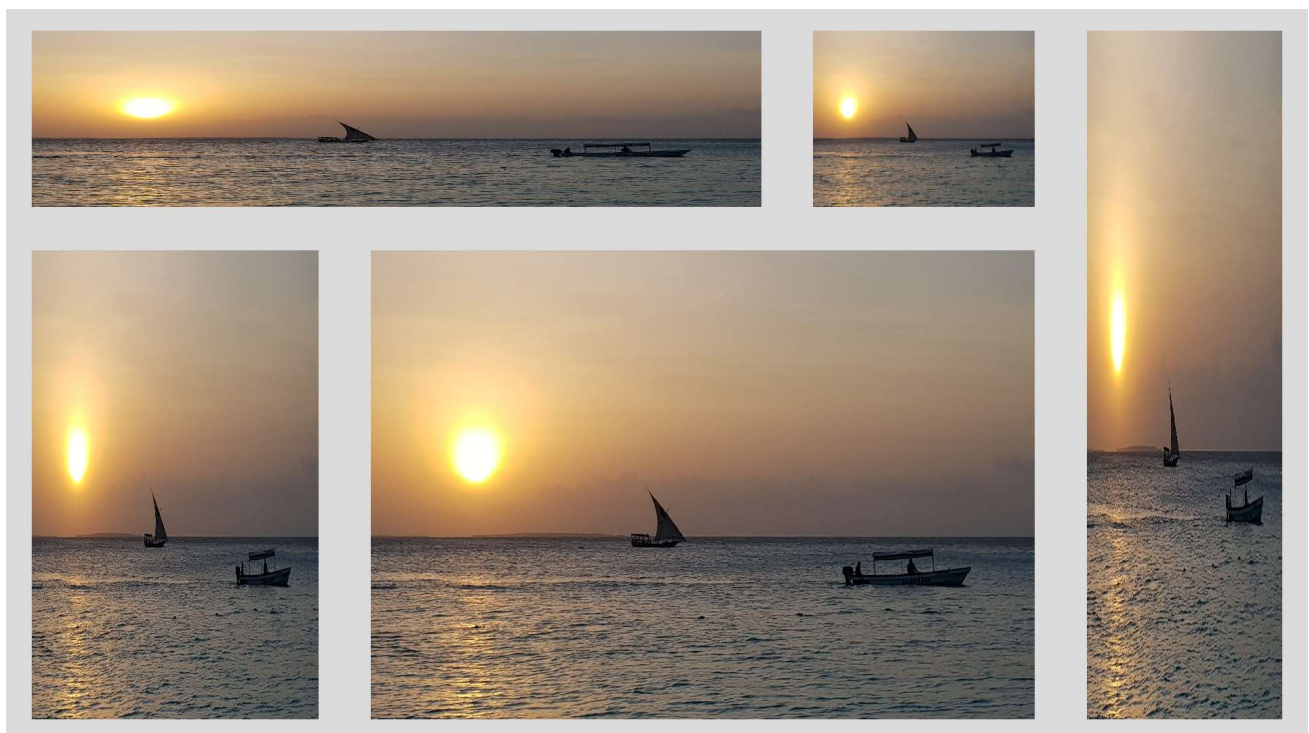
CENTER CROP

Maintains the original aspect ratio. Scales the image so both width and height are at the same or larger as the zone. Might crop some parts of the image. Never displays any of the background of the zone.



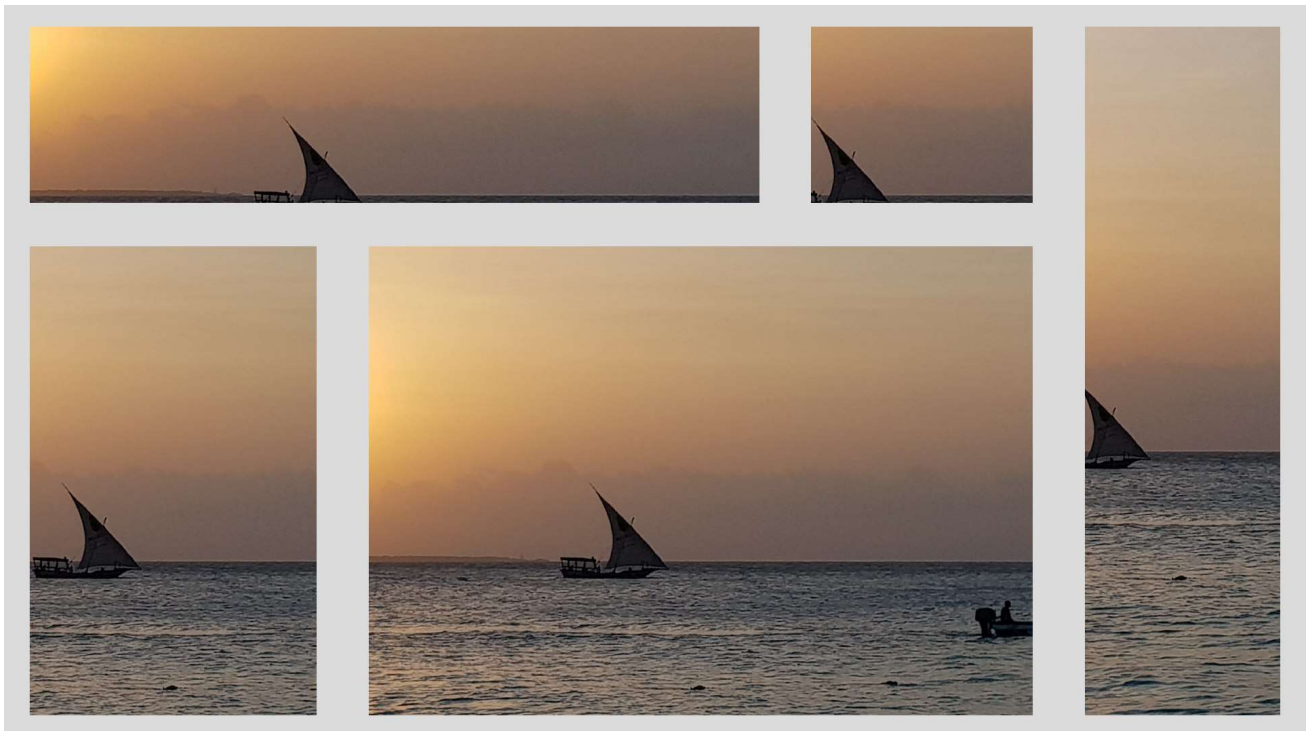
FIT TO SCREEN

Doesn't maintain the original aspect ratio (image can become distorted). Scales the image so both width and height are the same as the zone. Never displays any of the background of the zone.



CENTER (NO SCALING)

Maintains the original aspect ratio. Doesn't scale, uses the original width and height of the image – be careful with extra large images, they will occupy a lot of RAM.



BLURRED IMAGE BACKGROUND

In addition to scaling described above, it is possible to achieve blurry background effect for images in zones that don't match the image aspect ratio through option `Image background type` in Content configuration (web interface → menu Content → Edit). In case `Image background type` is set, `Fit center` scaling will be used automatically, overriding any global `Image scale type` setting. This setting is available for Content types `Single file`, `Files randomly` and `Files alphabetically` and it is applied only for images, not for videos.



Image background type set to Blurred & darkened



Image background type set to Blurred & lightened

Original technical reference: <https://slideshow.digital/documentation/playback/on-screen-formatting/scaling-images/>
Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Screen rotation

In case you want to display content on your TV in portrait mode or rotate the content by any other way, Technovia SLIDESHOW offers two options for how to achieve it:

SCREEN LAYOUT ROTATION

This method rotates only the Technovia SLIDESHOW content layout while leaving the on-screen menu and system UI untouched.

Screen layout rotation can be set through the web interface → menu Screen layout → Edit screen layout → Rotation. The layout can be rotated by 90°, 180° or 270°.

Rotating screen layout is supported universally on every device (the support doesn't depend on the hardware). For video playback on rotated layouts the software documentation recommends using the player type `ExoPlayer + TextureView` or `ExoPlayer + SurfaceView` (see [Device settings](#)).

ANDROID SYSTEM ORIENTATION

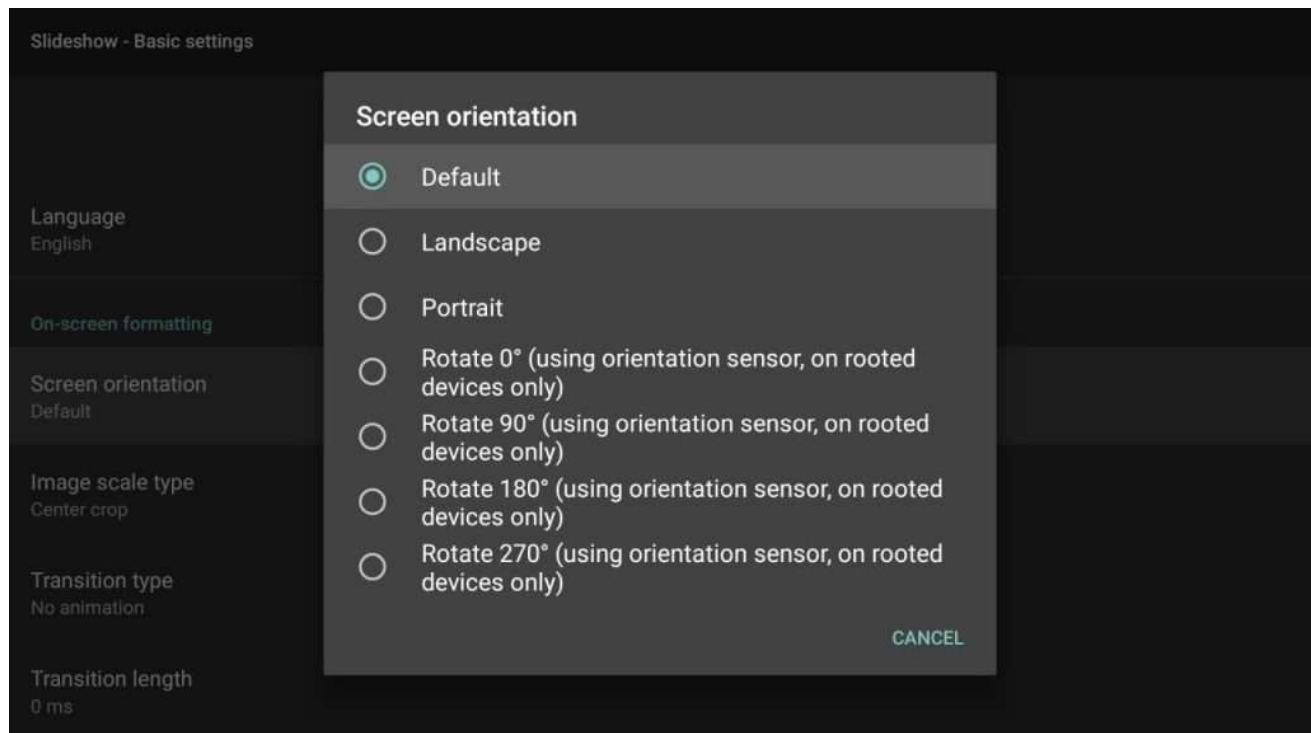
This method changes the entire Android system orientation, affecting Technovia SLIDESHOW and any other running apps.

It can be set through the web interface → menu Settings → Device settings → Screen orientation, or through on-screen menu → Basic settings → Screen orientation in on-screen menu.

There are two sets of options:

- Default, Portrait or Landscape
- Simulating change of orientation sensor, only supported by some [rooted devices](#) (might affect other apps as well)

Support of these options depends on the particular hardware model, not every manufacturer supports all of them on their devices. If changing Screen orientation and restarting Technovia SLIDESHOW app produces no change on your device, the software documentation recommends falling back to Screen layout rotation described above.



Setting screen orientation through Basic settings

QUICK DECISION GUIDE

Need	Recommended method
Rotate only Technovia SLIDESHOW content	Screen Layout Rotation
Rotate entire system (e.g., for kiosk mode)	Android System Orientation <i>(if supported)</i>
Device does not respond to system orientation changes	Screen Layout Rotation
Playing videos on a rotated layout	Ensure ExoPlayer is selected in Device settings

Original technical reference: <https://slideshow.digital/documentation/configuration/screen-rotation/>

Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Fonts

You can select a custom font for displaying plain text, date and time, weather, RSS news or name days via web interface → menu Content → Edit.

All fonts installed in Android are available in Technovia SLIDESHOW. The exact list depends on the particular Android image, but usually contains 15+ fonts preinstalled. On most devices, the same font might be installed under two or more different names.

Arial font 0123456789 Sans-serif-light font 0123456789

Times new roman font 0123456789 SANS-SERIF-SMALLCAPS FONT 0123456789

Courier new font 0123456789 Sans-serif-condensed font 0123456789

Cursive font 0123456789 **Sans-serif-black font 0123456789**

Casual font 0123456789 Sans-serif-medium font 0123456789

Monaco font 0123456789 Sans-serif-thin font 0123456789

Some of the fonts available on Android 9

OWN FONTS

If you would like to use a font that isn't bundled in your Android image, you can upload it via web interface → menu Settings → Fonts. Supported font formats are TrueType (TTF) and OpenType (OTF). You can then pick any of the uploaded fonts in the Edit content form, they are marked with an asterisk before their name.

Slideshow management

User: **Default admin**
[Logout](#)

Sample device

[Home](#) [Screen layout](#) [Playlists](#) [Items](#) [Files](#) [Tools](#) [Settings](#) [Information](#)

Fonts

If you want to use custom fonts (other than those in Android) for displaying RSS news, weather or date and time, you can upload them on this page. Afterwards, you can pick them when configuring the item. TrueType (TTF) and OpenType (OTF) font formats are supported.

List of uploaded fonts

Pacifico.ttf [Delete](#)

Montserrat-Black.otf [Delete](#)

Upload new font

Font file (TTF or OTF format): [Browse...](#)

[Upload](#)

Form for uploading custom fonts

Original technical reference: <https://slideshow.digital/documentation/playback/on-screen-formatting/fonts/>

Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Layouts & scheduling

Description text

While displaying images, videos or web pages, it is possible to automatically display additional dynamic description text in the zone (top left corner by default, see Description text position below).



Examples of the description text

The setup can be done via the web interface → menu Content → Edit by filling out Description text and Text color. It is available for content types Single file, Files alphabetically, Files randomly, Audio/video stream and Video input.

- **Description text** – template text which will be displayed on the screen. Can contain several placeholders, which will be replaced dynamically:
 - {FileName} – full name and path of the currently displayed file
 - {FileNameShort} – name of the file without folder and file extension
 - {ItemName} – name of the content which is displayed
 - {DateTime} – date and time when the picture was captured, from EXIF tag of the image (available only for JPEG images)
 - {...} – additional data from EXIF tags of the image
- **Text color** – color of the text on the screen. The background color will be calculated automatically as a semi-transparent complementary color. To turn off the background color, set the text color to semi-transparent.
- **Description text position** - position of the description text in zone. The default is set in [Device settings](#) and can be overridden in Content.
- **Description text size** - height of the description text, as a percentage of the zone height (1-100%). The default is set in [Device settings](#) and can be overridden in Content.

Slideshow management

Test device

[Home](#)
[Screen layout](#)
[Playlists](#)
[Items](#)
[Files](#)
[Tools](#)
[Settings](#)
[Information](#)

Edit item Images

Name: ?

Type: ▼

Path: ?

Description text: ?

Text color: ?

Scroll speed: ?

Used in playlists: ?

Save

Back

Delete

?

Setup of the content with description text

VIDEO TUTORIAL

[Watch video tutorial](#)

Original technical reference: <https://slideshow.digital/documentation/playback/on-screen-formatting/description-text/>

Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Scheduled file deletion

Technovia SLIDESHOW allows you to schedule automatic deletion of files at a specific date and time. Once a file's scheduled deletion time passes, Technovia SLIDESHOW will automatically remove it from internal storage.

The check for scheduled deletions runs periodically. You can configure how often this check is performed via web interface → menu Settings → Device settings, item How often to check files.

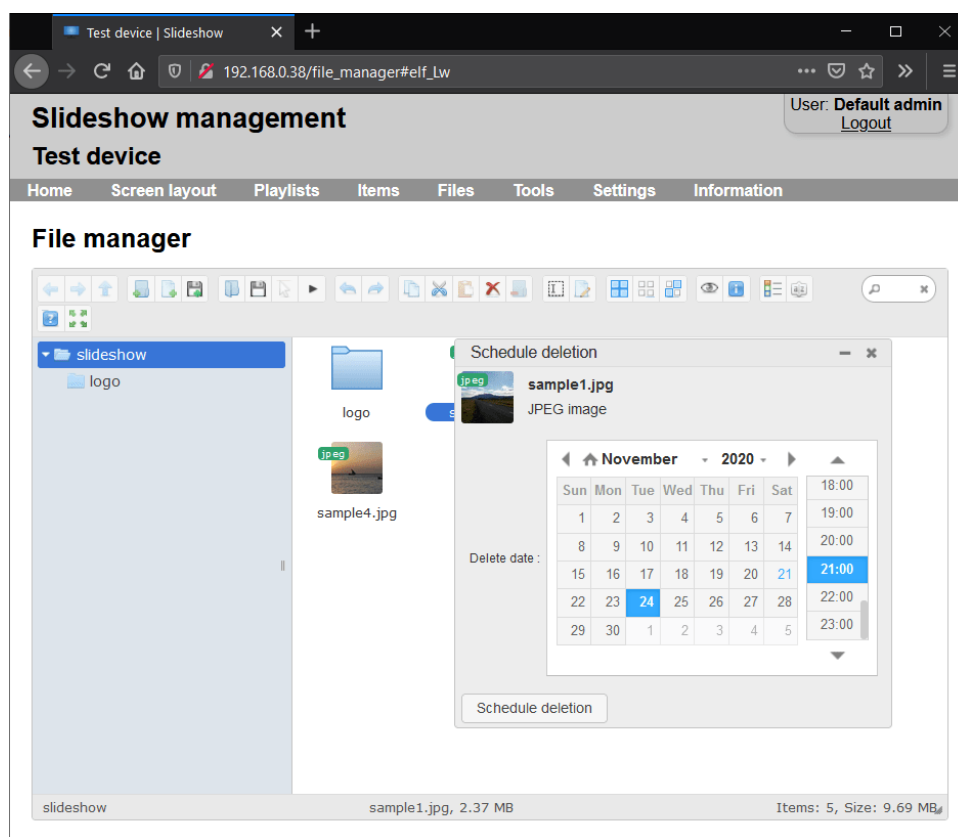
Technovia SLIDESHOW uses the system date, time, and time zone for all scheduling operations. Make sure your device's clock and time zone are set correctly to ensure accurate deletions.

Below are three methods how you can set scheduled deletion of a file.

SCHEDULED DELETION VIA FILE MANAGER

You can set or change the deletion date for file via web interface → menu File manager, right-click the file and pick Schedule deletion. In the dialog, you can pick date and time when you would like to automatically delete this file.

You can check the deletion date by either right-clicking the file and choosing Get info, or switching the File manager into List view. In both cases, the date is listed under "Delete date".



Scheduled deletion in the File manager

SCHEDULED DELETION VIA SETUP.CSV FILE

Deletion date can be configured in the setup.csv file included in ZIP archive, USB flash drive, Google Drive or Dropbox.

SCHEDULED DELETION VIA FILE NAME

Technovia SLIDESHOW can automatically detect a deletion date if it is embedded in the uploaded file's name. This works for uploads from any source — including the web interface, FTP, WebDAV, USB drives, Google Drive, or Dropbox.

Use the following naming convention:

```
{any name}_DEL_{date}.{extension}
```

Supported date formats are:

- yyyy-MM-dd (e.g. 2019-12-07)
- yyyy-MM-dd HH-mm or yyyy-MM-dd HH.mm (e.g. 2019-12-07 13-20; colons are not allowed in file names on Windows and FAT32)

- dd.MM.yyyy (e.g. 07.12.2019)
- dd.MM.yyyy HH.mm (e.g. 07.12.2019 13.20)
- xxD (e.g. 20D, meaning deletion in 20 days after upload)
- xxH (e.g. 5H, meaning deletion in 5 hours after upload)

Examples:

- image_DEL_2020-11-22.jpg
- video_DEL_2020-11-22 21-00.mp4
- sample-banner_DEL_22.11.2020.jpg
- temporary document_DEL_7D.pdf

File name is checked only at the moment file is first uploaded to Technovia SLIDESHOW. If you want to change the scheduled deletion date afterward, you can do so via File manager (see the first method). Renaming the file after it was uploaded has no effect on scheduled deletion.

Original technical reference: <https://slideshow.digital/documentation/configuration/playback-configuration/scheduled-file-deletion/>
Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Connected content

Date and time

Technovia SLIDESHOW can display current date and/or time on the screen using content type Date/Time. The date and time of the Android device will be used as the source.

REAL TIME CLOCK (RTC)

Keeping the information about current time requires electricity. Same as your wristwatch won't work without a battery, a clock in an electronic device requires power. When a device is turned off, unplugged from a power source and has no battery, there is no electricity to keep the internal clock of the device running, and it powers off as well. When you power on such a device, it either starts with some date set by the manufacturer or the same date and time as when it was last powered off.

This effect is not limited to Android devices. You might have seen a similar effect in the past on an old computer with a dead CMOS/BIOS battery. After powering on, you can see entirely wrong time in Windows, and the only solution is to replace the dead battery.

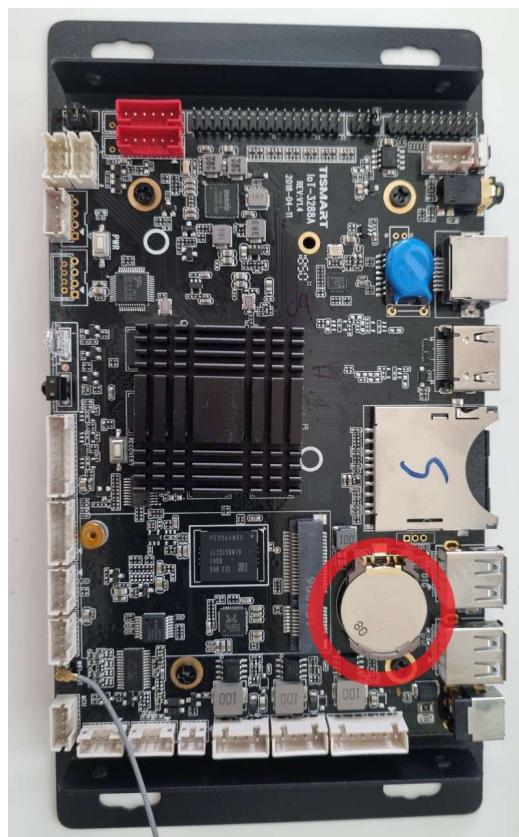
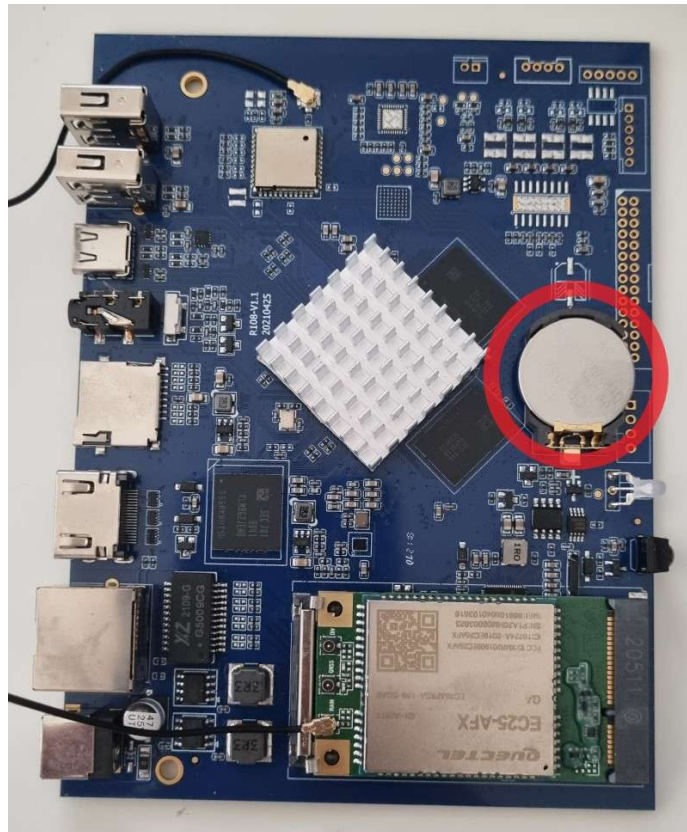
To keep the date and time correct even in case the device is completely without power, the manufacturer of the device has to add a hardware module called [real-time clock \(RTC\)](#). It is a very low power chip with an oscillator and a small battery or a capacitor, which keeps the device clock always correct, no matter if the device is on or off, with power or without.

RTC in Android boxes

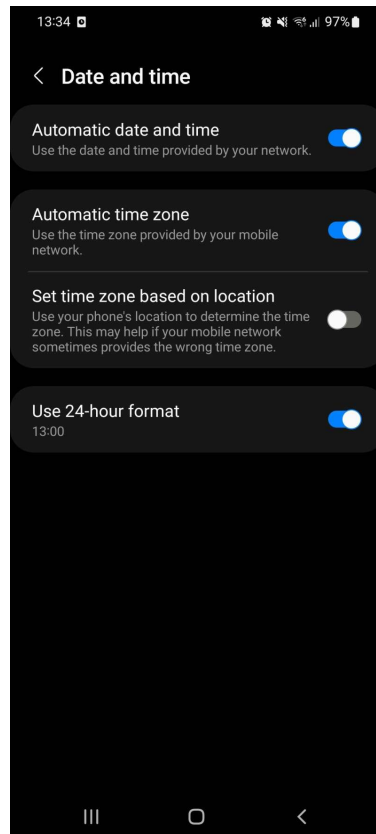
If an Android box doesn't have an RTC module, the only way for the box to get the correct date and time is to get it from the internet using [Network Time Protocol \(NTP\)](#). There are many NTP servers available all over the world, and Android is automatically configured to contact them, ask them for the correct current time and set this time internally. As long as the device is running, it will keep the time correct even if you disconnect it from the internet (although the clock might drift a couple of seconds if you keep the device running for a very long time).

In the past, the majority of Android boxes and sticks didn't have the RTC module, so internet connection was a must if you wanted to have the correct time. Luckily, the situation is getting better, and you can now easily find an Android box that has an RTC module and keeps the time correct across power offs even without an internet connection. Usually you can find mention of "RTC" in the specifications of the device.

From the devices we have tested in the past, Rikomagic DS03 and Ugoos X2 Pro have RTC modules working out of the box. Zidoo Z9X has an RTC module, but there is no battery installed in it from the factory, so it resets the clock to 1 January 2018 after each reboot.



Android box boards with RTC battery circled in red



Time synchronization settings in Android

VIDEO TUTORIAL

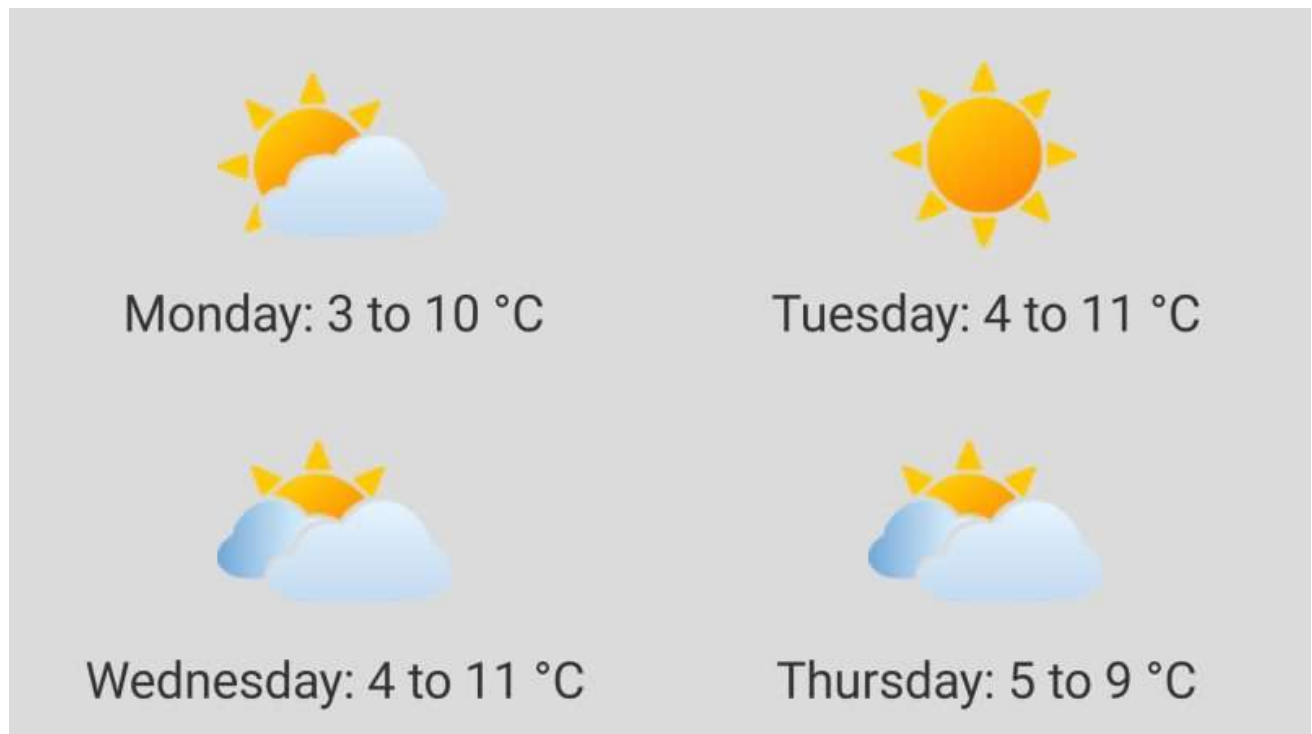
[Watch video tutorial](#)

Original technical reference: <https://slideshow.digital/documentation/playback/special-content/date-time/>
Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Connected content

Weather forecast

Among other things, Technovia SLIDESHOW can also display weather forecast from the internet on the screen. The displayed weather forecast consists of an icon, date and temperature range for a day. Optionally, you can enter custom text that will be displayed above the forecast.



Forecast for 4 days on entire screen

SETTING UP WEATHER CONTENT

You can set up displaying weather forecast by creating a new content with type weather and adding it to your playlist. Alternatively, you can use sample screen layout With side panels as a starting point.

Technovia SLIDESHOW can display weather for a maximum of 4 days, vertically (with number of columns set to 1) or horizontally (with number of columns set to 4).

Edit content Weather in Athens

Name:	Weather in Athens	?
Type:	Weather	?
Weather type:	Weather forecast	?
City for weather:	Athens, Greece	?
Text template:	EEEE': %.0f to %.0f °C	?
Icon style:	Colorful	?
Text before:	Weather (in Celsius)	?
Text color:	#333333	?
Text font:	Default	?
Number of days:	4	?
Number of columns:	1	?
Temperature in °F:	☐	?
Language:	English	?
Used in playlists:	Weather in Athens	

?

Dialog for editing content on the web interface. Example for degrees Celsius.

Edit content Weather in Athens

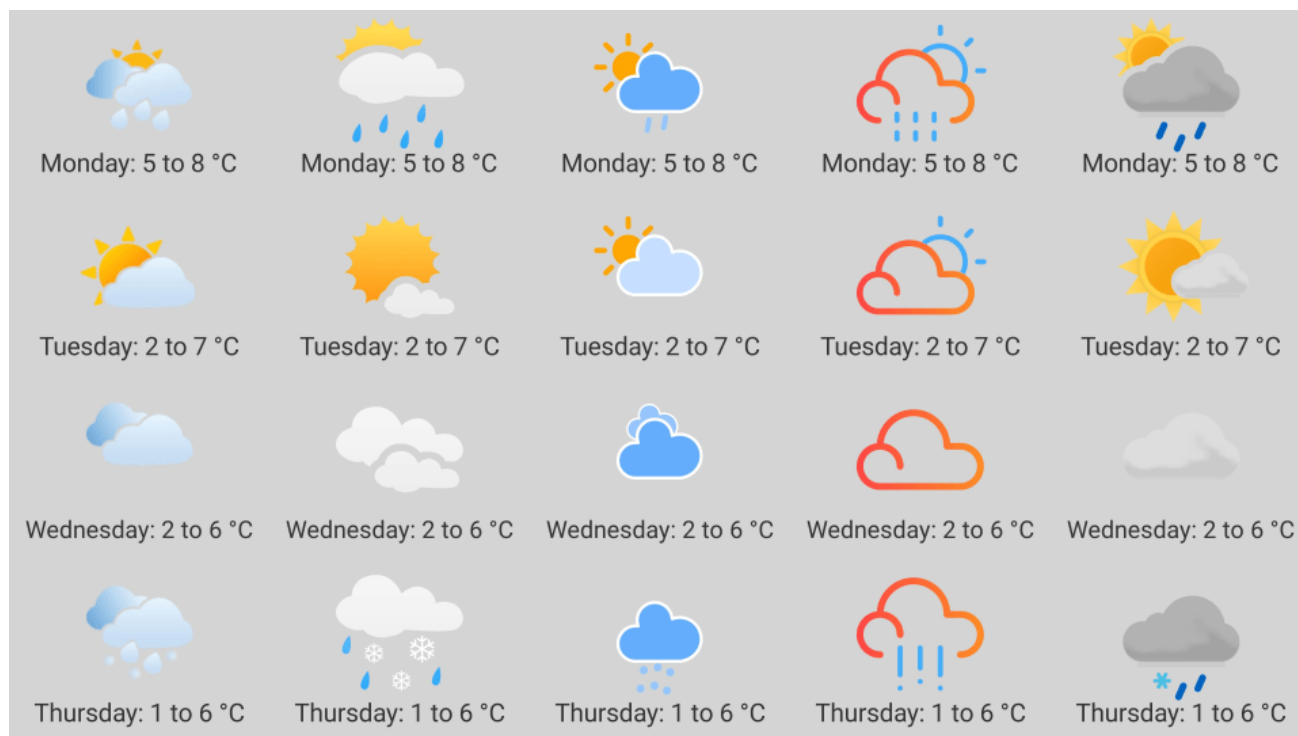
Name:	Weather in Athens	?
Type:	Weather	?
Weather type:	Weather forecast	?
City for weather:	Athens, Greece	?
Text template:	EEEE': %.0f to %.0f °F	?
Icon style:	Colorful	?
Text before:	Weather (in Fahrenheit)	?
Text color:	#333333	?
Text font:	Default	?
Number of days:	4	?
Number of columns:	1	?
Temperature in °F:	☒	?
Language:	English	?
Used in playlists:	Weather in Athens	

?

Dialog for editing content on the web interface. Example for degrees Fahrenheit.

The temperature is displayed in degrees Celsius by default. Switching to degrees Fahrenheit is possible by enabling option `Temperature in °F` and changing the `Text template` to `EEEE': %.0f to %.0f °F'` (or similar one) in the content.

By selecting icon style on the Edit content page, you can change the style of the weather icon displayed on the screen. Samples from the available styles are in the image below.



Available weather icon styles: Default, Colorful, Simple, Outlines and Metno

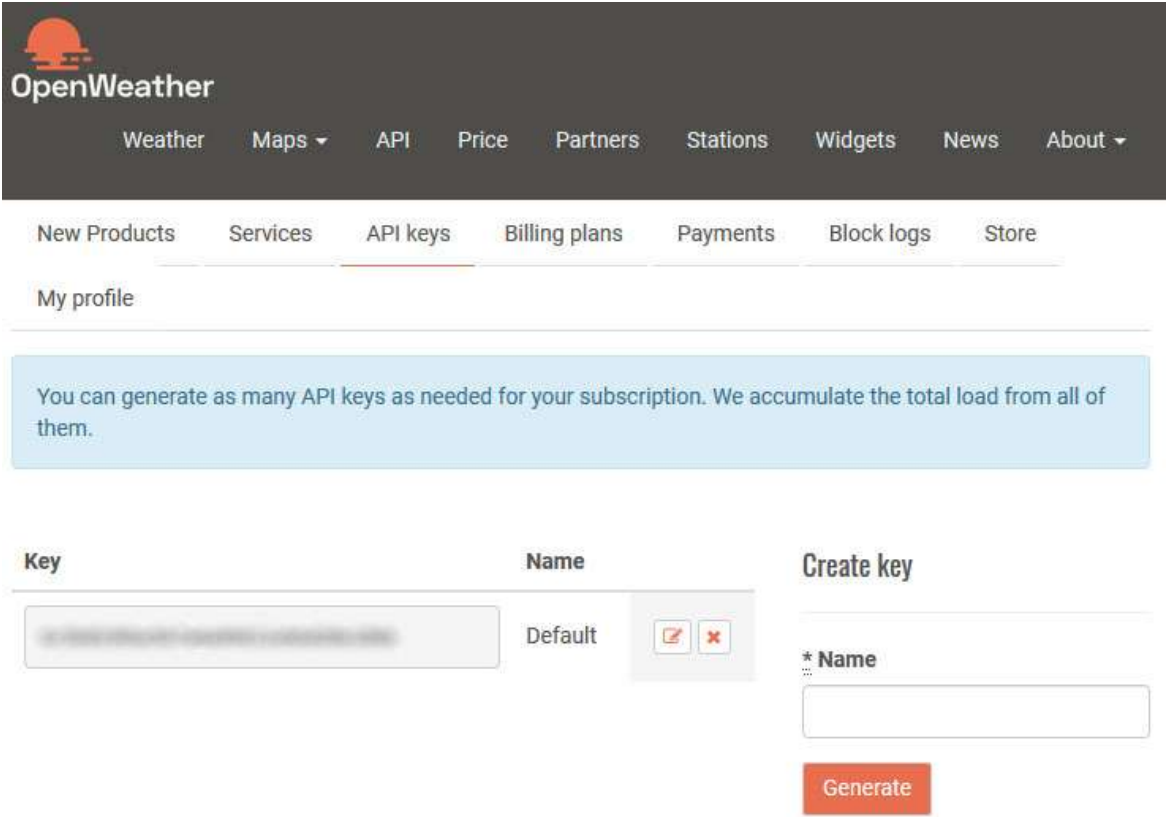
WEATHER SOURCES

Different online sources of weather forecast can be used in Technovia SLIDESHOW. In order to use some of these sources, you might have to first create an account on the respective site (usually for free). You can find comparison of the sources in the table below.

Setup of the weather source is through the web interface → menu `Settings` → `Device settings`.

Name of the forecast source	Open-Meteo	OpenWeatherMap	HERE Maps	Norwegian Meteorological Institute (MET Norway)
Website	https://open-meteo.com	https://openweathermap.org	https://developer.here.com	https://www.met.no/en

Name of the forecast source	Open-Meteo	OpenWeatherMap	HERE Maps	Norwegian Meteorological Institute (MET Norway)
Registration	Not required	https://home.openweathermap.org/users/sign_up	https://developer.here.com/sign-up?create=Freemium-Basic&keepState=true&step=account	Not required
Limit for free account	10 000 requests per day	60 requests per minute	Credit card required	Fair usage
Where to get the API key	Not required	https://home.openweathermap.org/api_keys → Generate new key	https://developer.here.com/projects → create new project and generate key in the REST section	Not required
What to enter in the Technovia SLIDESHOW's Device settings	Weather source: Open-Meteo	Weather source: OpenWeatherMap API key for weather: {API key} (change for your actual value)	Weather source: HERE Destination weather API key for weather: {API KEY} (change for your actual value)	Weather source: MET Norway (yr.no)



The screenshot shows the OpenWeatherMap website interface. At the top, there's a navigation bar with links: Weather, Maps, API, Price, Partners, Stations, Widgets, News, and About. Below this is a secondary navigation bar with links: New Products, Services, API keys (highlighted), Billing plans, Payments, Block logs, and Store. Under the 'API keys' link, there's a section titled 'My profile' with a message: 'You can generate as many API keys as needed for your subscription. We accumulate the total load from all of them.' Below this message, there's a form to 'Create key'. The form has two columns: 'Key' and 'Name'. The 'Key' column has a text input field containing a long alphanumeric string. The 'Name' column has a text input field with 'Default' entered, and a 'Create key' button. Below the 'Create key' button, there's a 'Generate' button.

API Key on OpenWeatherMap website

REST

These application credentials can be used with [HERE Location Services REST APIs](#). Please read the [documentation about authentication](#) for details.

NEW

APP ID

API Keys

Create API key There is a maximum of two keys per app. **1 of 2 keys created.**

API KEY	CREATED	STATUS
[REDACTED]	5 January 2020	Enabled

OAuth 2.0 (JSON Web Tokens)

Create credentials There is a maximum of two keys per app. **0 of 2 keys created.**

API Key on HERE Destination weather website

Technovia SLIDESHOW caches weather forecast for a particular location for 1 hour, so a single free account is usually good enough for displaying weather information on several devices. However, if you are looking for guaranteed SLA or have over 50 devices, the software documentation recommends looking into the paid accounts of the particular service.

Also, remember to read through the license terms of the weather source and add credit to the provider if required. Some services might restrict the usage to non-commercial only if you are not paying a subscription.

TROUBLESHOOTING

Each time the weather is refreshed from the server, there is an entry in the Technovia SLIDESHOW's logs (web interface → menu Information → Log):

```
2020-10-25 17:47:20 INFO sk.mimac.slideshow.weather.WeatherReader
- Weather refreshed (location=Punta Arenas)
```

In case something goes wrong while downloading new weather data, there is a warning entry in the logs. For example, if an API key is missing, there will be the following entry in logs:

```
2020-10-25 21:46:16 WARN sk.mimac.slideshow.weather.WeatherReader
- Can't refresh weather: OpenWeatherMap API key not found, please obtain it on https://
home.openweathermap.org/users/sign_up and enter it in the Device settings
```

VIDEO TUTORIAL

[Watch video tutorial](#)

Original technical reference: <https://slideshow.digital/documentation/playback/special-content/weather-forecast/>
Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Connected content

RSS feeds

You can set up displaying RSS feeds on screen by creating a new content with type RSS messages and adding it to your playlist. Alternatively, you can use sample screen layout with side panels as a starting point.

Add new content

You can create new content with a single file or folder from the File manager as well, just right click a file or folder and select Create new content.

Name:	RSS news	?
Type:	 RSS messages	▼
URL for RSS messages:	http://feeds.bbc.co.uk/news/rss.xml	?
Text color:	#333333	?
Text font:	Default	▼ ?
Font size:		⬆ ⬇ ⬆ ?
Show title:	☒	?
Show message:	☒	?
Remove XML tags:	☒	?
Style of display:	3 lines	▼
Scroll speed:	5	⬆ ⬇ ⬆ ?
Save Back		

Dialog for adding new content

The RSS feed can be displayed as static messages on the screen (one by one) or as a scrolling ticker, by changing the option **Style of display** on Edit content page.

SOURCE OF RSS FILE

The source of displayed RSS messages can be setup through the field **URL for RSS messages** in RSS content setup. There are several possible types of sources:

- **From the internet** – enter the URL of the RSS file, for example <http://feeds.bbc.co.uk/news/rss.xml>.
- **Local file** – enter name of the file uploaded or copied to Technovia SLIDESHOW. The software documentation recommends using a file with .rss extension.
- **Local messages** – enter local as URL. Messages added through web interface → menu Tools → RSS messages will be displayed.

You can enter multiple sources for one content, delimit them with comma (,). Messages from all sources will be displayed in cycle, starting with the first message of the first source and ending with the last message of the last source.

In case the RSS feed contains HTML/XML tags you don't want to display on the screen (string such as ` ` or `<img ...>`), enable `Remove XML tags` options on the `Edit content` page.

File [sample.rss](#) is available for testing; it contains a minimal example needed for Technovia SLIDESHOW with two messages. If you would like to host your RSS files in cloud, you can use www.rss-hosting.com.

DESCRIPTION OF RSS FILE

RSS format is plain-text XML format, so it can be easily edited manually using a text editor. You can find descriptions of the format on [Wikipedia](#) or [W3schools](#). Technovia SLIDESHOW displays only tags `title` and `description` (alternatively `summary` or `content`) from each message of the RSS file on screen. Title is displayed with bold font, description with regular font.

If you want to create an RSS file by yourself and want a more advanced tool than a simple text editor, you can try, for example, [RSS Builder](#).

VIDEO TUTORIAL

[Watch video tutorial](#)

Original technical reference: <https://slideshow.digital/documentation/playback/special-content/rss-feeds/>
Original documentation © 2026 Milan Fabian. Adapted for Technovia.

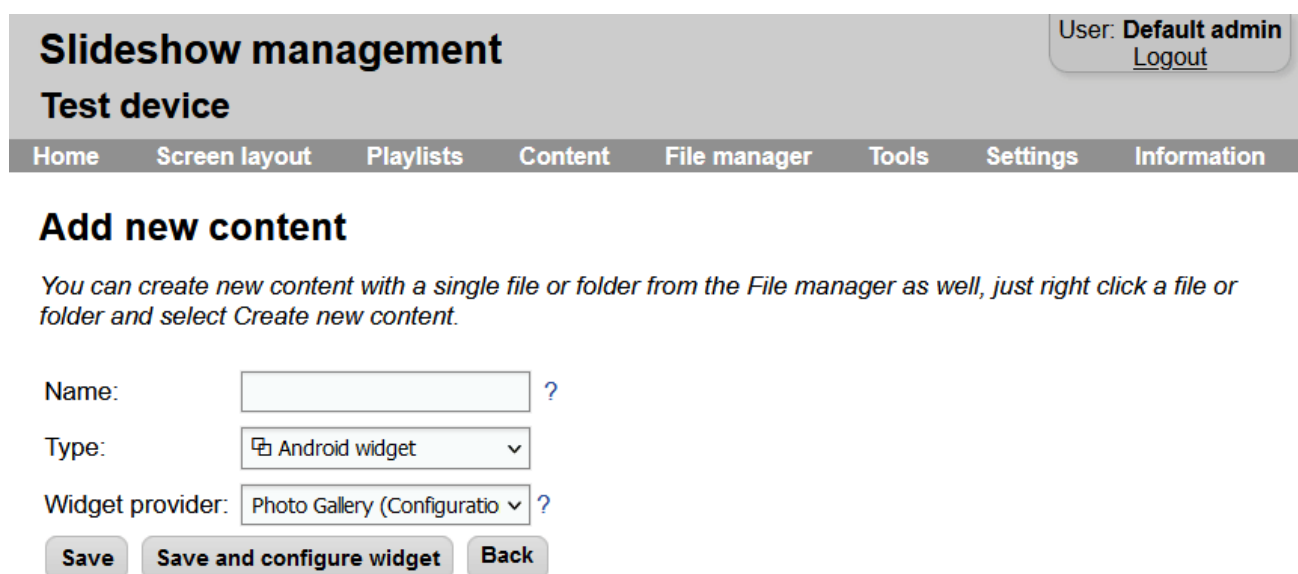
Connected content

Android widgets

It is possible to display an Android widget inside a zone of a screen layout using content with type `Android widget`. The list of widget providers contains all providers of the widgets installed on the particular Android device. Additional widget providers can be added by installing various widget apps to the Android system (either manually or through Google Play Store).

After adding new content with the type `Android widget` you might get a permission dialog on the screen of the Android device, which has to be confirmed.

Some of the widgets require configuration through the screen of the Android device. The configuration can be started using the `Start` and `configure widget` button when saving the content.



The screenshot shows the 'Slideshow management' interface. At the top, there's a header with 'Slideshow management' and a user profile 'User: Default admin' with a 'Logout' link. Below the header is a navigation bar with tabs: 'Home', 'Screen layout', 'Playlists', 'Content', 'File manager', 'Tools', 'Settings', and 'Information'. The 'Content' tab is selected. The main section is titled 'Test device' and 'Add new content'. A text box explains: 'You can create new content with a single file or folder from the File manager as well, just right click a file or folder and select Create new content.' Below this is a form with three fields: 'Name:' with a text input and a help icon; 'Type:' with a dropdown menu showing 'Android widget'; and 'Widget provider:' with a dropdown menu showing 'Photo Gallery (Configuratio...' and a help icon. At the bottom of the form are three buttons: 'Save', 'Save and configure widget', and 'Back'.

Content edit page with type `Android widget`

Technovia SLIDESHOW lists only actual system-registered widgets. It might differ from the list of widgets in your Launcher, as it usually lists app shortcuts as well as launcher built-in widgets.

Original technical reference: <https://slideshow.digital/documentation/playback/special-content/android-widgets/>
Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Connected content

Name days

Name day is a tradition in some countries (mostly in Central Europe), that people with a particular given name celebrate on a selected day of the year. The celebration is similar to a birthday celebration. You can find out more about this tradition on https://en.wikipedia.org/wiki/Name_day or <https://www.behindthename.com/namedays/>.

By creating content with type Today's name day, Technovia SLIDESHOW can display on the screen which name celebrates name day on the current day. Technovia SLIDESHOW has an offline copy of the list of names for several countries, there is no need to be connected to the internet to display the name.

Source of the names for particular days is this open-source repository: <https://github.com/milan-fabian/name-day-list>.

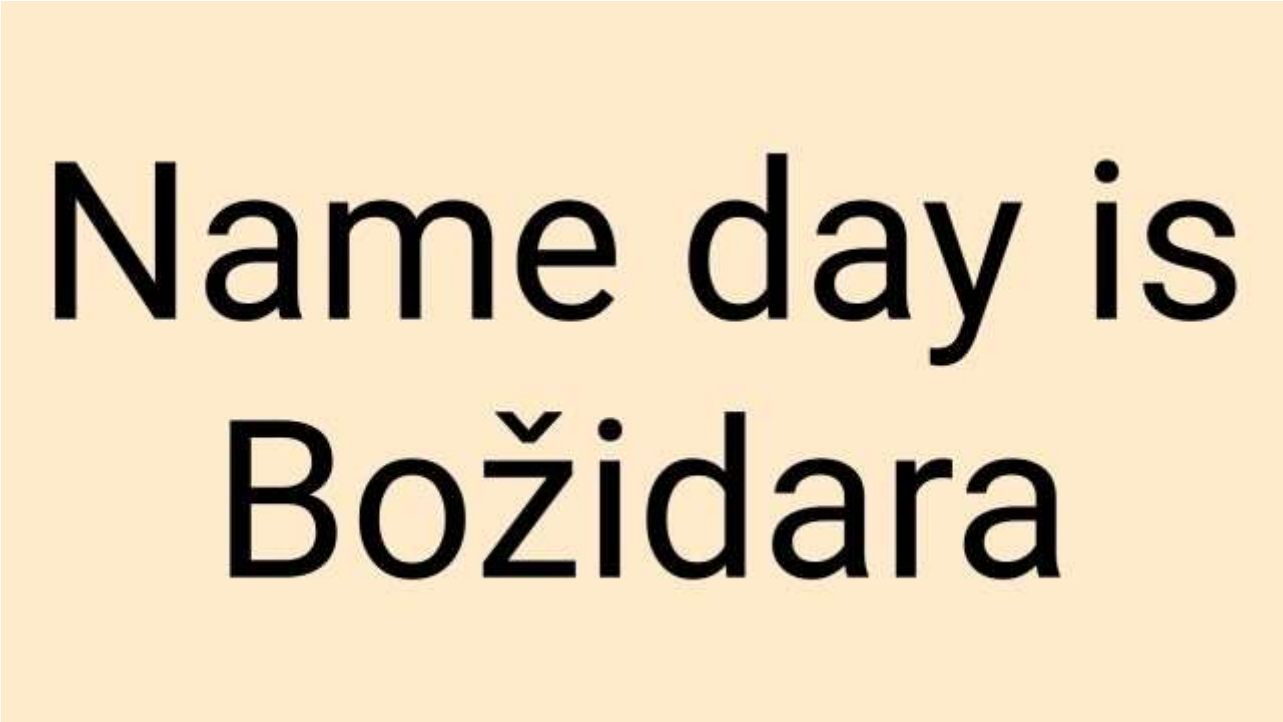
Add new content

You can create new content with a single file or folder from the File manager as well, just right click a file or folder and select Create new content.

Name:	Name day	?
Type:	 Today's name day	▼
Text before:	Name day is	?
Text color:	#000000	?
Text font:	Default	▼ ?
Font size:		⬆ ⬇ ⬆ ?
Name day calendar:	CZ - jmeniny v Česku	▼ ?

CZ - jmeniny v Česku
ES - día del nombre en España
HR - imendani u Hrvatskoj
HU - névnap Magyarországon
PL - imieniny w Polsce
SK - meniny na Slovensku

Edit content page with Today's name day



Name day is Božidara

Name day displayed on the screen

Original technical reference: <https://slideshow.digital/documentation/playback/special-content/name-days/>

Original documentation © 2026 Milan Fabian. Adapted for Technovia.

File upload through FTP and WebDAV

ONLY LOCAL ACCESS

Direct file upload is accessible only within the same local network. It is not accessible remotely through the internet.

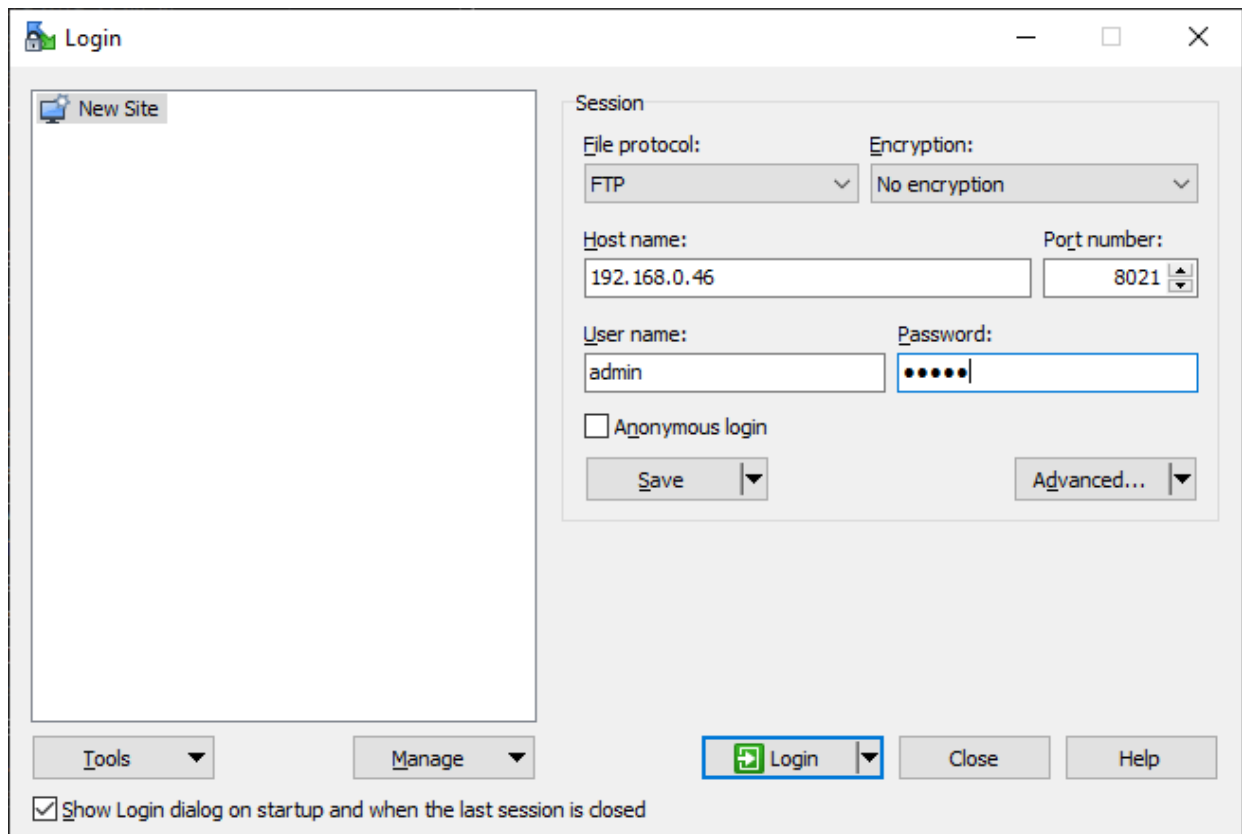
FTP INTERFACE

You can access all files uploaded to Technovia SLIDESHOW using an FTP client (for example, [WinSCP](#) or [Total Commander](#)). Use the following connection settings:

- **IP address:** LAN IP address of the device
- **Port:** default is 21 on rooted devices, 8021 on non-rooted devices
- **Username / password:** same as for the web interface, default is admin / admin.

You can find the current FTP port via on-screen menu → Help. It can be changed via web interface → menu Settings → Device settings → FTP port number.

FTP protocol is not encrypted (Technovia SLIDESHOW doesn't support SFTP or FTP over SSL). If you are connecting to the device via public or not-secured Wi-Fi (Wi-Fi without a password), your connection might be easily intercepted.

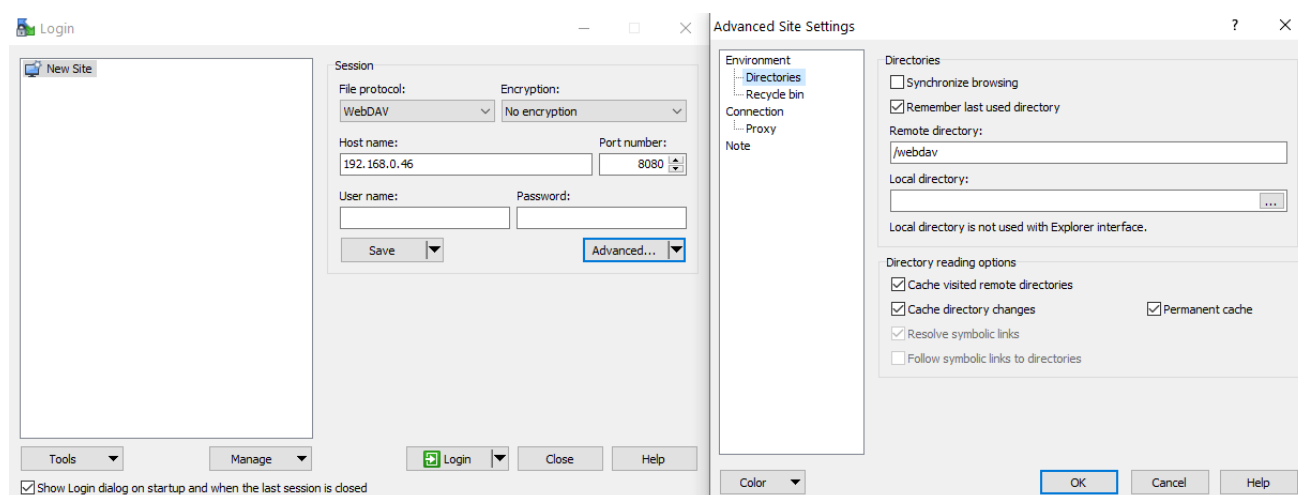


WinSCP with prepared connection to Slideshow via FTP

WEBDAV INTERFACE

You can access all files uploaded to Technovia SLIDESHOW using a WebDAV client (for example, [WinSCP](#)). WebDav interface is running on the same port as [HTTP and HTTPS interface](#), on path / webdav. Use the following connection settings:

- **IP address:** LAN IP address of the device
- **Port:** same port as HTTP or HTTPS interface
- **Username / password:** same as for the web interface, default is admin / admin.
- **Remote directory:** /webdav



WinSCP with prepared connection to Slideshow via WebDav

WebDAV on Windows

NATIVE WINDOWS WEBDAV CLIENT IS NOT COMPATIBLE

WebDav client integrated in Windows operating system is not fully compatible with Technovia SLIDESHOW, because it doesn't support HTTP Basic Auth for WebDAV by default.

If you want to use WebDAV client integrated in Windows OS, you have to enable it through registry editor, set entry

HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\WebClient\Parameters\BasicAuthLevel to value 2

If you are not comfortable changing registry settings in Windows (we fully understand if you aren't), the software documentation recommends using alternative client, for example, [WinSCP](#).

WebDAV on Linux

On Linux, you can mount Technovia SLIDESHOW's data using davfs2 package (replace the IP address and port with the one you are using for Technovia SLIDESHOW):

```
mount -t davfs http://192.168.1.100:8080/webdav /mnt/slideshow-webdav/
```

or

```
mount -t davfs https://192.168.1.100:8443/webdav /mnt/slideshow-webdav/
```

Original technical reference: <https://slideshow.digital/documentation/network-access/file-upload/>
Original documentation © 2026 Milan Fabian. Adapted for Technovia.

File synchronization

Technovia SLIDESHOW supports automatic file synchronization across the network from the following sources:

- HTTP / HTTPS / FTP server - [more information](#)
- Google Drive - [more information](#)
- Dropbox - [more information](#)
- WebDAV
- SFTP

The synchronization can be set up and monitored through [web interface](#) → menu Tools → File synchronization.

STABLE CONNECTION REQUIRED

Stable network / internet connection is required for the file synchronization, otherwise it may time-out or fail often.

Original technical reference: <https://slideshow.digital/documentation/network-access/file-synchronization/>

Original documentation © 2026 Milan Fabian. Adapted for Technovia.

File synchronization from Google Drive

Technovia SLIDESHOW offers you the possibility to automatically synchronize files from your Google Drive account to Technovia SLIDESHOW's internal storage, similarly to synchronization with [Dropbox](#). Thanks to this feature, you can manage the files remotely, without a need for HTTP or FTP server. As both Google Drive and Technovia SLIDESHOW software are free, this offers you an inexpensive and effective solution for Digital Signage.

In order to lower the network bandwidth, Technovia SLIDESHOW downloads only files which have a newer last modification date on Google Drive than in the internal storage. It is important to set the date and time on the device correctly, so the modification date is saved correctly.

It is not necessary to have Google Drive app installed on the Android device; Technovia SLIDESHOW is using direct connection to Google Drive servers for the synchronization.

SETTING UP FILE SYNCHRONIZATION FROM GOOGLE DRIVE

1. Open Technovia SLIDESHOW's web interface and navigate to menu Tools → File synchronization.
2. In Add new synchronization section, select type Google Drive and click on Login with Google account.

Slideshow management

User: **Default admin**
[Logout](#)

Test device

HomeScreen layoutPlaylistsItemsFilesToolsSettingsInformation

Periodical download

You can setup periodical download of a file from the internet on this page. The interval can be setup through menu Settings - Device settings, item Download interval.

Periodic download is not active, interval is not set.

Add periodical download

Type:

No Google Drive account was associated yet.

Login with Google Drive account

*Click the button above to login with your Google Drive account. Browser will open on the **device's screen** with the login form (that means you will need direct access to the device). After logging in, return to the app to continue. Please review privacy policy on <https://slideshow.digital/privacy-policy> before proceeding.*

3. Google login form will open on the device's screen - not on the screen you have the web interface, but on the screen of the device where Technovia SLIDESHOW is installed! This is due to Google's security policy, so this step cannot be done remotely.

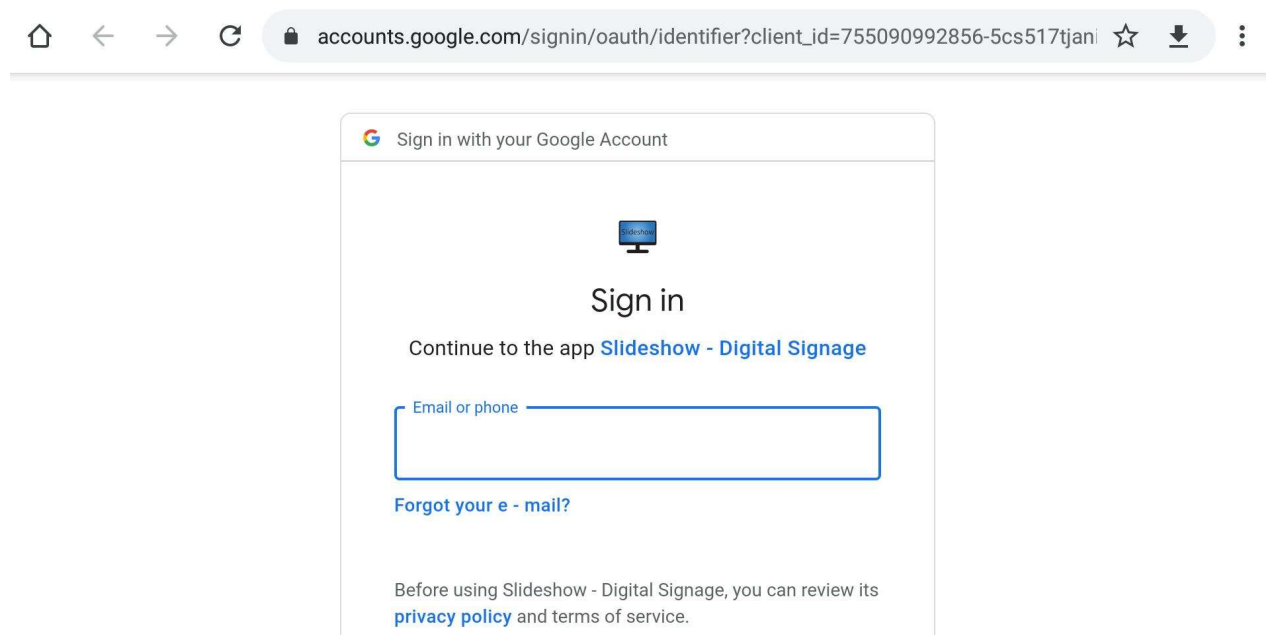
If the device's screen stays blank or the login form is not loaded properly, check if your device has internet access and has an **up-to-date browser installed** (or even has a web browser installed - some devices are shipped with no preinstalled browser).

If you get an error message saying Error 403: disallowed_useragent, try updating the browser, as Google doesn't support older browsers for login to their services.

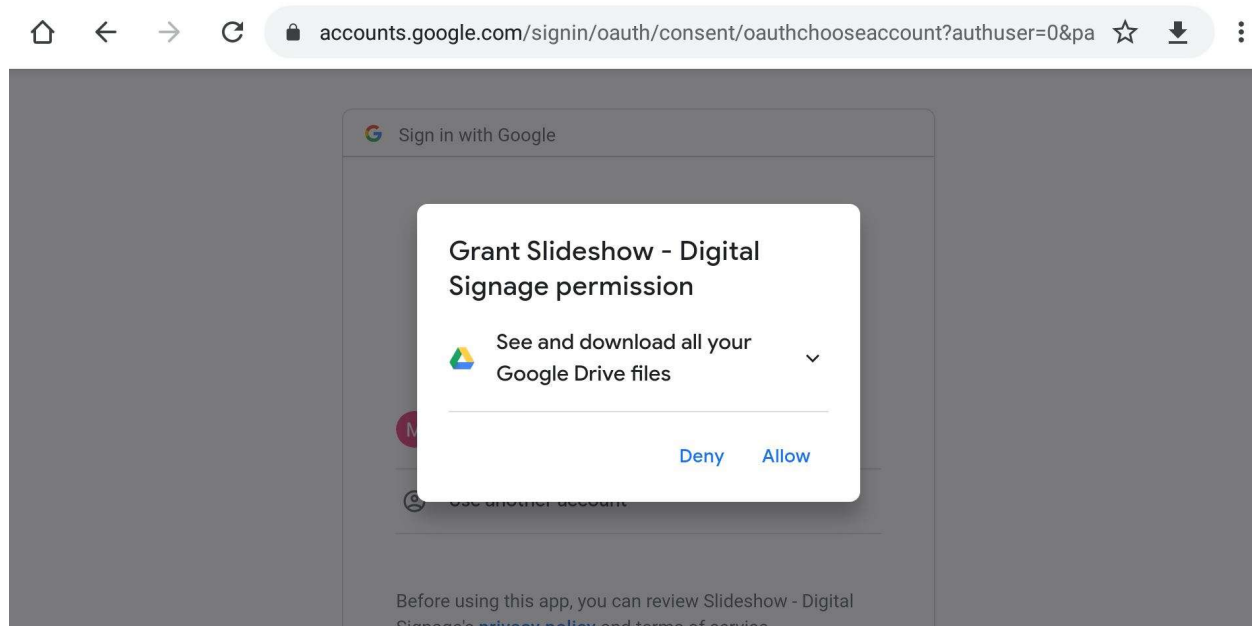
Suggested browsers:

- Google Chrome (from [Google Play Store](#) or [APKMirror](#))
- Firefox browser (from [Google Play Store](#) or [APKMirror](#))
- BrowseHere (for Android TV / Google TV, from [Google Play Store](#))

Don't forget to set the installed browser as the default browser in your Android device settings.



4. Login into your Google account and allow Technovia SLIDESHOW to access your Google Drive. We are asking just for read-only access, Technovia SLIDESHOW won't (and can't) modify files on your Google Drive.



- After successful login, you will get a simple screen with a message to switch back to Technovia SLIDESHOW app on the device. Web interface in your browser should refresh and display a success message. If you have changed the port for Technovia SLIDESHOW's web interface to a different one than the predefined one (80 or 8080), the login might not work correctly. The software documentation recommends switching to the predefined ports during the initial Google Drive setup.

Slideshow management
Google Nexus 7 2013

User: **Default admin**
[Logout](#)

[Home](#)
[Screen layout](#)
[Playlists](#)
[Items](#)
[Files](#)
[Tools](#)
[Settings](#)
[Information](#)

Periodical download

Successfully logged in to Google Drive

You can setup periodical download of a file from the internet on this page. The interval can be setup through menu Settings - Device settings, item Download interval.

Periodic download is not active, interval is not set.

Add periodical download

Type:

Synchronize files from Google Drive folder to the internal folder

Clear folder: ☐ ?

Save **Cancel**

Logout from Google account ?

- Pick a source folder on your Google Drive (you have to create it first through <https://drive.google.com>) and target folder on your device. You can also choose whether you would like to clear (delete) old files after each download. This is useful if you are adding and removing files over time.

7. Click on Save and test the newly added entry by clicking on Synchronize now. If there are many files in the folder, or there are large files, it might take some time until the downloading is finished. If the folder contains more than 1000 files, only the first 1000 will be downloaded.

Slideshow management
Google Nexus 7 2013

User: **Default admin**
[Logout](#)

[Home](#)
[Screen layout](#)
[Playlists](#)
[Items](#)
[Files](#)
[Tools](#)
[Settings](#)
[Information](#)

Periodical download

 Entry was successfully added

You can setup periodical download of a file from the internet on this page. The interval can be setup through menu Settings - Device settings, item Download interval.

Periodic download is not active, interval is not set.

Add periodical download

Type:

From (URL address):

To (file name):

Clear folder: ☐ ?

[Save](#) [Cancel](#)

List of periodical downloads

From (URL address)	To (file name)	Clear folder	
gdrive://1PqQG3Dv5HkUdpsY3R-0NEE1HTodknZI	/	Yes	Download now Update Delete

8. If you want Technovia SLIDESHOW to synchronize the files periodically, remember to set "Synchronization interval" in menu Settings → Device settings. It specifies how often (in seconds) should Technovia SLIDESHOW download files from Google Drive (and other sources). Remember to reload Technovia SLIDESHOW app after setting it.

Download interval: ?

9. Technovia SLIDESHOW has to stay logged in into your Google account if you want the file synchronization to work. If you log out from your Google account (either via Technovia SLIDESHOW web interface or Google console), you won't be able to synchronize any files from Google Drive until you log in back.

Google might automatically log out Technovia SLIDESHOW if you change your Google account password or if there are too many devices connected to a single Google account (usually 20+).

10. If you want to add more folders for synchronization or edit the existing one, just start from step 6. Entering your Google Account username and password is necessary only during the first setup or if you log out from the account.

MORE FEATURES

You can combine synchronization from Google Drive with other Technovia SLIDESHOW's features:

- **setup.csv** - just add a file named `setup.csv` to the folder which you are synchronizing on Google Drive, and it will be automatically recognized by Technovia SLIDESHOW.
- **Scheduled deletion** - setup scheduled deletion of a file based on its name.
- **Unpacking ZIP files** - if your Google Drive's folder contains a ZIP file, it will be automatically unpacked during the download.
- **Google Docs Files** - Technovia SLIDESHOW can automatically convert Google Docs, Google Sheets and Google Slides files to PDFs while synchronizing from Google Drive and then display these PDFs on screen.

VIDEO TUTORIAL

[Watch video tutorial](#)

Original technical reference: <https://slideshow.digital/documentation/network-access/file-synchronization/file-synchronization-google-drive/>
Original documentation © 2026 Milan Fabian. Adapted for Technovia.

File synchronization from Dropbox

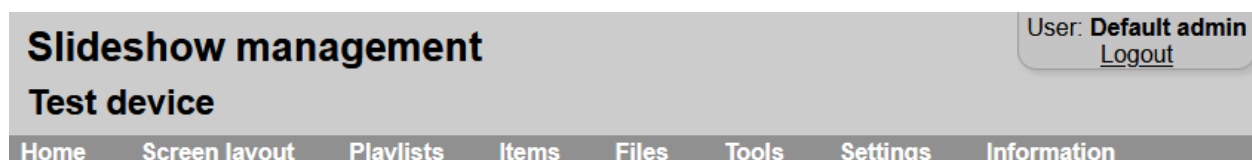
Technovia SLIDESHOW offers you the possibility to automatically synchronize files from your Dropbox account to Technovia SLIDESHOW's internal storage, similarly to synchronization with [Google Drive](#). Thanks to this feature, you can manage the files remotely, without a need for HTTP or FTP server. As both Dropbox and Technovia SLIDESHOW software are free, this offers you an inexpensive and effective solution for Digital Signage.

Technovia SLIDESHOW supports synchronizing up to 2000 files from a single Dropbox folder. If you would like to synchronize more files, split the files into subfolders, each containing at most 2000 files.

In order to lower the network bandwidth, Technovia SLIDESHOW downloads only files which have a newer last modification date on Dropbox than in the internal storage. It is important to set the date and time on a device correctly, so the modification date is saved correctly.

SETTING UP FILE SYNCHRONIZATION FROM DROPBOX

1. Open Technovia SLIDESHOW's web interface and navigate to menu Tools → File synchronization.
2. In Add new synchronization section, select type Dropbox and click on Login with Dropbox account.



Periodical download

You can setup periodical download of a file from the internet on this page. The interval can be setup through menu Settings - Device settings, item Download interval.

Periodic download is not active, interval is not set.

Add periodical download

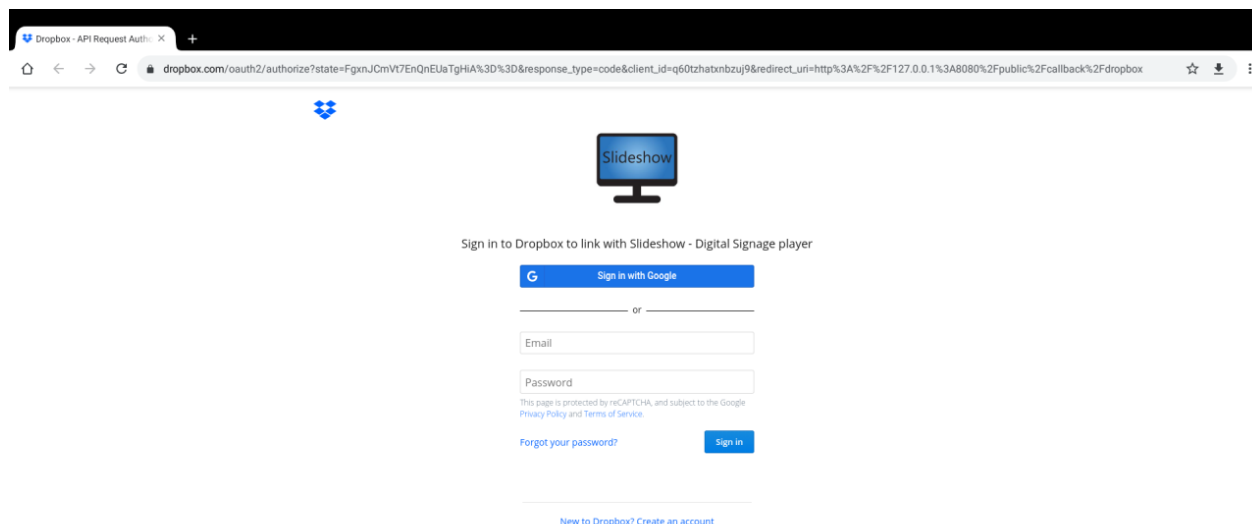
Type:

No Dropbox account was associated yet.

[Login with Dropbox account](#)

*Click the button above to login with your Dropbox account. Browser will open on the **device's screen** with the login form (that means you will need direct access to the device). After logging in, return to the app to continue. Please review privacy policy on <https://slideshow.digital/privacy-policy> before proceeding.*

- Dropbox login form will open on the device's screen -- not on the screen you have web interface, but on the screen of the device where Technovia SLIDESHOW is installed! This is due to the security policy of Dropbox, so this step cannot be done remotely. If the device's screen stays blank or the login form is not loaded properly, check if your device has internet access and has up-to-date browser installed.

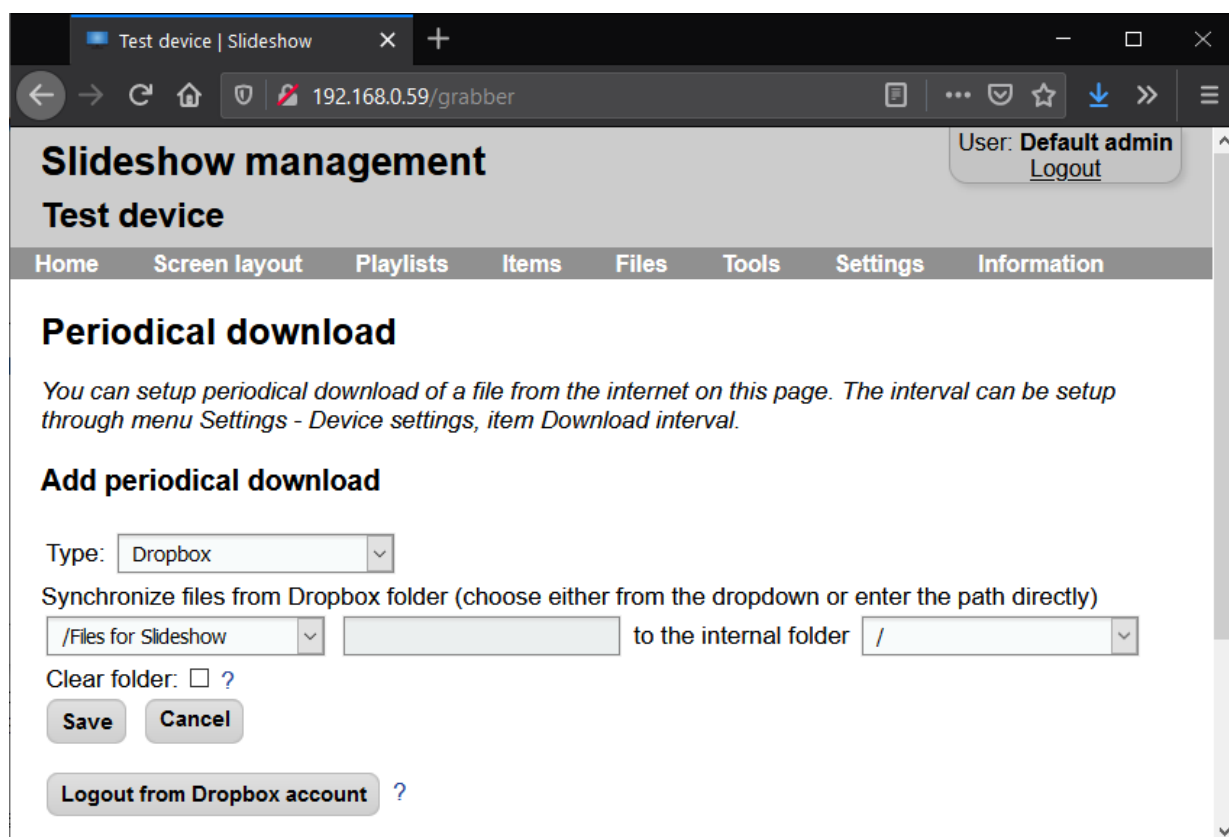


- Login into your Dropbox account and allow Technovia SLIDESHOW to access your Dropbox. We are asking just for read-only access, Technovia SLIDESHOW won't (and can't) modify files on your Dropbox.
- After successful login, you will get a simple screen with a message to switch back to Technovia SLIDESHOW app on the device. Web interface in your browser should refresh and display a success message.

If you have changed the port for Technovia SLIDESHOW's web interface to a different one than the predefined one (80 or 8080), the login might not work correctly. The software documentation recommends switching to the predefined ports during the initial Dropbox setup.

- Pick a source folder on your Dropbox (you have to create it first through <https://www.dropbox.com>) and target folder on your device. You can also choose whether you would like to clear (delete) old files after each download - this is useful if you are adding and removing files over the time.

Due to the limitations of Dropbox API, some subfolders from your Dropbox may be missing in the dropdown. If you would like to synchronize from a Dropbox folder not in the list, select an empty entry (the first one) and fill out the path to the subfolder in the next field.



7. Click on Save and test the newly added entry by clicking on Synchronize now.
8. If you want Technovia SLIDESHOW to synchronize the files periodically, remember to set "Synchronization interval" in menu Settings → Device settings. It specifies how often (in seconds) should Technovia SLIDESHOW download files from Dropbox (and other sources). Remember to reload Technovia SLIDESHOW app after setting it.

Download interval: ?

9. Technovia SLIDESHOW has to stay logged in into your Dropbox account if you want the file synchronization to work. If you log out from your Dropbox account (either via Technovia SLIDESHOW web interface, or Dropbox console), you won't be able to synchronize any files from Dropbox until you log back in.
10. If you want to add more folders for synchronization or edit the existing one, just start from step 6. Entering your Dropbox username and password is necessary only during the first setup or if you log out from the account.

MORE FEATURES

You can combine synchronization from Dropbox with other Technovia SLIDESHOW's features:

- **setup.csv** - just add a file named setup.csv to the folder which you are synchronizing on Dropbox, and it will be automatically recognized by Technovia SLIDESHOW.

- **Scheduled deletion** - setup scheduled deletion of a file based on its name.
- **Unpacking ZIP files** - if your Dropbox's folder contains a ZIP file, it will be automatically unpacked during the download.

VIDEO TUTORIAL

[Watch video tutorial](#)

Original technical reference: <https://slideshow.digital/documentation/network-access/file-synchronization/file-synchronization-dropbox/>
Original documentation © 2026 Milan Fabian. Adapted for Technovia.

File synchronization from HTTP or FTP

There are several ways how to add new files for display to Technovia SLIDESHOW application, but most of them require being near the device (either within the physical reach for upload via USB flash drive or on the same LAN network for [web interface](#) access -- not counting remote VPN / TeamViewer / RDP, which may be quite challenging to set up or not desired for other reasons).

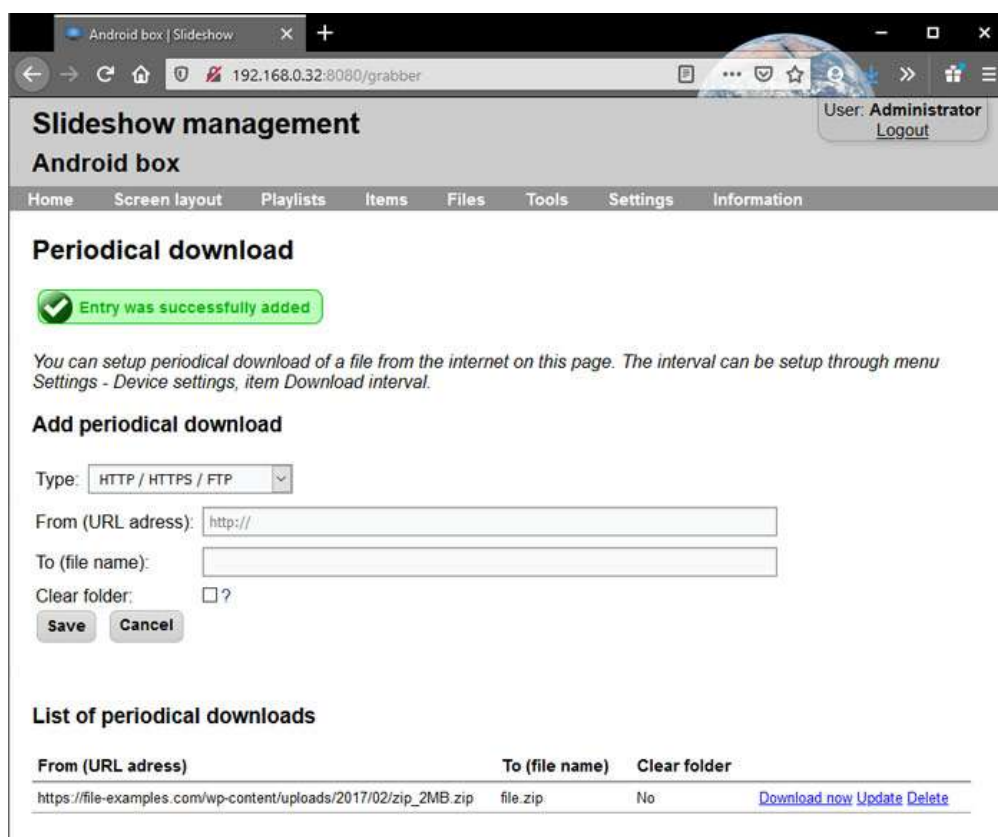
One of the ways to manage files on Technovia SLIDESHOW remotely, even if you are hundreds or thousands kilometers away from the device, is file synchronization using ZIP file from HTTP or FTP server.

PREREQUISITES

- Android device with stable access to the internet
- Technovia SLIDESHOW application [installed](#) on that device
- HTTP or FTP server accessible from the internet
- WinZip / WinRar / 7-Zip / any other software for creating ZIP files

HOW TO DO IT

1. Create a ZIP file with all files (images, videos, etc.) you would like to display with Technovia SLIDESHOW app.
2. Upload that ZIP file to your HTTP or FTP server.
3. Login into Technovia SLIDESHOW's [web interface](#).
4. Through menu Settings → Device settings set Synchronization interval to 3600 (= 1 hour), or any other interval of your choosing.
5. Through menu Tools → File synchronization add new entry. Fill the URL address pointing to the ZIP file on your HTTP or FTP server, the address should start with `http://`, `https://` or `ftp://`. Set the file name to `file.zip`, it is important that the file name ends with `.zip`.



6. Reload the Technovia SLIDESHOW application. After a few seconds, Technovia SLIDESHOW will automatically download the ZIP file from your server, unpack it and start displaying the files.

7. If you would like to add new files, just pack them into the ZIP file and upload this new ZIP file to the same location on your HTTP or FTP server from anywhere in the world. Technovia SLIDESHOW application will automatically download and unpack it within the download interval (e.g., one hour).

If you encounter any problems with the file synchronization, for example, you can't see any new files in Technovia SLIDESHOW, try checking menu **Information** → **Log** for possible problems.

You can also insert [setup.csv](#) file into the ZIP file in order to get more control over which files will be copied.

SERVER PROTECTED BY PASSWORD

If you would like to protect the file on your server (which is encouraged), you can set up password protection for your HTTP or FTP server. Technovia SLIDESHOW supports Basic Authentication mode for both HTTP and FTP.

You can add the username and password to the URL address in Technovia SLIDESHOW in the following way:

- **Format:** protocol://username:password@server.domain\
- **Example:** http://admin:admin123@files.Technovia SLIDESHOW.digital

Technovia SLIDESHOW can automatically parse username and password from the URL and use it to log in to the HTTP or FTP server.

Original technical reference: <https://slideshow.digital/documentation/network-access/file-synchronization/file-synchronization-http-ftp/>
Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Communication between devices

Multiple devices / players with Technovia SLIDESHOW app installed can communicate directly between each other using a proprietary protocol, which can be used for light monitoring, management and synchronized playback between devices.

The group is defined by setting `Devices group code`, only devices with the same group code can communicate with each other.

- **LAN** – If the devices are on the same local network (LAN), they can discover each other automatically using UDP multicast. This might not work correctly over WiFi (prefer wired connection) or if the router blocks direct communication between devices.
- **WAN** – Direct peer-to-peer (P2P) communication between devices that are not on the same local network is sometimes possible, but usually requires support for UPnP (Universal Plug and Play) on the router. Communication might not work if more than one NAT is used, or if your internet provider uses Carrier-grade NAT. Enable setting `Enable device discovery on the internet` in order to allow discovery of devices not on the same local network.

SECURITY NOTICE

Make sure you don't share your "Devices group code" with anybody, as it is used also as a security code for establishing the communication between devices.

CHANGE THE DEFAULT WEB INTERFACE CREDENTIALS

If you enable device discovery on the internet, we highly suggest changing the default username/password for the web interface as well.

Overview of discovered devices together with available commands can be viewed via Technovia SLIDESHOW's web interface → menu `Settings` → `Other devices`. For devices that are on a different local network there is a `Tunnel web interface` button as well, which opens a new browser window with the web interface of that device, even if your computer is on a different local network. Only a single tunnel can be opened at any time. The transfer speed through the tunnel is much lower than the usual network speed.

Slideshow management

User **Default admin**
[Logout](#)

Location 1 - box 1

[Home](#)
[Screen layout](#)
[Playlists](#)
[Content](#)
[File manager](#)
[Tools](#)
[Settings](#)
[Information](#)

Other devices (BETA)

Below you can find a list of devices with the same group code. If you want to create a separate group, change "Devices group code" in the Device settings.

If you don't see a device on the local network after a minute (and page refresh), make sure UDP multicast protocol is allowed on your local network (may not work over WiFi).

If you don't see a remote device after a minute (and page refresh), make sure both this and the remote device is connected to the internet and outside connection is not restricted by firewall. UPnP protocol might need to be allowed on one of the routers in order for connection to work

Status: Scanning local network and public internet
External IP:  (UPnP is active)
Group code:  [Reveal code](#)

[Trigger scan now](#)

☒	Device name	Device ID	Version	IP address	Web interface	Last contact	
☒	Location 1 - box 1	3501418757c6be25	4.3.0	(this device)	http://10.42.100.120	11:33:47	
☒	Location 1 - box 2	be6d4a8a8507daa1	4.3.0	10.42.100.90 (local)	http://10.42.100.90	11:33:34 (ping 15 ms)	Screenshot
☒	Location 1 - box 3	c79602a40816e7c8	4.3.0	10.42.100.106 (local)	http://10.42.100.106	11:33:42 (ping 7 ms)	Screenshot
☒	Location 2 - box 1	a2e860fb07982070	4.3.0	 (WAN)		11:33:24 (ping 363 ms)	Tunnel web interface Screenshot

Commands for checked devices:

[▶](#)
[⏏](#)
[⏏ Go to next media](#)

[Display screen check](#)
[🔊 Beep](#)

[Reload application](#)

Other devices page in Slideshow's web interface

REMOTE COMMUNICATION EXPLAINED

This section explains technical details of communication between two devices running Technovia SLIDESHOW if they are not on the same local network, without a need for a cloud server.

Peer-to-Peer explained

Peer-to-peer (or P2P) communication is a concept in computer networks where the devices (or "peers") talk directly to each other. It differs from client-server communication, where there is a publicly available server and all clients are talking to the server. In the client-server concept, the clients don't communicate with each other directly.

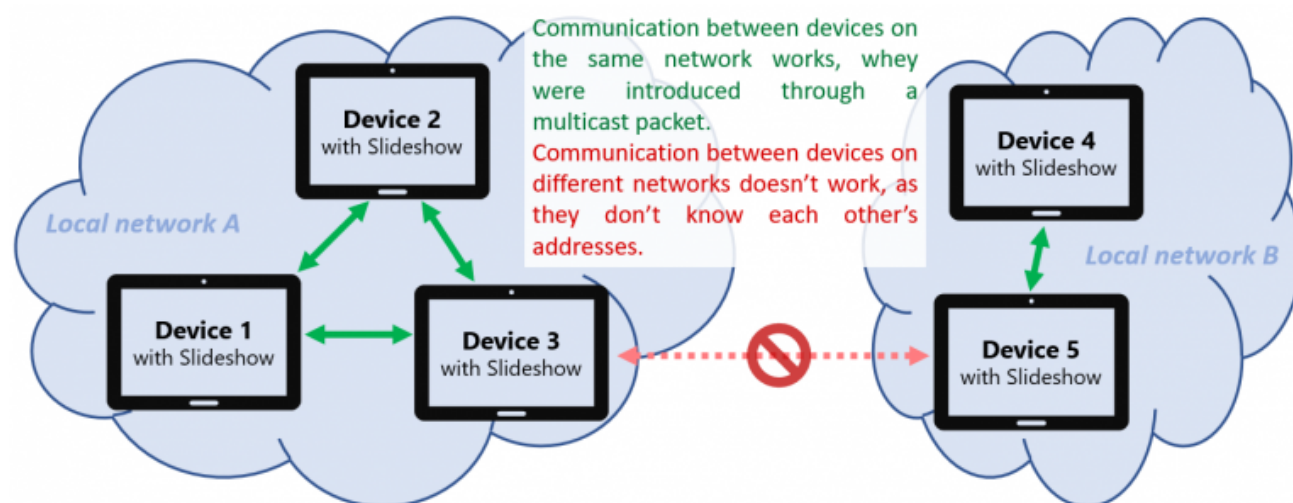
In peer-to-peer communication, each device can directly communicate with every other device. If one device goes offline (for example, it is powered off or there is some network problem), all other devices can still exchange messages with each other.

We have used the peer-to-peer concept in Technovia SLIDESHOW app to allow exchange of information between multiple Android devices running Technovia SLIDESHOW.

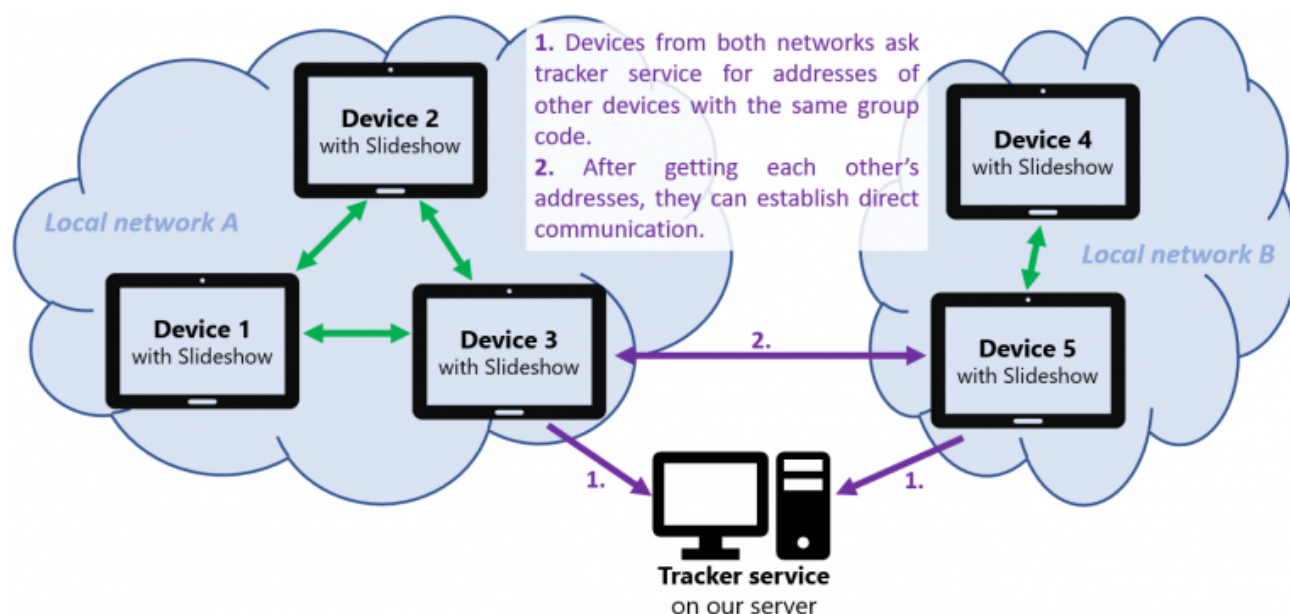
Establishing communication

In order for two devices with Technovia SLIDESHOW app to communicate with each other, they first have to discover each other, so they know where (to which IP address and network port) they should send messages. Technovia SLIDESHOW automatically sends out an introduction message as a multicast packet, which is delivered to all devices on the same local network (unless it is blocked by router or Wi-Fi). Another device running Technovia SLIDESHOW receives this multicast packet, checks if it was sent by a device with the same group code, and if yes, they establish a direct communication channel. This method with multicast packets is similar to [Bonjour](#) and [SSDP](#) protocols.

However, if the devices are not on the same local network, they can't receive each other's introduction multicast packet and there is no way for them to directly find out each other's network address.



In order to solve this, we are hosting a small service on our public servers called **tracker**. It receives addresses and hashed group codes from individual devices with Technovia SLIDESHOW, and if the tracker finds that two or more devices have the same group code, it lets them know each other's addresses. The devices can then establish direct communication using those addresses and they pass the data without using the tracker as a middle man. Thanks to this, the tracker service can be really tiny and requires few resources on the server, so we can offer it without asking for any kind of payment.



In 99% of the cases, the Android devices with Technovia SLIDESHOW are behind a router with NAT ([Network Address Translation](#)). Establishing direct communication (after they discover each other's addresses thanks to the tracker) usually requires a special step to let the router (on at least one side) to pass the traffic without blocking. Technovia SLIDESHOW tries to do this using two methods:

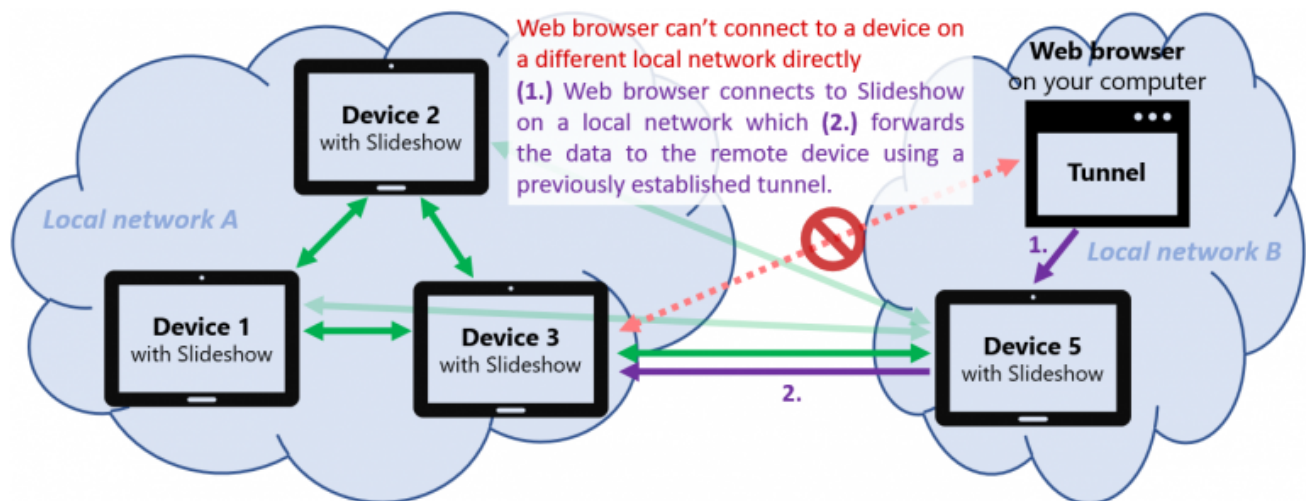
- **Universal Plug and Play** (UPnP) - Technovia SLIDESHOW contacts router to allow outside connection to its IP address and port.
- **Hole punching** - both devices try to contact each other multiple times, in order to establish entries in the router's translation table, until one of the routers lets the packet pass.

In case both devices are behind multiple routers or the router in both networks is set up to forbid the methods mentioned above, the communication unfortunately can't be established, the peer-to-peer concept won't work.

Remote operations

After the communication between the devices is established, Technovia SLIDESHOW automatically informs the other device about its basic state every couple of minutes (this can be used as a light monitoring). There is also the possibility to send basic commands, for example, pause/resume content, go to the next media or reload the app.

If the devices are on different networks, we also enabled a special feature called **Tunnel web interface**. It creates a network tunnel between the two devices, using which a web browser on your computer can access the [web interface](#) of Technovia SLIDESHOW installed on the remote device. This tunnel uses UDP protocol (as required for the Hole punching method mentioned above), and its transfer speed is usually much lower than the regular network speed. As Technovia SLIDESHOW's web interface is quite lightweight, the tunnel is still fast enough to provide access to all management features.



Security

Allowing a remote connection to any local device is always security-sensitive, that's why we implemented several security measures:

- Introduction messages are always signed and Technovia SLIDESHOW doesn't respond to any introduction message that was not signed correctly
- Any message from a device that hasn't introduced itself is ignored
- All data messages are encrypted using public-key cryptography

Thanks to these measures, only devices with the same group code can communicate with each other. You should always keep this group code secret. Additionally, messages to tracker, UPnP, and Hole punching are enabled only if you explicitly enable setting "Enable device discovery on the internet".

VIDEO TUTORIAL

[Watch video tutorial](#)

Original technical reference: <https://slideshow.digital/documentation/network-access/communication-between-devices/>
 Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Management of multiple players

Each installation of Technovia SLIDESHOW app on an Android device is independent by default.

However, there are still some very good ways to manage multiple players with Technovia SLIDESHOW together and even remotely. The setup might require more than just two clicks, but in the end, it gives you a stable solution without any additional costs and any unwanted dependency on a cloud provider. There are several possibilities, you can find all of them below.

SYNCHRONIZATION FROM GOOGLE DRIVE

Technovia SLIDESHOW allows you to set up automatic file synchronization from a Google Drive folder (see [documentation](#) for information about how to set it up). If you set up synchronization from the same Google Drive folder to multiple players with Technovia SLIDESHOW, you can upload new files just once to the Google Drive folder, and they will be automatically synchronized to all players within a few minutes and displayed on the screen (if the playlist and schedules are set up).

It is possible to set up automatic synchronization of not only media files, but configuration as well, including playlists, schedules, screen layouts and settings. Once you have the file synchronization working, the steps to add configuration synchronization are as follows:

1. On each player enable the [setting](#) "Allow external config import" via the web interface → menu Settings → Device settings (*this step has to be done only during the first setup*)
2. Prepare the changes in the configuration on one player with Technovia SLIDESHOW app
3. Go to that player's web interface → menu Settings → Backup & restore, check the parts of the configuration you would like to synchronize to the other players and click on Download backup (*more information about configuration backup is in [documentation](#)*)
4. Rename the resulting XML file to `configuration.xml` and upload it to the Google Drive folder that is synchronized to the other devices
5. Create file `setup.csv` with the following content (just a single line, as a text) and upload it to the Google Drive folder (*more information about this file is in [documentation](#)*)

```
:CONFIG;configuration.xml;delete
```

6. Wait for the automatic synchronization from this Google Drive folder, and the configuration change will be applied automatically

If you have [rooted devices](#), you can even use File Synchronization for [remote update](#) of Technovia SLIDESHOW app on multiple players at the same time.

SYNCHRONIZATION FROM DROPBOX, WEBDAV OR SFTP

Similarly as with Google Drive, you can set up synchronization of the same [Dropbox](#) folder to multiple players, including media files and configuration.

Synchronization with WebDAV or SFTP works similarly as well, but you will need your own WebDAV or SFTP server. This option may be preferred in case you have your own server for storing media files, or if you don't want to upload files to a third-party service. Technovia SLIDESHOW doesn't need full internet connection for WebDAV and SFTP synchronization, just connection to the particular server, so it is usable in private networks or behind restricted firewall as well.

COMMUNICATION BETWEEN DEVICES

Technovia SLIDESHOW offers a possibility to set up direct communication between multiple devices (players). It can be activated from the web interface → menu Settings → Other devices. More information can be found in the [particular documentation](#). It works if the devices are on the same wired local network, or (if your router supports it) if they are on different networks as well.

After the communication is set up, you can use the Other devices page to monitor whether the other players are online and send commands to multiple players at the same time.

SLIDESHOW CLOUD MANAGEMENT

If you are a Digital Signage provider, as a commercial alternative, you can use our [Slideshow Cloud Management](#) for managing multiple players remotely.

Original technical reference: <https://slideshow.digital/documentation/network-access/management-multiple-players/>
Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Settings

General settings of Technovia SLIDESHOW can be changed via the web interface → menu **Settings** → **Device settings**. Applying the change of some settings requires reload of the application (close and reopen), for example, through menu **Settings** → **Reboot / reload** → **Reload application**.

A few of the settings are available also through the on-screen menu → **Basic settings**.

You can back up and restore these settings using [XML configuration backup](#).

LIST OF AVAILABLE SETTINGS

General settings

Setting name	Type	Default value	Description
Device name	Text	Device model	Name of the device.
Default volume in %	Number (0–100)	—	Volume for videos, music or internet radio, from 0% to 100%. You can change the current volume on the home page.
Language	Choice	Device language or English	Language of the user interface.
User agent for HTTP requests	Text	—	User agent header used for requests made by this app (e.g., for displaying web pages or downloading content). <i>Reload is required for applying this change.</i>
Allow uploading all file types	Checkbox	No	Allow all file types (not just supported images, videos, etc.) through the File manager, File synchronization and USB flash drive.
Keep screen on	Checkbox	Yes	Keep the device's screen on while this app is running. <i>Reload is required for applying this change.</i>

Setting name	Type	Default value	Description
Keep the background service	Checkbox	No	Keep the background service running even if the app is not in the foreground. Web interface, FTP and other services will be available even if the app is closed, as long as the notification in the Android status bar is active.
Enable watchdog service	Checkbox	No	Enable background watchdog service, which will start the app again if it is not in the foreground for longer than 2 minutes. Only for devices used exclusively with this app. <i>Device restart is required for applying this change.</i>

Screen layout

Setting name	Type	Default value	Description
Screen orientation	Choice	Default	Screen orientation for this application. Some options might not work on some devices (support depends on the hardware). <i>Reload is required for applying this change.</i>
Rotate layout every day	Checkbox	No	Swap the screen layout vertically or horizontally every 24 hours to prevent screen burn-in.
Use screen layout intervals	Checkbox	No	Use screen layout intervals to determine the current screen layout automatically, instead of the screen layouts schedule. <i>Reload is required for applying this change.</i>
Wait with screen layout change	Checkbox	No	Change the screen layout based on interval or schedule only after the content playing in the main zone is finished (don't interrupt videos).
Length of showing playlist manually	Number	3600 (= 1 hour)	How many seconds a manually chosen playlist (through keyboard or web interface) will be shown.

Setting name	Type	Default value	Description
Reset order on playlist change	Checkbox	No	Reset order of items with alphabetical type after the playlist is changed or manually selected. If not checked, the order will be preserved across playlists and screen layouts.

On-screen formatting

Setting name	Type	Default value	Description
Image scale type	Choice	Fit center	How to scale images (and videos, if enhanced video player is used) shown on the screen. <i>Reload is required for applying this change.</i>
Respect image orientation	Checkbox	Yes	Read image orientation from JPEG EXIF attributes and rotate the image on screen accordingly (slightly lowers performance).
Video player type	Choice	ExoPlayer + TextureView	Type of internal player for video playback on the screen. If you have a problem with video playback, try changing this setting. <i>Reload is required for applying this change.</i>
Preload content in playlist	Checkbox	No	Load some of the content (e.g., video files) in advance so the delay between files is shorter.
Video input compatibility mode	Checkbox	No	Usable only on Zidoo Z9X box. <i>Reload is required for applying this change.</i>
Max video duration	Number	Infinity	Maximum time for video playback in seconds. Usable only on older devices if videos tend to get stuck.
Video stream buffering (in ms)	Number	—	Duration of network buffering in milliseconds before the video stream playback is started. For ExoPlayer only. <i>Reload is required for applying this change.</i>
CSS style for Excel	Text	—	CSS rules for showing Excel files, e.g., <code>font-size: 120%</code> .

Setting name	Type	Default value	Description
Mute video for audio playlist	Checkbox	No	Mute audio from any video on screen while any audio playlist is active, so audio sources don't mix.
Show YouTube controls	Checkbox	Yes	Show control slider with YouTube videos. <i>Reload is required for applying this change.</i>
Show captions from YouTube	Checkbox	No	Show captions (subtitles) from YouTube videos. Does not work with automatically generated captions. <i>Reload is required for applying this change.</i>
Force audio passthrough	Checkbox	No	Force passthrough of audio track when playing a video. Works only with Video player type ExoPlayer + SurfaceView and requires device/TV support. <i>Reload is required for applying this change.</i>
Display PDF as scrollable	Checkbox	No	Display PDF files as vertically scrollable, instead of page-by-page.

WebView

Setting name	Type	Default value	Description
Default web page zoom	Number	0	Zoom of web pages displayed on screen, in percentage. Zero means default (system) zoom. Can be overridden in the <code>.url</code> file using the "Enter web page" editor in File manager.
Disable security for web pages	Checkbox	No	For displaying web pages on the screen, CORS check and HTTPS certificate check will be completely disabled. Very insecure — enable only if you understand the implications. <i>Reload is required for applying this change.</i>
Allow local API for web pages	Checkbox	No	Allow usage of the local API in web pages displayed on screen. <i>Reload is required for applying this change.</i>

Setting name	Type	Default value	Description
Clear web cache on start	Checkbox	Yes	Clear the cache for webpages on each start, including cookies, form data and web storage. <i>Reload is required for applying this change.</i>
Grant web pages permissions	Checkbox	No	Automatically grant permission to access camera, microphone, etc., to web pages displayed inside this app.

Content defaults

Setting name	Type	Default value	Description
Description text position	Choice	Top left	Position of description text in zone. The default is set in Device settings and can be overridden in Content.
Description text size	Number	5	Size of the description text, as a percentage of the zone height (1-100%). The default is set in Device settings and can be overridden in Content.

Weather forecast

Setting name	Type	Default value	Description
Weather source	Choice	OpenMeteo	Online service used as a source of weather forecast.
API key for weather	Text	—	API key for downloading weather information (e.g., OpenWeatherMap or Here). Review licensing of the provider before use.

RSS messages

Setting name	Type	Default value	Description
Maximal length of RSS title	Number	105	How many characters of the RSS title should be displayed before clipping. Applied next time the RSS file is fetched.

Setting name	Type	Default value	Description
Maximal length of RSS message	Number	215	How many characters of the RSS message should be displayed before clipping. Applied next time the RSS file is fetched.

External storages

Setting name	Type	Default value	Description
Storage for media	Choice	Internal storage	Select storage where files for playing will be saved. Choose from internal storage of the Android device or external storage (SD card or USB flash drive, if available). External storage has to be always present when this app is running. Check setting Action on Flash drive insert if using non-permanent external storage. <i>Reload is required for applying this change.</i>
Action on Flash drive insert	Choice	Copy files from Flash drive	What should happen when a Flash drive is inserted into the device's USB port.
Folder on Flash drive	Text	Technovia SLIDESHOW	From which folder on Flash drive to copy files. Empty means the root folder on the Flash drive. Used only if copying from Flash drive is allowed.
Priority folder on Flash drive	Text	—	Priority folder on the Flash drive. If this folder exists, only it will be used and the regular folder will be ignored. Keep empty to skip priority folder checking.
Target folder from Flash drive	Text	/	Target folder in this app where files from the Flash drive are copied. Slash means the root folder. Used only if copying from Flash drive is allowed.

Network interfaces

Setting name	Type	Default value	Description
HTTP port number	Number	80	HTTP port for the Web interface. Rooted device and a free port 8080 is required to use a port number lower than 1024. <i>Reload is required for applying this change.</i>
HTTPS port number	Number	443	HTTPS port for the Web interface. Rooted device and a free port 8443 is required to use a port number lower than 1024. <i>Reload is required for applying this change.</i>
FTP port number	Number	21	FTP port for the FTP interface. Rooted device and a free port 8021 is required to use a port number lower than 1024. <i>Reload is required for applying this change.</i>
Disable all non-SSL network interfaces	Checkbox	No	Disable non-secure interfaces on public networks: HTTP and FTP. <i>Reload is required for applying this change.</i>
Allow reset password	Checkbox	Yes	Allow resetting the admin password through the web interface (requires direct access to the Android device).
Keep WiFi on	Checkbox	Yes	Tell Android to keep Wi-Fi always on and in high performance mode. <i>Reload is required for applying this change.</i>
Disable HTTP security for loading data	Checkbox	No	Disable HTTPS certificate check while loading external data via HTTPS (weather forecast, RSS feeds, File synchronization, etc.). Very insecure — enable only if you understand the implications. <i>Reload is required for applying this change.</i>
Devices group code	Text	—	Code for discovering other devices with this app. Set the same value on all devices. If empty, discovery is turned off. <i>Reload is required for applying this change.</i>

Setting name	Type	Default value	Description
Enable device discovery on the internet	Checkbox	No	Enable discovery of other devices with this app on the public internet; otherwise only the local network is scanned. <i>Reload is required for applying this change.</i>

On-screen control

Setting name	Type	Default value	Description
Disable keyboard	Checkbox	No	Disable keyboard shortcuts for app control.
Enable touch gestures	Checkbox	Yes	Enable touch gestures on screen.

Startup

Setting name	Type	Default value	Description
Start at system boot	Checkbox	No	Start this application automatically after Android boots. On Android 10+ a special permission may be required, accessible from on-screen menu Basic settings .
Enable kiosk mode after start	Checkbox	No	Automatically lock this app in the foreground after it starts (Lock Task Mode). Setup must be done first via Settings → Device administrator . Use carefully — may completely lock the device.
After start script	Text	—	Bash commands that run after the application starts.
Reboot time (watchdog)	Text	—	Automatic device reboot schedule: number of hours, a 24-hour time for daily reboot, or HH:MMxN for every Nth day (e.g., 23:00x3). Works only on rooted devices. <i>Reload is required for applying this change.</i>

Setting name	Type	Default value	Description
Reboot on HDMI plug in	Checkbox	No	After detecting HDMI cable plug-in, automatically reboot the device (useful for some devices with video decoding problems when no HDMI device is plugged in).

File synchronization

Setting name	Type	Default value	Description
Synchronization interval	Number	—	Frequency in seconds for automatic file synchronization. <i>Reload is required for applying this change.</i>
Allow external config import	Checkbox	No	Allow importing XML configuration and updating the application from external sources (ZIP files, USB Flash drive, Google Drive, Dropbox).
How often to check files	Number	18000 (= 5 hours)	Frequency in seconds to check files that should be deleted at a set time. Requires Internet for time sync. <i>Reload is required for applying this change.</i>
Google Docs convert settings	Text	—	Settings for automatic Google Docs → PDF conversion. For landscape displays: <code>top_margin=0.1;bottom_margin=0.1;left_margin=0.1;right_margin=0.1;size=16x9;portrait=false.</code>

MQTT

Setting name	Type	Default value	Description
MQTT server address	Text	—	MQTT broker address. <i>Reload is required for applying this change.</i>
MQTT username	Text	—	Username for authentication. <i>Reload is required for applying this change.</i>
MQTT password	Text	—	Password for authentication. <i>Reload is required for applying this change.</i>

Setting name	Type	Default value	Description
Require TLS for MQTT	Checkbox	false	Require TLS for MQTT. <i>Reload is required for applying this change.</i>
Use websockets for MQTT	Checkbox	false	Use WebSockets for MQTT. <i>Reload is required for applying this change.</i>
MQTT topic prefix	Text	Technovia SLIDESHOW	Topic prefix. <i>Reload is required for applying this change.</i>
MQTT topic name	Text	Device's MAC address	Identifier; if not entered, the device MAC address (if available) will be used. <i>Reload is required for applying this change.</i>
Report data through MQTT	Checkbox	false	Automatically send device info through MQTT every 2 minutes. <i>Reload is required for applying this change.</i>
Report playback statistics	Checkbox	false	Automatically report display statistics of files through MQTT every 2 minutes. <i>Reload is required for applying this change.</i>

Serial port

Setting name	Type	Default value	Description
Serial port path	Text	—	Enter USB for serial over USB or /dev/ttyXX for direct serial. If empty, the app will not read data from the serial port. <i>Reload is required for applying this change.</i>
Serial port baud rate	Number	9600	Baud rate of the serial connection, usually 4800, 9600, 19200, 38400 or 57600. <i>Reload is required for applying this change.</i>
Serial port data bits	Number	8	<i>Reload is required for applying this change.</i>
Serial port stop bits	Number	1	<i>Reload is required for applying this change.</i>
Serial port parity	Number	0	<i>Reload is required for applying this change.</i>

Face detection

Setting name	Type	Default value	Description
Camera for face detection	Choice	—	Which camera to use. If no camera is selected, face detection is turned off. Camera permission is required (grant via on-screen menu → Basic settings → Request camera permission). <i>Reload is required for applying this change.</i>
Frame rotation for face detection	Number	0	Rotation of camera frame in degrees (0, 90, 180 or 270).
Delay between frames for face detection	Number	800	Delay in milliseconds between two face detection frame processing runs. Higher values lower CPU load.

Open Sound Control (OSC)

Setting name	Type	Default value	Description
Enable OSC communication	Checkbox	false	Enable integration using the Open Sound Control network protocol. <i>Reload is required for applying this change.</i>
OSC protocol	Choice	UDP	Network protocol used for listening for Open Sound Control commands. <i>Reload is required for applying this change.</i>
OSC network port	Number	57110	Network port on which the app will listen for Open Sound Control commands. <i>Reload is required for applying this change.</i>

Network watchdog (ping)

Setting name	Type	Default value	Description
IP address for pings	Text	—	IP address or hostname of a network device that should be pinged for watchdog. If no address is entered, the network watchdog is turned off. <i>Reload is required for applying this change.</i>

Setting name	Type	Default value	Description
Ping default gateway	Checkbox	No	Use default gateway for watchdog pings (may be used instead of IP address). Watchdog will be active only if the default gateway is known during app startup. <i>Reload is required for applying this change.</i>
Delay between pings (in s)	Number	30	Delay in seconds between consecutive pings. <i>Reload is required for applying this change.</i>
No. of failed pings for reboot	Number	3	Number of consecutive failed pings after which the device is rebooted. Works only on rooted devices.

SNMP

Setting name	Type	Default value	Description
Enable SNMP agent	Checkbox	false	Whether to enable SNMP (Simple Network Management Protocol) v2c agent for monitoring. <i>Reload is required for applying this change.</i>
Port for SNMP agent	Number	1161	UDP port number for SNMP agent. Only port numbers higher than 1000 are available. <i>Reload is required for applying this change.</i>
SNMP community string	Text	public	Security community string for SNMP. <i>Reload is required for applying this change.</i>

Original technical reference: <https://slideshow.digital/documentation/configuration/settings/>
Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Automatic startup

KEEP THE TECHNOVIA CONFIGURATION

Use one startup method at a time. Boot-animation examples refer to the underlying software. Do not overwrite a supplied Technovia boot animation without checking with Technovia.

If you are using Technovia SLIDESHOW for digital signage, it is important to set up automatic startup of Technovia SLIDESHOW after the device boots, in case the whole device is restarted (e.g., due to power outage).

Several ways how to do it are described below. The software documentation recommends using only one method at a time, combining multiple methods is not recommended.

SETTING TECHNOVIA SLIDESHOW AS ANDROID LAUNCHER / HOME APP

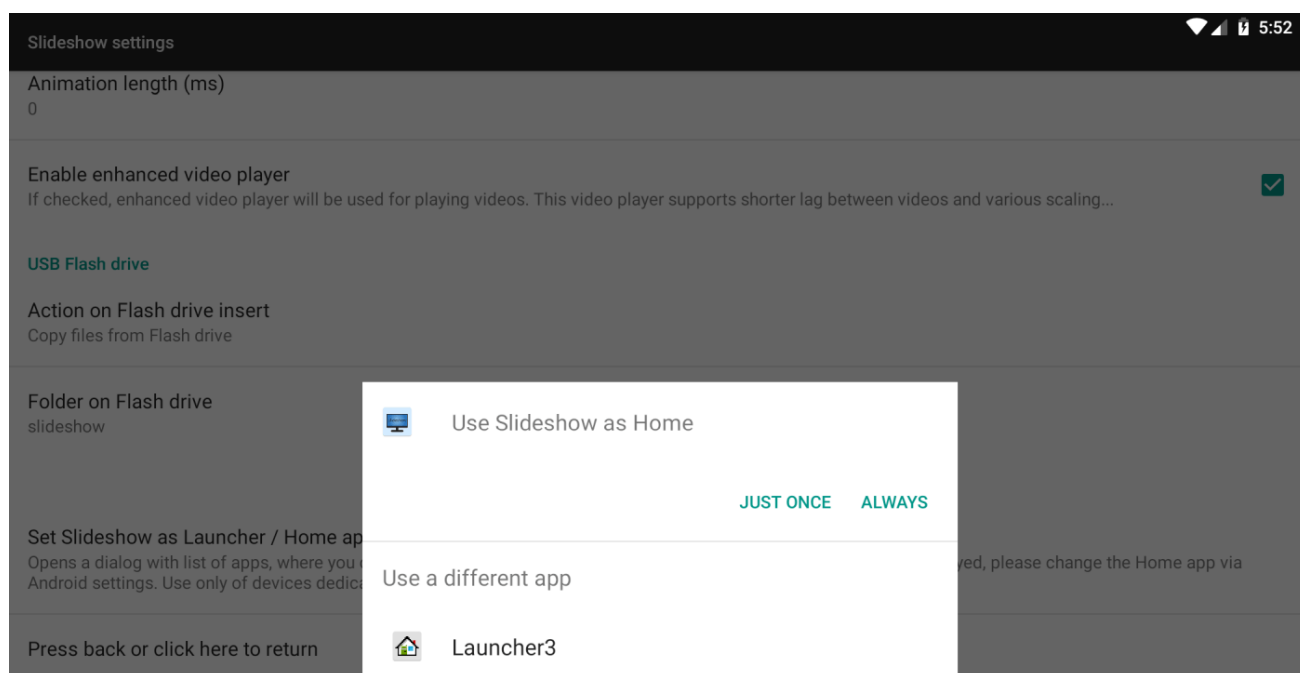
Android Launcher app is an app providing the home screen, displaying widgets and other app's icons on your Android device. It is the first app that is started when Android is booting up.

If you use an Android device only for Technovia SLIDESHOW, this is the preferred way for Technovia SLIDESHOW's automatic start-up, as it's faster (can save up to 15 seconds) and looks much more elegant for the end users.

You can set Technovia SLIDESHOW as your Launcher app:

1. Via on-screen menu → Basic settings, scroll down and click on "Set Technovia SLIDESHOW as Launcher / Home application"
2. You will get a pop-up, where you can choose Technovia SLIDESHOW as your Launcher / Home app, select it. If there is a possibility to check "Always", check it.
3. Depending on your device, you might need to redo steps 1 and 2 one more time and click on the Always button.
4. Reboot the entire device. Technovia SLIDESHOW should load immediately after the booting finishes.

Note that if you set Technovia SLIDESHOW as your Launcher app, the Home button on your device (or remote control) will be mapped to Technovia SLIDESHOW app. If you want to exit Technovia SLIDESHOW or open another app, click on Exit in on-screen menu. You can unset Technovia SLIDESHOW as Launcher app via Basic settings.

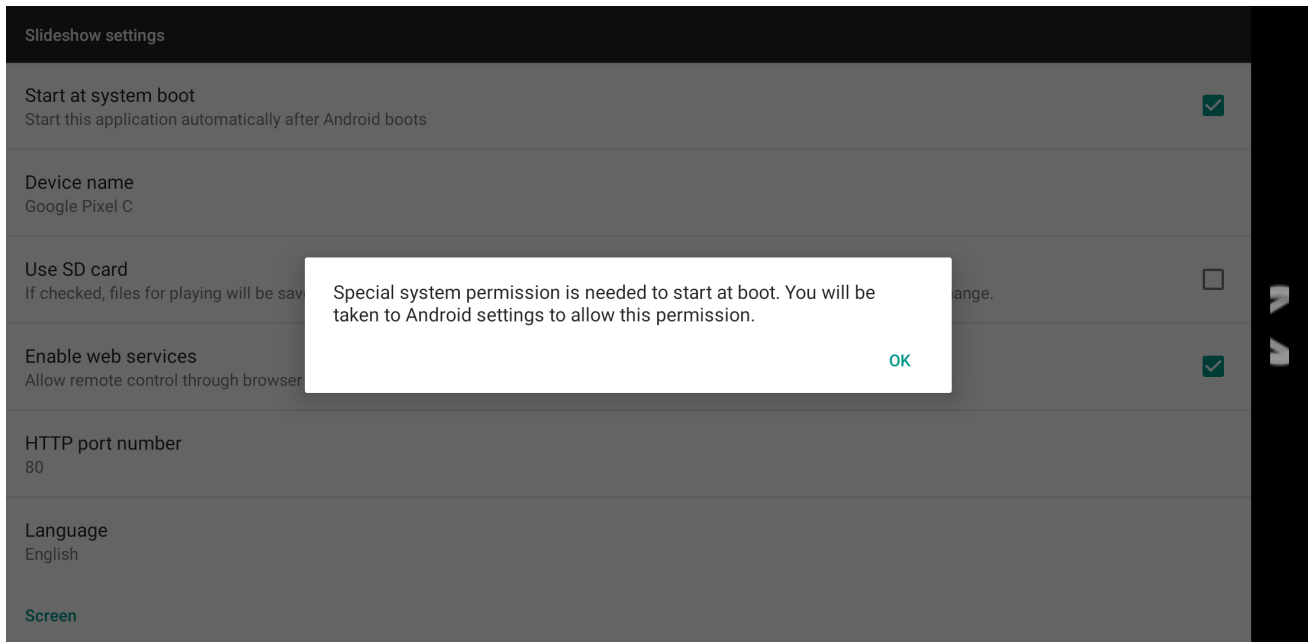


Pop-up for choosing Android Launcher app

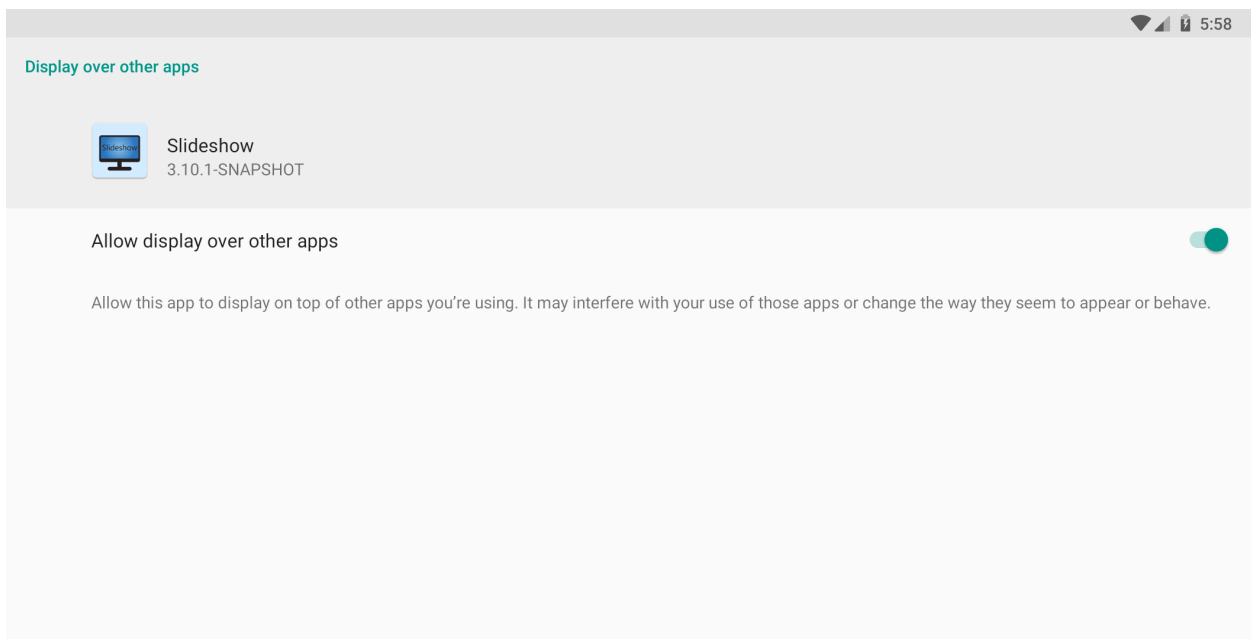
SETTING TECHNOVIA SLIDESHOW TO START AT SYSTEM BOOT

If you can't or don't want to change Launcher / Home app on your device, you can still set Technovia SLIDESHOW to start automatically by setting Start at system boot via on-screen menu → Basic settings. After Android boots up, it will start your regular Launcher app at first and then after a few seconds, Technovia SLIDESHOW will start.

Depending on your Android version, you might need to allow "Appear on top" permission in Android (the name of the permission might differ in various Android versions). In case this permission is necessary for automatic startup, Technovia SLIDESHOW will try to automatically navigate you to the relevant Android settings. If you receive the "You will be taken to Android settings to allow this permission" message, but Technovia SLIDESHOW fails to navigate you there, try opening Android Settings → Apps → Slideshow → Permissions and allow Appear on top, Display over other apps or similar permission.



Dialog on devices where "Appear on top" permission is needed



Allowing "Appear on top" permission

USING THE POSSIBILITIES OF A MODIFIED ANDROID SYSTEM

On some devices, users can simply set the application to start automatically after boot by long clicking Technovia SLIDESHOW icon in the list of installed apps and choosing Launch on startup or similar option.

This option is available only on some devices, it depends on whether the device manufacturer added this possibility to the Android image for the particular model.

WALLPAPER

You can combine automatic startup with setting Android's wallpaper to Technovia SLIDESHOW's "Loading" screen, via web interface → menu Settings → Device settings → scroll down and press button Set wallpaper.

BOOT ANIMATION

During the time when an Android device is starting ("booting"), it displays simple animation on the screen - this is called boot animation (sometimes written together as "bootanimation"). In the background, Android is loading everything needed for the proper functioning, and once everything is loaded, it will switch from boot animation to your home screen.

The boot animation is usually prepared by the manufacturer of the device and contains their logo. If you are using an Android device for digital signage, it might be a good idea to replace the original boot animation with something more professional-looking. This is possible only on [rooted devices](#), otherwise the original boot animation can't be replaced.

Format of boot animation

At the moment when Android starts displaying the boot animation, only the most basic system functionalities are available and video decoding is not one of them. Because of this, format of boot animation has to be really simple. It is encoded as a series of PNG images, packed in ZIP file without compression, so it can be extracted into memory very quickly.

If you are interested in the exact format of boot animation, you can find the reference on <https://android.googlesource.com/platform/frameworks/base/+/master/cmds/bootanimation/FORMAT.md>.

Setting boot animation

If you are using the device mainly with Technovia SLIDESHOW app, you can change the original boot animation to Technovia SLIDESHOW's custom one. It consists of simple black screen with text "Loading", animated three dots and Technovia SLIDESHOW logo. This option is available through the web interface → menu Settings - Device settings → scroll down and click on Set bootanimation. Reboot the device afterward, and you should see the Technovia SLIDESHOW's boot animation after a couple of seconds.



Slideshow's custom boot animation

UN-SETTING THE BOOT ANIMATION

Technovia SLIDESHOW doesn't have an option to revert the boot animation to the original one, once it is set. If you would like to use another boot animation afterward, you will have to use third-party tool/app, such as [Boot Animations for Superuser](#) or [BootAnimation.zip Changer Root](#).

VIDEO TUTORIAL

[Watch video tutorial](#)

Original technical reference: <https://slideshow.digital/documentation/configuration/automatic-startup/>

Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Localization

Technovia SLIDESHOW supports multiple languages for both its on-screen user interface and [web interface](#). You can change the language either through web interface → menu Settings → Device settings → Language or through on-screen menu → Basic settings → Language.

The language used for date, time, and weather information (such as day of week and month names) can be configured separately. To change it, go through web interface → menu Content → Edit. The list of available languages depends on your Android system version. Modern Android devices typically support 100+ languages, ensuring full localization for most regions.

CURRENTLY SUPPORTED LANGUAGES

- Arabic (thanks to Hani Abdallah)
- Chinese (thanks to evin792)
- Croatian (thanks to Josip Papić)
- Czech (thanks to Aleš Obst)
- Dutch (thanks to Jule Hintzbergen)
- English
- French (thanks to Ahmed Karboubi)
- German (thanks to Stefan Preitschaft)
- Italian (thanks to Michele Fioretti & Nicola Pinto)
- Japanese (thanks to Takashi Yamaguchi)
- Korean (thanks to Seok Gyo Seo)
- Polish (thanks to Piotr Bujalski)
- Portuguese (thanks to Jorge Soares)
- Russian (thanks to Sergej Karpovič)
- Slovak
- Slovenian (thanks to @AdmiralStipe)
- Spanish (thanks to Rafael García)
- Turkish (thanks to İlker Berberler)

We're incredibly grateful to everyone who has helped localize the app so far.

ADDING A NEW LANGUAGE

Want to see your language listed here? Contribute a translation, and we'll include your name (or nickname) in the credits!

If you want to add your language, either create a pull request on our [GitHub repository](#), or send us this [Excel file](#) with an added translation.

To keep translations consistent and accurate, please follow these best practices:

- Review your translation manually, especially if you use tools like Google Translate or DeepL for help — automated services can alter formatting or context.
- Preserve placeholders (like {0}, %s, or HTML tags) exactly as they are in the source.
- Keep button labels short to fit on-screen.
- Use consistent terminology for recurring words (e.g., "Playlist", "Layout", "Device").
- If your language has multiple dialects or regional variants, use the most widely understood form.

Original technical reference: <https://slideshow.digital/documentation/configuration/localization/>
Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Back up & restore your configuration

If you want to copy your Technovia SLIDESHOW configuration to multiple devices or keep a backup for safety, the recommended method is to use **XML configuration backup and restore**.

You can access this feature via web interface → menu Settings → Backup & restore

From there, you can export your current configuration to an XML file and download it to your computer. Later, you can restore this configuration on the same or another device using the same XML file.

Alternatively, you can pack a configuration XML file into a ZIP file, enter its file name in [setup.csv file](#) (see directive :CONFIG) and setup [file synchronization](#) of this ZIP file. This way, you can modify the configuration of Technovia SLIDESHOW entirely remotely. For security reasons, the [setting](#) `Allow external config import` must be enabled before Technovia SLIDESHOW can process a remote configuration file.

VERSION COMPATIBILITY

Configuration files may not be compatible between different Technovia SLIDESHOW versions. Always import configurations into the same version they were exported from.

WHAT IS INCLUDED IN THE BACKUP

- Your device's **settings** - equivalent to web interface → menu Settings → Device settings ([details](#))
- **User accounts** - including password in a hashed form (handle with care)
- Configuration of **screen layouts, zones, playlists, and content**
- Configuration of **file synchronization**, logins for Google Drive and Dropbox account cannot be exported for security reasons ([details](#))
- List of on-device **RSS messages** - accessible under web interface → menu Tools → RSS messages ([details](#))
- List of **file metadata** for scheduled deletions ([details](#))
- **Key mapping** for keyboard shortcut mappings ([details](#))
- **Triggers** ([details](#))
- **Media files** (optional; if selected, the backup is saved as a ZIP file that includes the XML, instead of plain XML)

MANUAL MODIFICATION OF THE BACKUP

The backup file is stored in a human-readable XML format, so it can be modified manually — though this should be done very carefully. Manual editing can be useful for batch changes or automated setup generation. Use a text editor that supports UTF-8 encoding (for example, [Notepad++](#) on Windows).

After editing, validate the file against the correct XSD schema to ensure it is structurally valid, for example using XML Tools plugin for Notepad++, or an online validators like <http://www.utilities-online.info/xsdvalidation/>.

XSD SCHEMAS BY VERSION

You can download the XSD schema that matches your Technovia SLIDESHOW version:

- [configuration.xsd](#) - XSD schema for version 4.11.x and 4.12.x (current)
- [configuration.xsd](#) - XSD schema for version 4.10.x (old)
- [configuration.xsd](#) - XSD schema for version 4.9.x (old)
- [configuration.xsd](#) - XSD schema for version 4.8.x (old)
- [configuration.xsd](#) - XSD schema for version 4.7.x (old)
- [configuration.xsd](#) - XSD schema for version 4.6.x (old)
- [configuration.xsd](#) - XSD schema for version 4.5.x (old)
- [configuration.xsd](#) - XSD schema for version 4.4.x (old)
- [configuration.xsd](#) - XSD schema for version 4.0.x, 4.1.x, 4.2.x, 4.3.x (old)
- [configuration.xsd](#) - XSD schema for version 3.24.x (old)

Original technical reference: <https://slideshow.digital/documentation/configuration/configuration-backup-restore/>
Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Software updates

USE THE TECHNOVIA UPDATE PACKAGE

Remote installation depends on root access, device-owner configuration or specific supported hardware. Confirm compatibility with Technovia before changing the branded app.

A compatible Technovia SLIDESHOW installation can be updated with the matching Technovia APK package. Obtain the approved package for your branded build from Technovia before proceeding; a public upstream APK may replace the branding or use different settings.

Technovia SLIDESHOW will start updating only if the update APK file differs from the one already installed on the device, otherwise it won't do anything. You can check the current version of Technovia SLIDESHOW on the top of the on-screen menu, or through the web interface → menu Information → About software.

Use remote update only on devices, on which you originally installed Technovia SLIDESHOW manually through the APK file, not through Google Play Store or other app stores. Always review the changes in the new version before updating.

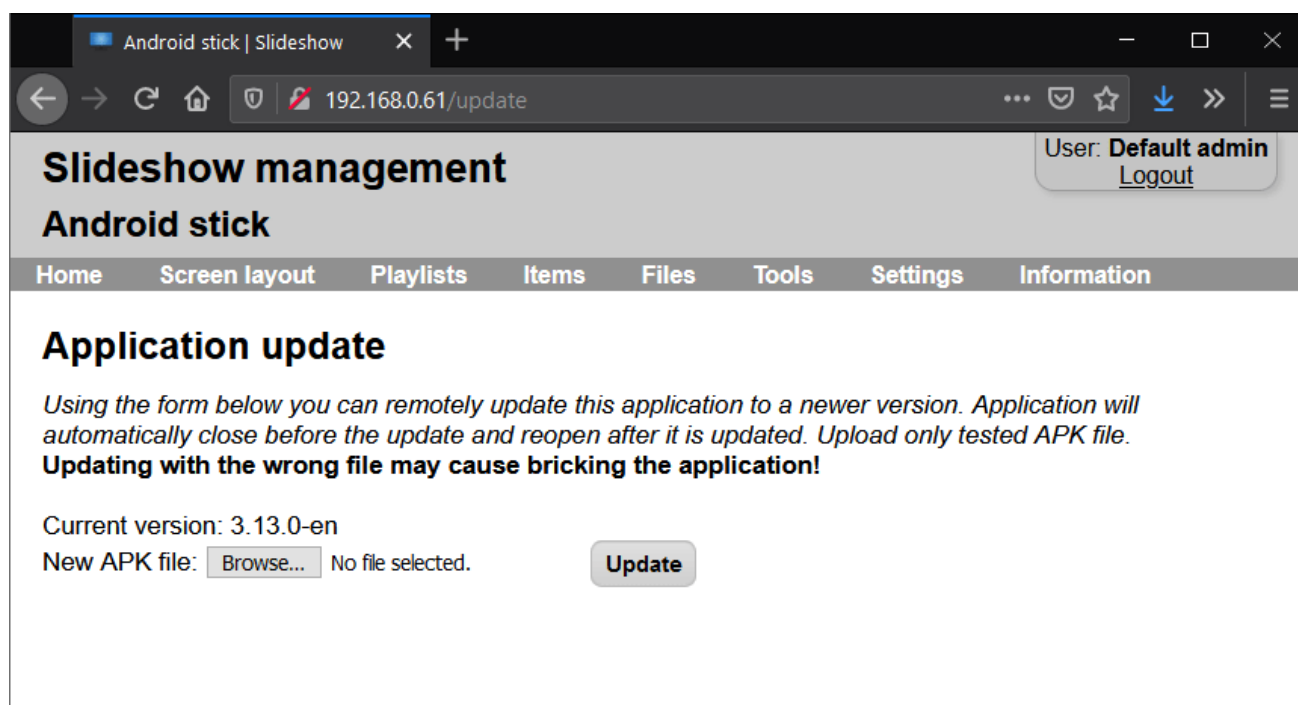
Remote update works only on [rooted devices](#) or on devices on which Technovia SLIDESHOW app is set as the device owner. Special handling is available for the following non-rooted Android devices:

- Zidoo Z9X
- Philips Smart TV.

For other non-rooted devices, you can use only the automatic update option from Google Play Store.

REMOTE UPDATE THROUGH WEB INTERFACE

If you can access Technovia SLIDESHOW's web interface, you can upload a new APK file through menu Settings → Application update. The update process will start several seconds after the file upload is finished, and it may take up to one minute. Technovia SLIDESHOW app will automatically reload after the update process is finished.



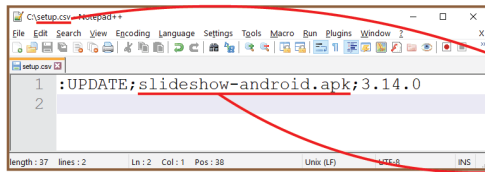
Page for remote update

REMOTE UPDATE THROUGH FILE SYNCHRONIZATION

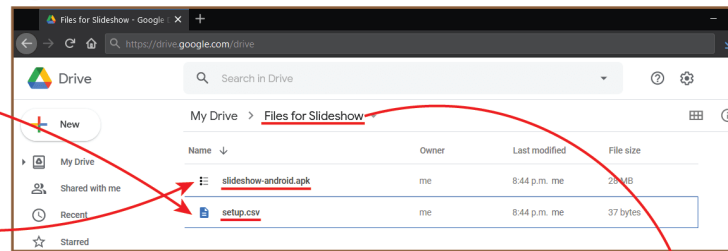
Technovia SLIDESHOW can be updated via File synchronization from Google Drive, Dropbox, HTTP/FTP server or from USB flash drive using command :UPDATE;APK file name;version in the [setup.csv](#) file. Use the last part of the command ("version") to prevent Technovia SLIDESHOW from unnecessarily processing the file if the same version is already installed. Allow external config import has to be enabled in Device settings in order for this functionality to work (this setting acts as a security check).

Update is always performed as a last step of the synchronization process, after all other files have been downloaded. It may take up to one minute and Technovia SLIDESHOW will automatically reload afterward.

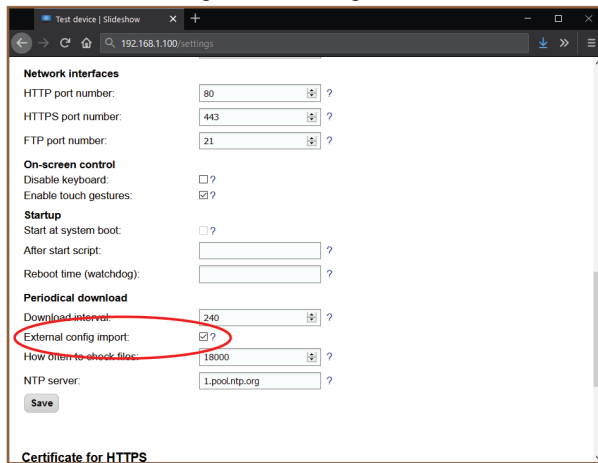
1. Prepare file setup.csv with the following content, for example in Notepad++. First part has to be "UPDATE", second part is APK file name and third part is version number contained in the APK file



2. Upload the setup.csv to a folder on your Google Drive, together with the new Slideshow APK file



3. Enable "External config import" via Slideshow's web interface, menu Settings - Device settings



4. Go to menu Tools - Periodic download and setup synchronization from the Google Drive folder to Slideshow

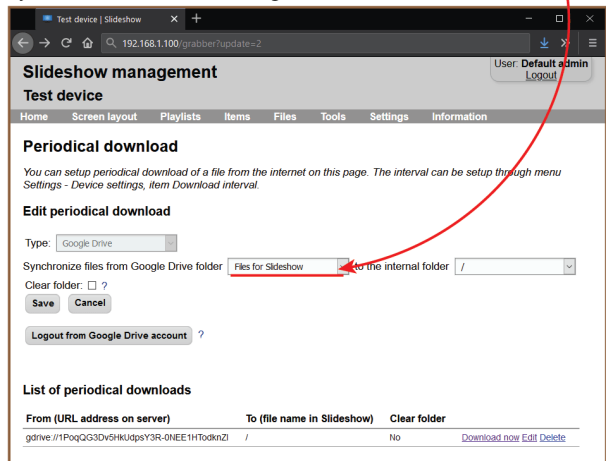


Diagram of remote application update through Google Drive

Original technical reference: <https://slideshow.digital/documentation/configuration/remote-update/>

Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Automate with setup.csv

You can use setup.csv file for definition which uploaded file should be played in which time interval. This functionality can be used for changing the displayed files over time without direct access to Technovia SLIDESHOW's web interface.

LOCATION

File setup.csv can be located:

- In ZIP archive, which can be uploaded through web interface, FTP, USB Flash drive or downloaded from internet via [File synchronization](#).
- In [Google Drive](#) or [Dropbox](#) folder, which is synchronized via File synchronization
- In "Technovia SLIDESHOW" folder on the [USB Flash drive](#)

If this file isn't present in ZIP archive or in the directory, all files will be copied and no special handling of any file is performed (the default behavior).

FILE FORMAT

File setup.csv is a text file (UTF-8 encoded) with one command on each line. The number of commands in one file is not limited, use as many commands as you need to.

You can use comma , or semicolon ; as a separator of the parts of the command, Technovia SLIDESHOW will recognize either of the characters.

COMMANDS

Each line of setup.csv file can contain one of the following commands:

- The line starts with two slashes // or hash sign # - used for comment, this line won't be processed, it is just a note for the author of the file.
- The line starts with colon : - special command:
 - :VALID;date from;date to - whole setup.csv file is valid only between the two dates. Outside of this interval, no subsequent commands will be processed and no file at all will be copied. One of the dates may be an empty string.
 - :DELETE;file name - deletes file in the folder where files should be copied. You can either enter the exact file name or use the wildcard * to specify multiple files.

- :CONFIG;file name;delete - restore [XML configuration backup](#) from the file. Allow external config import has to be enabled in [Device settings](#) in order for this functionality to work (this setting acts as a security check). The part delete means that the previous configuration will be replaced. Skip this part if you want to just add the new configuration and keep the previous one at the same time.
- :UPDATE;APK file name;version - [remotely update](#) Technovia SLIDESHOW application. The version part should be set to the version of Technovia SLIDESHOW app which is in the APK file, it is used as a check if the app is already updated or not (e.g. "3.13.0"). Allow external config import has to be enabled in Device settings in order for this functionality to work (this setting acts as a security check). See [Remote update](#) for the device requirements.
- :WIFI;ssid;password - tries connecting to a WiFi network. Progress of the connection is displayed as a short message at the bottom of the screen. Confirmation on the screen of the Android device might be needed, depending on the Android version.
- :RELOAD - reload Technovia SLIDESHOW app after processing of the files is finished. Allow external config import has to be enabled in Device settings in order for this functionality to work (this setting acts as a security check).
- :REBOOT - reboot the Android device after processing of the files is finished. Allow external config import has to be enabled in Device settings in order for this functionality to work (this setting acts as a security check). Works only on [rooted devices](#).
- Other lines - definition from when until when should the file be displayed/played (provided that it will be in a playlist). The order is file name, date from, date to. One of the dates may be an empty string. If date to is in the future, the file will be [automatically deleted](#) at that date.

DATE FORMATS

The dates in setup.csv file can be in one of the following formats:

- yyyy-MM-dd (e.g. 2019-12-07)
- yyyy-MM-dd HH:mm (e.g. 2019-12-07 13:20)
- dd.MM.yyyy (e.g. 07.12.2019)
- dd.MM.yyyy HH:mm (e.g. 07.12.2019 13:20)
- yyyy-MM-dd'T'HH:mm:ss (e.g. 2019-12-07T13:20:00) - ISO 8601 format without time zone
- Timestamp - number of milliseconds since 1 January 1970, 00:00:00 GMT

All times are parsed in 24-hour format.

EXAMPLES WITH EXPLANATION

Valid from 1 December 2019, delete all files with .jpg extension and copy all files from ZIP / USB Flash drive:

```
:VALID;2019-12-01;  
:DELETE;*.jpg
```

Valid until 31 December 2019, delete file test.png, display file banner.jpg only after 15 December 2019, display other files at all times (until the global valid date of 31 December 2019):

```
:VALID;;31.12.2019  
:DELETE;test.png  
"banner.jpg";15.12.2019;
```

Valid always, files image1.jpg and image2.jpg will be displayed only in December 2019 and they will be automatically deleted on 31 December 2019 at 12:00:

```
// Comment example  
image1.jpg,1.12.2019,31.12.2019 12:00  
image2.jpg,1.12.2019,31.12.2019 12:00
```

Import XML configuration from file configuration.xml and replace the previous configuration of Technovia SLIDESHOW:

```
:CONFIG,configuration.xml,delete
```

SAMPLE

Try uploading this ZIP file containing two images and setup.csv to the Technovia SLIDESHOW app. Only one image will be played at any time.

- [files.zip - download](#)

TROUBLESHOOTING

You can check whether the file was recognized by checking the logs (through the web interface → menu Information → Log) and looking for the line similar to this:

```
02.01.20 18:43:26 DEBUG  
sk.mimac.slideshow.csv.FileDataParser - Detected file data file 'setup.csv'
```

Original technical reference: <https://slideshow.digital/documentation/configuration/setup-csv/>
Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Kiosk mode

ADVANCED SETUP

Device-owner identifiers and menu-lock behaviour may differ in the Technovia build. Confirm the application package identifier and recovery method before enabling lockdown.

To ensure end-users cannot exit the Technovia SLIDESHOW app or access the standard Android interface, Technovia SLIDESHOW provides several mechanisms for fully locking down the device.

BE CAREFUL

Enabling kiosk mode can be **irreversible** if you lose access to the device's web interface (username + password). Only advanced users or Digital Signage professionals should enable these features.

ANDROID KIOSK MODE

Android includes a native kiosk mode (also called Lock Task Mode) that prevents switching between apps and keeps a single application permanently in the foreground. Technovia SLIDESHOW integrates with this system, allowing you to configure device lockdown.

To enable kiosk mode for Technovia SLIDESHOW:

1. Set Technovia SLIDESHOW as the Device Owner:

- **Rooted devices:** Open the Technovia SLIDESHOW [web interface](#) → menu Settings → Device administrator then click Enable below Device owner.
- **Non-rooted devices:** Use Android Debug Bridge (ADB) to set Technovia SLIDESHOW as the device owner. Run the following command from a PC:

```
adb shell dpm set-device-owner sk.mimac.slideshow/.AppAdminReceiver
```

2. Enable Lock Task Features:

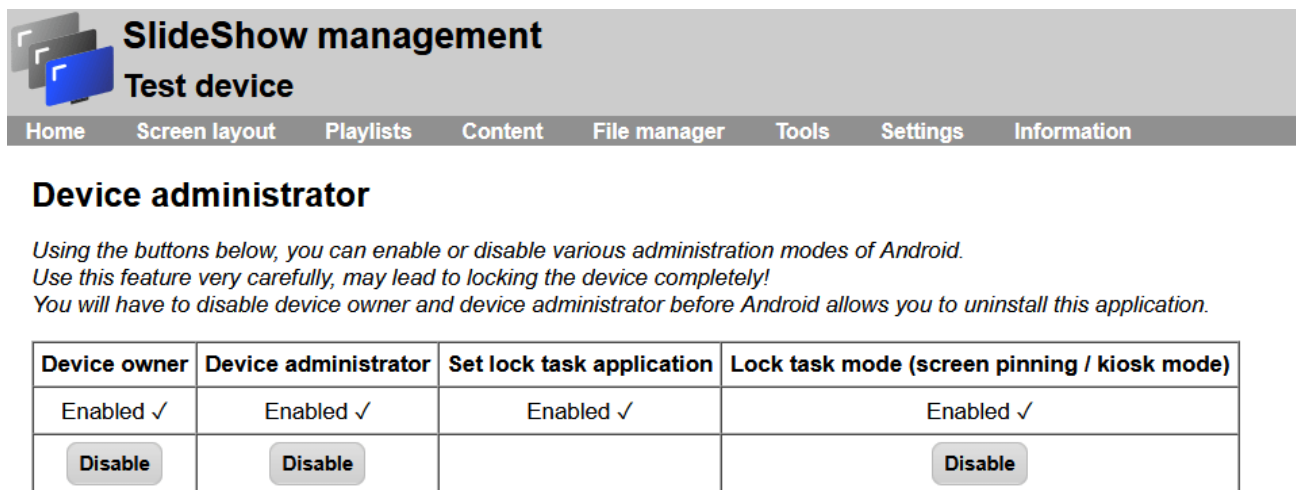
On the Device administrator page, click on Enable below both Set lock task application and Lock task mode.

3. Enable Kiosk Mode at Startup:

Navigate to Settings → Device settings and toggle Enable kiosk mode after start.

4. Enable Automatic App Startup:

Make sure the app is configured to [start automatically after boot](#).



The screenshot shows the SlideShow management web interface. At the top, there's a header with the SlideShow logo and the title 'SlideShow management'. Below the header is a navigation bar with links: Home, Screen layout, Playlists, Content, File manager, Tools, Settings, and Information. The main content area is titled 'Device administrator'. It contains a warning message: 'Using the buttons below, you can enable or disable various administration modes of Android. Use this feature very carefully, may lead to locking the device completely! You will have to disable device owner and device administrator before Android allows you to uninstall this application.' Below the warning is a table with four columns: Device owner, Device administrator, Set lock task application, and Lock task mode (screen pinning / kiosk mode). The table has two rows. The first row shows 'Enabled ✓' for all four items. The second row shows 'Disable' buttons for each item.

Device owner	Device administrator	Set lock task application	Lock task mode (screen pinning / kiosk mode)
Enabled ✓	Enabled ✓	Enabled ✓	Enabled ✓
Disable	Disable		Disable

Device administrator page in the web interface

On many Android devices, you must also disable the **status bar** and **navigation bar** within system settings to prevent users from pulling down notifications or using system gestures. The setting names vary by manufacturer and Android version (e.g., *Hide system bar*, *Navigation gestures*, *Disable notification swipe*, etc.).

Once kiosk mode is active, the only way to exit the app is from the on-screen menu → Exit. This ensures end-users cannot accidentally or intentionally leave the Technovia SLIDESHOW environment.

LOCKING ON-SCREEN MENU

By default, the Technovia SLIDESHOW on-screen menu can be opened by swiping from the left edge of the screen or pressing Enter or Menu on a keyboard or remote control. For Digital Signage deployments, this behavior may allow unauthorized users to access management features.

In the [white-label version](#), you can lock the on-screen menu so that it becomes accessible only by a secret touch sequence and a username + password login. This provides a secure method for technicians or operators to access the menu without exposing system controls to end users.

FOR DIGITAL SIGNAGE PROVIDERS ONLY

The locked on-screen menu feature is available
EXCLUSIVELY

in the paid white-label version intended for Digital Signage providers.

Triggers

Using triggers, you can setup advanced conditions and actions for your digital signage playback.

Trigger setup is possible through the web interface, menu Settings → Triggers. It is possible to backup and restore triggers using XML configuration backup.

SETTING UP A TRIGGER

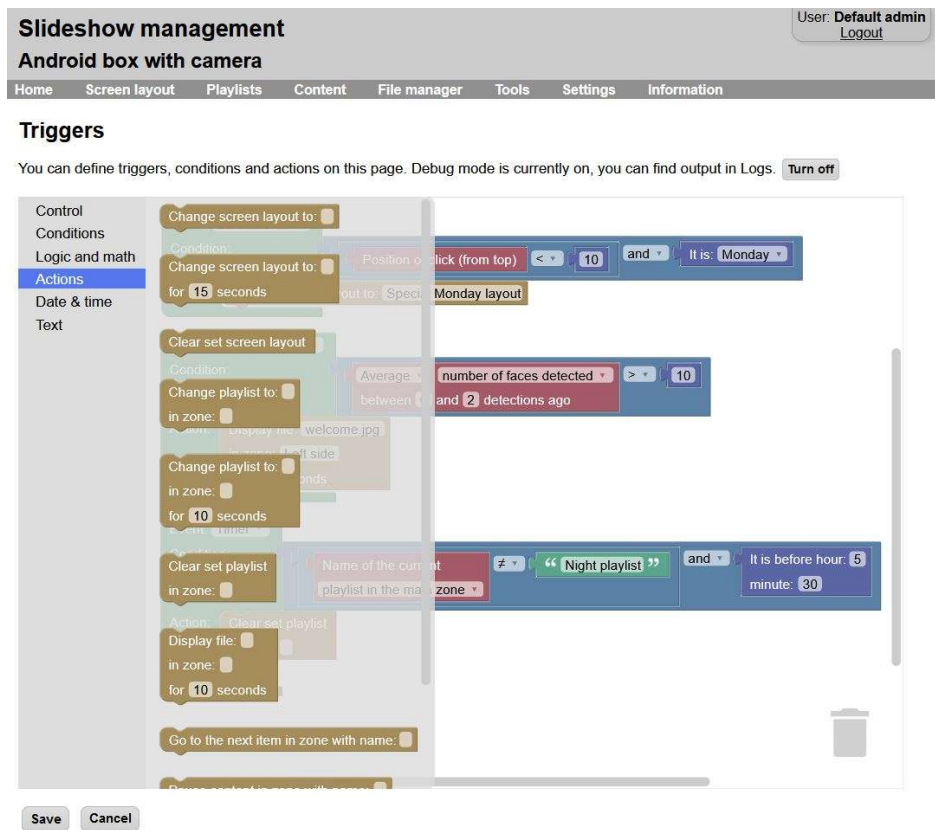
The basic building block of each trigger is the control element. There can be multiple control elements defined, each one is evaluated separately. Each control element defines:

- Which **event** starts this trigger – whether the screen was clicked, face detection was run, key was pressed or minute timer was run.
- What are the **conditions** for this trigger – for example, position of the screen click, how many faces were detected, what time it is and more. Conditions can be combined using logic predicates and, or and not.
- What **action** should be executed if the conditions are satisfied – for example change playlist or screen layout, display particular media file, pause or resume playback, start audio file, etc.

You can add building blocks from the left menu to the workspace using drag&drop. Make sure that the building block is not whited out after placing it in the workspace, as it might indicate the output type of the block doesn't fit the input type of the other block.

EXECUTING TRIGGERS

After the triggers are saved, the **actions** will be automatically executed always when the **event** occurs and the **conditions** are satisfied.

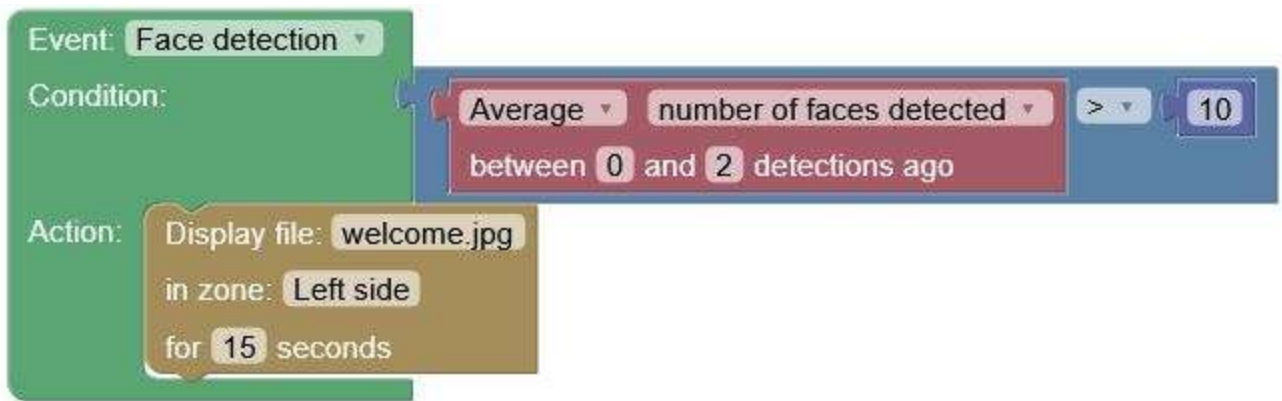


Triggers setup in the web interface

EXAMPLES



If screen was clicked in the top 10% and it is Monday, change the current screen layout to “Special Monday layout”



If more than 10 faces were detected on average in the last 3 frames, display file “welcome.jpg” in zone “Left side” for 15 seconds



Every minute check if the current playlist in the main zone is not “Night playlist” and it is before 5:30 AM, if true, clear the manually set playlist in the main zone and beep

Original technical reference: <https://slideshow.digital/documentation/interactivity/triggers/>
 Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Face detection

CAMERA REQUIRED

This feature needs a compatible camera and the necessary permissions. No camera is assumed to be built into the Technovia stick.

If the Android device running Technovia SLIDESHOW app has a camera (either integrated, like a camera on a tablet, or USB camera), it can be used for detecting how many people are currently in the area in front of the camera. This number can be used for estimating how many people can see what is on the screen at the moment and for either interactively triggering a content on the screen or for further analytical and statistical purposes.

The face detection is done using a machine learning algorithm, which runs entirely on the Android device. No internet connection or special hardware is needed, the calculations are done entirely using CPU.

If you would like to further integrate the face detection feature with an external system, please contact us.

SETUP

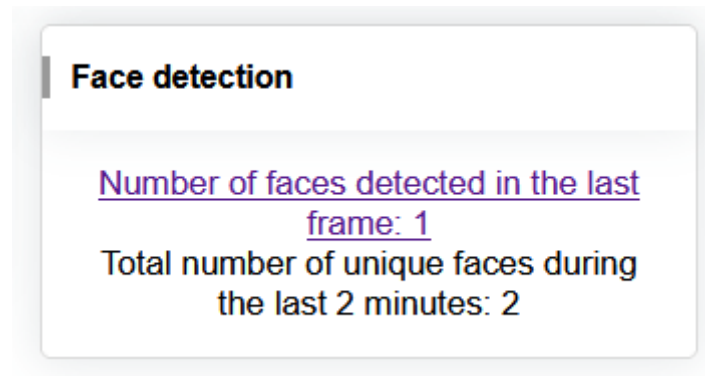
Following steps are needed for enabling face detection:

1. On-screen menu → Basic settings → Request camera permission → allow Technovia SLIDESHOW to access the camera on the Android device. If this option is missing from the Basic settings, the permission has been already granted, and it is not necessary to grant it again.
2. Web interface → menu Settings → Device settings → select input camera under Camera for face detection and setup other options if needed. If you are using a USB camera and it is not listed in Device settings, please verify that it is correctly plugged in and supported by Android system (not all Android builds support all USB cameras).
3. Reload Technovia SLIDESHOW app to apply the settings.
4. Wait 10 seconds after startup, navigate to web interface → menu Information → Face detection to check whether the camera image is correct. Refresh this page in order to get updated image and statistics.

USAGE

The quick overview of the face detection status can be seen on the Home page of the web interface. If the face detection is active, Face detection widget containing statistics will be displayed. By clicking on the Number of faces detected in the last frame link (alternatively through menu Information →

Face detection) you can open a page with detailed statistics for the last 60 frames, as well as the last processed image from the camera. All detected faces together with their tracking IDs are marked in red, and the probability whether each eye is opened is marked with blue and green.



Face detection widget on the home page

Slideshow management

Custom Tablet

Home Screen layout Playlists Content File manager Tools Settings Information

Face detection

You can find results from face detection below. They can be used for creating triggers (see menu Settings - Triggers)

	Time	Faces	Detected eyes	Largest face
0.	03:34:34.682	2	2.82	17 %
1.	03:34:33.010	2	3.01	17 %
2.	03:34:31.415	2	2.85	17 %
3.	03:34:29.842	3	2.94	15 %
4.	03:34:28.288	3	3.40	14 %
5.	03:34:26.722	2	2.84	13 %
6.	03:34:25.109	2	2.52	13 %
7.	03:34:23.586	3	2.86	15 %
8.	03:34:22.039	3	2.86	15 %
9.	03:34:20.449	3	3.24	15 %
10.	03:34:18.827	3	2.95	14 %
11.	03:34:17.270	3	2.96	13 %
12.	03:34:15.738	3	3.21	13 %
13.	03:34:14.185	2	1.72	14 %
14.	03:34:12.514	2	1.65	14 %
15.	03:34:10.977	2	1.42	13 %
16.	03:34:09.355	2	1.71	14 %
17.	03:34:07.680	3	2.94	14 %
18.	03:34:06.109	3	3.17	12 %
19.	03:34:04.556	3	3.24	14 %

Last image, with detected faces in red rectangle, face tracking ID in the bottom left corner and opened eye probability for each eye:



Face detection statistics page

Results of face detection can be used in Triggers to trigger a change in playback. For example, detecting a person close to the camera can trigger a different playlist on the screen.

Face detection can't be used at the same time as [video input](#) from the same camera, as two different processes can't use the same camera at the same time.

VIDEO TUTORIAL

[Watch video tutorial](#)

Original technical reference: <https://slideshow.digital/documentation/interactivity/face-detection/>

Original documentation © 2026 Milan Fabian. Adapted for Technovia.

REST API

The Technovia SLIDESHOW REST API allows you to control and monitor selected functions of the app remotely over your local network. It is served from the same address and port as the web interface, making it easy to integrate Technovia SLIDESHOW into your existing systems, scripts, or automation workflows.

Typical use cases include:

- Integrating Technovia SLIDESHOW with external management dashboards
- Remote monitoring and content control
- Automating configuration or playlist updates
- Embedding device status information in third-party tools

Consult the specification for the installed software version before relying on an API endpoint.

SECURITY

The REST API is secured with HTTP Basic Authentication. Use the same credentials as for logging into the web interface.

Each request must include an Authorization header in this format:

```
Authorization: Basic <credentials>
```

where <credentials> is your username:password encoded in Base64.

OPENAPI DEFINITION

Below you can explore the OpenAPI specification of Technovia SLIDESHOW's public REST API, including endpoint descriptions and example requests.

[Open in new window](#)

Please note that the direct API calls from the interface above to your own Technovia SLIDESHOW instance may not work due to browser CORS security restrictions. You can test API requests also using a dedicated REST client such as Postman, curl, or your automation framework.

[Open REST API specification](#)

PUBLISHED API ENDPOINTS

[Download the full OpenAPI schema](#) for parameters, request bodies and response definitions. The downloadable PDF contains this schema as a file attachment.

The provider's published file is named `slideshow-openapi-4.12.4.yaml`; its internal version field reads 4.11.8. Both are retained as supplied. Check the installed software version before integration.

Method	Path	Operation
GET	<code>/ajax/zones</code>	Get list of zones in currently displayed screen layout
POST	<code>/ajax/showFile</code>	Display single file on the screen
POST	<code>/ajax/showSentHtml</code>	Displays HTML content on the screen
POST	<code>/ajax/showStream</code>	Displays video stream on the screen
PUT	<code>/ajax/next</code>	Play next file
PUT	<code>/ajax/previous</code>	Play previous file
PUT	<code>/ajax/audio/next</code>	Play next audio file
PUT	<code>/ajax/beep</code>	Play beep tone
PUT	<code>/ajax/fullscreen/toggle</code>	Toggle fullscreen display
PUT	<code>/ajax/playlist/set</code>	Switch to a particular playlist
PUT	<code>/ajax/playlist/clear</code>	Clear set playlist
PUT	<code>/ajax/layout/set</code>	Switch to a particular screen layout
PUT	<code>/ajax/layout/clear</code>	Clear set screen layout
PUT	<code>/ajax/pause</code>	Pause playback in zone
PUT	<code>/ajax/resume</code>	Resume playback in zone
PUT	<code>/ajax/zoom/in</code>	Zoom in webpage
PUT	<code>/ajax/zoom/out</code>	Zoom out webpage
PUT	<code>/ajax/volume/set</code>	Set audio volume
GET	<code>/ajax/volume/get</code>	Get audio volume
PUT	<code>/ajax/reload</code>	Reload the app on device

Method	Path	Operation
PUT	/ajax/reboot	Reboot entire device
POST	/ajax/shell	Execute shell command
PUT	/ajax/action	Execute action
GET	/ajax/screenshot	Get screenshot from the device
GET	/ajax/deviceInfo	Get information about the device
GET	/ajax/displayInfo	Get information about the displays
PUT	/ajax/deviceOwner/ deviceOwnerSet	Sets Slideshow as a device owner
PUT	/ajax/deviceOwner/ deviceOwnerUnset	Unsets Slideshow as a device owner
PUT	/ajax/deviceOwner/ deviceAdminUnset	Unsets Slideshow as a device admin
PUT	/ajax/deviceOwner/ lockTaskPackagesSet	Set lock task application
PUT	/ajax/deviceOwner/ lockTaskStart	Start lock task mode
PUT	/ajax/deviceOwner/ lockTaskStop	Stop lock task mode
GET	/ajax/faceDetection/last	Get statistics from the last face detection run
GET	/ajax/faceDetection/ previous	Get statistics from the previous face detection run
GET	/ajax/faceDetection/ statistics	Get min/max/average from multiple face detection runs
GET	/ajax/faceDetection/ lastImage	Get the image from the last face detection run
POST	/ajax/synchronize	Trigger file synchronization from external server
GET	/ajax/synchronize/last	Returns information about last file synchronizations
PUT	/ajax/screensaver/activate	Activate screensaver

Method	Path	Operation
PUT	/ajax/screensaver/deactivate	Deactivate screensaver
GET	/ajax/content/get	List of content
POST	/ajax/content/create	Create content
POST	/ajax/content/update	Update content
POST	/ajax/content/delete	Delete content
GET	/ajax/schedule/zone/get	List of zone schedules
POST	/ajax/schedule/zone/create	Create zone schedule
POST	/ajax/schedule/zone/update	Update zone schedule
POST	/ajax/schedule/zone/delete	Delete zone schedule

Original technical reference: <https://slideshow.digital/documentation/integration/rest-api/>
Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Serial port

Technovia SLIDESHOW app supports communication with other devices using hardware serial port (RS-232), either using direct RS-232 port (if your Android device has it) or using USB-to-serial converter.

This feature can be also used for communication with Arduino and similar devices.

SUPPORTED HARDWARE

If your device has a native RS-232 port, it is possible to use it directly, but rooted access might be required on some devices.

For USB-to-serial adapter to work it is necessary that the Android device has a free USB port and supports USB host (almost all Android boxes do). USB-to-serial adapters based on the following chips are supported:

- FTDI FT232R, FT232H, FT2232H, FT4232H, FT230X, FT231X, FT234XD
- Prolific PL2303
- Silabs CP2102 and all other CP210x
- Qinheng CH340, CH341A, CH9102
- Arduino using ATmega32U4
- Digispark using V-USB software USB
- BBC micro:bit using ARM mbed DAPLink firmware

Permission to access a USB device has to be granted manually on the screen of the Android device the first time a USB-to-serial adapter is connected. Prompt will be displayed automatically after the supported adapter is plugged in.

SERIAL PORT SETUP

Configuration of the serial port can be done through Technovia SLIDESHOW's web interface → menu Settings → Device settings → section Serial port. Baud rate, data bits, stop bits and parity have to be set in Technovia SLIDESHOW settings exactly the same as on the second device. Selected baud rate has to be supported by the serial port on the Android device.

Serial port

Serial port path:	USB	?
Serial port baud rate:	9600	?
Serial port data bits:	8	
Serial port stop bits:	1	
Serial port parity:	0	

Configuration of serial port in Device settings

List of currently detected serial ports on the particular Android device can be found through menu Information → About device → Available serial ports.

USING SERIAL PORT

If text read from serial port is in JSON format and starts with {"operation", it is processed as an API command (see [MQTT API](#) for the list of supported commands). The result is then written back to the serial port. Data from and to the serial port are processed in ASCII encoding, not UTF-8.

It is also possible to read from serial port and write to serial port through Triggers. ASCII and HEX formats are supported for detecting input and writing output.

Slideshow management
Test device
 Home Screen layout Playlists Content File manager Tools Settings Information

Triggers

You can define triggers, conditions and actions on this page. Debug mode is currently off. [Turn on](#)

Control
 Conditions
 Logic and math
 Actions
 Date & time
 Text

Event: Received data from serial port

Condition: Received data from serial port starting with text: START

Action: Display file: image.jpg in zone: for 10 seconds

Event: Screen click

Condition: Position of click (from left) > 80 and Position of click (from top) < 20

Action: Send data over serial port (text): CLICK

Sample serial port trigger

EXAMPLE WITH ARDUINO

What is Arduino?

Arduino is a small hardware board with a microcontroller, essentially an entire small computer on a board. It has a processor, small memory and many low-level inputs and outputs, such as serial port, I2C and pins for LEDs and buttons.

There are many variants of the board with different models of microcontrollers and various expansions, as well as a wide range of add-on boards with displays, sensors and other peripherals. Most of the boards can be connected to a computer with a USB cable, through which the board can be programmed. The USB connection acts as a USB-to-serial bridge as well, making the serial port communication between a host computer and Arduino possible.

Arduino boards and their clones are available for a very low price, the least expensive board can be bought for under 10 EUR / USD. Low price, as well as huge online community providing endless tutorials, guides and source code examples, makes them very popular in the hobby community for interacting with various low-level hardware. The boards are often used for learning programming as well.

You can find more resources regarding Arduino on <https://www.arduino.cc/>. The boards can be bought for example on Amazon: Arduino Nano, Arduino Uno.



Various Arduino boards. Source: Wikipedia

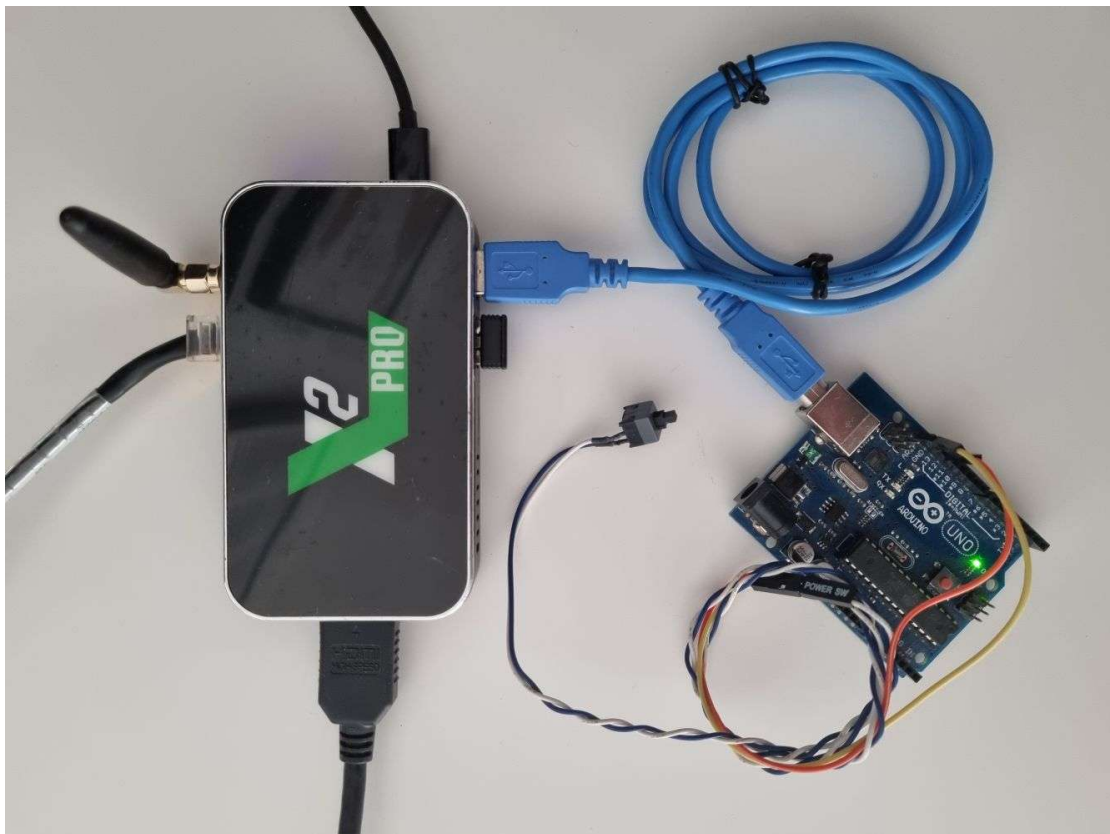
Communication over serial port

Serial port (or RS-232) is a protocol for wired communication between two devices. It has much lower transmission speed than newer protocols (such as USB), but thanks to its simplicity and low hardware requirements, it is still used in industry in case a low-speed and short range connection is sufficient. Historically, mostly 9-pin DE-9 connectors have been used for serial port, but RJ45 is used as well (the same connector as for LAN cable, but with different signals). Serial port is present in many hobby development boards as well, including Raspberry Pi and Arduino, in the form of input/output pins.

Since version 4.2.0, Technovia SLIDESHOW app supports communication over serial port. This can be used for communication with any device that has a serial port, including almost all Arduino boards as well. As the boards contain USB-to-serial bridge, they can be connected directly to the Android device running Technovia SLIDESHOW app via USB cable. The communication can be used for various tasks, such as:

- Moving to the next file/media in Technovia SLIDESHOW after pushing a button connected to Arduino
- Changing a playlist in Technovia SLIDESHOW if Arduino detects a change in temperature using a thermometer add-on sensor
- Displaying a custom warning text in Technovia SLIDESHOW if Arduino detects high concentration of Carbon Monoxide using a gas add-on sensor
- Flashing an LED connected to Arduino after clicking on the screen in Technovia SLIDESHOW
- Showing a text on a small add-on display for Arduino after Technovia SLIDESHOW detects a person using face detection
- ...and many other combinations...

Arduino Uno board connected to an Android box via USB cable



Arduino Uno board connected to an Android box via USB cable

Tutorial

You can find the entire video tutorial for setting up communication between Technovia SLIDESHOW app and Arduino board below, as well as the sample source code used for Arduino board. It will walk you through the initial configuration of the serial port in Technovia SLIDESHOW and how you can interact with Arduino using Triggers and Technovia SLIDESHOW API.

↓ [Sample source code for Arduino](#)

[Watch video tutorial](#)

Original technical reference: <https://slideshow.digital/documentation/integration/serial-port/>
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Local JavaScript API

Local JavaScript API allows you to create interactive digital signage screens by creating an HTML file, which can change the content displayed in each zone on the screen. For example, clicking a button in one part of the screen can trigger the display of a particular file in another part of the screen. Setting up such an HTML file requires at least basic knowledge of HTML and JavaScript.

All methods of the API are static methods in class `SlideshowAPI`. It can be accessed from HTML files displayed on the screen, the HTML file is displayed either from the internal memory, or as a website loaded from a URL file saved in the internal memory.

Local JavaScript API is disabled by default for security reasons and can be enabled via web interface → menu Settings → Device settings → Allow local API for web pages.

SECURITY CONSIDERATION

Enabling local JavaScript API, and displaying 3rd party web pages may expose your Android device to an attacker. Make sure you display only verified web pages if you enable the local JavaScript API.

AVAILABLE METHODS

Display file on the screen:

```
SlideshowAPI.showFile(zoneName, fileName, duration);
```

zoneName – name of the zone, in which the file should be displayed,
or null for the main zone
fileName – name of the file to display
duration – duration of display in seconds

Set playlist:

```
SlideshowAPI.setPlaylist(zoneName, playlistName);
```

zoneName – name of the zone, in which the playlist should be displayed,
or null for the main zone
playlistName – name of the playlist to display

Clear set playlist:

```
SlideshowAPI.clearPlaylist(zoneName);
```

zoneName – name of the zone, in which the playlist should be cleared
(returning to the scheduled playlist),
or null for the main zone

Move to the next file in playlist:

```
SlideshowAPI.next(zoneName);
```

zoneName – name of the zone, in which the file should be displayed,
or null for the main zone

Pause playback:

```
SlideshowAPI.pause(zoneName);
```

zoneName – name of the zone, in which the playback should be paused,
or null for the main zone

Resume playback:

```
SlideshowAPI.resume(zoneName);
```

zoneName – name of the zone, in which the playback should be resumed,
or null for the main zone

EXAMPLE

You can use the HTML file below as an example. It contains several buttons, each with a description of what it does. The JavaScript call is in the “onclick” property of each button.

[Example HTML file with JavaScript API](#)

```
<html>
  <head>
    <meta http-equiv="content-type" content="text/html; charset=UTF-8">
    <style> body { background-color: white; } </style>
  </head>
  <body>
    <h1>Examples for Slideshow's Local JavaScript API</h1>

    <h2>Method SlideshowAPI.showFile(zoneName, fileName, duration)</h2>

    <button onclick="SlideshowAPI.showFile(null, 'image1.jpg', 5);">
      Display file image1.jpg <br>in the main zone <br>for 5 seconds
    </button>
    <button onclick="SlideshowAPI.showFile('Side zone', 'images/image2.jpg', 10);">
      Display file image2.jpg from folder images <br>on the zone called Side zone <br>for 10
```

```

seconds
</button>
<button onclick="SlideshowAPI.showFile(null, 'video1.mp4', 10);">
    Display file video1.mp4 <br>in the main zone <br>(Duration is ignored)
</button>
<button onclick="SlideshowAPI.showFile('audio', 'song1.mp3', 10);">
    Play file song1.mp3 <br>as a background audio <br>(Duration is ignored)
</button>

<h2>Method SlideshowAPI.next(zoneName)</h2>

<button onclick="SlideshowAPI.next(null);">
    Go to the next item <br>in the playlist in the main zone
</button>
<button onclick="SlideshowAPI.next('Side zone');">
    Go to the next item <br>in the playlist on the zone called Side zone
</button>
<button onclick="SlideshowAPI.next('audio');">
    Go to the next item <br>in the audio playlist
</button>

<h2>Method SlideshowAPI.setPlaylist(zoneName, playlistName)</h2>

<button onclick="SlideshowAPI.setPlaylist(null, 'Video playlist');">
    Set playlist called Video playlist <br>in the main zone
</button>
<button onclick="SlideshowAPI.setPlaylist('Side zone', 'Image playlist');">
    Set playlist called Image playlist <br>on the zone called Side zone
</button>

<h2>Method SlideshowAPI.pause(zoneName) / SlideshowAPI.resume(zoneName)</h2>

<button onclick="SlideshowAPI.pause(null);">
    Pause playback <br>in the main zone
</button>
<button onclick="SlideshowAPI.resume('Side zone');">
    Resume playback <br>on the zone called Side zone
</button>
<button onclick="SlideshowAPI.resume(null);">
    Resume playback <br>in the main zone
</button>
</body>
</html>

```

Original technical reference: <https://slideshow.digital/documentation/integration/local-javascript-api/>

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MQTT

ABOUT MQTT

More information about MQTT protocol can be found on <https://mqtt.org> and [Wikipedia](#).

Technovia SLIDESHOW contains an MQTT client, which can connect to a remote MQTT broker via internet connection and receive commands from external systems. Thanks to this, multiple instances of Technovia SLIDESHOW can be controlled at the same time, even remotely across the world.

Setup of the connection to the broker can be done through the web interface – menu Settings – Device settings – section MQTT. Reload the app after changing the settings in order to apply them. Current connection status can be found via menu Information – About device – MQTT connection state, or on the bottom of the home page.

Supported MQTT version is 5, with optional TLS security or communication through HTTP WebSockets (both configurable in Device settings). Technovia SLIDESHOW is tested with HiveMQ and Mosquitto MQTT brokers.

COMMUNICATION DESCRIPTION

Communication via MQTT is asynchronous, Technovia SLIDESHOW is listening for commands from an external system. Once the command arrives, Technovia SLIDESHOW executes it and returns a response on another topic. If the request contains correlation data, Technovia SLIDESHOW will add the same correlation data to the response.

Four MQTT topics are used for the communication with each device, the names are based on the MQTT topic prefix and MQTT topic name from the device settings.

- {MQTT topic prefix}/REQ/{MQTT topic name}/SHELL – request from server to the device to execute shell command
- {MQTT topic prefix}/RESP/{MQTT topic name}/SHELL – response from the device to the shell command
- {MQTT topic prefix}/REQ/{MQTT topic name}/API – request from server to the device to execute API call
- {MQTT topic prefix}/RESP/{MQTT topic name}/API – response from the device to the API call

If no topic name is set in the device settings, MAC address without colons will be used as a default (if available).

EXAMPLE COMMUNICATION

Topic prefix SLIDESHOW and device with MAC address 01:02:03:04:05:06 (as MQTT topic name setting) is used in all examples below.

Execute shell command

- Request topic: SLIDESHOW/REQ/010203040506/SHELL
- Request message: echo test
- Response topic: SLIDESHOW/RESP/010203040506/SHELL
- Response message: {"command": "echo test", "success": true, "result": { "result": 0, "stdout": "test\n", "stderr": "" }}

Move to the next file

- Request topic: SLIDESHOW/REQ/010203040506/API
- Request message: {"operation": "next"}
- Response topic: SLIDESHOW/RESP/010203040506/API
- Response message: {"command": "next", "success": true}

Display file on screen

- Request topic: SLIDESHOW/REQ/010203040506/API
- Request message: {"operation": "showFile", "parameters": {"zoneName": "Whole screen", "file": "sample1.jpg", "length": 5}}
- Response topic: SLIDESHOW/RESP/010203040506/API
- Response message: {"command": "showFile", "success": true}

AUTOMATICALLY REPORTED DATA

If Report data through MQTT [setting](#) is enabled, Technovia SLIDESHOW will automatically report its current device status over MQTT every 2 minutes, without need to make any request. The data is sent to {MQTT topic prefix}/RESP/{MQTT topic name}/API topic. Similarly, enabling Report playback statistics setting causes Technovia SLIDESHOW to automatically send statistics about media files displayed in the main zone.

You can find examples of both reports below.

Data report (device information)

```
{
  "command": "deviceInfo",
  "success": true,
```

```
"result": {
  "lastDisplayedFile": "Youtube video",
  "deviceAdmin": false,
  "serialNumber": "1Z09K0DTGK",
  "softwareVersionCode": 156,
  "storageSpaceFree": 24738324480,
  "hardwareModel": "DS03",
  "storageSpaceTotal": 25797066752,
  "timeZone": "GMT",
  "deviceId": "caaf349de6d71f9e",
  "uptime": 1662123536430,
  "appUptime": 1662132696156,
  "macAddress": "34:D0:B8:70:E2:7B",
  "lockTaskMode": false,
  "deviceOwner": false,
  "androidVersion": "9",
  "currentVolume": 0,
  "rooted": true,
  "ipAddressInternal": "10.42.100.110",
  "lockTaskApplication": false,
  "softwareVersion": "3.24.2"
}
```

Statistics report (playback statistics)

```
{
  "command": "playStatistics",
  "success": true,
  "result": {
    "statistics": [
      {
        "item": "Youtube video",
        "started": 1662133551420,
        "length": 29106
      },
      {
        "item": "sample-image-5.jpg",
        "started": 1662133580527,
        "length": 5078
      },
      {
        "item": "Youtube video",
        "started": 1662133585604,
        "length": 29137
      }
    ]
  }
}
```

SUPPORTED COMMANDS

Move to the next file:

```
{
  "operation": "next",
```

```
"parameters": {"zoneName": "Whole screen"}
}
```

Display file on the screen:

```
{
  "operation": "showFile",
  "parameters": {
    "zoneName": "Whole screen",
    "file": "sample1.jpg",
    "length": 5
  }
}
```

Display custom HTML content on the screen:

```
{
  "operation": "showSentHtml",
  "parameters": {
    "zoneName": "Whole screen",
    "length": 5,
    "html": "<strong>Sample bold text</strong>"
  }
}
```

Switch to different playlist:

```
{
  "operation": "playlist/set",
  "parameters": {"zoneName": "Whole screen", "playlist": 1}
}
```

Clear set playlist:

```
{
  "operation": "playlist/clear",
  "parameters": {"zoneName": "Whole screen"}
}
```

Set screen layout:

```
{
  "operation": "layout/set",
  "parameters": {"layoutName": "Sample layout"}
}
```

Clear set screen layout:

```
{  
  "operation": "layout/clear"  
}
```

Get device info:

```
{  
  "operation": "deviceInfo"  
}
```

Toggle fullscreen view for the main zone

```
{  
  "operation": "fullscreen/toggle"  
}
```

Get list of zones:

```
{  
  "operation": "zones"  
}
```

Set volume:

```
{  
  "operation": "volume/set",  
  "parameters": {"vol": 5}  
}
```

Reload app:

```
{  
  "operation": "reload"  
}
```

Reboot device:

```
{  
  "operation": "reboot"  
}
```

Synchronize files:

```
{
  "operation": "synchronize",
  "parameters": {
    "url": "https://example.com/data.zip",
    "method": "GET",
    "target": "file.zip",
    "clearFolder": false
  }
}
```

Zone name in the parameters is optional, if no zone name is set, the operation will be performed in the main zone of the screen layout.

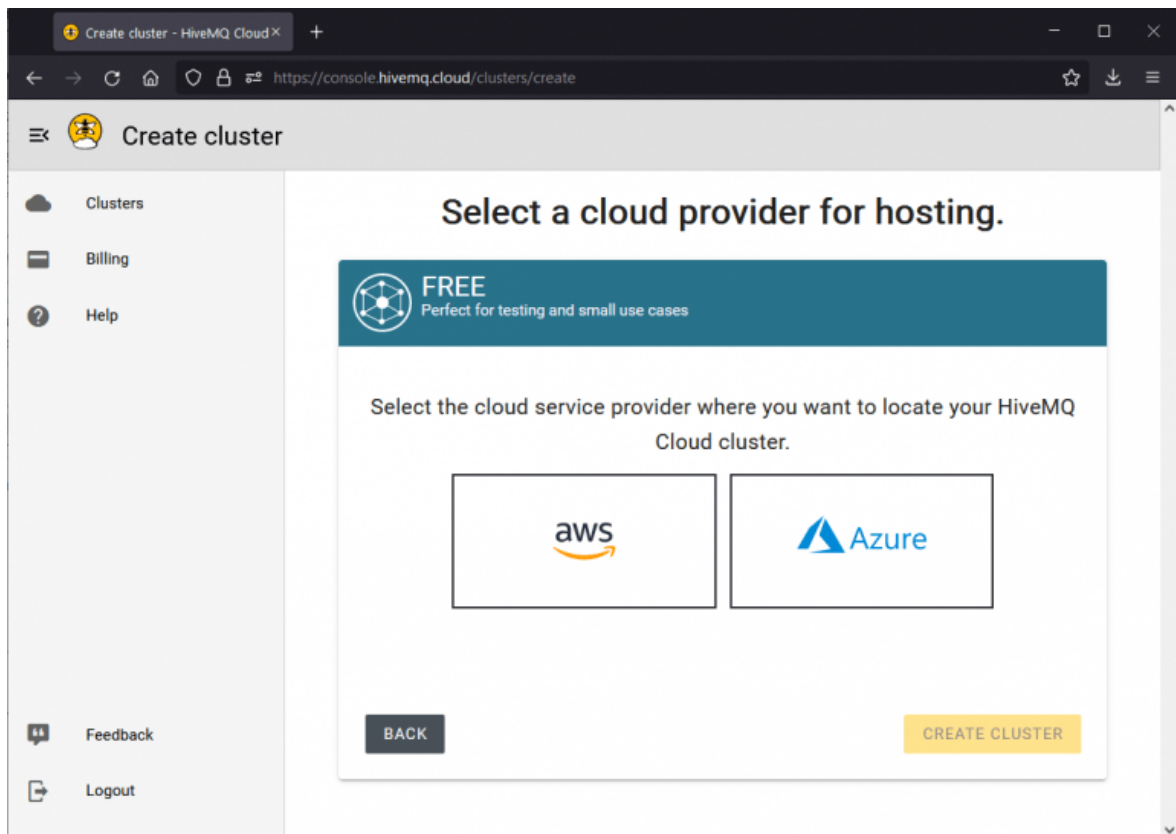
INTEGRATION WITH HIVEMQ

MQTT integration requires an external MQTT broker, to which Technovia SLIDESHOW can connect. You can either install HiveMQ or Mosquitto brokers on your server or use a cloud service, for example, HiveMQ Cloud (<https://www.hivemq.com/mqtt-cloud-broker/>). HiveMQ Cloud is free for up to 100 client devices, meaning you can connect, for example, one management application and up to 99 devices with Technovia SLIDESHOW app for free. It doesn't support separate permissions for each credential, so make sure you don't share your MQTT username and password with anybody.

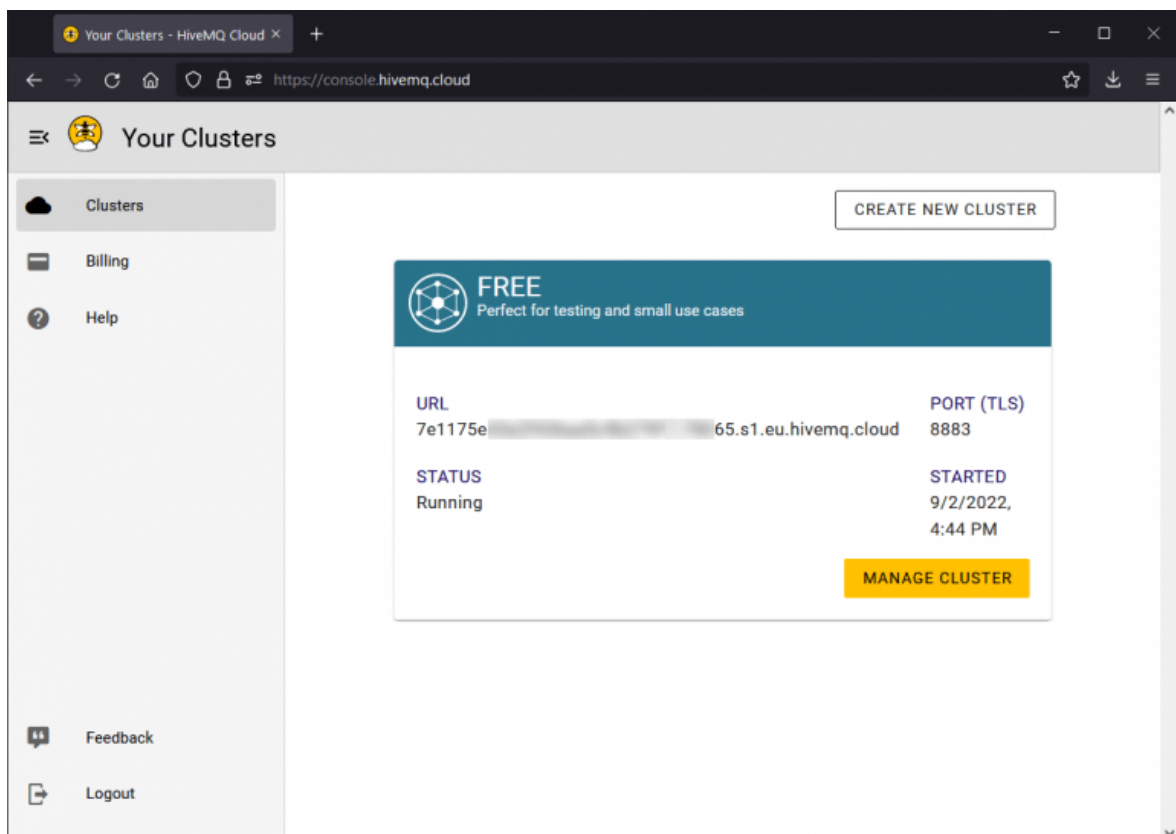
Below, you can find a step-by-step tutorial of connecting Technovia SLIDESHOW to HiveMQ Cloud and testing the connection by receiving status messages and issuing a command.

Setting up HiveMQ cloud

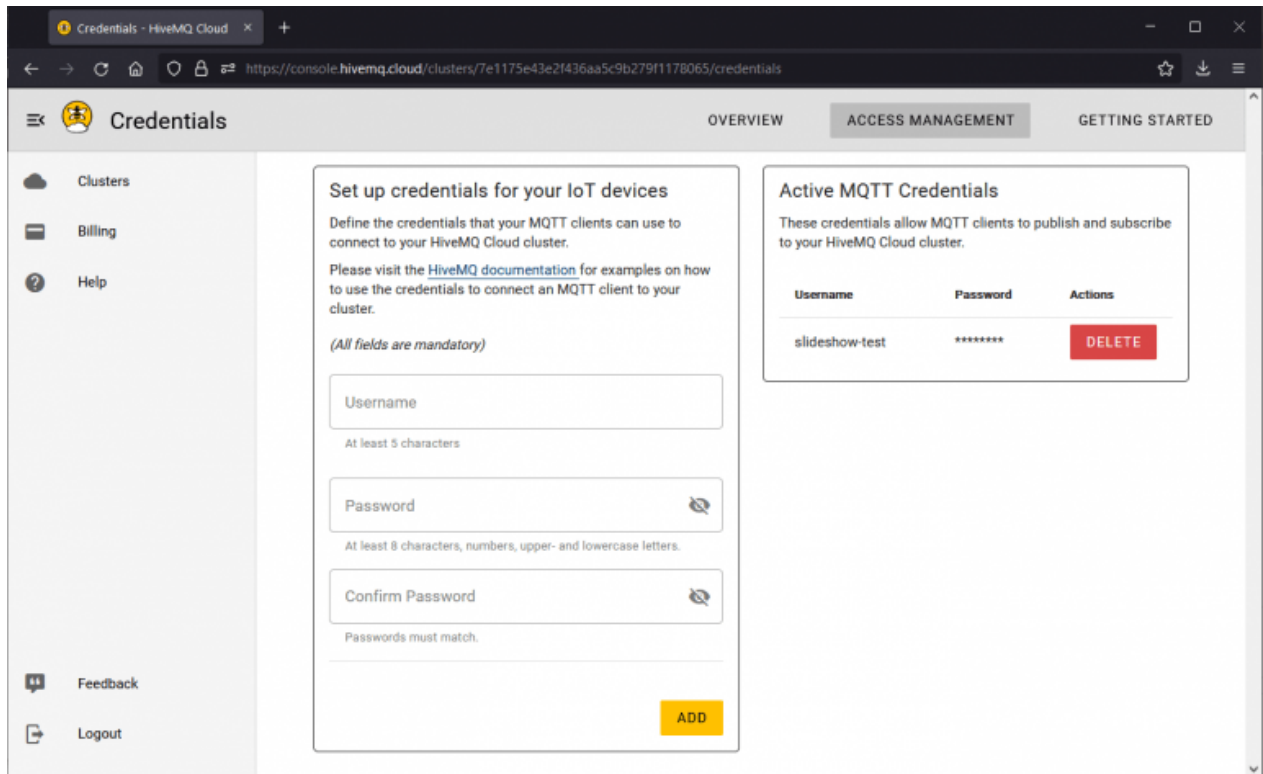
1. Create new account on <https://console.hivemq.cloud>
2. Select which provider you would like to use (there is almost no difference for the free tier)



3. Note the connection details (URL and port) of the newly created cluster and click on Manage cluster

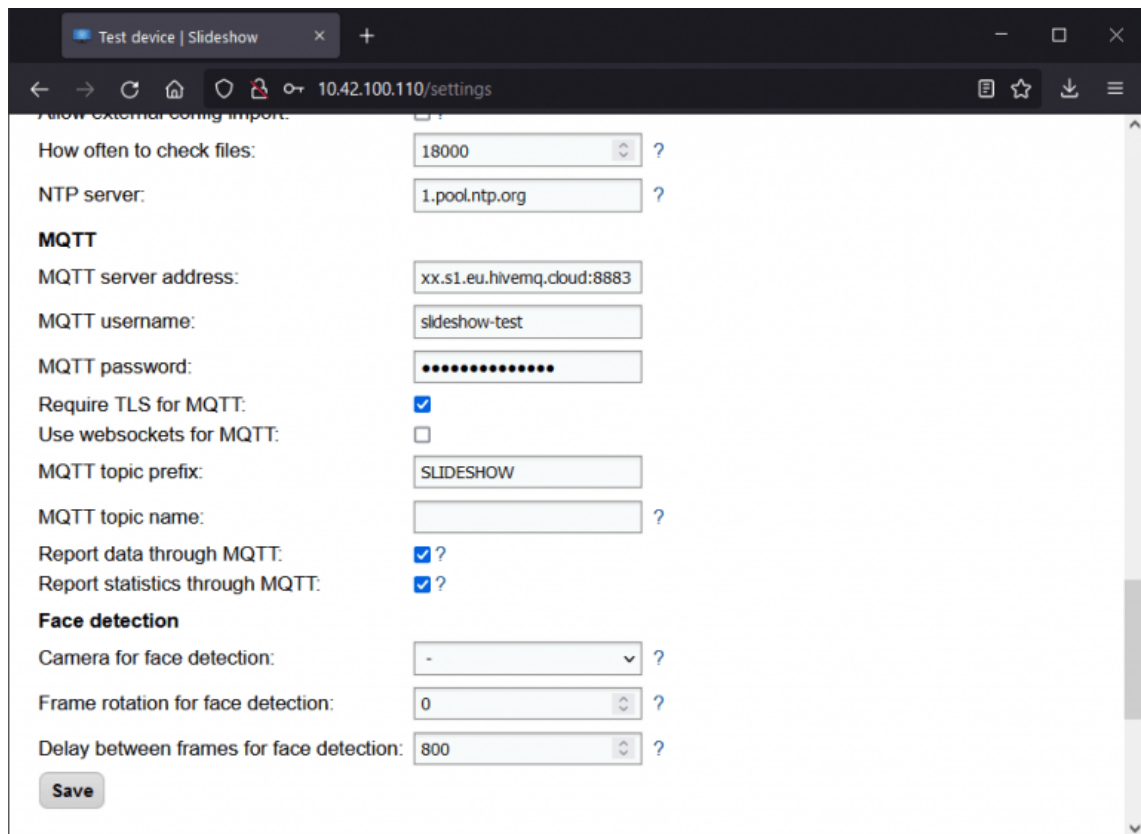


4. Click on Access management at the top and setup new credentials - username and password, which will be used by Technovia SLIDESHOW to access the MQTT cluster.

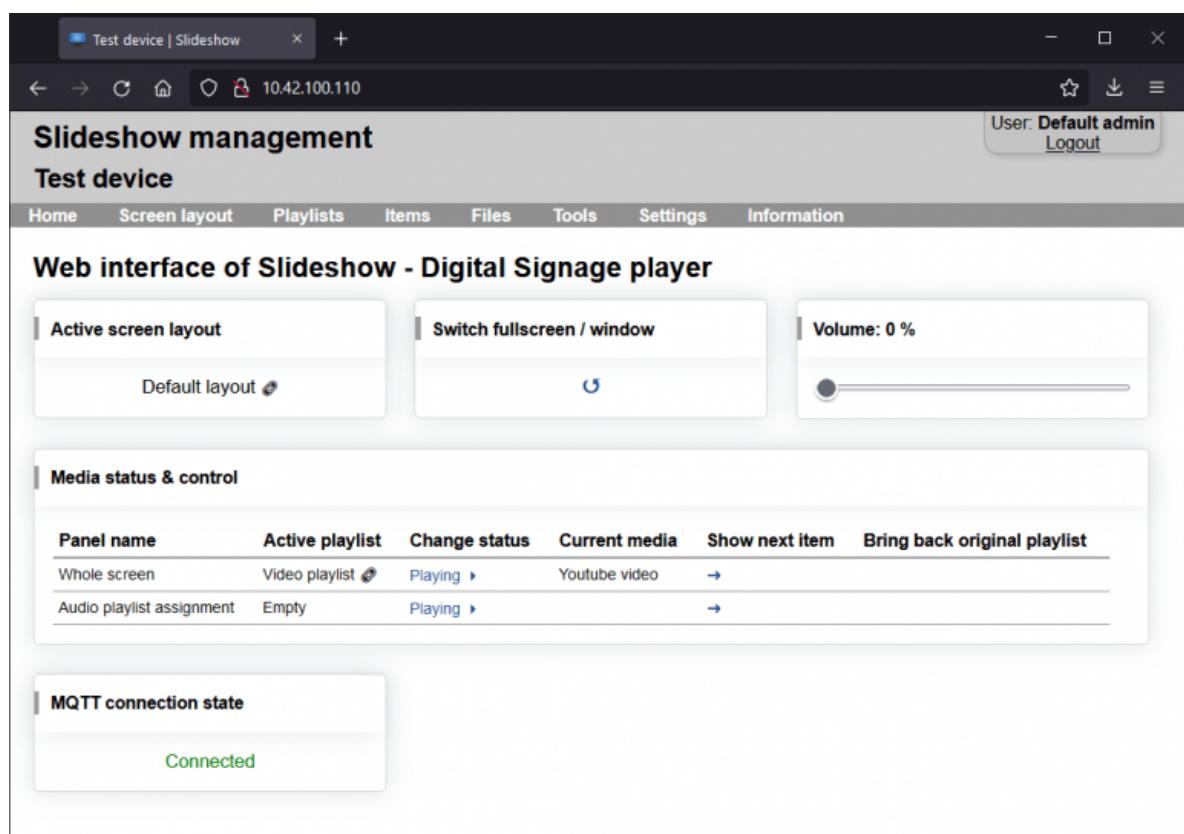


Setting up MQTT in Technovia SLIDESHOW

1. Open the [web interface](#) of Technovia SLIDESHOW app, navigate to menu Settings → Device settings and adjust the following settings and click on Save
 - MQTT server address: URL and port of the cluster, for example `xxxx.s1.eu.hivemq.cloud:8883`
 - MQTT username: from created credentials
 - MQTT password: from created credentials
 - Require TLS for MQTT: yes / checked
 - Report data through MQTT: yes / checked
 - Report playback statistics: yes / checked

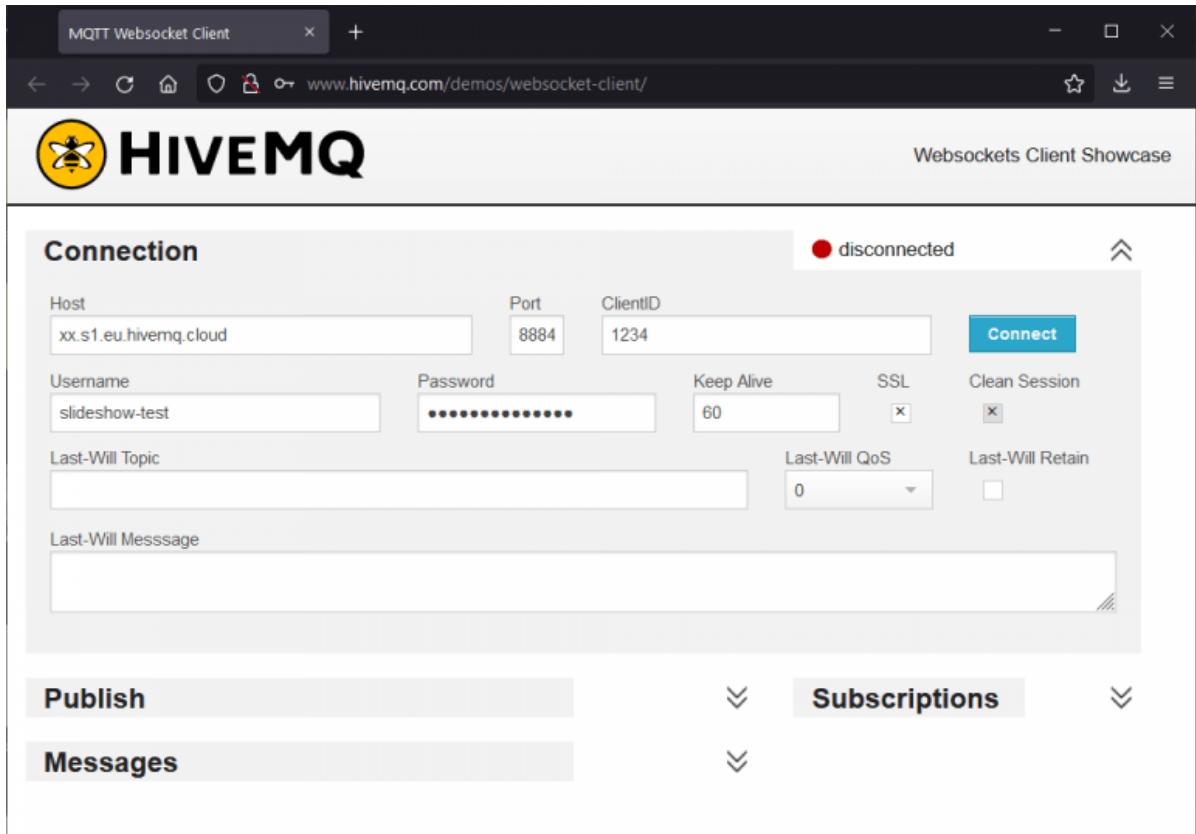


2. Reload Technovia SLIDESHOW via menu Settings → Reboot / reload → Reload application. After logging in back, check whether the MQTT connection state is "Connected" on the home page. If there is any other state, you can check the reason in the logs accessible via menu Information → Log.



Testing the integration

1. For testing the integration, we will use an online MQTT client which runs directly in web browser. Open <http://www.hivemq.com/demos/websocket-client/>, enter the connection details to your MQTT cluster and click on Connect. Make sure to enter the websocket port (usually 8884), as this client doesn't support non-websocket communication.



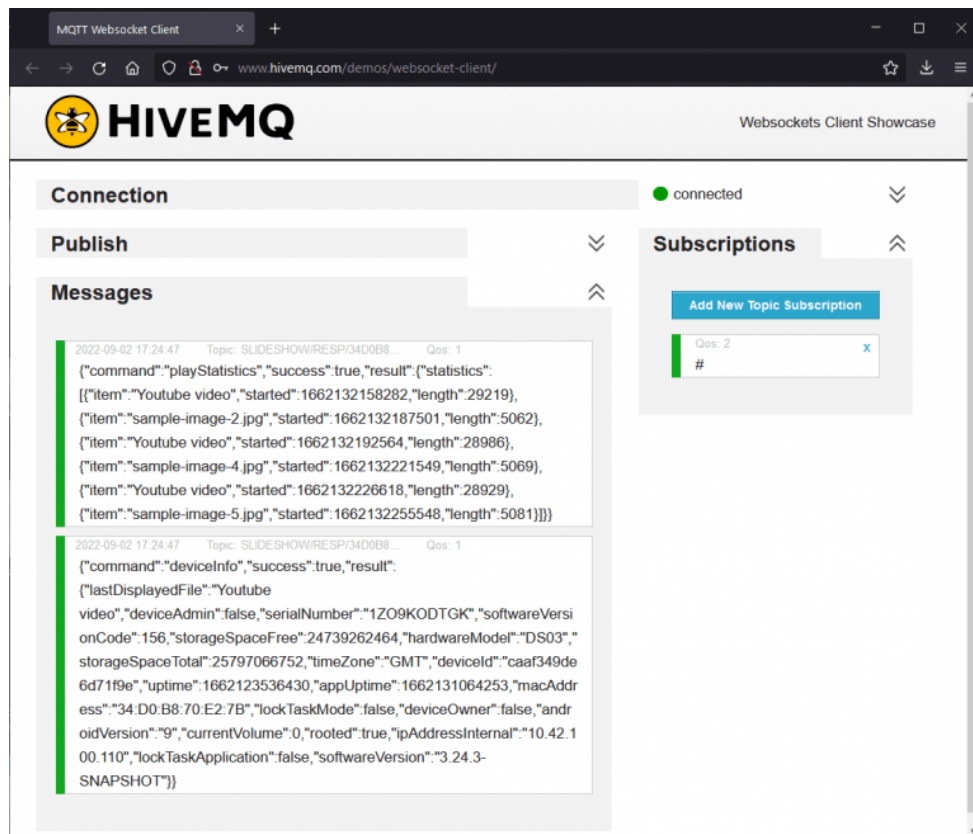
The screenshot shows the HiveMQ Websocket Client interface in a web browser. The browser tab is titled "MQTT Websocket Client" and the address bar shows "www.hivemq.com/demos/websocket-client/". The interface has a header with the HiveMQ logo and the text "Websockets Client Showcase". Below the header is a "Connection" section with a status indicator "disconnected" and an expand/collapse arrow. The connection details are as follows:

Host	Port	ClientID
xx.s1.eu.hivemq.cloud	8884	1234

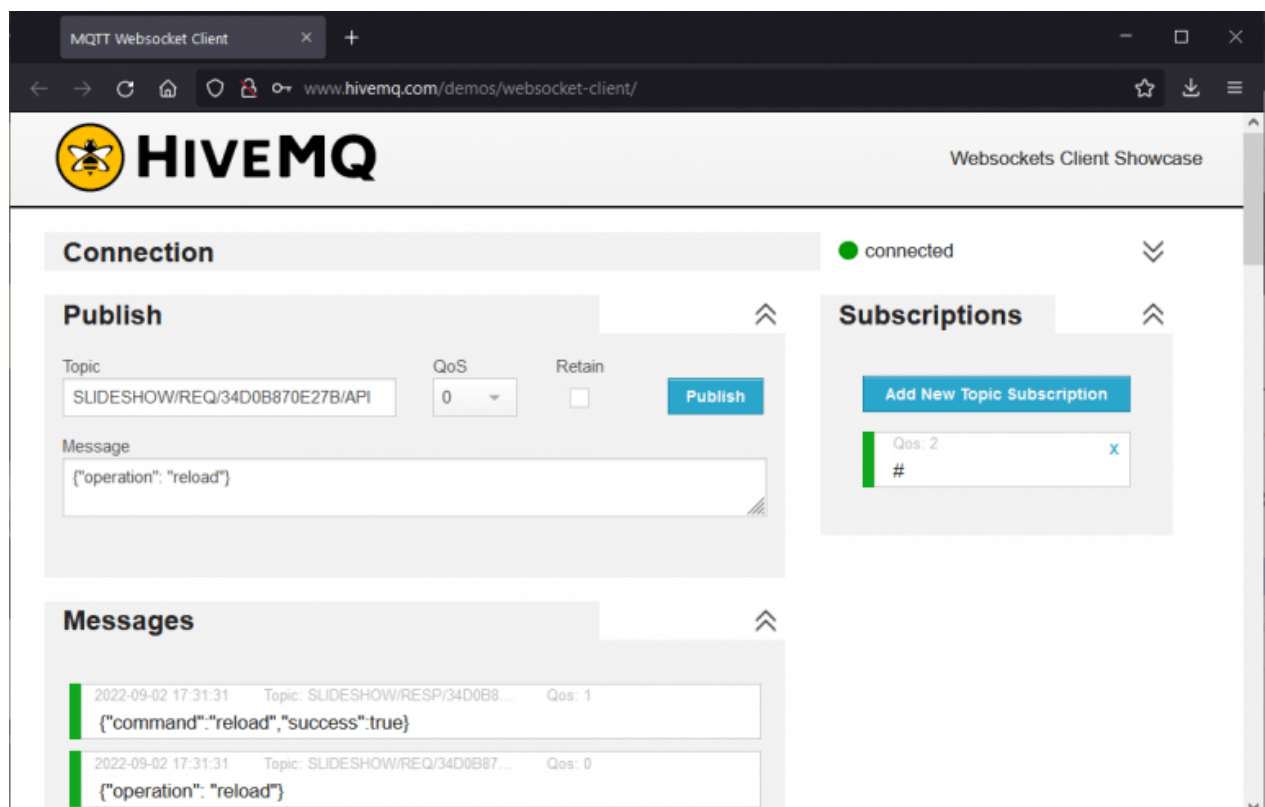
Below the connection details are fields for Username, Password, Keep Alive, SSL, Clean Session, Last-Will Topic, Last-Will QoS, and Last-Will Retain. The Username is "slideshow-test", Password is masked with dots, Keep Alive is "60", SSL is checked, Clean Session is checked, Last-Will Topic is empty, Last-Will QoS is "0", and Last-Will Retain is unchecked. There is also a field for Last-Will Message.

At the bottom of the interface are three expandable sections: "Publish", "Subscriptions", and "Messages".

2. Click on Add New Topic Subscription, enter topic name # and click on Subscribe. This covers all topics created in this cluster.
3. Wait for up to 2 minutes, and you will receive two messages from Technovia SLIDESHOW app in the window, one with statistics about playback and one with information about the device and its status. Both are in JSON format and are computer-readable for subsequent processing.



4. To test a command, you can publish message {"operation": "reload"} to topic SLIDESHOW/REQ/xyz/API, where xyz is the MAC address of your Android device running Technovia SLIDESHOW, all caps, without separators. You will get a success reply, and on the screen of the Android device you will see that Technovia SLIDESHOW app was restarted.



Original technical reference: <https://slideshow.digital/documentation/integration/mqtt/>
Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Open Sound Control

Technovia SLIDESHOW supports receiving commands through [Open Sound Control](#) (OSC) network protocol, which can be used for connecting Technovia SLIDESHOW to various music and video systems.

The set up can be performed via the web interface – menu Settings – Device settings – Open Sound Control (OSC). Reload is required for applying any change in the settings. In OSC controller (e.g. music synthesizer) Technovia SLIDESHOW device should be added using its IP address and the same network port which is entered in Technovia SLIDESHOW settings.

Open Sound Control (OSC)

Enable OSC communication:

☐ ?

OSC protocol:

 ?

OSC network port:

 ?

Commands received from Open Sound Control can be used in Triggers (web interface – menu Settings – Triggers) to set up actions when a particular OSC command is received.

Triggers

You can define triggers, conditions and actions on this page. Debug mode is currently off. [Turn on](#)

Control

Conditions

Logic and math

Actions

Date & time

Text

Serial port

Open Sound Control

Event: Received data from OSC

Condition: Address of message received from OSC = "/beep"

Action: Beep

Event: Received data from OSC

Condition: Address of message received from OSC = "/volume"

Action: Set volume to To number: Argument on position 0 of message received from OSC %

Recording the received messages is possible through the web interface – menu Information – Open Sound Control. This page is available mainly for debugging purposes, to see what messages and arguments Technovia SLIDESHOW received.

Slideshow management

Office player

User: **Default admin**
[Logout](#)

HomeScreen layoutPlaylistsContentFile managerToolsSettingsInformation

Open Sound Control (OSC)

Status: **Started**

Last messages

Below is a list of messages received through Open Sound Control interface, the list is refreshed automatically. Burst messages are not recorded here, maximum one message per second.

Time	Address	Arguments
12:24:59 PM	/n_set	0.: 1000 1.: freq 2.: 10020
12:24:59 PM	/n_set	0.: 1000 1.: freq 2.: 4393.177
12:24:53 PM	/n_set	0.: 1000 1.: freq 2.: 4113.4404
12:24:43 PM	/s_new	0.: javaosc-example 1.: 1000 2.: 1 3.: 0 4.: freq 5.: 440

Original technical reference: <https://slideshow.digital/documentation/integration/open-sound-control/>
Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Hardware suggestions

Picking the right Android device for your digital signage usage is very important, because you usually want it to work properly for a longer time without any necessary maintenance. We prepared a short walk-through, which contains some general recommendations for choosing a good device from the point of view of Technovia SLIDESHOW app, but most of the points are valid also for any other digital signage application.

You won't find suggestions for any particular brands or models here, as we don't want to recommend something we haven't tested personally.

TYPE OF DEVICE

Some of the most common hardware set-ups used with Technovia SLIDESHOW are:

- **Android box or stick** connected to a regular TV via HDMI cable. Majority of the installations use this combination, as it's the most flexible solution. There are many different models available on the market, and it's straightforward to set up and upgrade.
- **Android TV / Google TV**, which combines the previous solution in one device – you have a TV with a special version of Android installed. The number of models available on the market is a little bit lower, and it might take a while to find the right model for you.
- **Android tablet**, which is very useful when you want just a small display. The market with tablets is really huge, so you can pick a device that satisfies your requirements.

HARDWARE RECOMMENDATION

Here are some suggestions what to look for when you are choosing a new Android device for Technovia SLIDESHOW:

- **Android version** – Technovia SLIDESHOW has support for all the way back to Android 5, but not all features are available on this ancient Android version. If you are picking a new device, look for at least Android 9 and newer.
- **Performance** – Technovia SLIDESHOW in its base form isn't a very performance hungry app, it can run without any problems on a single core 800 MHz CPU. However, once you start adding many panels, RSS news with moving text, transitions between images, etc., it may start lagging on slow low-end devices. If you are picking a new device, we would recommend not going lower than quad-core CPU and 2 GB RAM.
- **Graphic performance** – as there are no 3D effects in Technovia SLIDESHOW, raw performance of the device's GPU isn't really important. However, if you are planning to display high-definition videos,

it is important to check which video codecs are supported by the GPU. There is usually no problem with H.264 codec up to 1080p, but 4K H.265 is not supported on some devices.

- **Video output** (*only applicable for box or stick*) – HDMI output port is basically a standard feature. If you have a 4K display, look out for the HDMI version; only HDMI 2.0 and newer will provide you real 4K/60Hz output. Note that HDMI 2.0 only will not guarantee you true 4K output (not upscaled), as you also need a device with 4K framebuffer for that, which is still quite rare.
- **Networking** – connection via wired LAN cable is highly preferred because of the stability, so the software documentation recommends using a box with RJ45 LAN connector. If a wired connection isn't available at the location, look for a box with stable Wi-Fi, external antenna is usually a plus. Unstable Wi-Fi connection can cause a lot of headaches if you are using Technovia SLIDESHOW's web interface, synchronizing files over the internet or playing audio/video streams.
- **Other ports** – depending on your planned usage, you may want to look for a device with enough USB ports (for mouse, keyboard, remote control, USB flash storage) and 3.5 mm audio jack or S/PDIF optical connector (direct output to the speakers instead of sound through HDMI).
- **Storage** – Technovia SLIDESHOW stores all files in the device's memory, even if you are synchronizing the files from web / Google Drive / Dropbox, so it's necessary to have enough memory for all files you would like to display. Remember that some of the storage space will be occupied by Android itself, so for example, if you get a device with 16 GB storage, you may find that only 12 GB is available for your files. For displaying just images and a couple of short videos, a device with 16 GB storage should be enough for you. Large number of long and high quality videos will require large storage. If you don't want to be limited by the internal memory of an Android device, look for a device with a micro SD card slot, as Technovia SLIDESHOW can also use a micro SD card for file storage.
- **Rooted device** – if you pick a device with [rooted Android](#), you can access some extra features in Technovia SLIDESHOW, which are very useful for commercial digital signage.
- **Stability** – this is something you won't find in any specification, but it's crucial for usage as a digital signage device. Many devices on the market are not suitable for 24/7 usage, and they will become unstable after some time, often getting stuck or rebooting. If you are planning larger deployment of devices for digital signage, remember to thoroughly test the device first.

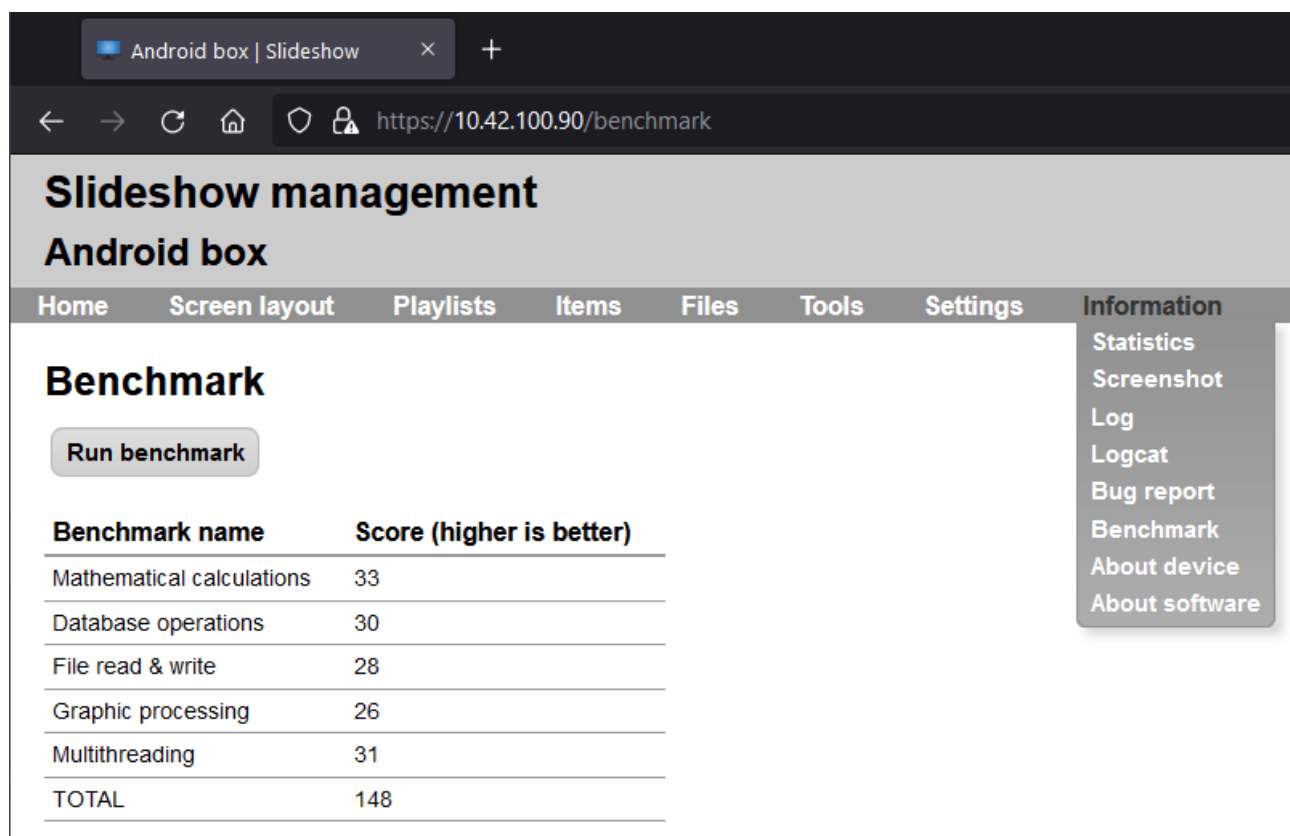
Original technical reference: <https://slideshow.digital/documentation/hardware/suggested-hardware/>

Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Benchmarks

Technovia SLIDESHOW contains a simple hardware benchmarking feature. You can find it via web interface → menu Information → Benchmark. The usage is pretty straightforward, just click on the Run benchmark button, wait for a few tens of seconds (depending on your device performance), and you will get a score which represents the hardware performance of the device currently running Technovia SLIDESHOW app. The entire benchmark runs in the background, you won't see anything on the screen, just the results in your browser afterward.

The tests are designed to cover different kinds of workloads used in Technovia SLIDESHOW app, to give you estimates of how well the device should perform in real life. Included are mathematical calculations, database operations, reading and writing files in storage, graphic processing and multi-threading tests. You can compare the results across various devices to find out which one has the best performance.



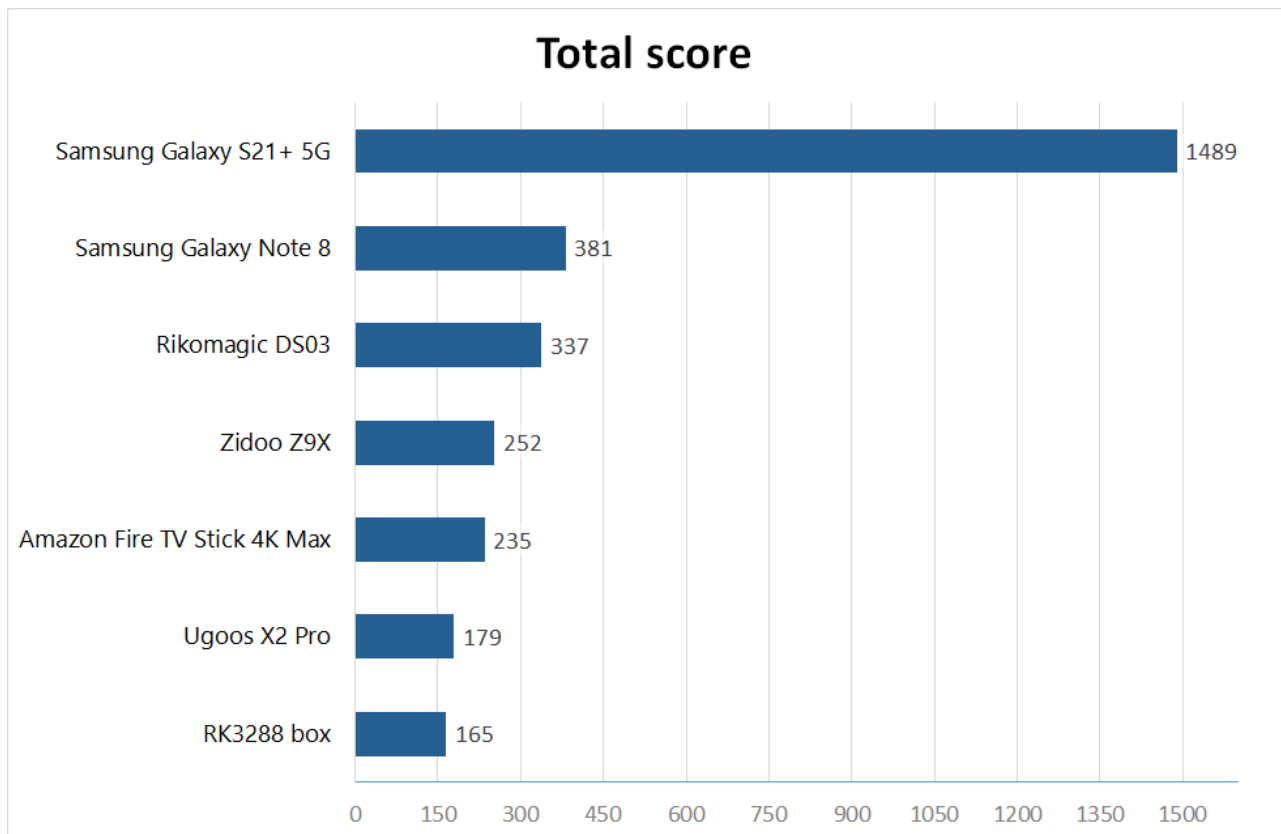
The screenshot shows a web browser window with the address bar displaying `https://10.42.100.90/benchmark`. The page title is "Slideshow management" and the sub-header is "Android box". The navigation menu includes "Home", "Screen layout", "Playlists", "Items", "Files", "Tools", "Settings", and "Information". The "Information" menu is open, showing options: "Statistics", "Screenshot", "Log", "Logcat", "Bug report", "Benchmark", "About device", and "About software". The main content area is titled "Benchmark" and features a "Run benchmark" button. Below the button is a table with benchmark results.

Benchmark name	Score (higher is better)
Mathematical calculations	33
Database operations	30
File read & write	28
Graphic processing	26
Multithreading	31
TOTAL	148

Benchmark page with results

If you want to compare the results from your device with some baseline, you can find results from the devices we are using for testing below. All tests were run while Technovia SLIDESHOW was displaying just a single picture on the screen, to rule out any other background load that could skew the results.

Model	RK3288 box	Ugoos X2 Pro	Amazon Fire TV Stick 4K Max	Zidoo Z9X	Rikomagic DS03	Samsung Galaxy Note 8	Samsung Galaxy S21+ 5G
SoC	Rockchip RK3288	Amlogic S905X2	MediaTek MT8696	Realtek RTD1619DR	Rockchip RK3399	Exynos 8895	Exynos 2100
CPU	4x ARM Cortex-A17	4x ARM Cortex-A53	4x ARM Cortex-A53	6x ARM Cortex-A55	2x ARM Cortex-A72 + 4x ARM Cortex-A53	4x Mongoose M2 + 4x ARM Cortex-A53	1x ARM Cortex-X1 + 3x ARM Cortex-A78 + 4x ARM Cortex-A55
RAM	2 GB	4 GB	2 GB	2 GB	4 GB	6 GB	8 GB
Android version	7.1.2	9	9	9	9	9	12
Mathematical calculations	30	49	45	42	83	99	440
Database operations	34	45	43	29	64	76	245
File read & write	33	22	28	19	45	48	50
Graphic processing	30	20	23	18	42	48	171
Multithreading	38	43	96	144	103	110	583
TOTAL	165	179	235	252	337	381	1489



Original technical reference: <https://slideshow.digital/documentation/hardware/benchmarks/>
Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Root on Android

While Technovia SLIDESHOW works without any problems on non-rooted Android devices, there are a couple of extra features which are available only on rooted devices, mostly due to security restrictions of Android.

If you are not familiar with the concept of rooted Android, you can find out more for example on [https://en.wikipedia.org/wiki/Rooting_\(Android\)](https://en.wikipedia.org/wiki/Rooting_(Android)).

Here is list of Technovia SLIDESHOW's extra features available only on rooted devices:

- **Web interface on port 80** – Technovia SLIDESHOW's web interface is available by default on port 8080 on non-rooted devices and port 80 on rooted devices (the default HTTP port). Similar situation is with HTTPS (port 443 on rooted, 8443 on non-rooted) and FTP (port 21 on rooted, 8021 on non-rooted). The reason is that ports below 1024 are restricted only to system apps on non-rooted devices. All these ports can be changed in Technovia SLIDESHOW's settings.
- **Update app remotely** – on rooted device, you can upload an APK file with a new version of Technovia SLIDESHOW via web interface, menu Settings → Application update, or synchronize it via Google Drive / Dropbox / HTTP server / USB flash drive with the help of the setup.csv file.
- **Possibility to reboot the whole device remotely** – Technovia SLIDESHOW can trigger the system reboot on rooted devices, either by clicking on a button via menu Settings → Reboot / reload, or by setting Reboot time (watchdog) in Settings → Device settings.
- **Possibility to setup Technovia SLIDESHOW as a device owner and administrator** through menu Settings → Device administrator.
- **Set device's bootanimation to Technovia SLIDESHOW logo**, via menu Settings → Device settings → button Set bootanimation on the bottom.

On many Android versions, even if your device is rooted, you will be asked whether you want to allow root (or superuser) access for Technovia SLIDESHOW on the app's first start. You might also want to turn off notification every time Technovia SLIDESHOW uses the root access, usually through an app called SuperSU.

BE CAREFUL WHEN ROOTING

Rooting Android by yourself may damage your device and/or void the warranty. Be careful!

Amazon Fire TV Stick 4K Max

OTHER HARDWARE REFERENCE

This is the original Slideshow developer's review or setup note for the named third-party hardware. Specifications, test results and historical prices apply to that hardware and test date, not to the Technovia stick.

Over the past years, we have received multiple questions regarding the compatibility of Slideshow with various Amazon Fire TV products. We knew it worked together, as Slideshow app was approved on [Amazon Appstore](#). However, we were curious how good the compatibility is, whether there are any features that could be enhanced and whether we should recommend the Fire TV series to users of Slideshow.

We decided to get the newest stick from Amazon called [Fire TV Stick 4K Max](#), which was released in October 2021. We ordered it directly from [Amazon.de](#) for a total of 61.47 EUR (including delivery), and we received it 9 days after placing the order (it was right before Christmas, so the longer delivery time was expected).

SPECIFICATION

- **CPU:** MediaTek MT8696 SoC, four ARM Cortex-A53 cores (64 bit), 1.8 GHz
- **GPU:** PowerVR IMG GE9215
- **RAM:** 2 GB DDR4
- **Internal storage:** 8 GB (about 4.2 GB is accessible for data)
- **HDMI output:** HDMI
- **Network connectivity:** WiFi 802.11b/g/n/ac/ax
- **Power supply:** 5.25V/1A DC adapter
- **Operating system:** Fire OS 7.2.5.5 (based on Android 9, modified by Amazon)

By default, there is no expansion option, the stick is without a microSD card slot and there is only one micro USB connector, which has to be used for power supply. If you want to expand the connectivity, you can buy a [special adapter](#) for wired LAN connection or a USB splitter for connecting a USB Flash drive, mouse or keyboard.

UNPACKING

Content of the package:

- Amazon Fire TV Stick 4K Max
- Remote control
- Power adapter (5.25V / 1A) with USB A port
- 1.5 m USB A – Micro USB cable
- 10 cm HDMI extender (female – male)
- 2x AAA battery for the remote control
- Manuals

We were quite disappointed to see Micro USB cable (instead of USB-C) and only 1A power adapter. 5W of power is apparently enough for the Fire TV Stick, but it would be nice to be able to reuse the power adapter for more power-hungry devices as well.

We initially used a different power adapter, but after getting a "Insufficient USB power detected" message, we switched to the bundled power supply.



Content of the box

FIRST START

After plugging the Fire TV Stick in for the first time, we were greeted with the first-time setup consisting of several steps:

1. Remote control pairing – just press a button on the remote control
2. Choose language from 12 available languages (with multiple regional variants)
3. Connect to WiFi network
4. Check for new firmware (our Fire TV Stick automatically upgraded to the newest firmware available, it took just a couple of minutes)
5. Sign in with your Amazon account, without any option to skip this step – sign-in is mandatory. Even if you deregister this device from your account later, you are immediately forced to register it on another account. You don't have to enter the entire username and password using the remote control, just login to the Amazon account from your computer or smartphone and enter the code displayed by Fire TV Stick.
6. Option to activate the parental control
7. Enter the TV brand for remote control setup (for example, for controlling the volume). There is a huge number of brands available, but scrolling takes a lot of time. We didn't find a way to skip this dialog in case you are using a screen without IR remote control (e.g., regular PC monitor).
8. Offer for Prime free trial for 30 days
9. Choose a profile (who is currently watching)

SOFTWARE

Operating system of Fire TV Stick is Fire OS 7, which is heavily modified Android 9. From the first moment you can see that this device is focused on movie playback, you are greeted with a home screen containing ads for the newest movie on Prime Video.

Only a few apps are preinstalled on the stick:

- **Prime Video** – app for watching movies and series from your Amazon Prime Video subscription.
- **Amazon Music** – app for streaming music, very similar to Spotify. Works also in background, while using another app.
- **Silk browser** – regular web browser based on Chromium. Entering URLs through the on-screen keyboard is really slow, using voice recognition is much faster, but it's problematic for non-English website names.

You can install additional apps through Amazon Appstore, which acts as a replacement for Google Play store. The number of apps available is nowhere near the number of apps on Google Play and the quality is often quite disappointing. If you would like to play a little bit with the stick and try various apps, you will probably need to install two apps first:

- **Downloader** app, which lets you sideload APK files for apps which are not available in Amazon Appstore
- **Mouse Toggle for Fire TV** app to simulate a mouse on the screen, which is usable for apps that require mouse or touch for control

There is no preinstalled app for playing videos or music from your local storage, you can install them from Amazon Appstore or download through Downloader. The stick is not rooted by default. Developer options can be activated, but they contain only two settings: ADB debugging and Install of unknown apps, so the room to adjust various settings is pretty limited (not necessarily a bad thing, given the focus of the device). According to [a thread on XDA developers forum](#) the stick can be rooted, but the process includes disassembling the device and shorting some pins, so it's definitely not something you will do on a regular basis.

Home screen Home screen

Amazon Appstore Amazon Appstore

Silk Browser Silk Browser

PERFORMANCE

While navigating the user interface of Fire TV Stick, it was always responsive and fast.

To get some objective performance comparison with previously tested devices, we wanted to run Geekbench 4.4 and AnTuTu 8.5.3 benchmarks on the stick. While we managed to get results from Geekbench with the help of Mouse Toggle app (no way to navigate through the app without mouse), we were unable to run AnTuTu benchmark as it was always asking for permission to access the phone (no such thing on Amazon Fire TV Stick).

The results in Geekbench are slightly above Rockchip RK3288, we consider it as-expected for a tiny, fanless and quite inexpensive stick. It has enough performance for all the expected tasks – media playback and light web browsing.

Despite having only an integrated WiFi antenna, the network connection was stable all the time. Average transfer speed to AX3600 access point across 5 meters and a single wall was around 150 Mbps, which is more than enough even for 4K streaming. After moving the stick closer to the access point (approximately 1 meter) the speed rose to an impressive 300 Mbps.

MEDIA PLAYBACK

There are Prime Video and Amazon Music apps preinstalled on the Fire TV Stick, with quite a big offer of movies, series and music. Of course, a monthly subscription is needed for playback and even the trial requires entering a credit/debit card number, with automatic billing in case you forget to cancel your subscription within a trial period.

Both Prime Video and Amazon Music offer an automatic trial after you subscribe and enter your card details. Amazon Music worked without any problem, we entered the card details on our computer while signed in on the same Amazon account as on the stick, and afterward we could immediately start listening to the music. There were more problems with Prime Video, at first it accepted the same card as Amazon Music, but then displayed an error "We were unable to process your payment". Reentering the card didn't help and without an accepted card, we were unable to activate the Prime Video account in any way. We suspect the problem might be with 3-D secure payment verification, which is required by all local banks, but probably not completely supported by Amazon.

There is no other video player preinstalled, so if you would like to watch offline content, you will have to download another player from Appstore. We can highly recommend [VLC for Fire](#), which lets play content from the local storage, or easily mount a network storage. Playback of 4K videos in both H.264 and H.265 format was smooth, hardware decoding was working without any problem.

You can also install Netflix and Apple TV apps from Appstore, if you have a subscription to these services.

INSTALLATION OF SLIDESHOW

Slideshow can be installed on the Fire TV Stick in three ways:

- From Amazon Appstore on your computer, open <https://www.amazon.com/Milan-Fabian-Slideshow-Digital-Signage/dp/B089J4ZTQY>, click on the Deliver button on the right side (you have to be logged in with the same Amazon account as on your stick). The app will be delivered to the device in about a minute and you can launch it afterwards
- From Amazon Appstore on the stick, open Appstore application and search for "Slideshow Digital Signage". Select the blue logo of Slideshow app and click on Download.
- Using Downloader app (<https://www.amazon.com/AFTVnews-com-Downloader/dp/B01N0BP507>), navigate to <https://slideshow.digital>, click on Get started in the menu and Download. Downloader will start the installation automatically.

The easier (and preferred) method is through Appstore. We suggest using Downloader app only if you want the upgrade immediately to the newest version of Slideshow (as the approval process in Appstore might sometimes take a week) or if you are installing a branded version of Slideshow.

Installing Slideshow through browser on a computer Installing Slideshow through browser on a computer

Installing Slideshow through Appstore on the device Installing Slideshow through Appstore on the device

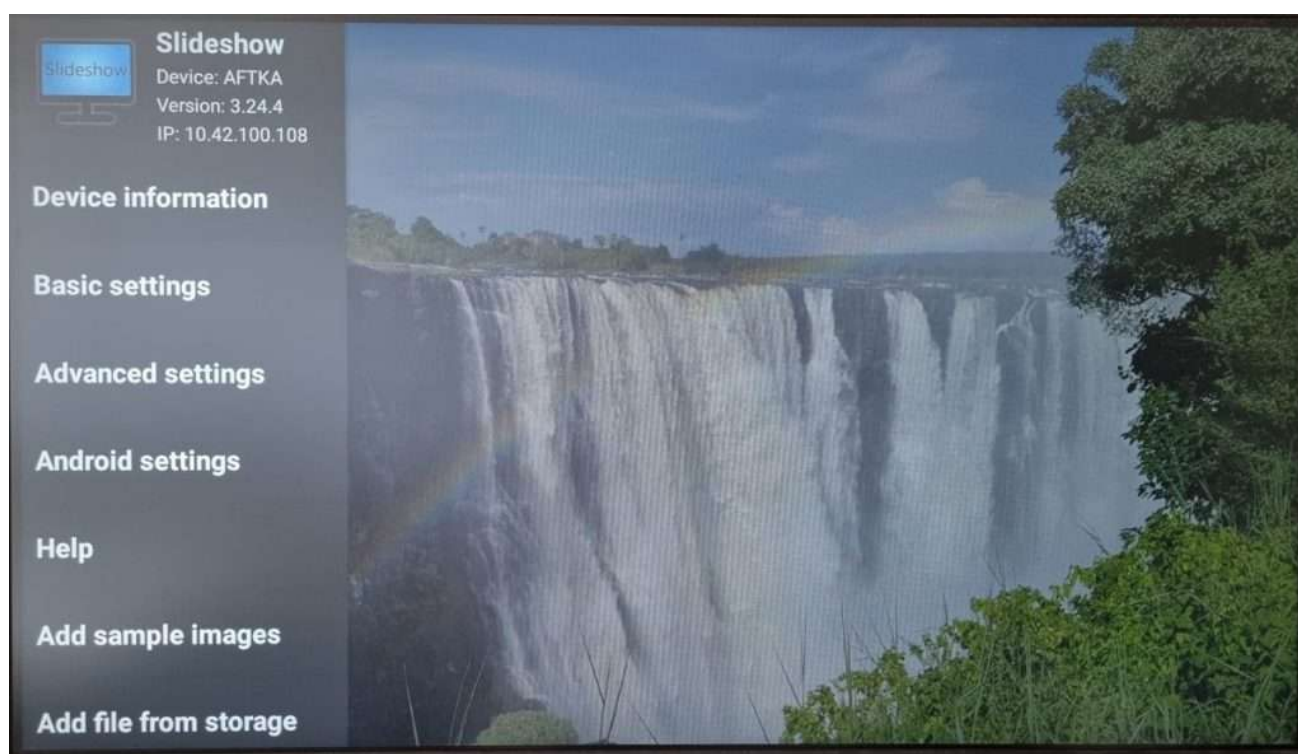
Installing Slideshow through Downloader app Installing Slideshow through Downloader app

First start

After starting Slideshow on Fire TV Stick for the first time, the app will ask you for permission to access the media and files on your device. Without granting this permission, Slideshow can't work, as it needs access to the files it should be displaying.

After Slideshow app loads, you can start adding files. As there is no free USB port left on the stick, we suggest uploading the files from the web browser on your computer through Slideshow's web interface; you can find its address on the screen after startup.

If you would like to open the on-screen menu, you can do so by pressing the menu button on Fire TV remote control. Using option "Add file from storage" from the on-screen menu unfortunately doesn't work properly on Amazon devices, as there is no way to navigate in the following system dialog (reported to Amazon without reply, sadly).



Slideshow on Amazon Fire TV Stick 4K Max

Usage

Video decoding is without any problems, even combination of 4K videos and video preloading (for minimal lag between videos) works fine. We tested various high-bitrate H.264 and H.265 videos, it successfully played the highest bitrate we could find – 250Mbps H.264 4K video and 400Mbps H.265 4K 10bit video. We were honestly impressed, the hardware video decoding was really impressive, as the supported bitrate is over 10 times more than what you can possibly need in real life.

The only video we could find that wasn't played lag-free was a 4K video encoded in AV1 codec. While FullHD AV1 was without problems, 4K AV1 was visibly laggy. As this codec is still quite new and not at all common in digital signage media, we don't consider this a problem. Even support for FullHD AV1 decoding is much more than what you usually get in a 60 EUR device.

While the video decoding was a positive surprise, support for a **4K output** was a little bit of a negative surprise. Similar to the most Android devices claiming 4K support, it has only Full HD internal framebuffer and 4K support is valid only for video playback, meaning you can play 4K videos, the TV will display it as 4K, but images and graphics will be processed in lower resolution. Moreover, the 4K output is available only on devices that support HDCP 2.2. So if you have a special display with HDMI 2.0 4K input, but without HDCP 2.2, the stick will lock its output in Full HD. We understand why Amazon would lock it for their video content (HDCP is used for protecting the content from being copied), but we don't know why they locked it for other apps as well.

Little bit surprising was the fact that it is not possible to directly control the **audio volume** output of the stick, it always plays on the maximum volume. Volume keys on the remote control are used for controlling your TV's volume via HDMI-CEC, not stick's volume. That means that if you have a screen without HDMI-CEC support, you will have to manage the volume directly on that screen. Changing the volume using the slider on the home page of Slideshow's web interface doesn't work at all on Fire TV Stick.

Although the raw **performance** of the CPU in the stick is much lower than what you get in high-end smartphones, it still has enough performance for all computing-intensive tasks, such as transitions between images and scrolling RSS news.

Fire TV Stick 4K Max is marketed as with 8 GB **internal storage**. Part of the storage is reserved for the system, the partition for user files has 5 GB, from which there was about 4 GB free after first startup of Slideshow (the rest was occupied by other apps and their data). That might be enough for many marketing slides and clips, but don't expect to be able to upload high-quality hours-long video, it won't fit there. As there are no easy ways to expand the internal storage, it is a pity that they didn't put larger storage in the device.

As for the **automatic start** of Slideshow after the stick boots, you can set it up by checking "Start at system boot" in Basic settings in the on-screen menu. Slideshow will claim that a system permission is needed, but this permission is not present in Amazon's version of Android, so in reality, it is not needed. With the "Start at system boot" option turned on, Slideshow will automatically start a few seconds after the device loads. Setting Slideshow as Launcher app is not possible, Amazon doesn't allow changing the Launcher app on its devices at all.

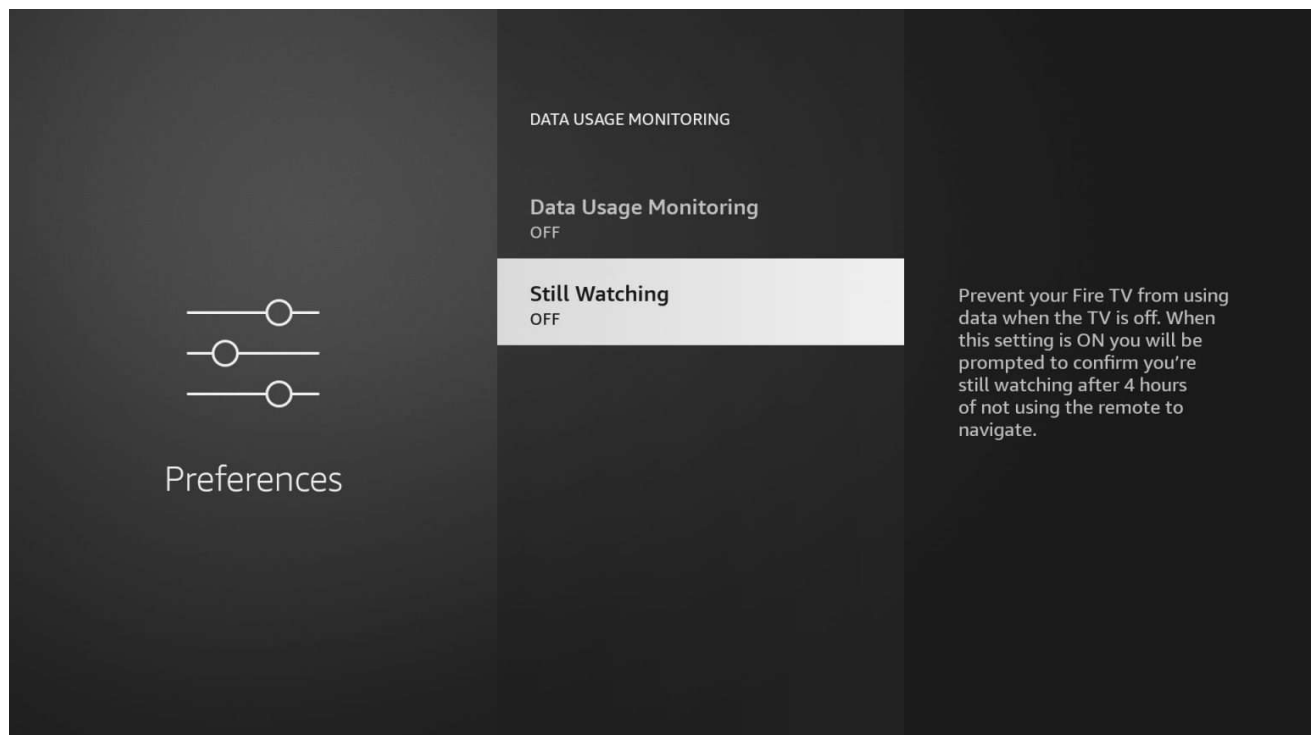
As the stick is **not rooted**, some of Slideshow's extra features, such as remote app update or remote reboot, can't be used at all.

Still Watching popup

With the recent firmware update on Amazon Fire TV devices, you might have noticed a rise in the number of times a popup asking whether you are still watching the TV is displayed. Alternatively, you simply find your screen going blank with the device in sleep mode. The pop-up is displayed if there is no remote control activity for 4 hours and shortly afterward the device is put to sleep automatically.

This is, of course, not wanted for Digital Signage screens, which should be up and running for hours without any popups. Fortunately, there is a quick and simple fix for this.

1. Go to Settings on your Amazon Fire TV device
2. Select Preferences
3. Select Data Usage Monitoring
4. Change Still Watching to Off



Turn off Still Watching on Amazon Fire TV Stick

CONCLUSION

Amazon Fire TV Stick 4K Max is heavily centered around the Amazon ecosystem. If you would like to watch movies from Amazon Prime video and listen to the music from Amazon Music without much setup, then this is the right device for you. If you are looking for a gadget to play with, you will find yourself quite limited with the software and expansion options of this stick.

Overall, digital signage playback on Amazon Fire TV Stick 4K Max using Slideshow app was smooth, the device was stable over multi-day testing. For 40-60 EUR (depending on the availability, country and shipping) you get a smart device which can be easily used with your TV or display.

Although there are a few negative points, in general we can recommend Amazon Fire TV Stick 4K Max as a stable long-term Digital Signage player for Slideshow app. It can be bought directly from [Amazon](#).

- ⊕ Fast first setup
- ⊕ Small & inexpensive
- ⊕ Good integration with Amazon services

- ⊕ 4K video output
- ⊕ Impressive video decoding capabilities
- ⊕ Stable

- ⊖ No way to use without an Amazon account
- ⊖ Amazon Appstore is not as good as Google Play Store
- ⊖ Low expansibility (adapter needed even for an USB port)
- ⊖ Only 4 GB of storage available for files
- ⊖ Operating system has its specifics compared to clean Android OS
- ⊖ 4K support is limited to videos only and with HDCP 2.2 displays

Original technical reference: <https://slideshow.digital/documentation/hardware/hardware-reviews/amazon-fire-tv-stick-4k-max/>
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Mekotronics R58X box

OTHER HARDWARE REFERENCE

This is the original Slideshow developer's review or setup note for the named third-party hardware. Specifications, test results and historical prices apply to that hardware and test date, not to the Technovia stick.

We received a very interesting Android box for testing Slideshow app – [Mekotronics R58X](#). At the first moment we noticed a number of ports, which are not very usual on Android boxes, mainly DisplayPort, HDMI input, USB-C, analog audio in/out and RS232. We decided to test this device a little bit more and to share our findings with you.

SPECIFICATION

- **CPU:** Rockchip RK3588, 4x ARM Cortex-A76 + 4x ARM Cortex-A55, 64-bit, up to 2.5 GHz
- **GPU:** ARM Mali G610 MP4
- **RAM:** 4 GB
- **Internal storage:** 32 GB (about 23 GB is accessible for data)
- **Video output:** 1x HDMI, 1x DisplayPort
- **Network connectivity:** 2x Gigabit LAN, WiFi 6 (2.4 GHz + 5 GHz, 802.11b/g/n/ac/ax)
- **USB:** 1x USB A 3.0, 2x USB A 2.0, 1x USB C
- **Audio:** 3.5 mm jack input, 3.5 mm jack output (audio output also possible through HDMI)
- **Other connectors:** HDMI input, RS232 + RS485 pins
- **Power supply:** 12V DC adapter
- **Operating system:** Android 12 (rooted)
- **Dimensions:** 18.6 x 10.4 x 2.9 cm

HARDWARE

The box feels really sturdy, with aluminum housing, ready for light industrial usage as well. It has perforated top side for better cooling (passive only, fortunately no fan). The edges of the housing can get scratched quite quickly (as you can see on the pictures below), overall the exterior of the box fits more for commercial / industrial usage than as a media box in the living room.

Front side of the box has a power button, with a short press you put the device to sleep, with a long press you will get a dialog for power off / restart, similar to how the power button on Android phones work.

Additionally to the ports you can see on the pictures below there are two SATA 3 ports and a M.2 PCI-Express slot inside the box, but they are impossible to reach without completely disassembling the box.



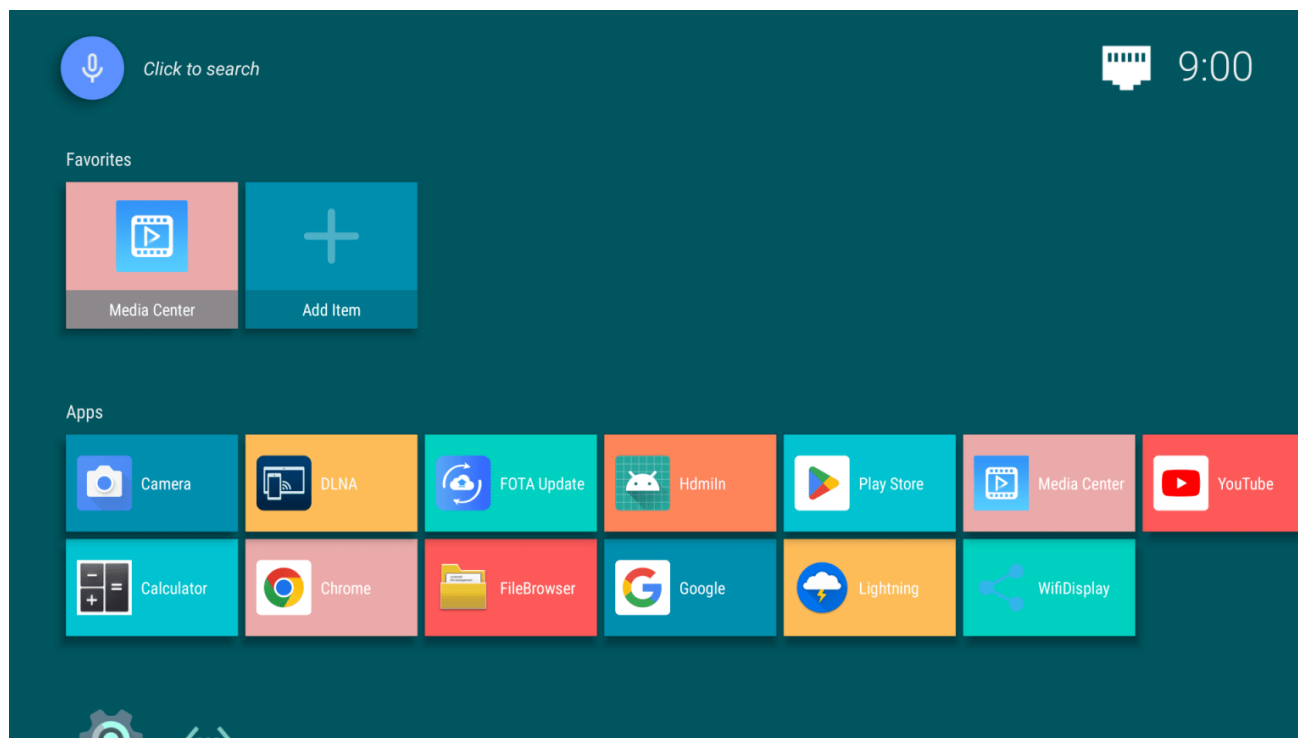
SOFTWARE

The box is running rooted Android 12 (released in October 2021), which is quite positive news compared to the fact that many other Android boxes in stores are running on older versions of Android. The actual firmware at the time of testing (November 2022) was from 26 August 2022.

There are just a few basic apps preinstalled, like Chrome browser, File browser, Calculator and Media Center. The Media Center app is just an extremely simple video player. The lack of other apps can be viewed as good if you don't like any bloatware, but if you would like to use the box as a media center, you will have to install some more apps. Google Play Store is pre-installed, so you can just log in and download apps you like.

Some issues were found during testing Android 12 on this box with Slideshow app and although responses from Mekotronics support were fast, they weren't able to offer satisfactory solutions to the software issues (more details).

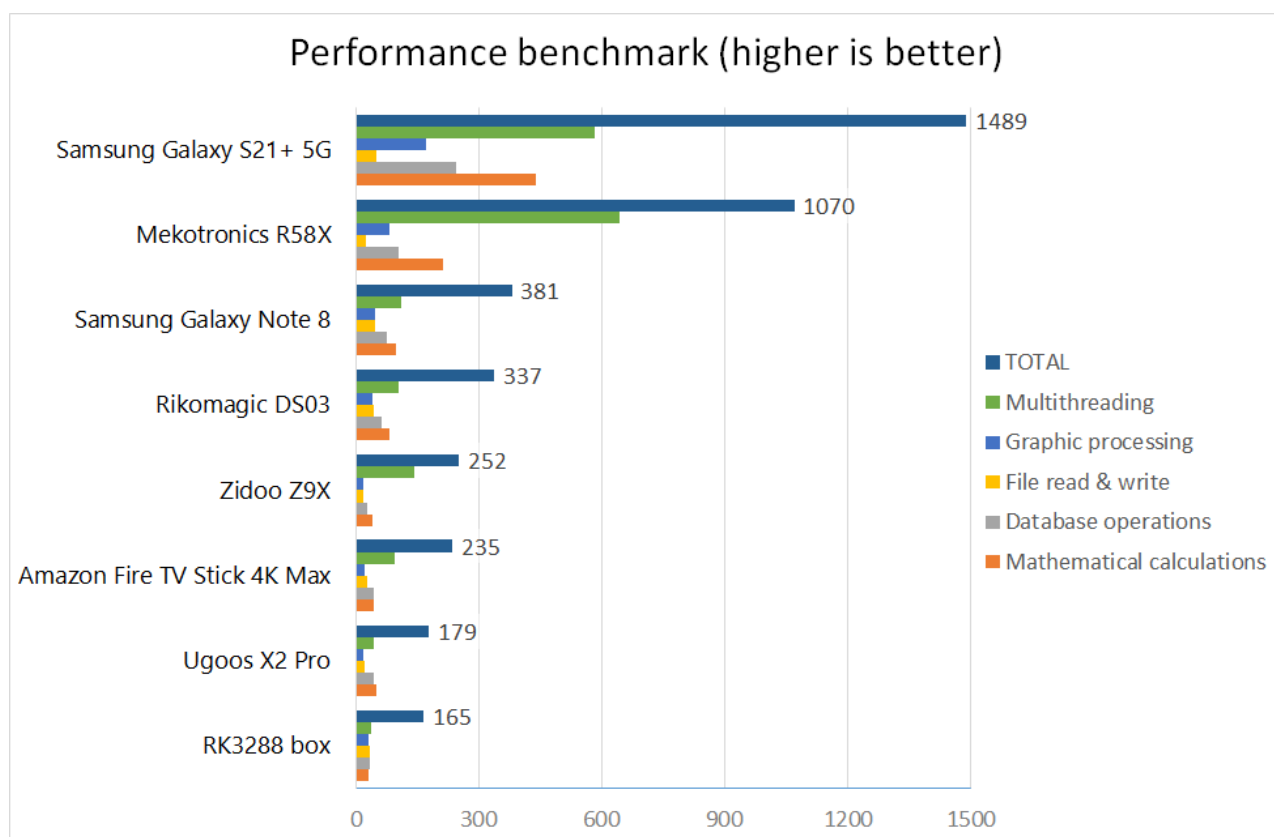
The manufacturer is offering [firmware](#) with Ubuntu and Debian Linux distributions as well, so it is possible to replace Android OS, but we haven't tested it, as we focus on Android.



Home screen of Mekotronics R58X with pre-installed apps

PERFORMANCE

There were no performance problems while using the user interface or any app, the octa-core CPU has a lot of raw power. We benchmarked it using the integrated benchmark in Slideshow app, just to get a sense of the overall CPU performance. It scored several times more than any previous Android box and just below Samsung Galaxy S21+ phone, although it even beat it in multi-threading score.



Benchmark of Mekotronics R58X against other Android devices

VIDEO PLAYBACK

Manufacturer claims hardware accelerated video decoding support for many formats, including H.264, H.265 (up to 8K) and AV1 (up to 4K). We tested several formats, bitrates and resolution, the box played every video smoothly, including H.265 video with 400 Mbps bitrate and 8K video.

NETWORK CONNECTIVITY

The box has two Gigabit RJ45 LAN ports, both of them light up when you attach a cable, but only LAN1 port is visible in the Android settings. LAN2 port is not directly visible in Android settings and it doesn't receive any IP address from the DHCP server. We managed to enable the second port manually via commands entered to the shell console and it actually worked for a while, but as soon as we unplugged the cable from LAN1 port, LAN2 port stopped working as well (although its cable was still connected). File transfer speed using LAN1 port was around 848 Mbps (106 MB/s), so it was working correctly in Gigabit mode.

When we tried connecting the box to a Wi-Fi network, we were getting messages "Could not find SSID" at first, although I just picked the network from a list of scanned networks. Only after we unplugged the cable from LAN port, it connected successfully. The signal across a single wall was quite weak (even with

two larger antennas), the real file transfer speed was around 20 Mbps (2.5 MB/s). At first I thought the antennas were not connected correctly, but when I removed them the speed dropped even more, so I guess they were connected correctly and the WiFi is just that bad.

To sum up, there are three network interfaces, only two of them work, only one at the time and WiFi speed is unusable for video streaming. While it is not a deal breaker for some setups, it's a pity that it is not possible to have two simultaneous connections, for a failover scenario.

AUDIO AND VIDEO OUTPUT

Mekotronics R58X has two video outputs: HDMI and DisplayPort. They can be used also at the same time, but only for image mirroring, not for separate content for each output. Still, it can be useful for sending the same content to two screens, at least you don't have to buy a separate HDMI splitter.

One of the best features of this box is that it has native 4K framebuffer (resolution 3840 x 2160 px), meaning it renders all content directly in 4K (not just videos, as it is common with other boxes). No additional setup is needed, the box will always report the framebuffer resolution as 4K and only the video output (HDMI or DisplayPort) will be scaled up/down according to the output resolution.

There is 3.5 mm jack analog audio output for speakers, the quality is a little bit sub-par (audibly worse than analog audio output of a mid-range laptop), we suggest sticking with audio through HDMI output. Audio is always played on both 3.5 mm jack and HDMI, there is no need for special setup or configuration.

HDMI INPUT

We were really looking forward to testing HDMI input after our experience with Zidoo Z9X. There is HdmInn app preinstalled, but with really limited options, it just shows the image from the HDMI input. The stability of the app is really bad, we got it working (with a picture on the screen) maybe in 1 out of 3 tries, the other times there was just a black screen. In contrast to Zidoo Z9X, Mekotronics R58X doesn't show the HDMI input as a virtual camera, so any third party app that would want to use HDMI input on this box would have to use their private API.

CONCLUSION

The hardware characteristics of Mekotronics R58X looks excellent – it has plenty of performance and many I/O ports for extensions. However many of the I/O ports are simply unusable in real life due to lack of proper software support.

The box is targeted for commercial usage, it's definitely not for non-technical users. If you need just a regular Android box with wired LAN connection, it will work perfectly, there were no stability issues during multi-day testing. However if you would like to use any of the extra features, be prepared to get in touch with their support.

- ⊕ Rooted Android 12 operating system
 - ⊕ Very good CPU performance
 - ⊕ Native 4K support with 4K framebuffer
 - ⊕ No problem with hardware accelerated video decoding

 - ⊖ HDMI input doesn't work reliably
 - ⊖ Only one network interface works at any time
 - ⊖ Poor WiFi performance
-

Original technical reference: <https://slideshow.digital/documentation/hardware/hardware-reviews/mekotronics-r58x/>

Original documentation © 2026 Milan Fabian. Adapted for Technovia.

BenQ Smart Signage displays

OTHER HARDWARE REFERENCE

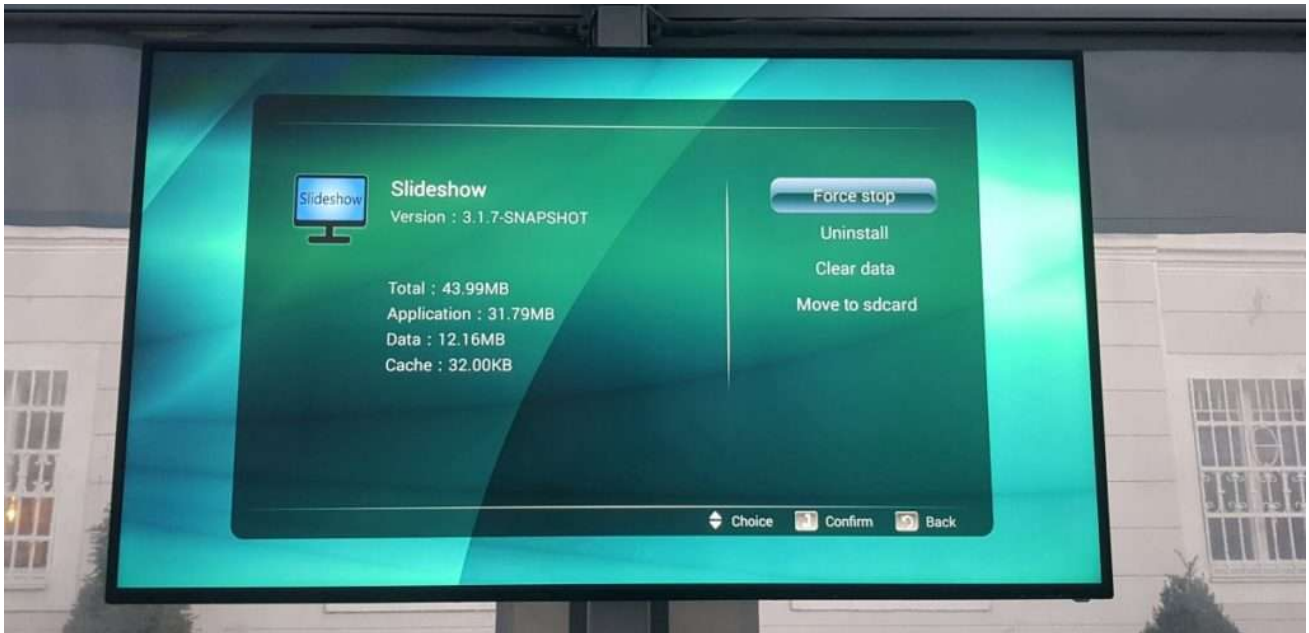
This is the original Slideshow developer's review or setup note for the named third-party hardware. Specifications, test results and historical prices apply to that hardware and test date, not to the Technovia stick.

Slideshow software can be used as a replacement for built-in X-Sign software used on BenQ [Smart Signage displays](#) ST550K / ST650K / ST750K.

X-Sign is cloud-based digital signage software by BenQ, which is preinstalled on these screens. However, if you prefer or need non-cloud software, or just feel like experimenting, you can run Slideshow app directly on these Android-based displays, without a need of any additional hardware.

SETUP

1. Ask your BenQ representative for instructions how to access "Factory mode" on the display. (We got the instructions from our BenQ representative, but they might be region-dependent, but if you are out of luck, [let us know](#))
2. (Optional but highly suggested) Connect the device to the internet / local network, either via LAN cable or Wi-Fi
3. Copy the APK file with Slideshow app on USB Flash drive
4. Insert the USB Flash drive into the USB port of the screen
5. Using remote control, open ES File Explorer (or any other file explorer), navigate to USB Flash drive and install the APK file. If you get message "For security, your TV is set to block installation of apps obtained from unknown sources", you are not in "Factory mode", see step 1.
6. Set up the Slideshow app and start enjoying it



NOTES

- Displays are running Android 4.3, which is quite old, and the most recent version of Slideshow you can use is [3.20.3](#).
- You can count with approximately 1,8 GB of free space for your files.
- Android on these displays is not rooted, that means Slideshow's web interface will be available on port 8080 (<http://...:8080>) and you won't be able to reboot the device remotely
- If you would like to schedule power on and power off, you can set it up from your computer using [BenQ's MDA application](#). Just note that if you turn off the display with remote control or button, the scheduler won't/can't turn it back on. Turning on by the scheduler works only if the scheduler turned the display off previously.

- Display has 4K resolution (3840×2160), but Android's framebuffer is working with FullHD resolution (1920×1080). Video files might be upscaled internally (we didn't investigate this), but images are displayed just as FullHD. If you would like to display everything in 4K, you have to connect 4K-capable player via HDMI.



Original technical reference: <https://slideshow.digital/documentation/hardware/hardware-reviews/benq-st550k/>
Original documentation © 2026 Milan Fabian. Adapted for Technovia.

NovaStar TB40 LED controller

OTHER HARDWARE REFERENCE

This is the original Slideshow developer's review or setup note for the named third-party hardware. Specifications, test results and historical prices apply to that hardware and test date, not to the Technovia stick.

The NovaStar TB40 is a mid-range multimedia controller from the [Taurus Series](#), which combines Android-based media player and LED controller into a single integrated device.

While it is possible to use a separate Android box with Slideshow and connect it to the LED controller via HDMI cable, NovaStar TB40 can be also used with Slideshow directly, without any need for a separate box.

INSTALLATION OF SLIDESHOW

1. Install [ViPlex Express](#) software and [ADB tool](#) on your computer
2. Connect NovaStar TB40 to the computer via USB A-B cable
3. Open ViPlex Express software on your computer
4. Type novasoft anywhere in the app
5. Open the newly shown User Software tab
6. Connect to the device using username admin, password SN2008@+ (if you changed the password, enter the changed one)
7. Enable ADB and disable PlayService
8. Pick the [installation APK](#), check Auto launch on startup and install app
9. Open command line on your computer and run command `adb shell`. If you get `adb.exe: device offline error`, unplug the USB B cable from the LED controller, re-plug it and try the command again. If you get any error with the later commands, try running `adb root` command before `adb shell`.
10. While in `adb shell` command, enter the following commands, in order to allow permissions for SlideShow:

```
pm grant sk.mimac.slideshow android.permission.READ_EXTERNAL_STORAGE;  
pm grant sk.mimac.slideshow android.permission.WRITE_EXTERNAL_STORAGE;  
appops set sk.mimac.slideshow MANAGE_EXTERNAL_STORAGE allow;
```

11. Optionally, set other options while in `adb shell` command as well:

```
pm grant sk.mimac.slideshow android.permission.CAMERA;  
pm grant sk.mimac.slideshow android.permission.SYSTEM_ALERT_WINDOW;  
pm grant sk.mimac.slideshow android.permission.READ_LOGS;  
dpm set-device-owner sk.mimac.slideshow/.AppAdminReceiver;  
setprop persist.sys.timezone "Europe/Bratislava";  
settings put global ntp_server pool.ntp.org;  
settings put global auto_time 1;  
settings put global package_verifier_user_consent -1;
```

12. You can exit the adb shell command by typing exit.

13. Run the app, for example using command `adb shell am start -n sk.mimac.slideshow/sk.mimac.slideshow.StartupActivity` from the computer.

Slideshow can't be set as a launcher app, otherwise NovaStar's configuration won't work properly

Based on the feedback from the community, SlideShow can be installed on other Taurus series controllers from NovaStar, such as TB60 and TB20 Plus, with the same steps.



NovaStar TB40 LED controller



LED wall driven by SlideShow and TB40

Original technical reference: <https://slideshow.digital/documentation/hardware/hardware-reviews/novastar-tb40/>
Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Intel Compute Stick (Android-x86)

OTHER HARDWARE REFERENCE

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While testing Slideshow on various devices, I recently remembered that I have an older Intel Compute Stick and thought "Why shouldn't it run Slideshow?". So I prepared a tutorial for those of you wanting to try it as well, or simply wanting to try:

- Android on your PC or laptop *(steps 1-5 except the boot menu shortcut are the same)
- Slideshow on your PC or laptop *(all steps except the boot menu shortcut are the same)

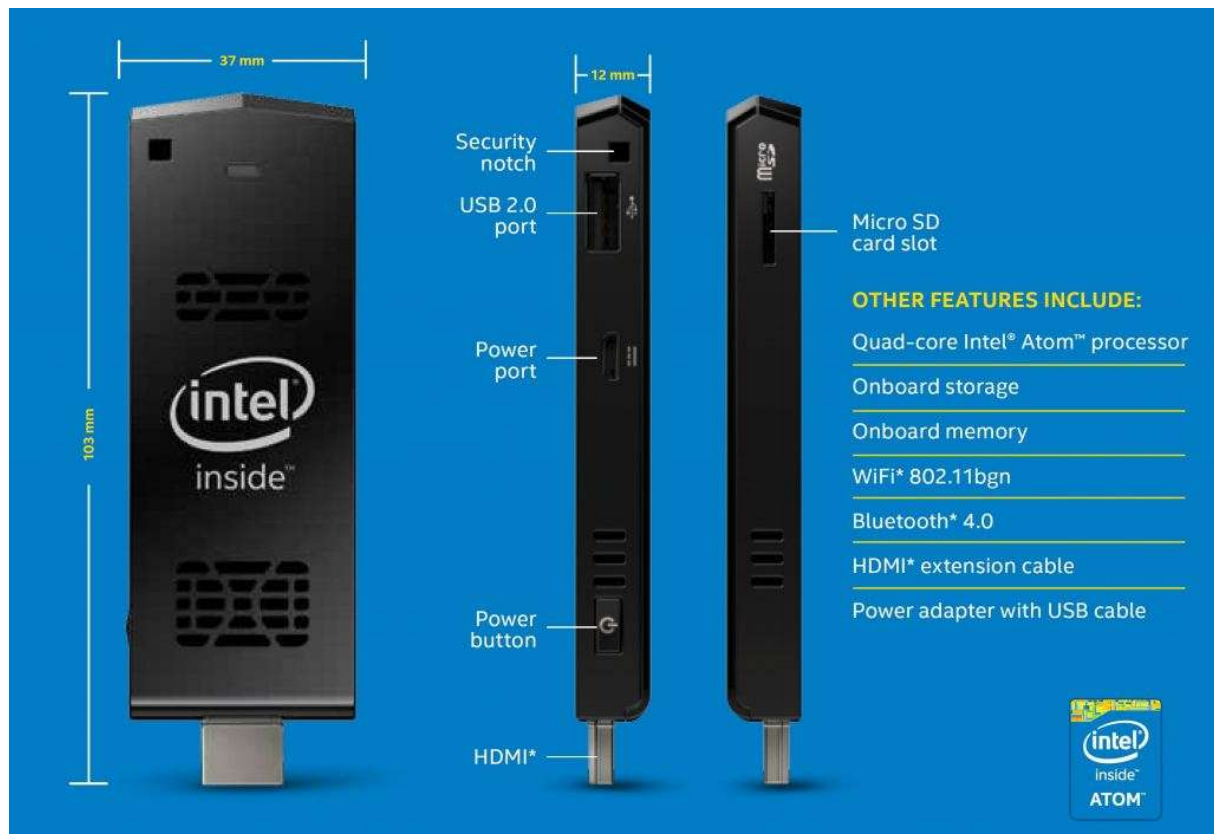
WHAT IS INTEL COMPUTE STICK?

Couple of years ago Intel released new product with their processor -- Intel Compute Stick. It is very similar to Android "sticks", except it contains regular Intel 64-bit processor. That means it fully supports Windows operating system (among others). On the other side, Android sticks usually use ARM processor.

For this test, I am using an older model from 2015, but the process is similar for newer models as well. Most of this tutorial can be used even for a general PC, laptop or box with 64bit Intel or AMD processor.

Intel Compute Stick STCK1A32WFC - hardware parameters:

- Intel Atom Z3735F processor, 4 cores, 1.33 to 1.83 GHz
- 2 GB DDR3L RAM
- 32 GB flash storage
- HDMI 1.4a output
- 1x USB 2.0 port (*only one, so you will need USB hub for connecting keyboard, mouse and USB flash drive at the same time*)
- MicroSD card slot
- WiFi 802.11b/g/n with integrated antenna
- Power through micro USB (*power adapter is rated for 5V/2A, so the power consumption is on the level of Raspberry Pi!*)



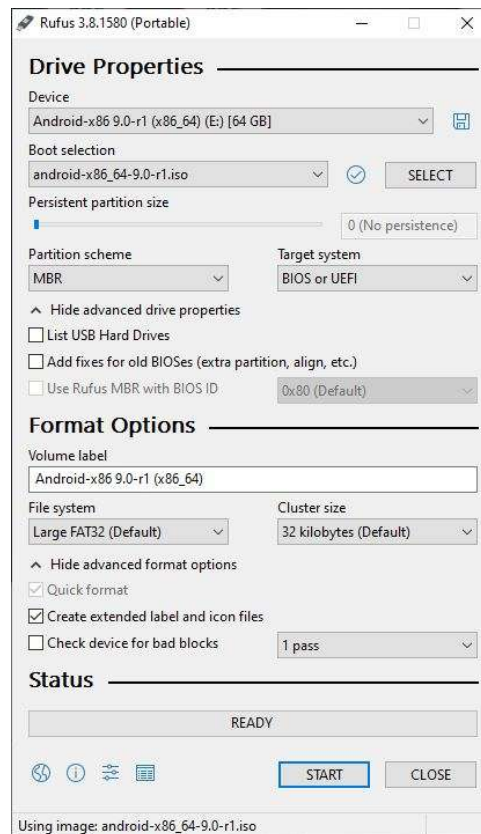
WHAT IS ANDROID-X86?

Android-x86 is a community and open-source project to port Android operating system to x86 platform (also known as "The PC"). Thanks to this project, you can run Android on your computer or laptop. Homepage of the project is <https://www.android-x86.org/>.

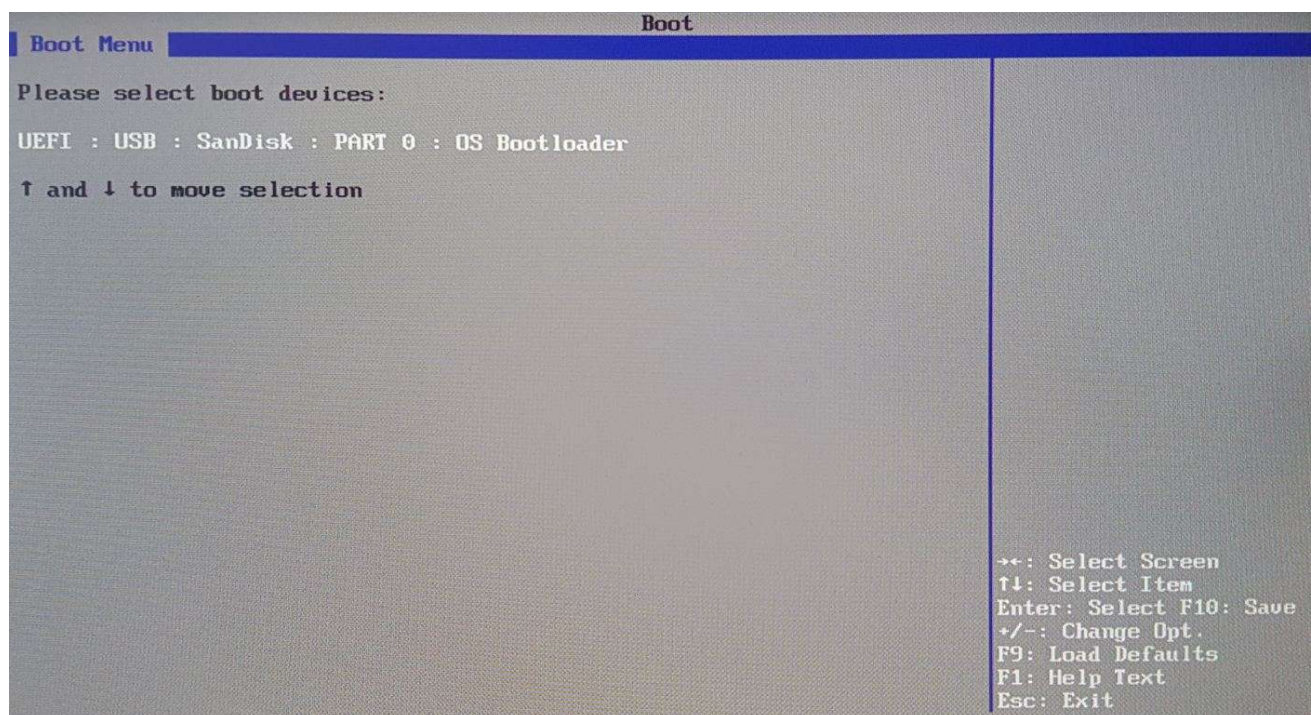
This tutorial has been done with version Android-x86_64-9.0-r1 -- most recent at the time.

HOW TO SET IT UP - STEP BY STEP

1. Download Android-x86 image from <https://www.fosshub.com/Android-x86.html> and flash it to the USB Flash drive (for example with Rufus).

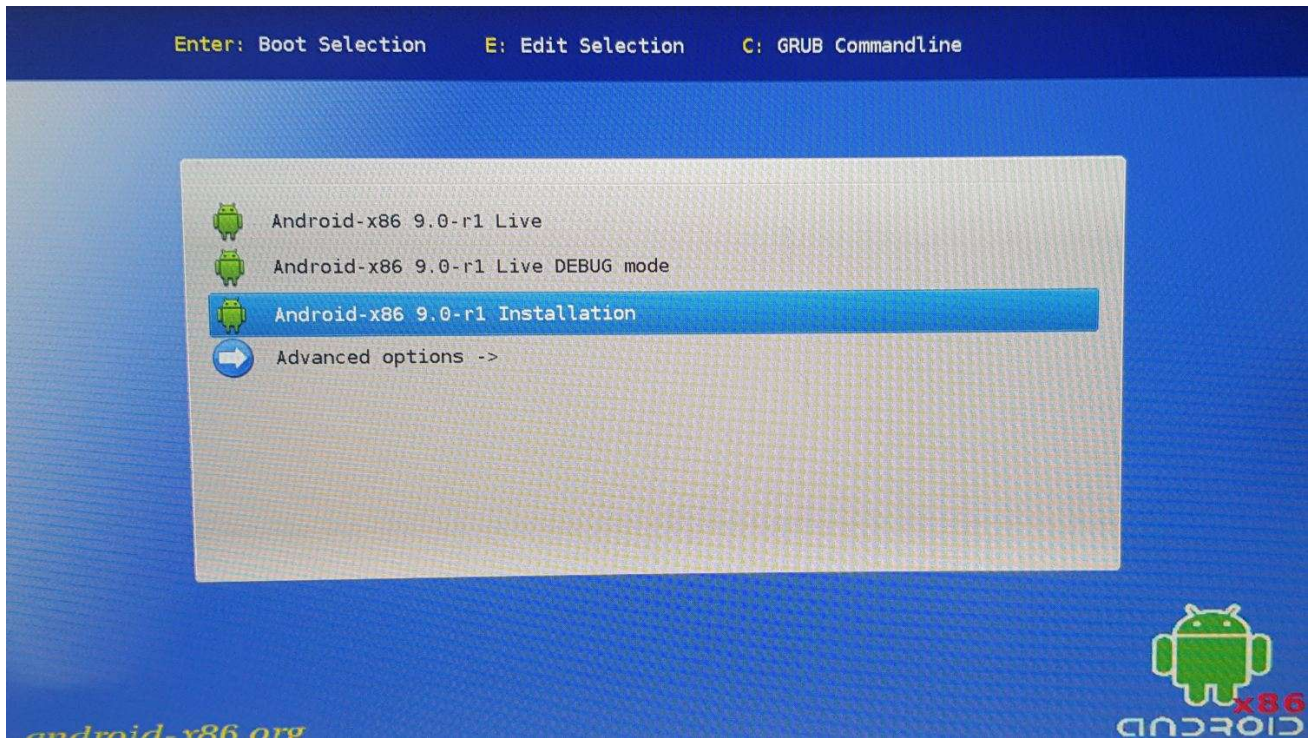


2. Insert USB Flash drive into Intel Compute Stick, power it on and keep pressing F10 on the keyboard until you see Boot Menu (the key shortcut might be different on other devices). Select the USB Flash drive and press Enter.



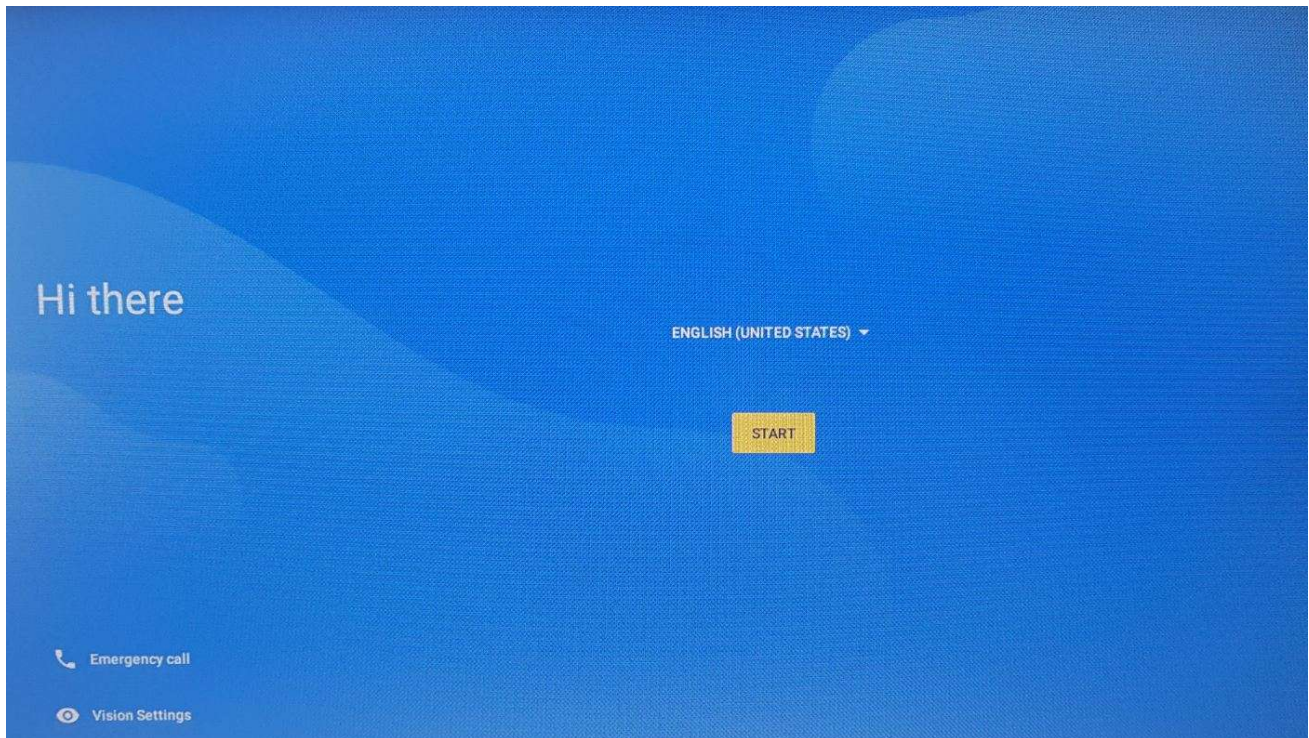
3. Installation screen of Android-x86 will be displayed after few seconds. Select Android-x86 Installation and continue with the steps on the screen (see <https://www.android-x86.org/installhowto.html> for more details). Be careful when selecting the partition for installation, it will overwrite all files! After finishing the installation, choose to reboot the device.

Alternatively, you can select Android-x86 Live, which would start temporary Android on your device, without touching data on your hard drive. Just note that everything you do in this setup will be lost after the reboot, so I suggest using this only for quick testing.

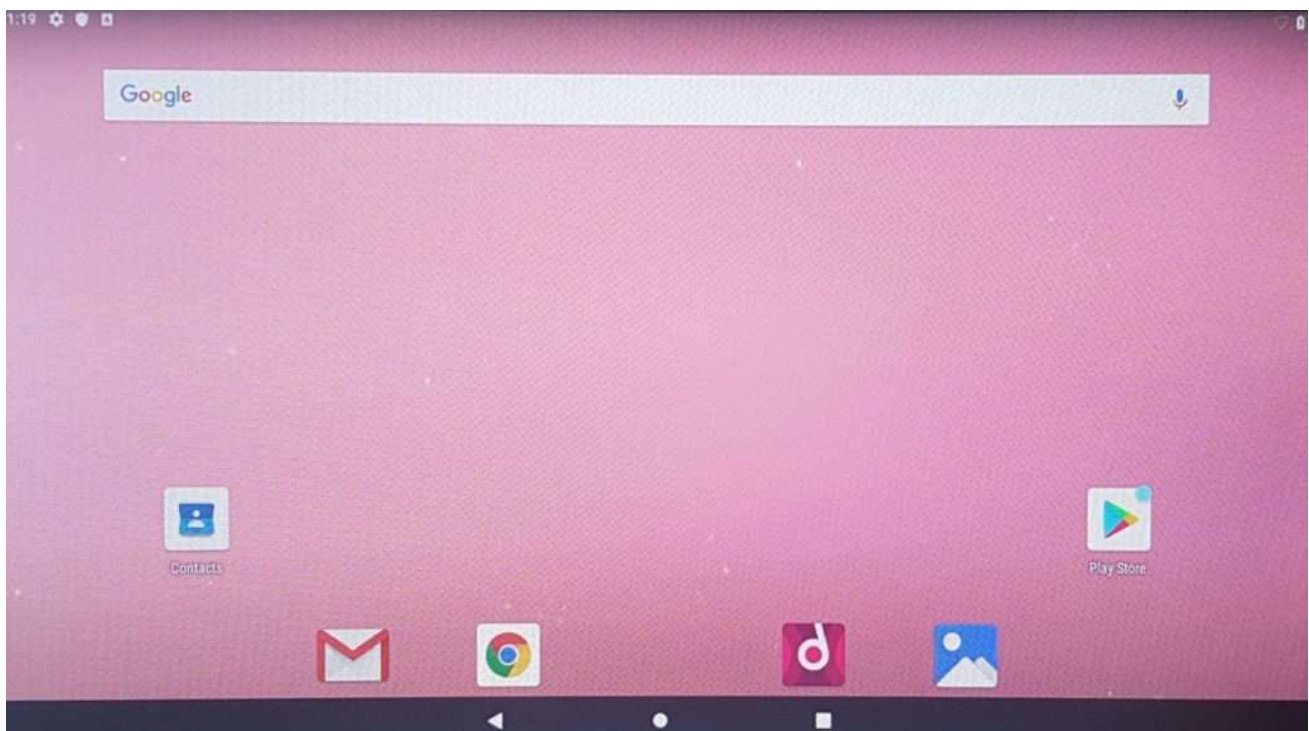


4. Android will boot into first-run setup. Select your language, setup WiFi connection (I highly suggest this), connect your Google account (not necessary at all).

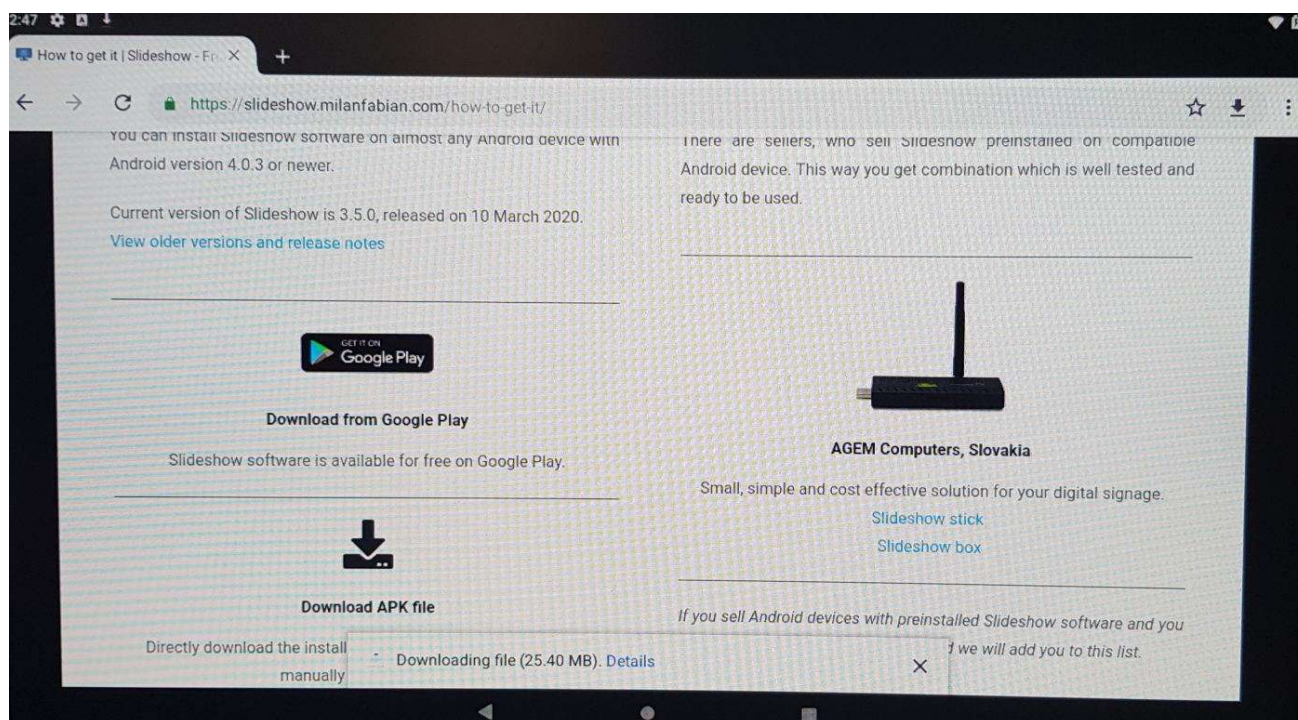
If by any chance you get "A bootable device has not been detected" error message, try reinstalling Android-x86 with the "Auto Installation" option. As a last resort, install Ubuntu (or different Linux) first and then reinstall it to Android-x86.



5. Congratulations! You are now running full Android operating system directly on the PC platform, without any emulator.



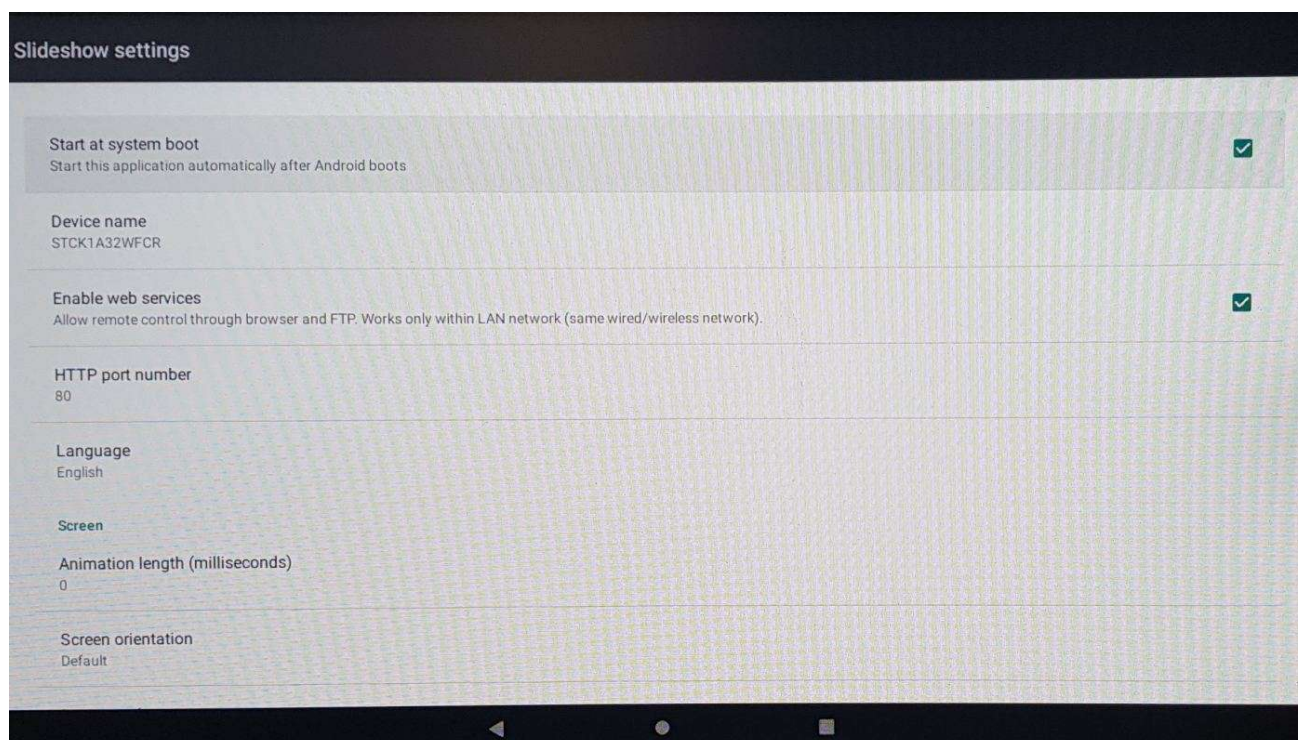
6. Open Chrome on Android and download the newest Slideshow APK from <https://slideshow.digital/how-to-get-it/>. Run the APK file to install Slideshow. Android will ask you for confirmation whether you want to allow installing apps from Chrome -- select Allow.



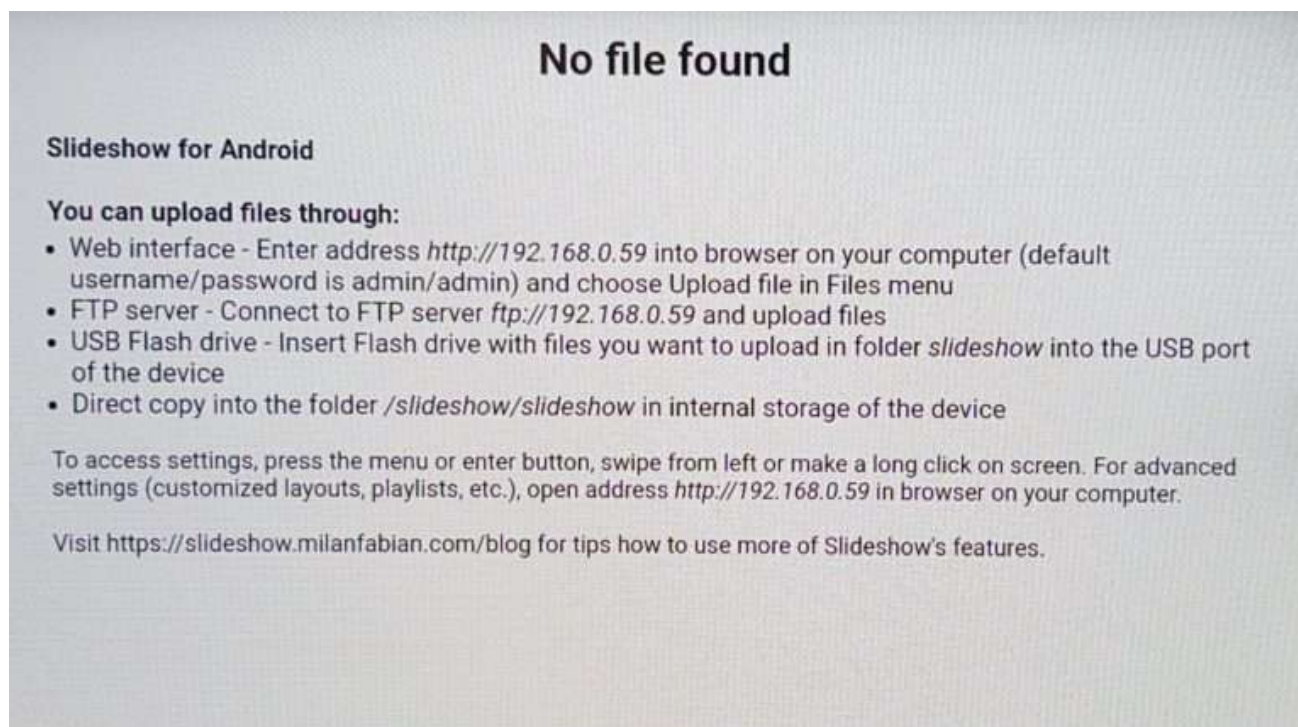
7. Run Slideshow after installation, allow access to images & files (necessary), allow superuser access (highly recommended) and go through the settings.

If you want to use this installation for real digital signage, most important settings are "Start at system boot" (check) and Device name (use something more descriptive than the original name).

Afterwards, scroll down and click on the "Press back to return".



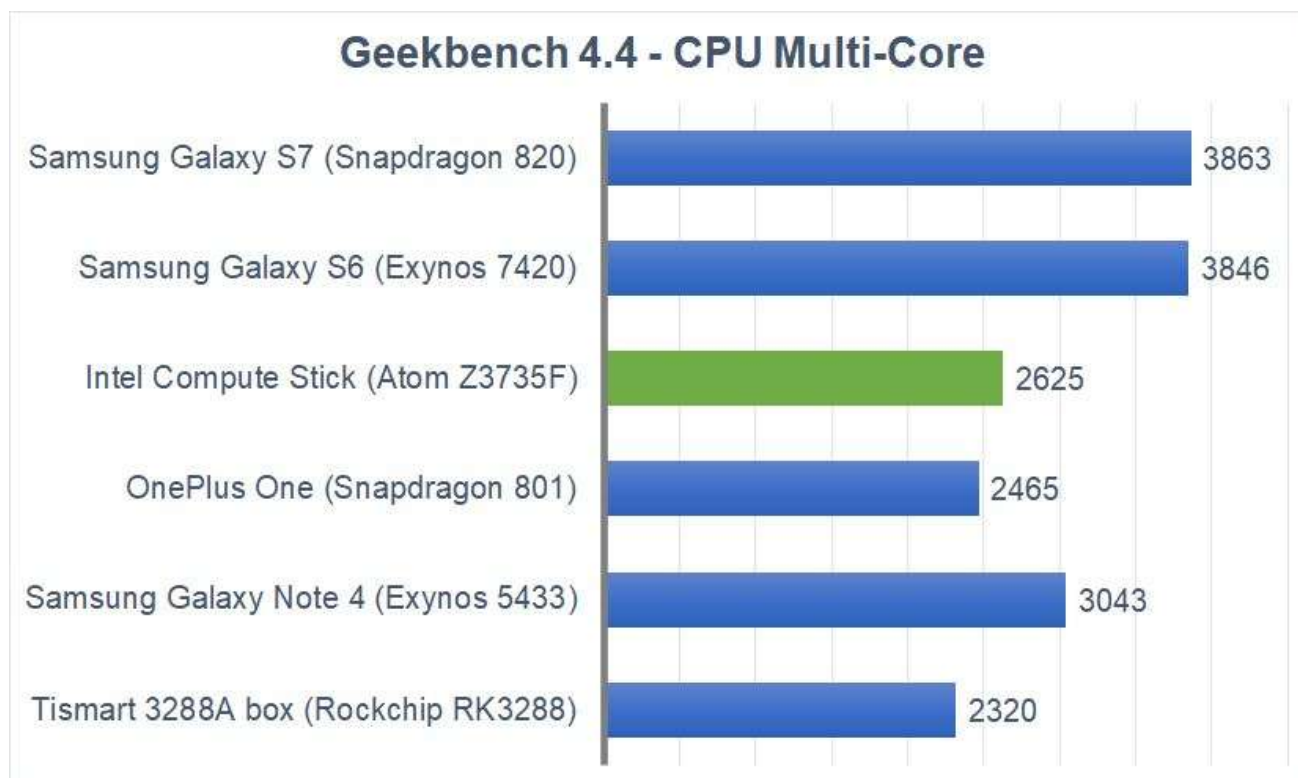
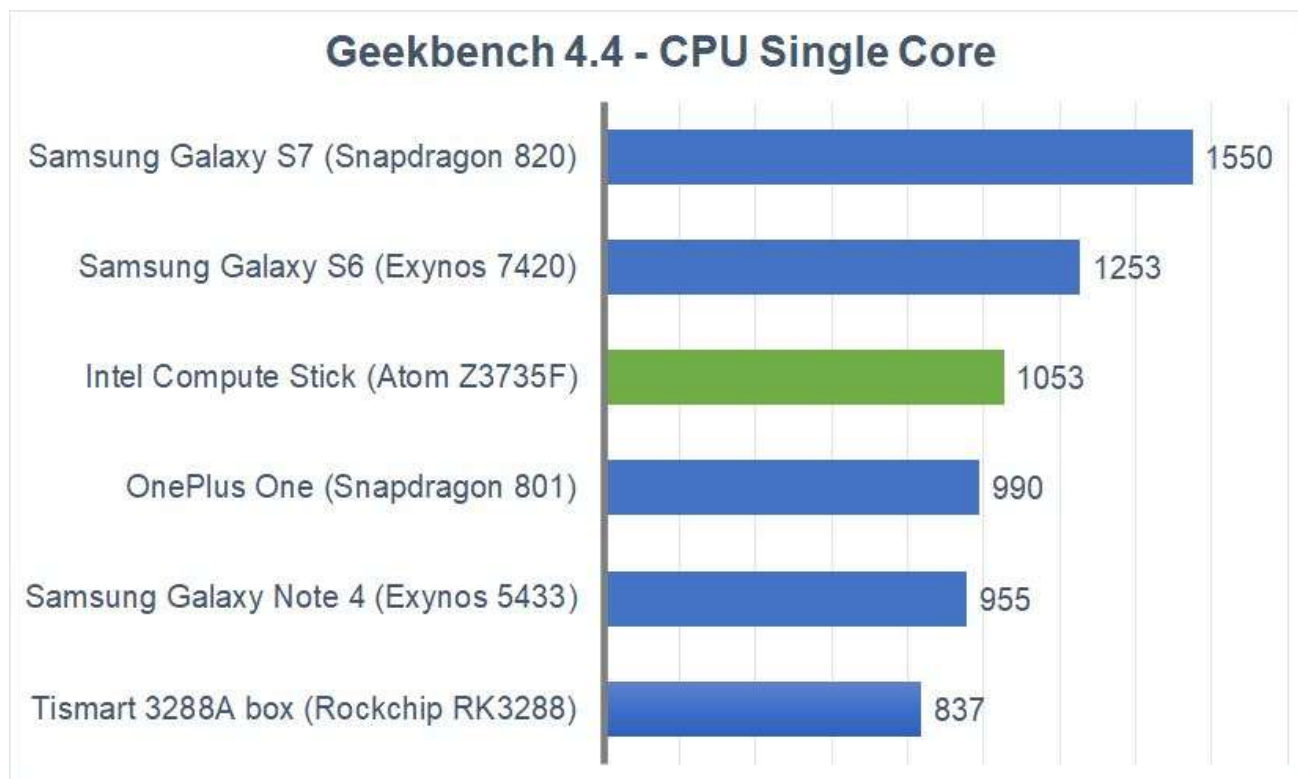
8. Slideshow is ready -- you can now start using it. For example, open the address displayed on the screen in browser on your (other) computer and upload files.

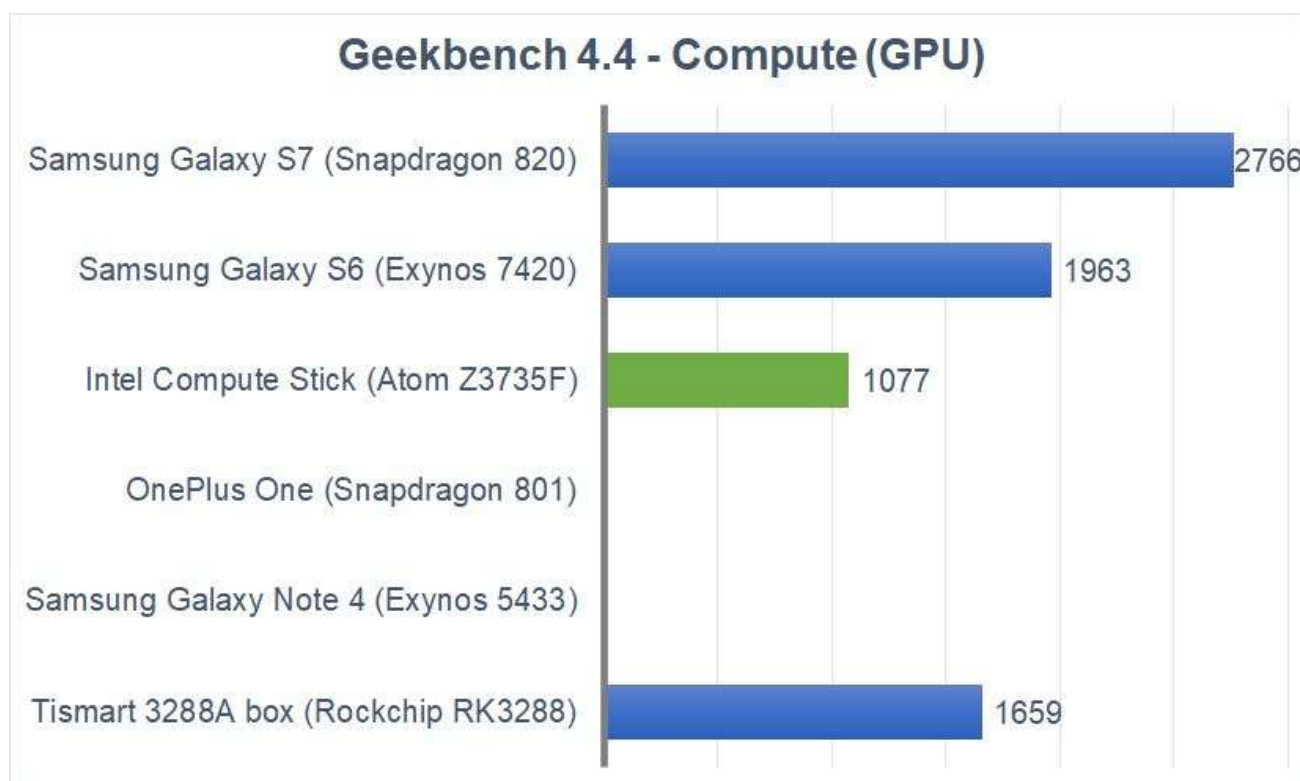


PERFORMANCE OBSERVATIONS

- At the beginning, Android displayed "Application not responding" notification a couple of times. After the reboot everything was running much smoother (almost no lags).
- The performance of Intel Compute Stick with Slideshow is fairly standard -- in 720p and 1080p it doesn't have any problems displaying video and moving text at the same time. It also supports [Enhanced video player](#), so you can experiment with [rotating the screen](#) as well.
- In higher load (even playing standard 720p x264 video, hard to say if hardware decoding is active), the CPU temperature goes over 55 °C and that triggers tiny cooling fan inside the device (how did they even fit a fan there?), which has little bit tiresome sound. Be aware of this if you are planning on running it in a quiet place.
- While working with the user interface (settings, benchmarks), WiFi was disconnecting after approximately 10 minutes, requiring manual reconnect through settings. However, with Slideshow running the WiFi kept connected during the whole 5 hour test, probably because of Slideshow's WiFi lock.
- Switching between low power and performance mode in BIOS had no measurable effect on the performance.
- I tried running AnTuTu and Passmark benchmarks to get a hint of comparison to other devices, but both failed (AnTuTu got stuck on the GPU test, Passmark crashed immediately after launching the app). I finally used Geekbench 4.4, which ran without any problems. The performance is around

2014's OnePlus One, which is not bad for a device which cost around 110 EUR in 2015. You can find graphs with the complete results below and compare Intel Compute Stick with Rockchip RK3288, which is still a popular System-on-chip in Android boxes.





Results for Intel Compute Stick and Tismart 3288A box were measured as an average of two runs. Other results are a courtesy of Geekbench results database.

CONCLUSION

In general, Intel Compute Stick and Android-x86 seems combination worth a try for an IT enthusiast. If you are looking for a problem-free plug-and-play system, native Android box or stick with ARM processor is still probably a little bit better idea.

It is important to note that we are talking about a credit card sized device with release price around 110 EUR in 2015, which is running on just a couple of watts of electricity. From this point of view, I am pleasantly surprised how it performed and that I successfully managed to run Slideshow on it without any restrictions.

Original technical reference: <https://slideshow.digital/documentation/hardware/hardware-reviews/intel-compute-stick/>
Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Upstream software release notes

UPSTREAM RELEASE HISTORY

These are Slideshow developer release notes and download links. They do not confirm the version supplied on your Technovia stick. Obtain branded updates from Technovia.

Below is a list of all publicly released versions of Slideshow, together with short release notes and download links.

VERSION 4.12.8

Released on 18 September 2026

[Download universal APK](#), [download APK for ARM v7](#), [download APK for ARM64](#), [download APK for x86](#), [download APK for x86-64](#), [download MSI for Windows \(BETA\)](#)

- Added new blocks to Triggers (menu Settings - Triggers)
- Added custom fonts for description text
- Small fixes & enhancements

VERSION 4.12.7

Released on 27 July 2026

[Download universal APK](#), [download APK for ARM v7](#), [download APK for ARM64](#), [download APK for x86](#), [download APK for x86-64](#)

- Added simple remote screen control (see menu Settings - Remote control)
- Added new blocks to Triggers (menu Settings - Triggers)
- Changed loading graphics
- Added Arabic localization
- Small fixes & enhancements

VERSION 4.12.6

Released on 15 June 2026

[Download universal APK](#), [download APK for ARM v7](#), [download APK for ARM64](#), [download APK for x86](#), [download APK for x86-64](#)

- Bug fixes and localization updates

VERSION 4.12.5

Released on 30 May 2026

[Download universal APK](#), [download APK for ARM v7](#), [download APK for ARM64](#), [download APK for x86](#), [download APK for x86-64](#)

- Support for screen power off on selected devices (see menu Settings → Screen power)
- Enhanced shell console
- Small fixes & enhancements

VERSION 4.12.4

Released on 7 April 2026

[Download universal APK](#), [download APK for ARM v7](#), [download APK for ARM64](#), [download APK for x86](#), [download APK for x86-64](#)

- New settings for [description text](#)
- Added option to disable interaction with a webpage on the screen
- Optimized startup
- Added [REST API](#) for zooming webpages
- Added [SNMP agent](#) (*beta*)
- Small fixes & enhancements

VERSION 4.12.1

Released on 27 February 2026

[Download universal APK](#), [download APK for ARM v7](#), [download APK for ARM64](#), [download APK for x86](#), [download APK for x86-64](#)

- New logo and brand
- Added support for more [external storages](#)
- Added new [REST APIs](#)
- Fixed positioning of video in [ExoPlayer + TextureView](#)
- Fixed key handler during YouTube playback

- Fixed startup issues on some devices
- Small fixes & enhancements

VERSION 4.11.5

Released on 30 October 2025

[Download universal APK](#), [download APK for ARM v7](#), [download APK for ARM64](#), [download APK for x86](#), [download APK for x86-64](#)

- Added time zone to [Date/time content](#)
- Adjusted YouTube playback according to changes on Google's side
- Fixed [triggers](#) on images
- Fixed app crash on a browser crash
- Fixed startup on slower devices
- Small fixes & enhancements

VERSION 4.10.26

Released on 5 August 2025

[Download universal APK](#), [download APK for ARM v7](#), [download APK for ARM64](#), [download APK for x86](#), [download APK for x86-64](#)

- Enhanced [synchronization](#) between players for playlists with multiple content
- Added support for YouTube live videos
- Added media time from-to (can be set through Media manager -- right click a file -- Schedule)
- Added [Dutch localization](#) (thanks to Jule Hintzbergen)
- Small fixes & enhancements

VERSION 4.10.11

Released on 15 April 2025

[Download universal APK](#), [download APK for ARM v7](#), [download APK for ARM64](#), [download APK for x86](#), [download APK for x86-64](#)

- Enhanced scheduling options (e.g. every two weeks, the first day of month, etc.)
- Added web interface password reset (available only during the first 10 minutes after the device boots up)
- Added possibility to rotate individual displays in multidisplay setup

- Added nDNS support
- Added APIs for screensaver and display info
- Added new click area actions
- Added option to scroll through multi-page PDFs (see setting "Display PDF as scrollable")
- Added priority folder option for copying from Flash drive (see setting "Priority folder on Flash drive")
- Added support for Fixed Random order (while editing content, see Fixed random order)
- Fixed startup on some devices
- Enhanced camera compatibility for face detection
- Small fixes & enhancements

VERSION 4.9.16

Released on 3 December 2024

[Download universal APK](#), [download APK for ARM v7](#), [download APK for ARM64](#), [download APK for x86](#), [download APK for x86-64](#)

- Added support for multi-display devices (enable setting Allow multi-display, then configure Screen layout)
- Moved web interface and other background processes to a separate service (see new setting Keep the background service)
- Added new watchdog service (see new setting Enable watchdog service)
- Added support for GIF and WEBP animated images (only on Android 9+)
- Added Force audio passthrough setting
- Added optional zoom & pan to images (Content option Allow images zoom&pan)
- Added [Chinese localization](#) (thanks to evin792)
- Added new [weather forecast](#) provider MET Norway and new weather icon set
- Fixed video position if the aspect ratio doesn't match the screen
- Enhanced synchronized playback across multiple players
- Small fixes & enhancements

VERSION 4.8.1

Released on 27 February 2024

[Download universal APK](#), [download APK for ARM v7](#), [download APK for ARM64](#), [download APK for x86](#), [download APK for x86-64](#)

- Added possibility to mirror [camera image](#) (see Edit content for type Video input)

- Added network ping watchdog (see [Device settings](#))
- Changed [screen layout intervals](#) check from every minute to every 10 seconds (screen layout interval can now be decimal number)
- Enhanced [Face detection](#) with additional settings, status page and MQTT reporting
- Small fixes & enhancements

VERSION 4.7.3

Released on 26 November 2023

[Download universal APK](#), [download APK for ARM v7](#), [download APK for ARM64](#), [download APK for x86](#), [download APK for x86-64](#)

- Added settings internal screensaver layout (see menu Screen layout -- Screensaver)
- Added Click areas for images (see menu File manager -- right click an image -- Click areas)
- Added new setting Grant web pages permissions (see menu Settings -- [Device settings](#))
- Added new setting Target folder from Flash drive (see menu Settings -- [Device settings](#))
- Fixed app update on Android 7
- Small fixes & enhancements

VERSION 4.6.1

Released on 21 September 2023

[Download universal APK](#), [download APK for ARM v7](#), [download APK for ARM64](#), [download APK for x86](#), [download APK for x86-64](#)

- Added setting to turn off [webpage](#) cache clearing (setting Clear web cache on start)
- Added [REST APIs](#) for action and shell command
- Enhanced HTTP Tunnel performance for [Other devices](#)
- Enhanced Italian [localization](#) (thanks to Nicola Pinto)
- Small fixes & enhancements

VERSION 4.6.0

Released on 30 August 2023

[Download universal APK](#), [download APK for ARM v7](#), [download APK for ARM64](#), [download APK for x86](#), [download APK for x86-64](#)

- Added image [animations](#) (see menu Content -- Add new content -- Type Files -- Image animation types)
- Added support for RTMP [streams](#) in ExoPlayer
- Added [weather](#) icon style preview (see menu Content -- Add new content -- Type Weather -- Icon Style Preview)
- Added new sample [screen layouts](#) (see menu Screen layout -- Backup & restore)
- Added media files [backup/restore](#) (see menu Settings -- Backup & restore)
- Modified crossfade [transition](#) between images (separate Crossface and Fade out transitions)
- Enhanced [USB file copy](#) screen
- Enhanced web cache clearing
- Small fixes & enhancements

VERSION 4.5.2

Released on 16 July 2023

[Download universal APK](#), [download APK for ARM v7](#), [download APK for ARM64](#), [download APK for x86](#), [download APK for x86-64](#)

- Added new [transitions](#) (3D cube effect)
- Added changing content duration from the on-screen controls
- Added support for changing the entire device [orientation](#) (see [Device Settings](#) -- Screen orientation)
- Added possibility to disable HTTPS certificate check for loading data (see [Device Settings](#) -- Disable HTTPS security for loading data)
- Enhanced date/time formatting in [XML backup](#)
- Fixed WebDAV file synchronization with Nextcloud
- Fixed high-resolution playback artifacts with ExoPlayer + TextureView on some devices
- Small fixes & enhancements

VERSION 4.4.8

Released on 6 June 2023

[Download universal APK](#), [download APK for ARM v7](#), [download APK for ARM64](#), [download APK for x86](#), [download APK for x86-64](#)

- Added history to File synchronization page

- Fixed file synchronization to external storage
- Small fixes & enhancements

VERSION 4.4.7

Released on 7 May 2023

[Download universal APK](#), [download APK for ARM v7](#), [download APK for ARM64](#), [download APK for x86](#), [download APK for x86-64](#)

- Added possibility to set custom zoom and hide loading icon for [webpages](#)
- Fixed TXT file scrolling
- Fixed processing folders with upper case letters on x86 systems
- Fixed preloading PDF files
- Fixed UPnP port caching
- Small fixes & enhancements

VERSION 4.4.4

Released on 19 April 2023

[Download universal APK](#), [download APK for ARM v7](#), [download APK for ARM64](#), [download APK for x86](#), [download APK for x86-64](#)

- Added new synchronization commands to other devices (see menu Settings -- Other devices)
- Fixed displaying PDF files if the preloading is turned off

VERSION 4.4.3

Released on 14 April 2023

[Download universal APK](#), [download APK for ARM v7](#), [download APK for ARM64](#), [download APK for x86](#), [download APK for x86-64](#)

- Added [Korean localization](#)
- Added support for file synchronization from SFTP server
- Enhanced support for [synchronized playback](#) across multiple zones or multiple devices
- Added [trigger](#) in case there is no user activity
- Added possibility to restrict access to other websites when displaying a [URL file](#)
- Added possibility to select particular [external storage](#) for saving media
- Enhanced visibility of on-screen controls

- Removed support for importing time slots from [XML configuration](#) created on Slideshow 3.x (use new format introduced in Slideshow 4.0)
- Small fixes and enhancements

VERSION 4.3.1

Released on 30 March 2023

[Download universal APK](#), [download APK for ARM v7](#), [download APK for ARM64](#), [download APK for x86](#), [download APK for x86-64](#)

- Fixed opening File manager in Chrome browser (refresh through CTRL+F5 might be needed)

VERSION 4.3.0

Released on 17 March 2023

[Download universal APK](#), [download APK for ARM v7](#), [download APK for ARM64](#), [download APK for x86](#), [download APK for x86-64](#)

- Added support for [remote app update](#) when the app is set as device owner
- Added loading WiFi connection details from [setup.csv](#) (e.g. from USB Flash Drive)
- Added support for receiving Open Sound Control commands
- Added new blocks to [Triggers](#)
- Added support for [communication between devices](#) on different networks (BETA)
- Added support for setting Google Docs convert parameters
- Added support for captions in YouTube videos
- Added file synchronization statistics to [API](#)
- Enhanced 4K video playback with new [video player types](#)
- Enhanced web interface performance
- Small fixes and enhancements

VERSION 4.2.2

Released on 26 January 2023

[Download universal APK](#), [download APK for ARM v7](#), [download APK for ARM64](#), [download APK for x86](#), [download APK for x86-64](#)

- Added support for [app update](#) on Philips TVs
- Added possibility to remove HTML/XML tags from [RSS feeds](#)

- Fixed [file synchronization from Google Drive](#) (check menu Tools -- File synchronization and log out & log in with Google Drive account if needed).
- Small fixes and enhancements

VERSION 4.2.0

Released on 17 January 2023

[Download universal APK](#), [download APK for ARM v7](#), [download APK for ARM64](#), [download APK for x86](#), [download APK for x86-64](#)

- Added support for [communication over serial port](#)
- Added support for setting preferred quality of YouTube videos
- Added support for blurry background for images
- Added [API call](#) for displaying previous file
- Enhanced displaying Excel files
- Small fixes and enhancements

VERSION 4.1.0

Released on 21 December 2022

[Download universal APK](#), [download APK for ARM v7](#), [download APK for ARM64](#), [download APK for x86](#), [download APK for x86-64](#)

- Added Open-Meteo as [a source of weather forecast](#)
- Added User-agent [setting](#)
- Added [REST](#) and [MQTT](#) API for triggering file synchronization
- Small fixes and enhancements

VERSION 4.0.3

Released on 2 December 2022

[Download universal APK](#), [download APK for ARM v7](#), [download APK for ARM64](#), [download APK for x86](#), [download APK for x86-64](#)

- Added Slovenian localization (thanks to @AdmiralStipe)
- Added password dialog to advanced settings in case the default credentials has been changed
- Enhanced camera picture in darker environments (for video input content and face detection)
- Fixed crash on Amazon devices that doesn't support widgets

- Small fixes and enhancements

VERSION 4.0.1

Released on 18 November 2022

[Download universal APK](#), [download APK for ARM v7](#), [download APK for ARM64](#), [download APK for x86](#), [download APK for x86-64](#)

- Fixed converting schedules from Slideshow 3.x to 4.x
- Fixed face detection statistics API

VERSION 4.0.0

Released on 15 November 2022

[Download universal APK](#), [download APK for ARM v7](#), [download APK for ARM64](#), [download APK for x86](#), [download APK for x86-64](#)

- Renamed "Items" to "Content", "Panels" to "Zones" and "Periodical download" to "File synchronization"
- Changed screen layout and playlist time slots to [fully customizable schedules](#)
- Added basic on-screen controls (open by swiping from the right)
- Added nearby devices discovery
- [Added triggers](#)
- Added [face detection](#) statistics
- Added customizable [key mapping](#)
- Added displaying Android widgets on screen
- Small fixes and enhancements

VERSION 3.24.7

Released on 14 October 2022

[Download universal APK](#)

- Added changing playlists through on-screen menu
- Added new methods to the [local JavaScript API](#)
- Small fixes and enhancements

VERSION 3.24.4

Released on 19 September 2022

[Download universal APK](#)

- Enhanced displaying [description text](#)
- Remembering web interface login now works across device reboots
- Enhanced support for [USB Flash Drive](#) detection on Samsung devices
- Fixed [HDMI input](#) compatibility mode and copying screen layouts
- Small fixes and enhancements

VERSION 3.24.2

Released on 1 September 2022

[Download universal APK](#)

- Added playlist action for manually triggered playlists
- Added possibility to mute audio from video during audio playlist (via Device settings)
- Added [Turkish localization](#) (thanks to İlker Berberler)
- Fixed image transitions
- Small fixes and enhancements

VERSION 3.23.0

Released on 2 August 2022

[Download universal APK](#)

- Added support for YouTube video playback (with [item type](#) YouTube video)
- Added support for [face detection](#) from camera
- Enhanced support for displaying web pages behind login form (via File Manager -- right click on URL file -- Edit file -- Enter web page)
- Added simple benchmark (accessible through menu Information -- Benchmark)
- Updated [REST API](#) endpoint /ajax/playlist/set
- Small fixes and enhancements

VERSION 3.22.1

Released on 16 July 2022

Download universal APK

- Added [Japanese localization](#), thanks to Takashi Yamaguchi
- Added separate setting for sending item statistics through [MQTT](#)
- Small fixes and enhancements

VERSION 3.22.0

Released on 31 May 2022

Download universal APK

- Added support for [MQTT](#) over WebSockets
- Added support for custom topic names with [MQTT](#)
- Added possibility to automatically send statistics over [MQTT](#)
- Added possibility to set particular file length or mute via File Manager
- Added welcome message on home page (only on first start after update)
- Added support for [Google Docs](#) larger than 10MB
- Added clearing web cache on start
- Small fixes and enhancements

VERSION 3.21.1

Released on 17 April 2022

Download universal APK

- [Changed minimal version to Android 5 \(Android 4.x is no longer supported\)](#)
- Enhanced home page of web interface
- [Added new API and MQTT commands \(play, pause, set screen layout\)](#)
- Enhanced webpage display compatibility by changing user-agent
- Fixed saving Dropbox token for new accounts
- Fixed long continuous audio stream playback
- Fixed combination of rounded corners and panel border
- Small fixes and enhancements

VERSION 3.20.3

Released on 20 February 2022

[Download universal APK](#), [download APK for ARM v7](#), [download APK for ARM64](#), [download APK for x86](#), [download APK for x86-64](#)

- [Added new screen layout builder with drag support](#)
- Added pixel-perfect positioning to screen layout panels
- [Added new image transitions](#)
- Added list of available video decoder on About device page
- Small fixes and enhancements

VERSION 3.19.3

Released on 19 January 2022

[Download universal APK](#)

- Fixed crash on Android TV 11
- Enhanced selecting correct external storage (largest will be picked)
- Enhanced video playback of exotic formats
- Small fixes and enhancements

VERSION 3.19.2

Released on 29 December 2021

[Download universal APK](#)

- Changed storage permissions (*due to Google policy change, you might need to allow it during the first run on Android 11 and newer*)
- Small fixes and enhancements

VERSION 3.19.0

Released on 27 November 2021

[Download universal APK](#)

- Added Russian [localization](#) (thanks to Sergej Karpovič)
- Added possibility to clone screen layout
- Added support for transparent HTML files
- Added support for all EXIF orientation tags
- Small fixes and enhancements

VERSION 3.18.5

Released on 17 October 2021

[Download universal APK](#)

- Added support for downloading more than 100 files from [Google Drive](#)
- Added encryption to [MQTT](#) password in configuration
- Fixed setting start and end date in File manager
- Small fixes and enhancements

VERSION 3.18.1

Released on 25 September 2021

[Download universal APK](#)

- Added Spanish [localization](#) (thanks to Rafael García)
- Added support for getting screenshot through the [REST API](#)
- Small fixes and enhancements

VERSION 3.18.0

Released on 1 September 2021

[Download universal APK](#)

- Added support for vertical scrolling of RSS news
- Added support for setting exact font size for RSS news, text and name day
- Fixed app update through setup.csv file
- Small fixes and enhancements

VERSION 3.17.12

Released on 8 August 2021

[Download universal APK](#)

- [Added support for entering multiple paths for one item using colon sign](#)
- Added setting to turn off video preloading
- Added setting to restart device on HDMI plug in
- Small fixes and enhancements

VERSION 3.17.6

Released on 20 June 2021

Download universal APK

- [Added support for HEIC/HEIF images on Android 9+](#)
- Fixed crash on Android 4.4.4 and older
- Fixed periodical download for FTP files
- Small fixes and enhancements

Original technical reference: <https://slideshow.digital/documentation/release-notes/>
Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Troubleshooting & logs

REPORTING & RESET

Bug reports described below are sent to the software developer. Contact Technovia for product support. A full reset removes local content and configuration; make a backup and obtain the Technovia reinstall package first.

If you encounter an issue with the **Technovia SLIDESHOW app**, this page will help you diagnose and resolve it.

LOGS

While running, Technovia SLIDESHOW is writing information about changes and problems into log files saved in the device's internal memory. You can view these log files via web interface → menu Information → Log. There are entries with timestamp and description of what Technovia SLIDESHOW was doing or details of a problem.

As a default, the log file with the newest entries is displayed. If you want to view older files, pick an Archive file at the top of the page. Total size of log files is limited, so they don't take up too much space in the storage. Old log files are deleted automatically.

BUG REPORT

If you encounter a problem, the quickest way to get help is to send a **bug report** directly from the app.

You can do this in two ways:

- **Via web interface:** Menu Information → Bug report
- **Via on-screen menu:** Menu → Bug Report

Each bug report automatically includes:

- Log files (recent activity and errors)
- App configuration details
- Basic device information (Android version, hardware model...)

These details help the software developers understand and reproduce the problem more effectively. For more information, see our [Privacy Policy](#) regarding the data included in reports.

After you submit a report, we review it within a few days and a reply will be sent to the email address you provide. Please check your spam folder if you haven't received a response within 5 days.

PREFERRED WAY TO REPORT ISSUES

Sending a **bug report from within the app** is the most effective way to contact us — it automatically includes the technical details we need to resolve your issue faster.

REMOVE APPLICATION DATA (FULL RESET)

If you'd like to completely reset Technovia SLIDESHOW — for example, before setting it up again from the scratch — follow these steps:

1. Uninstall Technovia SLIDESHOW application from your Android device
2. Using a file manager, delete folder `slideshow` from your device's internal storage

After these steps, all configurations, playlists, and media files will be removed. When you reinstall Technovia SLIDESHOW, it will start fresh with the **default settings and empty configuration**, just like the first installation.

ALL DATA WILL BE LOST

This process permanently deletes all local data, including media files, playlists, and settings. Be sure to back up anything you want to keep before performing a full reset.

Original technical reference: <https://slideshow.digital/documentation/troubleshooting/>
Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Software provider terms

SOFTWARE PROVIDER REFERENCE

The following is the underlying Slideshow provider's material, retained with its original identity. It is not Technovia's warranty, privacy notice, pricing or support commitment. Supplier details are a snapshot taken on 4 October 2026.

These Terms of Service ("Terms") govern your use of the SlideShow software, website, and related services ("Service") provided by:

New Rent s.r.o.
Belaníkova 6
Bratislava, Slovakia
("Company", "we", "us", "our")

By accessing or using the Service, you agree to be bound by these Terms.

DESCRIPTION OF SERVICE

SlideShow.digital provides digital signage software that enables users to transform Android devices into managed display systems for multimedia content, including images, videos, web content, and other supported formats.

The Service may include:

- Free software applications
- Web-based management interface
- Optional premium or commercial services

LICENSE GRANT

Subject to these Terms, the Company grants you a limited, non-exclusive, non-transferable, revocable license to:

- Install and use the software
- Use the Service for personal or commercial purposes (as applicable)

This license does not grant ownership of the software or any intellectual property.

FREE VERSION DISCLAIMER

SlideShow software is provided free of charge “as is”, without warranty of any kind, express or implied, including but not limited to the warranties of merchantability, fitness for a particular purpose and noninfringement. In no event shall the authors be liable for any claim, damages or other liability, whether in an action of contract, tort or otherwise, arising from, out of or in connection with the software or the use or other dealings in the software.

RESTRICTIONS ON USE

You agree that you will NOT:

- Modify, adapt, translate, reverse engineer, decompile, or create derivative works of the software
- Remove or alter any proprietary notices
- Use the Service for unlawful purposes
- Interfere with or disrupt the Service or servers

It is strictly prohibited to modify the software in any way without prior written consent from the Company.

INTELLECTUAL PROPERTY

All rights, title, and interest in the Service (including software, code, design, trademarks, and content) remain the exclusive property of the Company and/or its licensors. No rights are granted except those explicitly stated in these Terms.

USER CONTENT

You retain ownership of any content you upload (e.g., media files).

You are solely responsible for:

- The legality of your content
- Obtaining necessary rights and permissions

PAYMENTS AND COMMERCIAL TERMS

If paid services are offered:

- All fees are stated at the time of purchase
- Payments must be made in full
- Taxes may apply depending on your jurisdiction

Refund Policy:

- All sales are final. No refunds will be provided.

LIMITATION OF LIABILITY

To the maximum extent permitted by law, the Company shall NOT be liable for:

- Any indirect, incidental, or consequential damages
- Loss of data, profits, or business opportunities
- Device malfunction or display interruptions

THIRD-PARTY SERVICES

The Service may integrate with third-party tools (e.g., Google Drive, Dropbox, APIs). We are not responsible for third-party availability, data handling by external services, changes or discontinuation of integrations.

PRIVACY

Your use of the Service is subject to our Privacy Policy available at <https://slideshow.digital/documentation/privacy-policy/>.

COMPLIANCE WITH LAWS

You agree to comply with all applicable laws, including data protection regulations, intellectual property laws and export control laws.

UPDATES AND CHANGES

We may update these Terms at any time. Updated Terms will be posted on the website.

GOVERNING LAW AND JURISDICTION

These Terms shall be governed by the laws of Slovak Republic.

Original technical reference: <https://slideshow.digital/documentation/terms-of-service/>
Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Software provider privacy policy

SOFTWARE PROVIDER REFERENCE

The following is the underlying Slideshow provider's material, retained with its original identity. It is not Technovia's warranty, privacy notice, pricing or support commitment. Supplier details are a snapshot taken on 4 October 2026.

Company New Rent s.r.o. registered in Slovakia develops SlideShow application and operates the website <https://slideshow.digital>.

This document describes the privacy policy of the Slideshow application. As we continue to add new features to the Slideshow application, this policy may change. Please review it regularly.

Slideshow stores all the information on the device and doesn't share them except the cases explained below. Security procedures are in place to protect the confidentiality of your data. Sensitive data, such as tokens and passwords, are stored hashed, encrypted, and/or in a private folder accessible only to Slideshow.

INFORMATION FROM GOOGLE DRIVE OR DROPBOX EXTERNAL SERVICE

If you decide to connect Slideshow application with your Google Drive or Dropbox account, Slideshow will collect your email address during the setup process and will have read-only access to all files in your Google Drive or Dropbox account until you revoke the access either from Slideshow application or from Google Drive / Dropbox settings. By connecting Slideshow with your Google Drive or Dropbox account, you are giving Slideshow permission to download files from chosen Google Drive or Dropbox folder into your device and display them on the screen as setup via playlists. Slideshow won't (and can't) modify files on your Google Drive or Dropbox in any way.

The data mentioned above, as well as the secure tokens necessary for accessing the Google Drive or Dropbox account are stored only on the device where Slideshow application is installed. All secure tokens are stored securely in a private folder on the device accessible only to Slideshow. Slideshow doesn't share the data with anybody except Google LLC (provider of the Google Drive API) / Dropbox Inc. (provider of the Dropbox API). Owner of the device is responsible for keeping this device secure.

The secure tokens necessary for accessing the Google Drive or Dropbox account are stored only while the account is active in Slideshow. Deletion of these tokens can be performed by logging out from the Google Drive / Dropbox account through Slideshow's web interface, in the same menu option as the log in was performed initially. The tokens are deleted immediately after logging out. Media files already synchronized from Google Drive / Dropbox are not deleted automatically upon logging out, they can be deleted manually in the same way as other media files in Slideshow.

INFORMATION SHARED WITH DEVELOPERS

If you decide to fill and send bug report in the Slideshow application (either via the web interface or via the on-screen menu), you are giving Slideshow permission to send the following data to the developers of the application: your email and message, information about the device, information about software version, screenshot of the current screen, settings of the application, configuration of the application, log file, logcat messages from Android, list of currently running application threads. These data will be used only for diagnosing, replicating and resolving the problem and contacting the author of the bug report. The data won't be shared with any third party.

Slideshow may occasionally send the following anonymous data to developers of the application: application version, Android version, whether the device is rooted. This data will be used only for statistical purposes during the development of new features.

INFORMATION SHARED WITH THIRD-PARTY FILE EDITORS

By using the Edit functionality in File manager, you are giving Slideshow permission to share the particular file with the external service used for editing the file. Please review privacy policy of the selected external service for more information concerning processing and storing your file. No other information except the particular file is shared with the external service.

Original technical reference: <https://slideshow.digital/documentation/privacy-policy/>
Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Supporting the software project

SOFTWARE PROVIDER REFERENCE

The following is the underlying Slideshow provider's material, retained with its original identity. It is not Technovia's warranty, privacy notice, pricing or support commitment. Supplier details are a snapshot taken on 4 October 2026.

The SlideShow app is free for both commercial and non-commercial use — and our goal is to keep it that way.

We believe in free software, especially in a competitive field like digital signage.

If you enjoy using SlideShow and want to help it grow, there are several ways you can personally contribute:

SPREAD THE WORD

Recommend Slideshow to your friends, colleagues, or clients, and leave a positive review on the [Google Play Store](#). The more people use Slideshow, the more feedback we receive — which helps us improve the app.

Many of Slideshow's best features were originally suggested by users like you.

HELP WITH TESTING

Test Slideshow on different devices, screen layouts, and playlist configurations. While every version is carefully tested before release, the variety of Android devices and settings means we can still miss something.

If you encounter a problem, please send us a [bug report](#) — we'll be happy to fix it.

CONTRIBUTE TRANSLATIONS

Thanks to our community, Slideshow already supports [many languages](#).

If you're fluent in a language that isn't yet available and have some time to help, we'd love to include your translation.

Your contribution helps make Slideshow accessible to more users worldwide.

SUPPORT DEVELOPMENT DIRECTLY

You can support ongoing development in several ways:

- Purchase a [white-label version](#) for your business
- Request custom commercial features
- Send us a device for testing

We maintain a collection of Android devices for compatibility testing, but new boxes and sticks appear every month. Your contribution helps us ensure Slideshow runs smoothly on as many devices as possible.

BUY US A COFFEE

If you'd like to make a small direct contribution, you can do so through ko-fi.com/slideshow. Every coffee helps us dedicate more time to improving the app and adding new features. Thank you for supporting our software!

Original technical reference: <https://slideshow.digital/documentation/support-us/>
Original documentation © 2026 Milan Fabian. Adapted for Technovia.

White-label software programme

SOFTWARE PROVIDER REFERENCE

The following is the underlying Slideshow provider's material, retained with its original identity. It is not Technovia's warranty, privacy notice, pricing or support commitment. Supplier details are a snapshot taken on 4 October 2026.

If you provide a complete digital signage solution for your clients, you can integrate SlideShow as part of your offering through our **White-Label program**.

This allows you to release the app under your **own brand**, making it look and feel like your company's product — without the time, cost, or complexity of developing it yourself.

We will help you:

- Save months of development time
- Deliver a complete, professional software solution
- Increase brand visibility and credibility
- Grow your recurring business by reselling under your name

DESCRIPTION

A white-label solution lets you rebrand and distribute an existing software product as your own. While the core functionality remains the same, the visual identity, branding, and licensing model are tailored to your business.

In this setup:

- You act as the solution provider or reseller.
- The SlideShow team serves as the Original Equipment Manufacturer (OEM).

This approach is ideal for:

- Digital signage providers and system integrators
- Agencies and IT companies offering managed display solutions
- Businesses that want to embed reliable display software under their own brand

INCLUDED FEATURES

Your white-label package includes:

- Custom application name and logo
- Personalized loading screen (with your brand, website, or custom graphics)
- Your contact information on the "About software" screen (name, email, web page, phone etc., *only the copyright must remain*)
- Customization of the default language and default settings, if needed
- Optional password lock for on-screen menus – ideal for [kiosk setups](#)

Additional modifications are available — just let us know your requirements, and we'll prepare a custom quote.

PREVIEW

[Watch video tutorial](#)

PRICING

- **\$ White-Label Setup for one platform (Initial Branding)**

-
- Custom branded app prepared exclusively for your company
 - For one platform (either Android or Windows)
 - Unlimited installations
 - One-time fee, perpetual usage

→ Price: **299 EUR**

- **\$ White-Label Setup for both platforms (Initial Branding)**

-
- Custom branded app prepared exclusively for your company
 - For both platforms (Android and Windows)
 - Unlimited installations
 - One-time fee, perpetual usage

→ Price: **499 EUR**

- **\$ Licensing Module (Optional)**

-
- Add license key protection to control activations
 - Includes license key generator
 - One-time fee

→ Price: **199 EUR**

- **\$ White-Label Version update**

-
- Keep your branded version up to date with the latest release
 - Per-version fee (we suggest updating once or twice per year)

→ Price: **89 EUR**

All prices exclude VAT (if applicable, we are located in Slovakia, EU).

GET STARTED

Getting your white-label version is simple — just contact us at ✉ info@slideshow.digital and include the following details:

- Desired application name
- Your logo (square, at least 400 × 400 px, transparent PNG or preferably SVG/AI format)
- *(Optional)* Custom loading screen image (same resolution as your device, typically 1920 × 1080 px)
- Your contact details for the "About software" page (website, email, optionally phone number)
- Any default [settings](#) you'd like to preconfigure
- Your invoicing details

Once payment is received (via PayPal or bank transfer), we'll prepare your **APK file (Android installation package)** or **MSI file (Windows installation package)** with the full SlideShow functionality under your brand.

Preparation time is typically 2-4 business days.

You can distribute, install and use this installation file without any restrictions, on an unlimited number of devices. If you would like to offer documentation to your clients, you can reuse our articles available at <https://github.com/Slideshow-digital/slideshow-documentation>.

LICENSING MODULE

For resellers or managed service providers, we recommend adding the Licensing Module. It gives you full control over client activations and helps secure your branded solution.

Original technical reference: <https://slideshow.digital/commercial/white-label/>
Original documentation © 2026 Milan Fabian. Adapted for Technovia.

Slideshow Cloud Management

SOFTWARE PROVIDER REFERENCE

The following is the underlying Slideshow provider's material, retained with its original identity. It is not Technovia's warranty, privacy notice, pricing or support commitment. Supplier details are a snapshot taken on 4 October 2026.

SlideShow Cloud Management provides a centralized platform for remote management of multiple players running the SlideShow app. Users can manage content, schedules, and devices from anywhere in the world through a web browser.

SlideShow Cloud Management is offered as a commercial product for Digital Signage Providers.

FEATURES

- **Automatic player provisioning**

Install a customized APK on an Android device and the SlideShow app initializes automatically based on the device's MAC address.

- **Player grouping**

Organize players by location and/or playlists.

- **Content scheduling**

Define which content is displayed on specific players or groups, including exact days of the week and times of day.

- **Event-driven playlists and layouts**

Trigger special playlists and layouts manually when needed.

- **Monitoring and analytics**

View player status, statistics, and graphical insights across all players, per client, or for individual devices.

- **Detailed reporting**

Access display statistics for players and media, with export to Excel for further analysis.

- **Notes management**

Add and manage notes for individual players and locations.

- **Media management**

Upload and organize content such as images, videos, documents and web pages.

- **Device configuration**

Configure settings for individual players or entire locations.

- **Automatic synchronization**

Changes to content, schedules, or settings are automatically synchronized from the cloud to the players.

- **Remote updates**

Upgrade the SlideShow app on devices remotely.

- **Remote device control**

Reboot devices remotely when necessary.

- **User management**

Create and manage user accounts with role-based permissions and automatic password recovery.

- **Client-based access control**

Group players by client. Users can be assigned to one or more clients and will only have access to their respective players.

DEPLOYMENT OPTIONS

We offer two deployment models:

- **Managed service (SaaS)**

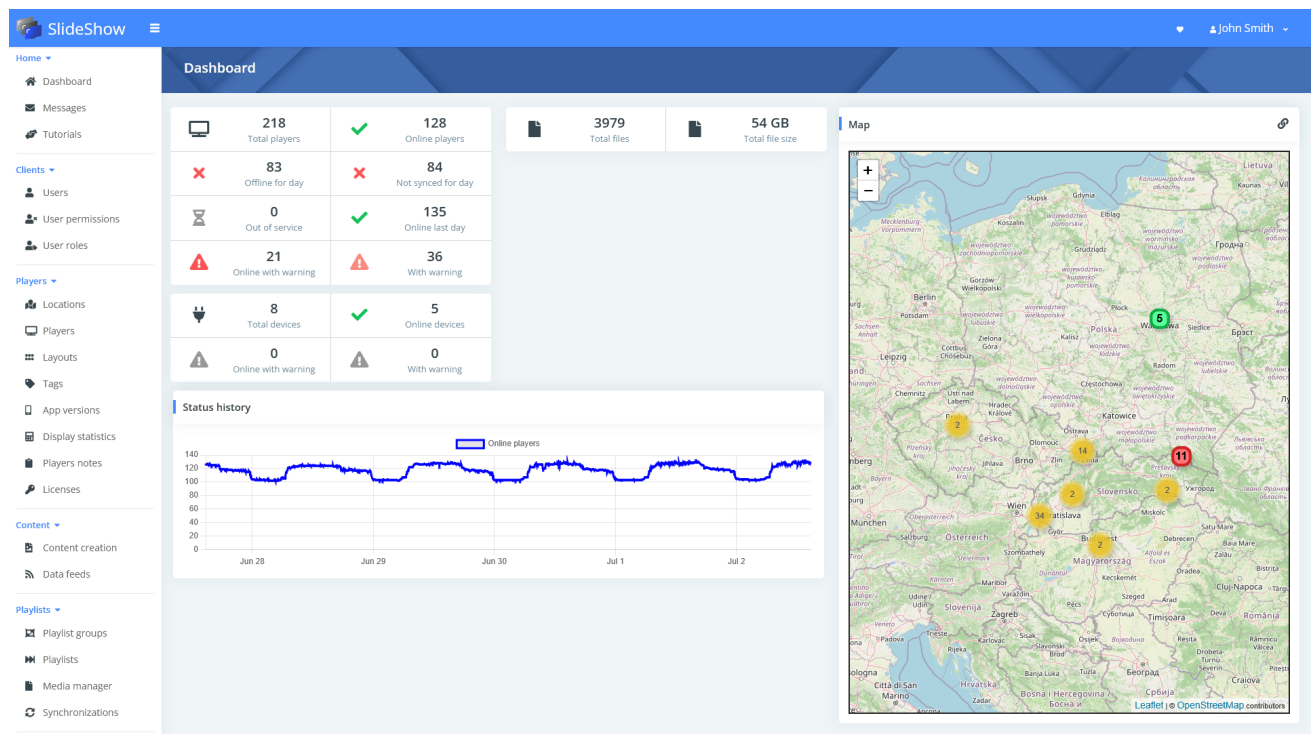
We provide SlideShow Cloud Management as a fully managed service. You don't need to handle any technical setup or maintenance.

- **Customer-hosted deployment**

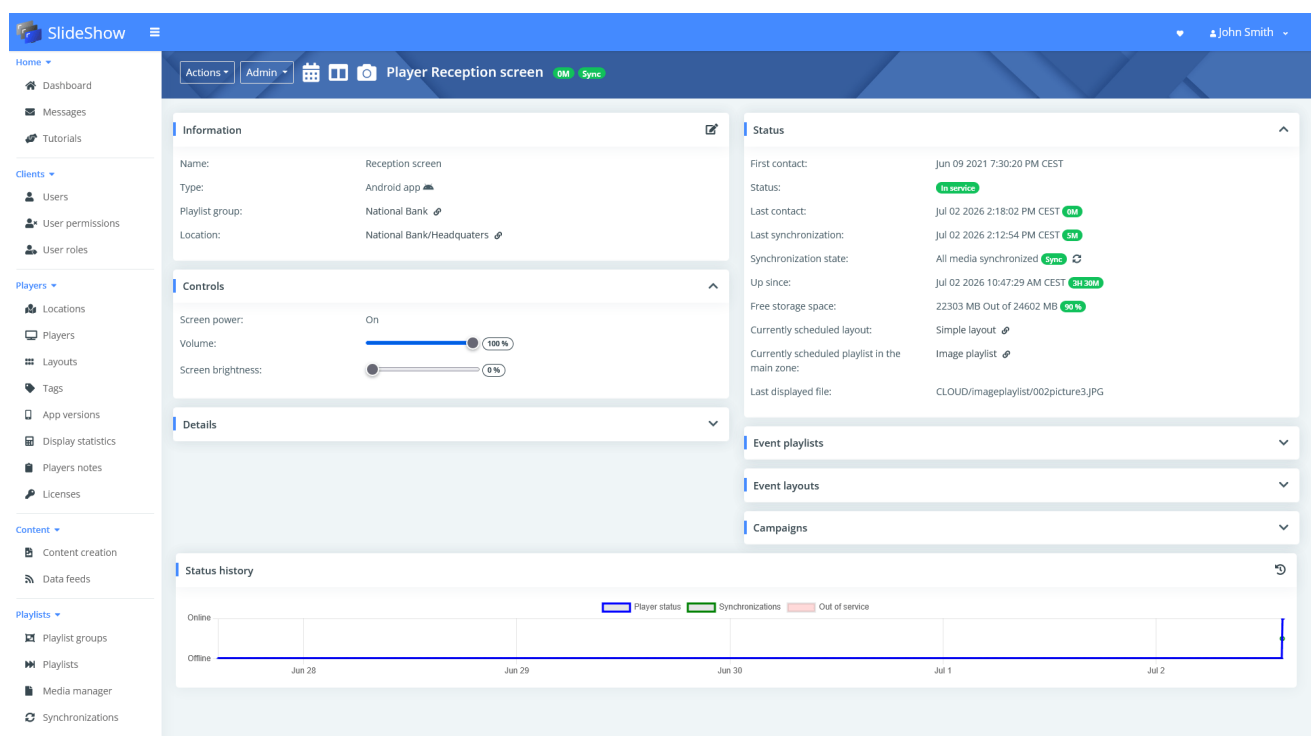
You provide a Linux server (on-premises or via a preferred cloud provider). We install and configure all required components. You are responsible for system monitoring, operating system updates, and backups.

Both deployment options can be customized with your branding and deployed under your domain (e.g., cloud.customer-domain.com).

SCREENSHOTS



Dashboard with player statistics



Player detail

The screenshot displays the SlideShow Cloud Management interface. The top navigation bar is blue with the SlideShow logo and a user profile for John Smith. The left sidebar contains a menu with categories: Home (Dashboard, Messages, Tutorials), Clients (Users, User permissions, User roles), Players (Locations, Players, Layouts, Tags, App versions, Display statistics, Players notes, Licenses), Content (Content creation, Data feeds), and Playlists (Playlist groups, Playlists, Media manager, Synchronizations). The main content area is titled 'Playlists' and includes a search bar. It is divided into two panels. The left panel, 'Playlists', shows a list of playlists for the client 'Pharmacy'. The list includes 'Unused', '2023 old' (10 h), '2024 old' (13 h), '2025 old' (8 h), 'Background audio' (25 h, 2 icons), 'Date/time', 'Default playlist', 'Marketing media' (3 h, highlighted), 'Opening hours' (1 h), and 'Weather forecast'. Each item has a 'Details' button. At the bottom are buttons for '+ Add new playlist' and '+ Add new collection'. The right panel, 'Playlist details', shows information for the 'Marketing media' playlist: Name: Marketing media, Action: Loop indefinitely, Collection: Pharmacy, Client: Pharmacy, Location: Pharmacy/Oldtown, Type: Media, Event ID: 1, Default media time: 10 seconds, Total media runtime: 00:00:39, Tag for sync, and a Note field. Below this is the 'Playlist manager' section, which shows a media library with three items: 'banner-1.png', 'banner-2.png', and 'video.mp4'. The status bar at the bottom right indicates 'Items: 3, Sum: 12.49 MB'.

Playlist management

GET STARTED

If you are interested in SlideShow Cloud Management, contact us at ✉ info@slideshow.digital and we will prepare a fully customized quote for you.

Original technical reference: <https://slideshow.digital/commercial/slideshow-cloud-management/>

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Using your manual

About & support

Technovia is your first point of contact for the supplied signage stick and its branded software build.

CONTACT TECHNOVIA

Visit www.technovia-uk.com for current contact information. Before requesting help, note the stick model, Android version, software version and the steps that reproduce the issue.

For software diagnostics, see [Troubleshooting & logs](#). In-app bug reports may be sent to the underlying software developer; review the software provider's privacy policy before submitting one.

DOCUMENTATION CREDIT

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MANUAL DESIGN

The Technovia manual uses an original layout informed by the organisation and restrained presentation of Tesla's online owner's manual. Tesla branding, text and artwork are not included.