CameraPro 3.0.0

Manual Version 1.0, 25th July 2013 Harald Meyer office@tequnique.com

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Introduction

CameraPro is a **must-have app** for all Android smartphones offering extensive camera functionality.

CameraPro focuses on:

- Fast accessibility of camera features, such as flash, exposure, macro, effects, etc.
- Full accessibility to camera features.

Download and Updates

CameraPro can be purchased on Google Play Store. Alternatively CameraPro can also be purchased on our website using PayPal or wire transfer. All links to the various versions and further information can be found on the CameraPro website:

http://www.tegunique.com/camerapro

CameraPro updates are distributed on Google Play and are always free.

Contact Information

The fastest way to reach us is by email or with the contact form which can be found here:

http://www.tegunique.com/contact

Please include all relevant information in your message such as: app name (e.g. "CameraPro"), system (e.g. "Android 4.1.3, custom firmware XYZ"), used device (e.g. "Samsung S4"), and your comment/questions/bug report.

You can share your greatest shots captured with CameraPro on our Facebook site:

http://www.facebook.com/CameraProApp

User Interface

One of the major design goals of CameraPro was to provide fast access to important camera features. Most settings can be set within two taps.

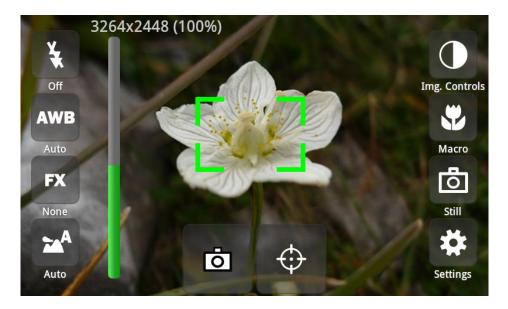


Figure 1 CameraPro user interface

The four icons located on the left and right sides of the screen provide access to most important settings and can be changed (see "Customizing the menus"). The available camera settings differ between various device models and Android versions!

When an icon is tapped then a popup window is opened which provides different options. The popup window can be closed either by:

- Tapping outside of the popup, or
- Double-tapping the selected option, or
- Tapping on another menu item.
- If "Single touch mode" is enabled, then the popup is automatically closed when an option is selected

The menus can be **shown** or **hidden** with the Android menu \rightarrow "Show/hide" controls.

Changing the capture resolution

The still picture resolution can be changed by tapping on the resolution on-screen information on the top left of the screen or in the CameraPro "Camera Settings".

Zooming

There are various means to zoom in/out:

- Volume up/down keys (the volume keys are only available for zooming if they are not used for capturing/focusing).
- Zoom slider (the zoom slider can be enabled/disabled in the CameraPro settings).

Using the Zoom menu icon (allows to set the zoom value to a specific numeric value).

Switching between front and back facing camera

It is possible to switch between front and back facing cameras using the Android menu \rightarrow "Switch camera".

Menus

The following Sections describe the functionality of menu buttons.

Customizing the menus

Both the functionality and the visibility of menus can be changed using "Settings" — "Arrange menus" option. Selecting "Arrange menus" will show an information text. To change a menu's functionality you have to press one of the menu buttons you want to change. This will open a selection dialog with all functions that can be applied to the selected menu button. The option "Hide menu item" hides the button and the option "Reset all menu items" resets **all** buttons. It is recommended to restart CameraPro when resetting all buttons. If you accidentally remove the "Settings" button you can reset CameraPro by deleting the CameraPro application data in

Android Settings \rightarrow Applications \rightarrow CameraPro \rightarrow Delete data.

To finish arranging of menu buttons touch the information text in the center of the screen.

Flash

This button opens a popup window with different flash options:

- Off: the flash is either disabled or the device does not have a flash.
- Auto: The flash will automatically fire, if required.
- On: The flash will always fire.
- Torch: Constant light is emitted.

White Balance

This button opens a popup window with different white balance modes:

- Auto: The white balance is set automatically.
- Daylight: Normal daylight.
- Cloudy: Overcast daylight.
- Tungsten: Tungsten filament lightning.
- Fluorescent: Fluorescent tube lightning.
- Optional: More phone specific modes.

Note: The adjustment of the white balance can take some time to settle down.

Effects

This button opens a popup window with image effects which are applied in real-time to the image:

- None: Any effect is applied to the image.
- Negative: The colors of the picture are inverted.

- Mono: A black and white (gray) effect.
- Sepia: Gives the picture an old photo touch.
- Aqua: An aqua-like effect.
- Optional: More phone specific modes.

All effects work for still images and during video recording.

Note: For more sophisticated effects such as color isolation or old film effects ShaderFX (http://s.meh.at/shaderfx) are highly recommended. For image post processing use PhotoFX (http://www.tegunique.com/photofx).

Scene Mode

The scene mode popup offers device-specific scene presets such as portrait, landscape, sports, beach, fireworks, etc.

Each scene mode contains optimized settings for specific situations and is built into the camera firmware. Thus, selecting a scene will not change the settings shown in CameraPro (Example: If the flash is turned off in CameraPro and a specific scene mode enables the LED flash, CameraPro will still show that the flash is turned off although the flash will fire).

Image Controls

This button opens a popup window with controls for adjusting image properties, such as:

- Brightness
- Contrast
- Saturation
- Sharpness
- **Exposure Compensation in EV**

Note: The available image controls depend on the device model. Many models support only exposure compensation. On some models there are hidden means to manipulate other properties. In this case you can try to enable the "Show unsupported controls" setting.

Focus Mode

This button opens a popup window with different focus modes:

- Fixed: The autofocus is disabled or no autofocus is available.
- Auto: Automatically selects focus range.
- Macro: For close objects where details are of interest, such as flowers, insects, etc.
- Hyperfocal: All objects at distances from half of the hyperfocal distance out to infinity will be in focus. This gives maximum depth of field, for instance for landscape pictures.
- Infinite: Focus on distance.
- Continuous: The focus is continuously adjusted (also during video recording). This option consumes more energy than single autofocus.
- Optional: Device specific modes.

Note: Focusing does not work with Hyperfocal, Fixed, or Infinite focus modes because these are fixed lens positions.

Note: Autofocus works by moving a lens. Autofocus modes are only available for devices which have an autofocus. It is not possible to add autofocus functionality to devices which do not have an autofocus.

Camera Mode

CameraPro offers seven different camera modes:

- Still: A picture is taken each time when the shutter key is pressed.
- Self-Timer: Shooting is delayed by a user-defined amount.
- Anti-Shake: A picture is taken when the camera is held still.
- Bracketing: Up to 5 consecutive images with different exposure settings are captured. These images can be used for high dynamic range (HDR) photos. CameraPro captures only series of pictures. If you want to generate a HDR directly on your phone then take a look at the app "HDR Pro" (http://www.tequnique.com/hdrpro).
- Burst: A user-defined number of pictures are captured as fast as possible.
- Time-Lapse: Pictures are taken in a user-defined interval.
- **BETA/TESTING**: Video: For recording h264/mp4/3gpp videos.

Note: The parameters (such as delays, exposure values, etc.) of all modes can be changed in the CameraPro "Global Settings".

Note: Video mode is only for testing and does not work well on most Android devices due to huge incompatibilities between devices.

ISO Mode

This button opens a popup window with different ISO modes:

- Auto: Adjusts the ISO mode automatically.
- Camera dependent manual ISO modes, such as 100, 200, 400, 800, etc.
- Optional device specific modes.

Note: In Auto mode the ISO rate can be higher than in manual mode due to camera firmware restrictions.

Note: Many models support do not support manual ISO mode. On some models there are hidden means to manipulate the ISO mode settings. In this case you can try to enable the "Show unsupported controls" setting.

Gallery

This icon opens the Android gallery app.

AE Lock

This icon enables and disabled the AE lock. The lock is disabled if the "AE" symbol is strike through. The AE lock locks the current exposure. This is for instance useful for capturing panoramas.

Note: AE lock does not work properly on all devices.

Metering Mode

This button opens a popup window with different metering modes. Metering modes specify which regions of the image are used by automatic controls to calculate optimal focus, exposure, white balance, etc.:

- Center: The metering area is in the center of the image.
- Average.
- Sport: The metering area is a single spot in the image.

Note: Many models support do not support settings the metering mode. On some models there are hidden means to manipulate the metering mode settings. In this case you can try to enable the "Show unsupported controls" setting.

Presets

Presets can be added, loaded, and deleted. A preset holds values for all camera settings, such as exposure, flash mode, focus range, image brightness, etc.

Creating a preset

A preset can be created with the following steps:

- Set exposure, flash, etc. settings
- Open the "Presets" popup dialog and select "Add"
- Enter a preset name and press "Ok".

Load a preset

A preset can be loaded with the following steps:

Open the "Preset" popup dialog and select "Load".

Delete a preset

A preset can be deleted with the following steps:

- Open the "Presets" popup dialog and select "Remove"
- Select a preset to delete.

Settings

The settings dialog window provides access to

- Global Settings,
- Arranging menus,
- Feedback, Info (including CameraPro version info), and a link to the CameraPro Facebook
- Controls not visible in the four left and right main menu buttons.

Besides, three different graphical overlays for capturing pictures can be enabled in the settings dialog:

- Grid: Shows a grid on top of the viewfinder.
- Compass: A compass is not supported on all phones. If the phone does not support compass mode, then an error message is displayed.

Virtual Horizon (level meter): Overlays a virtual horizon/level meter over the camera viewfinder to align pictures with the horizon. This can be useful if the exact level is uncertain (for instance to show the steepness of a hillside during skiing or hiking).

Global Settings

The global settings can be accessed by the "Settings" popup menu \rightarrow "Settings". The settings are grouped into multiple tabs which are described in the next Sections. The tabs are horizontal scrollable (from left to right).

General Settings

The general settings tab shows settings which affect all camera modes.

Show zoom slider

If enabled and zooming is supported, then a zoom slider is shown on top of the viewfinder.

Use volume keys for capturing

If enabled then the volume keys can be used for capturing and focusing.

Switch volume keys

If enabled and "Use volume keys for capturing" is enabled then the functionality for capturing and focusing is switched.

Show histogram

If enabled then a histogram of intensities is shown on top of the viewfinder.

Note: On some devices the histogram leads to faulty app behavior and should be deactivated.

Reset settings after start

If enabled then the CameraPro camera settings are set to default each time CameraPro is started.

Capture with media button

If enabled then an external headset's media button can be used to trigger capturing.

Default camera pp

If enabled then CameraPro is set as default camera app (e.g. started if the hardware shutter button is pressed).

Warn before exit

If enabled then a dialog is shown when the back button is pressed.

Enable shutter sound

If enabled then the default Android shutter sound is played. Disabling this option may not work on all Android devices due to local legal restrictions.

Show focus rectangle

If enabled then a focus rectangle is shown which indicates the current focus state.

Show focusing button

If enabled, then a touch focus button is shown.

Show capture button

If enabled, then a touch capture button is shown.

Show soft menu button

If enabled, then an action bar like Android menu button is shown on the viewfinder. This is useful for devices which do not have a hardware Android menu button.

Full screen viewfinder

If enable then the viewfinder is (eventually) expanded to full screen. If the aspect ratio of the screen and the capture resolution do not match, then the final image might contain regions not visible on the screen and vice versa.

Enable viewfinder orientation

If enabled, then the viewfinder is rotated when the device is rotated.

Viewfinder resolution

Here a custom viewfinder resolution can be selected. Usually the best option is "Auto".

Enable geo tagging

If enabled and a valid GPS position is available, then pictures will be stamped with the current location (EXIF tags latitude and longitude).

Show unsupported controls

If enabled, then hidden controls are enabled. There is no guarantee that these hidden controls will work and the set of hidden controls varies between devices. Examples for hidden controls are for instance ISO modes, metering mode, and image control settings.

Number of grid lines

Here the number of grid lines for the viewfinder grid can be specified.

On some old HTC devices captured images are sometimes distorted. This option fixes the problem.

Orientation fix

On some old devices the orientation of the viewfinder is wrong. This fixes the problem.

Force flash support

Some devices report that they do not support firing a flash although they have a flash. Enabling this option will force CameraPro to assume that the device has a flash independently of what the device reports.

Source camera

Here, the source (front/back facing) camera can be selected. This can also be changed using the Android menu → "Switch camera".

UI design

This option offers a set of different color schemes for CameraPro.

Screen UI opacity

This field specifies the opacity ("alpha") of the menu controls.

Use white menu icons

If enabled, then white menu symbols are used. Else black menu symbols are used.

Show menu text

If enabled, then a short caption is shown below each menu item.

Camera Settings

The camera settings affect all still picture modes, including burst, bracketing, self-timer, and timelapse.

Photo resolution

Here the photo capture resolution can be changed. The resolution can also be changed by tapping on the resolution text on the viewfinder.

Image compression quality

Here the jpeg compression quality can be changed. For reference, the quality setting of the native camera app is about 90%. A value of 100% means that the raw jpeg stream is saved to the file.

Note: due to internal post-processing by the camera firmware the quality of a lower compression level (e.g. 90%) can visually look "better" than the result with 100% setting.

Re-encode pictures

If enabled, then images are re-encoded a second time before saving. This is useful to generate very small images.

Keep copy of original

If enabled then a copy of the original image is kept besides the re-encoded picture.

Image preview time

If this time is larger than "0" and the "Show mini preview" option is disabled, then the preview after capturing a picture is shown for the given amount of seconds. The preview window allows you to save and delete the image, as well as to show EXIF metadata and share the picture with various web services, MMS, and email. The preview window timer can be stopped by touching the preview image. The preview window can be closed by pressing the hardware shutter button or by pressing the save/delete buttons.

Show mini preview

If enabled, then a mini preview is shown on the viewfinder after capturing a picture. When touching the mini preview, then a full-screen preview opens. The preview window can be closed by pressing the hardware shutter button or by pressing the save button.

Note: It is not possible delete the image from the mini preview.

Show preview in default gallery app

If enabled, then the preview of a captured image is shown in an external gallery app instead of the built-in CameraPro preview window.

Capture after touch focus

If enabled then the action defined in "Capture button mode" is executed after touch focusing.

Capture button mode

This option defines what happens when the touch capture button is pressed:

- Capture only.
- Focus and capture on success: first focuses and only takes a picture if focusing succeeded.
- Focus and capture every time: first focuses and then takes a picture, even if focusing did no succeed.

EXIF Tags

This tab shows options related to EXIF tags which are stored in photos.

EXIF data fix

If enabled then the automatically added date will be replaced with the device system date.

Remove all EXIF tags

If enabled then all EXIF tags are removed before saving.

Remove orientation EXIF tag

If enabled then the orientation EXIF tag is removed before saving.

Remove user data EXIF tag

If enabled then the user data EXIF tag is removed before saving.

Image and Video storage settings

This tab shows options related to image and video storage settings (such as storage location).

Storage location

Here the image/video storage location can be changed.

Filename format

This field specifies the filename pattern of captured images/videos. Patterns are **case sensitive**. You can load a pattern preset by pressing the "Load preset" button. The following fields are available and can be mixed:

- @y: year, e.g. "2013"
- @m: month, e.g. "01"
- @d: day, e.g. "29"
- @H: hour, e.g. "14"
- @M: month, e.g. "02"
- @S: second, e.g. "59"
- @COUNTER: a counter, e.g. "camerapro_000001"

Note: use only characters which are valid. For instance a filename may not contain ":", "/" or "\" (this list of forbidden characters is not complete!).

Note: The file extension (".jpg") is automatically added.

Create new directory for each day

If enabled then pictures are saved in a new directory each day.

Stamp text on picture

If enabled then a text stamp (date, filename, etc.) is added to the image before saving. The stamp type can be loaded from a set of presets or a custom text can be entered. Use the "Select stamp color" button to change the stamp's color.

Note: The PhotoStamper app (http://www.tequnique.com/photostamper) supports batch stamping of photos and more advanced options.

Note: Stamping text on pictures is a memory intensive operation (e.g. for high resolution pictures) which may lead to application failure on low end devices.

Self-Timer Mode

In the self-timer tab the duration in seconds until the picture is captured can be set.

Anti-Shake Mode

In the anti-shake mode tab the anti-shake sensitivity can be set:

- Low
- Medium: slight movements are tolerated.
- High: a picture is only captured if the phone is held absolutely still (e.g. on a tripod).

Time-Lapse Mode

In the time-lapse tab the capturing interval in seconds can be set. A more advanced tool for time-lapse recording is FastMotion (http://www.tequnique.com/fastmotion) which offers more options and support for generation of video files directly on the mobile phone.

Autofocus before each picture

If enabled then for each picture the focus is adapted before capturing.

Burst Mode

In the burst mode tab the delay in seconds until capturing is started and the number of pictures to be captured can be set.

Autofocus before each picture

If enabled then for each picture the focus is adapted before capturing.

Bracketing Mode

In the bracketing mode tab the delay in seconds until capturing is started and the exposure compensation for up to 10 pictures can be set.

Settling time (ms)

The camera needs a short time for settling when changing the exposure time. The settling time can be changed here. The default value is 200ms.

Autofocus before each picture

If enabled then for each picture the focus is adapted before capturing.

Video Mode

CameraPro offers advanced options for video recording.

Note: Due to huge incompatibilities between all Android devices (even within same brands) the video mode is marked as Beta/Testing and does not work properly on many devices.

Use native camera

If enabled, then the native camera app is started when the video menu is pressed.

Video profile

Here one of the default Android video profiles can be selected.

Maximum recording duration

This field specifies the maximum recording duration in seconds (auto: "0").

Maximum file size

This field specifies the maximum file size of the recorded file in MB (auto: "0").

Automatic file splitting

If enabled, then a new video file is automatically generated once the maximum recording time or file size is reached.

Play video after capturing

If enabled, then the recorded video is played back when recording is stopped.

Enable expert video mode

This enables the expert video mode which allows tuning individual settings in detail.

Copy profile settings

If selected, then the default values from the selected profile are copied to the expert settings when the profile is changed. This is useful to have a working set which can then be altered to the individual needs.

Video split delay

Here the delay between two recording is defined when automatic file splitting is enabled. The delay is required to re-instantiate the camera and should be at least 1000ms.

Record audio

If enabled, audio is recorded. Else audio is muted.

More advanced video settings

Codec and video related settings include:

- Audio codec
- Audio encoding bit rate
- Audio sampling rate
- Video capture rate

- Video output format
- Video codec
- Video encoding bit rate
- Video frame rate
- Video size width/height

Capturing Pictures

Depending on the phone model there are various means for capturing pictures:

- By pressing the hardware camera shutter key.
- By pressing the play/stop (media) button on an external headset control.
- By tapping the camera touch button.
- By pressing the hardware "Ok"/"Enter" key (devices with keyboard).
- After touch focus (depending on capture button mode setting)

Additionally, in video mode a touch button is shown to pause and resume video recording.

Focusing an Object

If your phone model supports autofocus an object can be focused either

- By slightly pressing the hardware camera shutter key (if available), or
- By tapping on the touch focusing button, or
- By tapping somewhere on the viewfinder (which focuses on the selected region).

The success or failure of the focus operation is visualized by a red (unfocused) or green successfully focused) rectangle.

Simulating Touch Focus

If your device does not support touch focus but only normal autofocus then touch focus can be easily simulated:

- Move the phone so that the object (distance) you want to focus on is close to the center of the viewfinder
- Focus
- Reposition the phone without changing the distance to the object
- Capture the picture without re-focusing

Frequently Asked Questions

I accidently removed the settings menu. How can I get it back?

Reset the CameraPro settings here:

Android Settings \rightarrow Applications \rightarrow CameraPro \rightarrow Delete data.

How can I replace the built in camera app with CameraPro?

Open CameraPro and go to "Global Settings". There you find an option "Set CameraPro as default".

Note: This option does not work on all Android devices.

CameraPro crashes on startup/during focusing/etc.?

Please contact us and include all your device details such as Android version, custom ROM, device model and exact error description.

Can I manually set exposure, focus range, and aperture?

At the moment it is only possible to use the presets because manual selection is not possible due to camera firmware restrictions.

Capturing pictures with CameraPro seems to be slower than with the built-in camera application!

CameraPro processes images in background, so you can capture multiple images directly after taking a picture. But CameraPro provides 100% quality (=raw jpeg) which results in up to 5 times larger image sizes (like 10 MB instead of 2 MB). Thus sometimes CameraPro can be a little bit slower than the built in camera when taking pictures with 100% quality.

How can I take pictures in 16:9 formats?

When you are in photo mode, go to "Settings" and change the image size to a dimension with a 16:9 ratio, for instance to "4000x2248". Alternatively the resolution can be changed by tapping on the resolution text on the top left.

The exposure in bracketing mode is not constant.

The camera firmware allows only little manual intervention of parameters. Adjusting the exposure compensation value gives the camera only a hint which is sometimes ignored. Some devices fake exposure compensation completely by adjusting the brightness.

Why did CameraPro temporary disappear from Google Play?

There has been a problem with the original Google Play account caused by some automated Google bot which resulted in the deletion of the original app.

Change Log

Note: possible missing version numbers are private releases.

Version 3.0.0

Same as 2.6.2 (version change due to Google Play problems)

Version 2.6.2

- Bug fixes (S)

Version 2.6.1

- Fixed date problems

Version 2.6.0

- Added 00:00 AM/PM (@am), 00:00:00 AM (@amS), and @dayofweek (@dayofweeklong) time stamps

Version 2.5.9

- Improved image sharing (in image preview)

Version 2.5.8

- Improved anti-shake mode

Version 2.5.7

- Shutter sound inhibition improvements
- Bug fixes

Version 2.5.6

- Fixed resolution bug

Version 2.5.5

- Fixed touch focus bug

Version 2.5.4

- Fixed image controls

Version 2.5.3

- Improved portrait orientation layout
- Bug fixes

Version 2.5.2

- Added options to modify/remove EXIF tags (under "Settings")
- Rearranged settings

Version 2.5.1

- Fixed problems with hardware shutter keys

Version 2.5.0

Fixed problems when using CameraPro from other apps

Version 2.4.9

Fixed portrait mode bugs

Version 2.4.8

- Added option for jpeg re-encoding (e.g. for extreme compression; under "Settings" "Camera Settings")
- Added option to stamp text on images (under "Settings" "Image Storage Settings"). Caution: this function requires a lot of memory and might fail on older devices/high photo resolutions! It is also slow because the image has to be processed.

Version 2.4.7

- Disabled histogram by default (due to problems on some devices)

Version 2.4.6

Internal release

Version 2.4.5

- Internal: Default camera app problem test

Version 2.4.4

- Added histogram (can be disabled under Settings)
- Added option to completely hide individual menu items (under "Arrange menus")
- Added beep sound for self-timer for the last 5 seconds (Android 4+, shutter sound and volume must be enabled)
- Bug fixes

Version 2.4.3

- Changed settings menu entry to show settings popup

Version 2.4.2

- Added option to hide capture button
- Added option to show a soft menu settings button (e.g. for all new Android devices which do not have a hard menu button)
- Added "single touch mode" for fast selection of settings
- Bug fixes

Version 2.4.1

Fixed viewfinder problems (e.g. on Google Nexus 4)

Version 2.4.0

- Fixed mini preview bug

Version 2.3.9

- Internal release

Version 2.3.8

- Fixed black viewfinder problem when using mini preview

Version 2.3.7

Mini preview bug fix

Version 2.3.6

- Added mini preview option under camera settings. The mini preview is shown when the preview time is set to 0. Clicking on the preview opens the full preview.

Version 2.3.5

 Added: exposure lock menu item (not supported on all phone models due to device dependent camera restrictions and Android 4+ required)

Version 2.3.4

- Added: support for custom camera presets*
- Added: previously captured pictures can be viewed in the preview view using swipe gesture
- Added: improved manual selection of zoom ratio*
- Added: support for Android UI styles
- Added: option to switch volume key functionality
- Added: image preview can be closed with hardware volume/camera/focus keys
- Added: option to use default video app instead of CameraPro video app
- Fixed: it is now possible to select a custom gallery intent
- Bug fixes
 - *(new menu entry)

Version 2.3.3

- Added default camera code again (which was removed due one complaint before)

Version 2.3.2

- Removed license checking

Version 2.3.1

- Removed default camera code from Android manifest due to problems on some phones (default camera)

Version 2.3.0

- Added megapixel count information

Version 2.2.9

- Changed application launcher icon for different resolutions
- Added support for viewfinder rotation (Settings: "Enable viewfinder orientation")
- Added settling delay for bracketing mode (Settings Bracketing)

- Added experimental option to force flash support (Settings: "Force flash support")
- Bug fixes

Version 2.2.8

- Added option to switch camera from menu

Version 2.2.7

- Fixed and improved Full-HD video recording mode (Galaxy S2)

Version 2.2.6

- The volume and headset capture buttons now support single focus&capture by changing the "Capture button mode"
- Added option to capture directly after touching the screen (Settings: "Capture after touch focus")
- Now it's possible to add the capture button to the menu items

Version 2.2.5

- Added option to save pictures to separate folders for each day
- Added Spanish translation

Version 2.2.4

- Added exposure time to file name in bracketing mode

Version 2.2.3

- Added German localization/translation

Version 2.2.2

- Added option to capture with headset's media buttons
- Added option to manually set the live viewfinder resolution

Version 2.2.1

- Changed upload functionality

Version 2.2.0

- Added support to capture images from external apps

Version 2.1.9

- Bug fixes
- Improved image picking behavior

Version 2.1.8

- Added option to start CameraPro as image content provider (Note: at the moment you have to manually exit CameraPro with the back button to load the LAST captured image into the calling app)

Version 2.1.7

- Added option to overwrite EXIF date

Version 2.1.4

- Added option to open photo gallery
- Fixed scrolling for scene modes list
- Popups can now be closed with the back button
- Disabling fullscreen viewfinder shows 4:3 area
- Bug fixes

Version 2.1.3

- Bug fixes

Version 2.1.2

- Added option to confirm exit if back button is pressed.

Version 2.1.1

- Bug fixes

Version 2.0.9

- Bug fixes

Version 2.0.8

Fixed zooming bug

Version 2.0.6

- Added option to fix wrong viewfinder orientation (under Settings)

Version 2.0.5

Fixed distorted images on some HTC devices

Version 2.0.4

- Improved option to disable shutter sound

Version 2.0.3

- Added support for Android 2.2

Version 2.0.2

- Fixed photo zoom on HTC devices
- Fixed video recording on HTC sensation
- Fixed initial values for brightness, contrast, saturation, and sharpness
- **Bug fixes**
- (- Added continuous AF support for HTC sensation)

Version 2.0.1

- Fixed automatic video splitting by introducing a short gap
- Improved error handling
- Fixed "disable shutter sound"

Version 2.0.0

- Complete rewrite of CameraX and renamed to CameraPro (see description of CameraPro for all new features).
- New features include touch focus, video recording, customizable user interface,...