

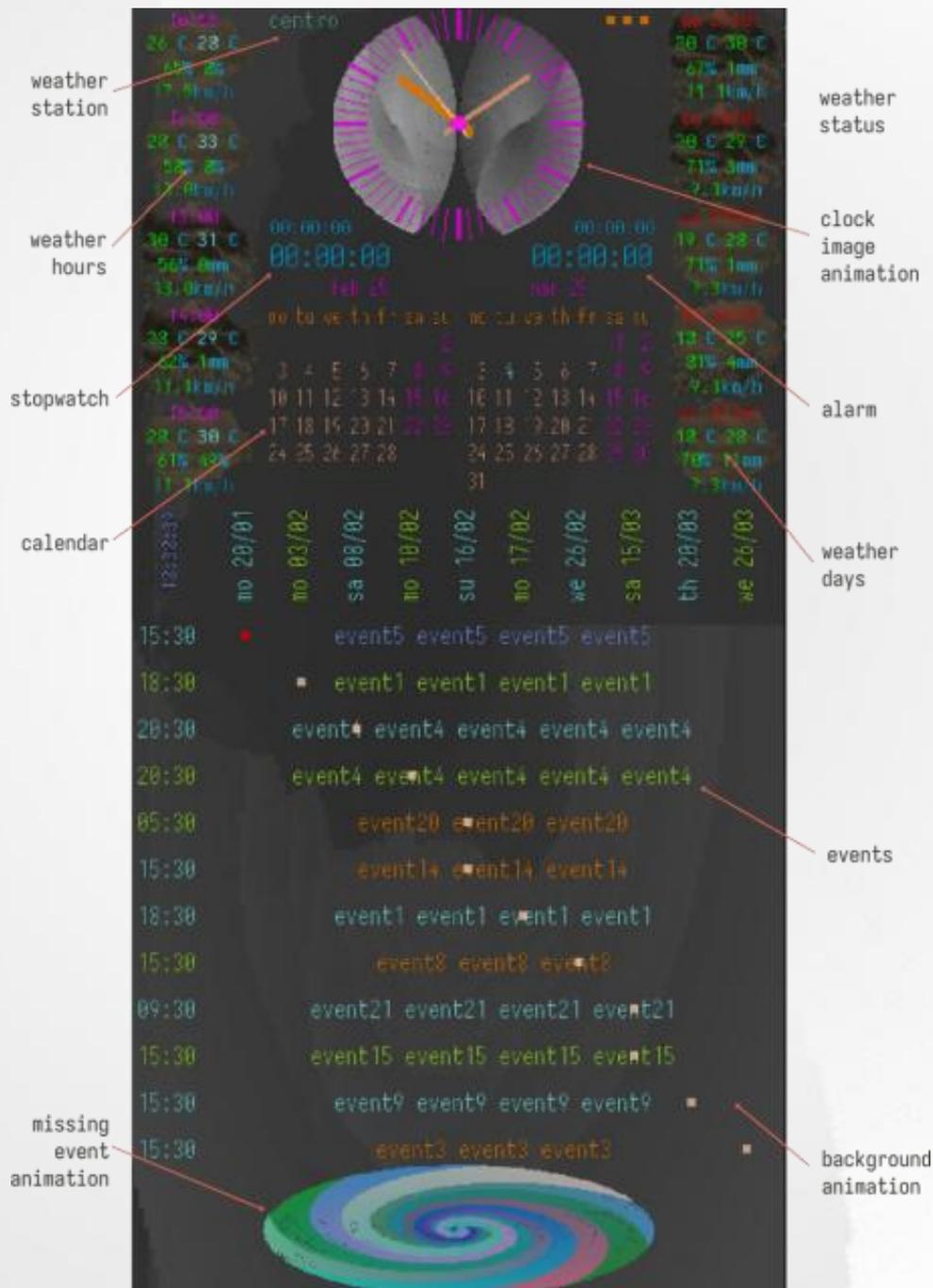


esa
(event schedule animate)

user manual

1 introduction

- this document aims to provide information for the proper use of the *esa* software, being a source of reference and a way to use its functionalities;
- the *esa* software provides some features that can be very useful to the user in his/her daily life (f01), which are described below including the elements involved in their use;



f01: esa's layout and features

- in order to make its use more pleasant, *esa* incorporates certain animations based on geometric and abstract figures, in addition to this, it adopts a color theme with small variations, but taking care that information can be highlighted with color variations and flashing elements;
- the main functionality of scheduling events according to their day and time of occurrence, thus *esa*: (i) organizes such events chronologically, providing a view of the occurrence of a given

- event in relation to others, (ii) triggers an alert of the occurrence of a given event, according to the user's convenience for each event;
- e) in addition, some functionalities considered as complementary are included, which aim to provide additional facilities to the user, for the definition of their events;

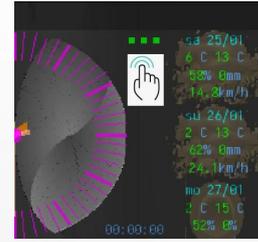
2 description

a) menu

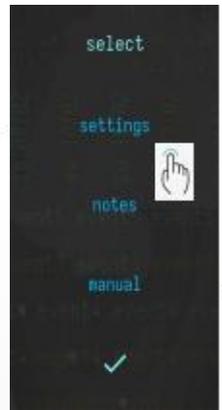
- i) **double tap** on **weather status dots** to **trigger menu** (f02, f03);
- ii) **settings**:
 - » in the esa system, some default parameters can be reset by the user, so **tap** on **settings option** to **trigger settings dialog** (f04);
 - » the dialog is self-explanatory, however some elements are described in the following items;
 - » changes are saved when the 'close button' is pressed;
- iii) **notes**:
 - » esa incorporates a small note editor, where the user can enter up to 50 items, with each note item having a maximum of 250 characters (f05);
 - » esa automatically removes text notes that exceed the maximum number of notes allowed;
 - » the most recently updated text notes are placed at the end of the list, however in this esa version, the presentation of this last item is updated after the screen is updated;
 - » a dialog asks for confirmation when the user removes a note;
- iv) **manual**:
 - » opens and displays this manual file;

b) alarm

- i) daily, available to set a future time for alarm less than 24 hours;
- ii) **disable**:
 - » at any time **long press** **disables** the **alarm** function (f06);
- iii) **enable**:
 - » with **horizontal drag** **enable** the **alarm**, which triggers a dialog to define the moment at which the alarm should be triggered (f07, f10);
 - » when enabled, it displays a countdown to the moment the alarm should be triggered;
 - » above the countdown timer, the time at which the alarm is scheduled to go off is displayed;
 - » the active alarm is always counting down to the time programmed to be triggered;
- iv) **trigger**:
 - » according to the user's option in settings (f04), the audible alarm can be enabled or disabled;



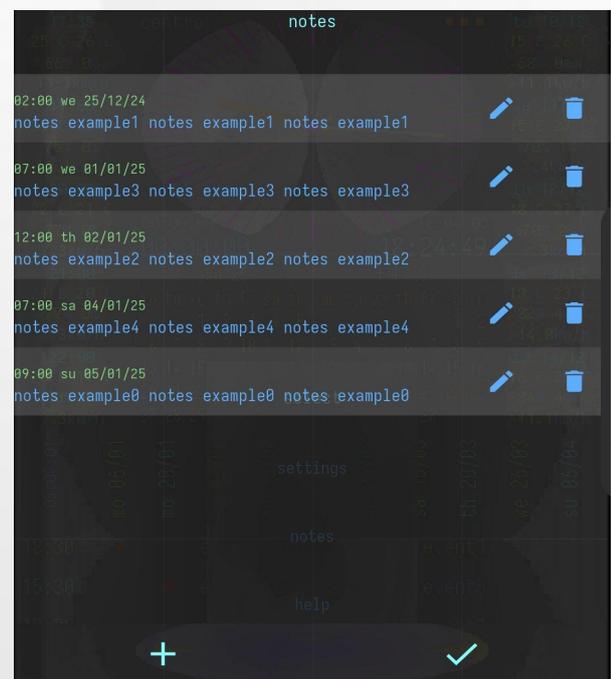
f02: trigger menu



f03: menu dialog



f04: settings dialog



f05: notes dialog

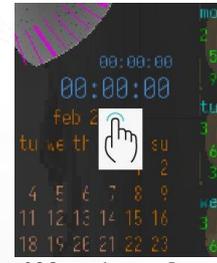
- » when the alarm time is reached, the time countdown starts, in which the alarm triggered status is displayed, which includes audible alarm (if enabled) and blinking remaining time;



f06: disable alarm



f07: enable alarm



f08: stop alarm



f09: enable alarm

- » while the alarm is in the triggered state, with a **double tap** the user can **stop** the **alarm** (f08) or with a **tap** **enable** the **snooze** mode (f09);

v) snooze:

- » the time duration in snooze mode can be set by the user in the settings (f04);
- » while the alarm is in snooze mode, with a **double tap** the user can **stop** the **alarm** (f08);
- » when the snooze time countdown is finished, a new alarm situation is triggered;



f10: alarm dialog

c) stopwatch

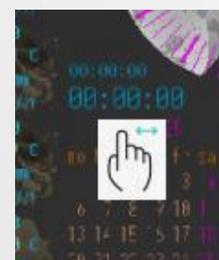
- i) displays an increasing count of time, from zero to a certain duration;

ii) disable:

- » at any time while counting, with **double tap** to **stop** the **stopwatch** (f11);



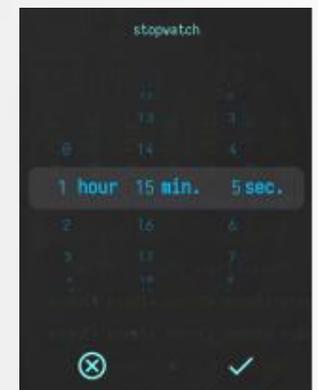
f11: disable stopwatch



f12: enable stopwatch

iii) enable:

- » with **horizontal dragging** it is **enabled** to **start**, the duration of the count is defined with the dialog (f13);



f13: stopwatch dialog

iii) pause:

- » when enabled, with **tap** its state can be **toggle** from **paused** to **resume** or the inverse (f12);

d) weather

d1) description;

- i) shows the weather conditions for the current moment, hours and days ahead;
- ii) the update is made for the user's current location, however the user can customize the location, providing the 'latitude' and 'longitude' of interest in the settings dialog (f04);
- iii) weather conditions are updated periodically, the three dots in the upper right corner indicate the status of the last update (f14), which are from left to right the condition to: now, hours and days;
- iv) colors and corresponding meanings:
 - » yellow: data is being updated;
 - » orange: partial failure occurred during update (failure in the value of some data, which is indicated with 'n/a');
 - » red: data download failed, data from the last successful update is displayed;
 - » green: data update successful;



f14: weather normal mode (now, hours, days)

d2) normal mode (f14);

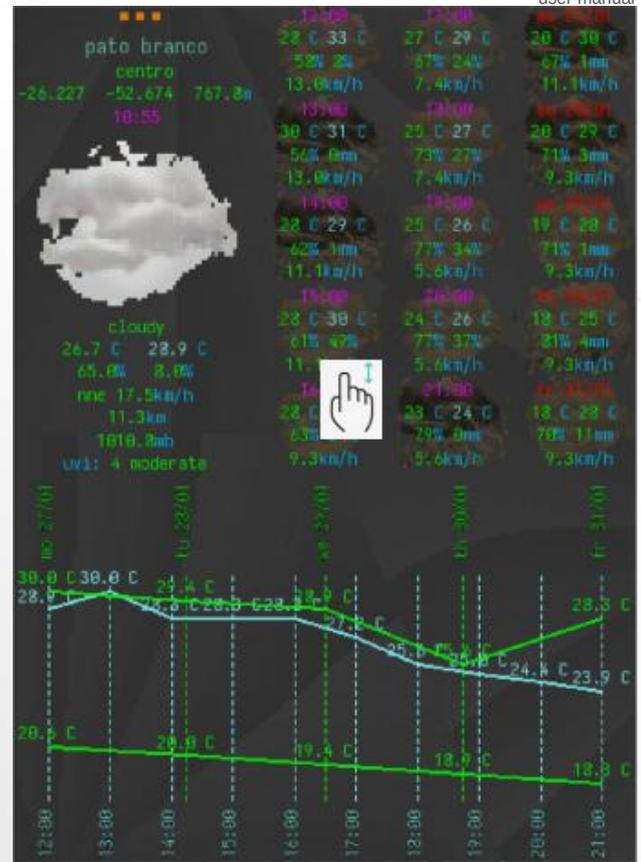
- i) on the left column has the weather

conditions for the current moment and for the next four hours;

- ii) on the right column has the weather conditions for the next five days;
- iii) with **vertical drag upwards** it is **displayed** the **plus mode**;

d3) plus mode (f15);

- i) left;
 - » at the top are displayed the update status indicators;
 - » the conditions for the current moment are presented in more details;
- ii) right;
 - » in the following two columns are the conditions for the next ten hours;
 - » in the last column are the conditions for the next five days;
- iii) below;
 - » presenting the temperature curves, with an indication of each temperature on a vertical scale, according to the minimum and maximum temperatures found for the data set (indicated in the three columns above on the right);
 - » at the bottom of the graph, the ten hours considered are indicated on a horizontal scale;
 - » at the top of the graph, the five days considered are indicated on a horizontal scale;



f15: weather plus mode (now, hours, days)

- iv) with **vertical drag downward** to **return** to **normal mode**;
- v) remark;
 - » the graph shows the temperature on the curve for a given instant (hour or day);
 - » in this approach, cases of overlapping elements may occur, compromising the understanding of the information presented;
 - » in these cases, the columns above can be consulted in order to improve the understanding of the temperature at a given moment of interest;

e) calendar

e1) description;

- i) today is shown blinking, as well as holidays are shown highlighted (f16);
- ii) in the settings dialog (f04), there is an option for the holidays dialog (f17), where the user can inform the holidays in their region;
- iii) **long pressing** on a specific month **triggers** a **holiday dialog** for that month (if any) (f18);

e2) normal mode (f16);

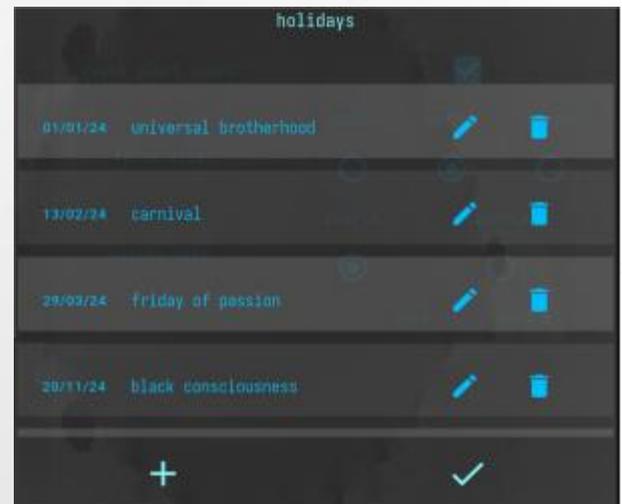
- i) presents calendar of the current month and the following month (f16);
- ii) with **vertical drag upwards** **trigger** the calendar in **plus mode**;

e3) plus mode (f19);

- i) in plus mode the calendar shows all the months of the year, it starts with the current year;

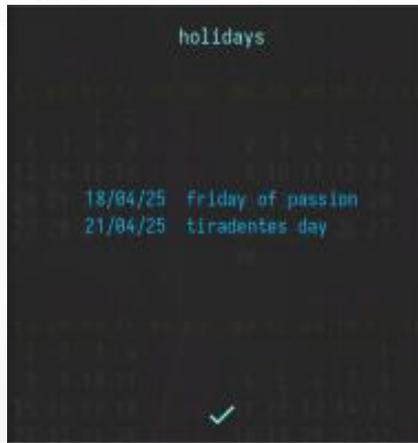


f16: calendar (current and next month)

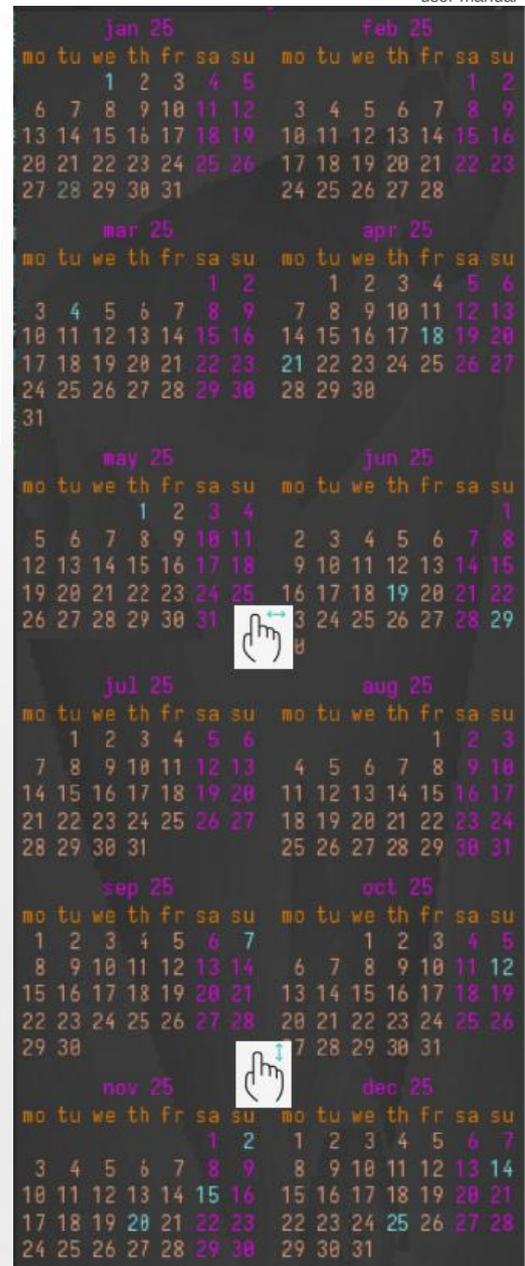


f17: holiday dialog

- ii) with **horizontal drag leftward** the calendar **advance** to the **following year**;
- iii) with **horizontal drag rightward** the calendar **display** the **previous year**;
- iv) with **vertical drag downward** the calendar **returns** to **normal mode**;



f18: holiday tooltip dialog



f19: calendar plus mode



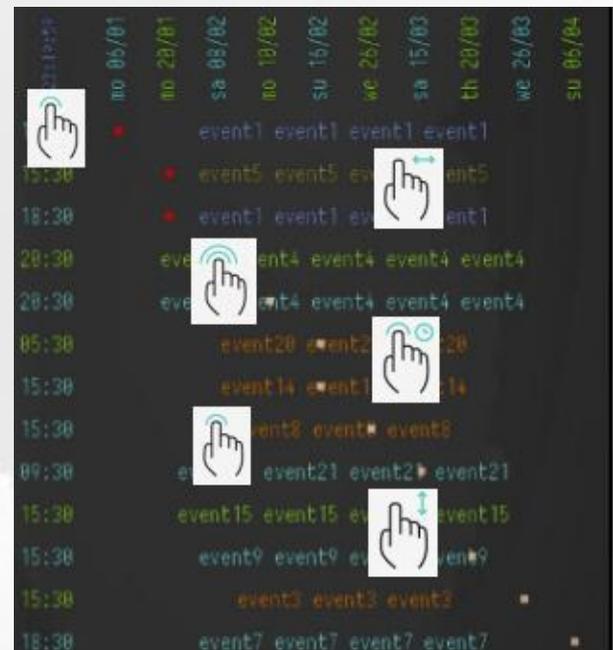
f20: event elements

- e4) remark;
 - i) only one holiday per day is considered, with a maximum of five holidays per month;
 - ii) are considered holidays referring to one year before and two years after the current year;
 - iii) *esa* automatically removes holidays older than one year from the current year;
- f) **event**
 - f1) description;
 - i) elements;
 - » events are described by elements (f20);
 - » when: instant at which it should be fired;
 - » interval: the event has only one occurrence or is repeated at a certain time interval (composed by a quantity and a unit (hour, day, week or month), which define the time interval in which the event occurs (f21));
 - » alert: a time to be signaled in advance before the event occurs (composed by a quantity and a unit (minute, hour, day or week), which define how long before the event occurs, the alert should be triggered (f21));
 - » emphasis: an event may or may not be marked as highlighted;
 - » label: a name or description provided by the user, which characterizes the event in the system;
 - » remark: optional, considered as complementary information to the event label, according to the user's convenience;
 - » events are presented in table form: (f22):
 - » events are presented in chronological order according to the time they are expected to occur;
 - » each line contains an event, which is designated by the hour and minute of its occurrence;
 - » the column shows the day and month of the event, there may be more than one event occurring on the same day;
 - » at the intersection of the row and the column, there is a small circle over the event label, thus designating which

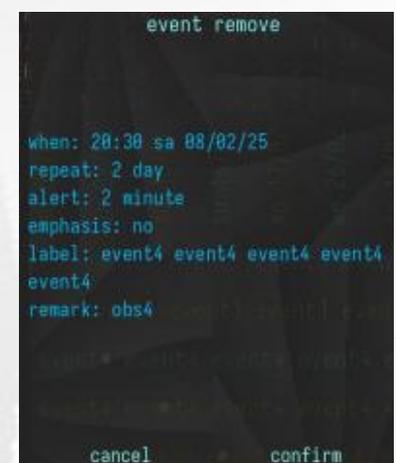
- event occurs at that moment;
- » emphasized events are presented with a specific color to make them stand out from the rest;
- ii) behavior;
- » for events with repetition are presented as two successive occurrences;
 - » when the alert trigger time is reached, the event label starts blinking (with alternating colors);
 - » the event is triggered when the predicted time is reached;
 - » the yellow circle (which determines the intersection of the row with the event column) changes its color to red (indicating that the event triggering time has been reached);
 - » when sound is enabled (f04, in the settings dialog there is the option to enable the application of the sound play), it is triggered at this moment;
 - » in the small rectangle in the upper left part of the table (f22);
 - » from the moment the event is triggered, it displays an increasing time count (which allows to know how long ago the event was triggered);
 - » when the time interval considered to keep the sound play active (if triggered) is reached, it is automatically interrupted;
 - » by **tap** over this indicator, the user can **stop** the played **sound**;
 - » with **horizontal drag** the event is **removed event** from the list (f22);
 - » a triggered event remains blinking until it is removed from the list;
 - » removing a triggered event only removes this event with the triggered status;
 - » the next occurrence of the event already exists in the list, so an occurrence is added after this existing one (keeping two successive occurrences of the event in the list);
 - » when removing a non-triggered event, confirmation is requested to remove the event (f23, when confirmed, the event is completely removed from the event list);
 - » by **double tap** on a specific **event**, the dialog for **editing** the event or **adding** a new one (f22, f20);
 - » each event has its own label, inserting or editing an event, but keeping the same label, implies replacing the existing event with the new one;
 - » with **long press** a dialog is **displayed** with the data instance defined for the **event** (f22, f24);
 - » with **tap** applies **toggle** on the **emphasis** status of a certain event (f22);
- f2) normal mode (f22);
- i) with **vertical drag upward** triggers **plus mode** for events;



f21: interval and alert units



f22: event list normal mode

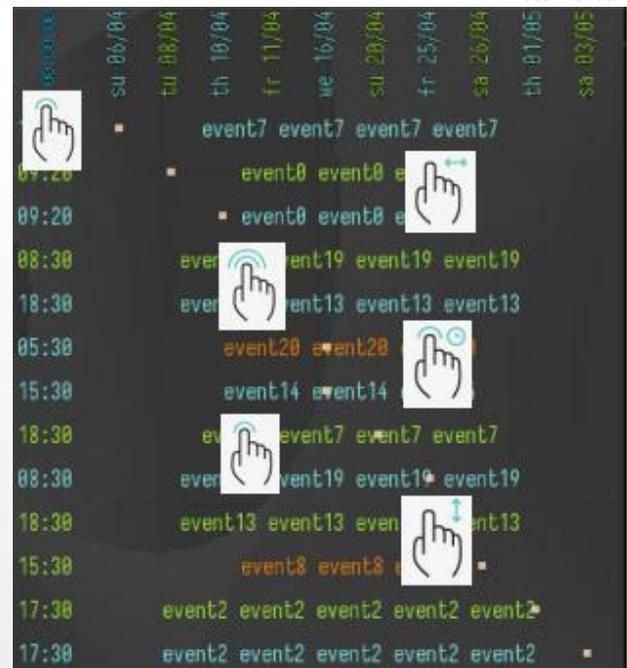


f23: event remove

- f3) plus mode (f25);
 - i) with **vertical drag upward** the next page of events is displayed;
 - ii) with **vertical drag downward** returns to the previous page of the event list (note that in this sequence the last previous page is the event list in normal mode);



f24: event tooltip dialog

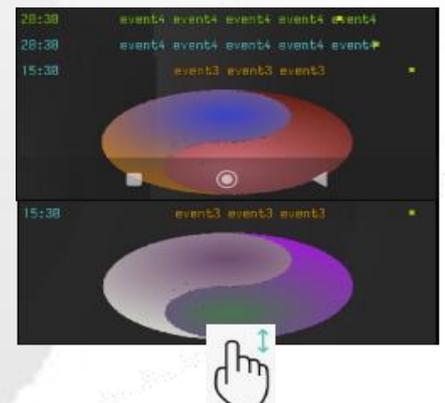


f25: event list plus mode

- f4) remark;
 - i) number of characters allowed for the event, according to the number of characters that can be written for the event label, on the device screen;
 - ii) the event remark element can have a maximum of twice the number of characters used for the event label;
 - iii) the time for the alert, must be at most half the interval between successive occurrences of repeating events, esa automatically adjusts the time for the alert in cases where this criterion is not met;

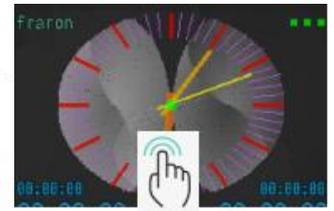
3) graphics | animation

- a) background;
 - i) fractal animation, adopting fractal variations (mandelbrot, julia and newton) and applying a 'dark grayscale' transformation over the colors found;
 - ii) the current background image is adopted (with soft transparency) as the background for dialogs and presentations in 'plus mode';
 - iii) presentations in 'plus mode' are made over the screen in 'normal mode', so it is possible to view what is being presented in 'normal mode', in the non-overlapping regions;
 - iv) weather icons are presented with a 'dark serpia' transformation (allowing only a view of the icon region, over which the considered weather conditions are written);
- b) user image (which can be select in the settings dialog (f04));
 - i) a file in 'png' format for the image to be displayed in the animation under the analog clock;
 - ii) alternatively, can be select two images, in this case it is select one image for the left part and another for the right part of the 'circle | ellipse' region;
 - iii) also in the settings dialog (f04), there is an option to apply flip to images;
 - iv) these images are presented in grayscale (the image has an external shape varying from circle to ellipse);
 - v) an animation is made over these images with geometric figures in 'little darker grayscale' than the user's image (depending on the grayscale adopted for the animation in question, the animation of the geometric figure can be seen over the user's image);
- c) missing event animation;
 - i) animations presented with fractals and geometric figures below the events (depending on the number of events, or the distribution of events in rows and columns);
 - ii) these animations alternate between fractal and geometric images (these animations are 'partially synchronized' (as the case may be) with the background animation and animation over the user image);

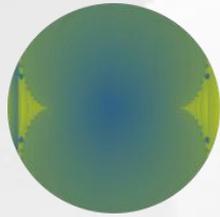


f26: system bottom bar

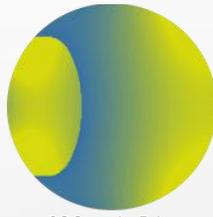
- iii) to see the bottom system bar, swipe up from the bottom edge (f26);
- d) analog clock pivot, tap to toggle lock (red color) or unlock (green color) the screen tap actions (f27);
- e) figures names (f28 ~ f37);



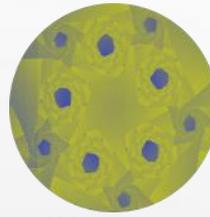
f27: analog clock pivot



f28: mandelbrot fractal (variants)



f29: julia fractal (variants)



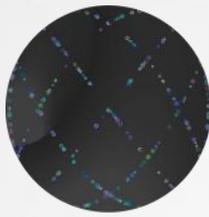
f30: newton fractal (variants)



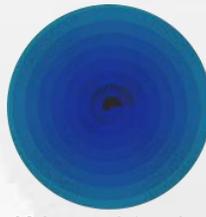
f31: circles | ellipses



f32: squares | rectangles



f33: lissajous curve



f34: archimedes spiral



f35: golden spiral



f36: great monad



f37: esa logo

4) tap summary

		tap						
		single	double	long press	horizontal drag		vertical drag	
					left	right	upper	down
elements	three dots		menu					
	alarm				start			
	alarm			disable				
	alarm	snooze						
	alarm		stop					
	stopwatch				start			
	stopwatch		stop					
	stopwatch	pause toggle						
	weather						plus mode	
	weather							normal mode
	calendar			tooltip				
	calendar						plus mode	
	calendar				next year			
	calenadr					previous year		
	calendar							normal mode
	event			tooltip				
	event		add edit					
	event					remove		
	event	emphasis toggle						
	event						next page	
	event							previous page
	event corner	stop sound						
	clock pivot	tap lock toggle						

5) privacy policy ([esa privacy policy](#))

6) remarks

- a) general:
 - i) when starting, the triggered event sound may be enabled (if there is a triggered event and the sound play is enabled);
 - ii) sound (stopwatch, alarm, event) does not play when the device|app is not in the awake mode;

- b) restriction:
 - i) does not allow rotation of the device or zoom|resize of displayed elements;
 - ii) settings dialog (f04);
 - » image files must be in a local directory (not downloaded from the internet);
 - » there is an option for a small adjustment to the font size (when changed it requires restarting the system for it to be applied);
- c) history: the modules of *esa* application (clock, weather, calendar, event, animations,...) are based on modules developed by the author to run on a computer with linux (e.g. modules to run inside conky (<https://conky.sourceforge.net/>)), which have been used by the author for several years;
- d) version 1.0.8;
 - i) android 13 and later (tests on device with screen resolution 2340x1080);
 - ii) demo: the software is fully functional for a certain period from installation (after this period the software continues to function, but data updates are not performed, which compromises the functionalities made available in the software);
 - iii) subscription: in this installation alternative, the software remains functional according to the criteria adopted for subscription on the 'application distribution platform';
- e) copyright (main);
 - i) operating environment: archlinux (<https://archlinux.org/>), wayfire (<https://wayfire.org>) and vim (<https://www.vim.org/>);
 - ii) software development kit: google's flutter | dart, it's tools and libraries (<https://flutter.dev/>, <https://dart.dev/>);
 - iii) writing this manual in english, with the help of google's translator (<https://translate.google.com/>);
 - iv) weather conditions are downloaded from accuweather (<https://www.accuweather.com/>);
 - v) 'esa', 'esa software' (design, modeling, algorithms and implementation) and 'esa logo' are registered trademarks (in the registration phase) required by CAMBarbosa,DSc (<http://www.camb.eng.br>);
 - vi) usage license according to rules for applications available on the 'application distribution platform';
- f) final: *esa* incorporates a bonus function (very interesting) not documented above, during the use of the software this feature will probably be found, enjoy...;

