Between sheet (Application for Android 6.0 or over)

Operation manual
Ver. 1.0 (2020/ 5/22)

At the beginning: This application's characteristics are: number change by "direct touch to number" and automatic calculation of result. No explanation is necessary for basic calculations, I think. This manual includes only the minimum functional description.

Attention: Please check by yourself carefully any value, if you use it to practical purpose.
I make no warranty and can't respond to claims of any kind of damage.
I have developed and checked this application with Visual studio/Xamarin/Android emulator and confirmed actual unit operation only with Android 9.0. I follow rule of Android, and I have corresponded and checked different screen resolution, so I believes it works on any models without a problem, but I can't guarantee. If you encounter this application's trouble, I wish you to inform me it with as much as possible detailed information like equipment specs, etc.

Contents

Attached calculations in this Application

This application is specialized to date/time calculation. It has 5 sheets.
By scrolling right or left (Touch dark color behind and move right or left), you can switch to another sheet.

1. Days/Date calculation (with the day of the week) 2 sheets
   For multiple use purpose, each sheet wears different color.
   These do the same calculation.

2. Days/Date calculation (for financial or with time)

From		From	
🔓 Tue,09/10/2019		🔓 Tue,09/10/2019	
To		**To**	
🔓 Fri,09/20/2019		🔓 Sun,11/10/2019	
Interval		**Interval**	
🔒 day	9.	🔒 day	54.
Exclude		**Exclude**	
Sun	Sat	Mon	

From
🔓   09/10/2019
🔓   AM12:00:00.

To
🔓   11/10/2019
🔓   PM11:12:24.

Interval
🔒 day   61.
🔒🔗   23:12:24.

Thin color squares are either number input field or calculation result field. You can switch these by touch. (P.8)

3. Time Addition/Proportion

🔒🔗 0:00:01.	🔒🔗 0:00:01.
+	+
🔒🔗 0:00:10.	🔒🔗 0:00:10.
+	+
🔒🔗 0:01:00.	🔒🔗 0:01:00.
+	↓
🔒🔗 0:10:00.	🔒🔗 0:00:02.
+	+
🔒🔗 1:00:00.	🔒🔗 0:00:20.
↓	+
🔒🔗 **1:11:11.**	🔒🔗 **0:00:49.**

🔒🔗 0:00:01.	🔒🔗 0:00:01.
+	:
🔒🔗 0:00:10.	🔒🔗 0:00:20.
+	:
🔒🔗 0:01:00.	🔒🔗 0:03:00.
+	↓
🔒🔗 0:10:00.	🔒🔗 0:00:04.
↓	:
🔒🔗 0:03:10.	🔒🔗 **0:01:20.**
+	:
🔒🔗 **0:08:01.**	🔒🔗 **0:12:00.**

4. Time Multiplication

🔒🔗 0:01:24.	🔒🔗 0:01:24.
x	x
🔒 2.	🔒 2.
x	x
🔒 3.	🔒 3.
x	↓
🔒 4.	🔒 4.
x	x
🔒 5.	🔒 5.
↓	x
🔒🔗 **2:48:00.**	🔒🔗 **0:00:25.2**

🔒🔗 0:01:24.
x
🔒 2.
x
🔒 3.
x
🔒 4.
↓
🔒 5.
x
🔒🔗 **0:06:43.2**

By scrolling up or down (Touch dark color behind and move up or down), you can switch another calculation in the sheet. (Time Addition/Proportion & Time Multiplication sheet)

Depending on window size, following items are set up. Display length 9-digits or 13-digits, 1 sheet or 2 sheets pair, and vertical or horizontal.
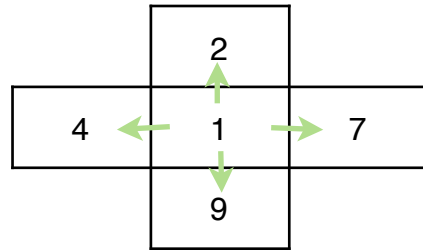
Number Input

There are 3 ways to input number. (①Touch to number itself ②Copy/Paste ③Software keyboard)

① Touch to number itself

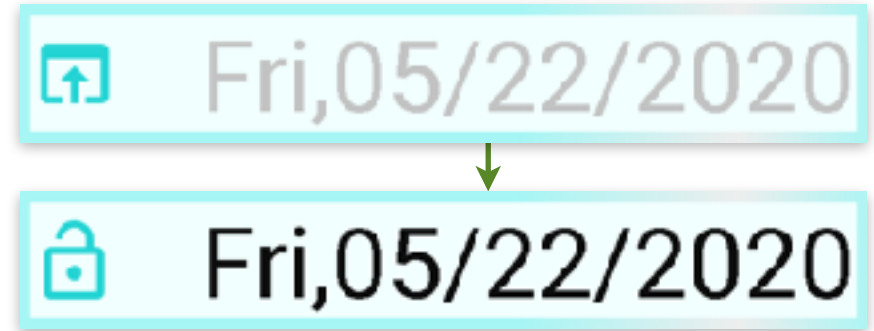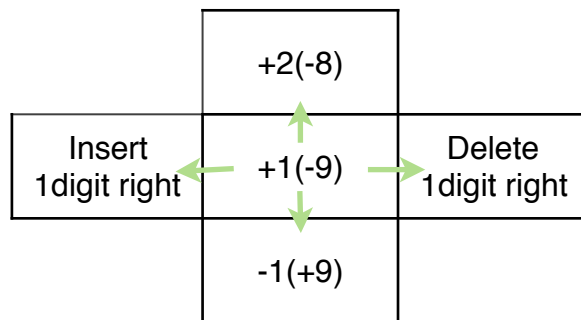In number input field, if it is initial state, input guide is dimmed.
 (Right figure)
Touch directly the digit in the guide, the most significant digit of number you want to input. The digit changes to below table number depending on following action. (Release without move/Up/Down/Right/Left)
Operate slowly. Stop a moment after touching and then move.
In date field and times of day (12 hour system) field, guide string is inputted regardless of position or direction.

	2	
4	1	7
	9	

In year/month/day, hour/minute/second, each digit varies within possible range. When the value is out of range, the string color becomes thin.

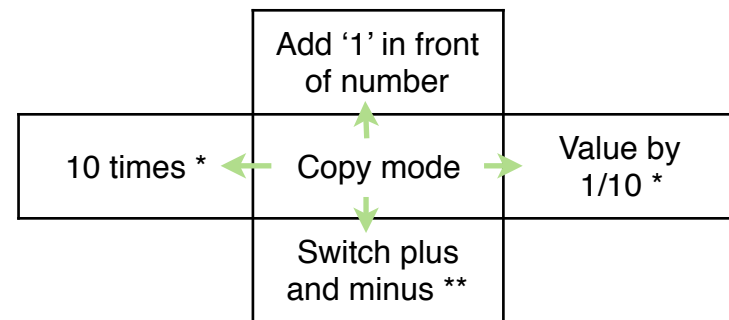 Adjust to aimed number by similar repeated touch actions to each digit.
After this, motion differs depending on whether on blank or on number, and following action. (Release without move/Up/Down/Right/Left)
On number, below left table operations work. Only when moving up or down, continuous operation works for adjusting the value.

On blank, below right table operations work.

	+2(-8)	
Insert 1digit right	+1(-9)	Delete 1digit right
	-1(+9)	

|	Add '1' in front of number	
10 times *	Copy mode	Value by 1/10 *
	Switch plus and minus **	

* mark function doesn't work on year/month/day, hour/minute/second.
** mark function works only on negative possible value like interval.

② Copy/Paste

(1) Touch and release on blank in front of the number you want to copy. Its color turns to thin.
(2) Touch and release in destination number input field. The value (1) is pasted. The value is rounded following the settings (P.10).
   Or touch again on the same (1). The value is stored in clipboard.
(3) By a touch on blank in front of input guide, the value in clipboard is pasted.
   In copy/paste operation, memory button (Right figure, bottom of sheet) is possible to use instead of number.
   When memory holds a value, the symbol is filled.
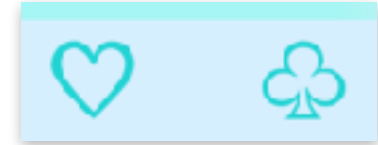
(4) **Copy/Paste of whole sheet:** Touch and release on dark color behind. Select from appearing popup menu.
   (Selector is shown in the case only it works.)
   By copy choice, whole sheet text is stored in clipboard. By paste choice on another sheet, the clipboard content is recalled on it.
   And you can paste it into different application like Spreadsheet, E-mail.

③ Software keyboard

Keyboard (P.7) appears by touch to the left side button (Either of right figure) in the number field.

* Clear of number

By touch to the eraser button (Right figure, bottom right of sheet), whole sheet on screen is cleared.
As a prevention of calculation loss by miss touch, it doesn't work by short touch.
Memories are held in this sheet clear action.
When you want to clear only one number or a memory, select it by the Copy/Paste(1) operation, and touch eraser button.
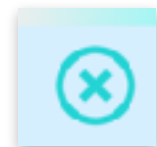
Keyboard

5 keyboards (year/month/day2, hour/minute/second2, decimal) are equipped and suitable keyboard is automatically selected corresponding to the content. (Below is date keyboard)

From ← Label of the inputting number.

2020y5m22d ← This displaying number is stored. Touch correction to number is possible. After storing, decimal number is rounded according to the setting (P.10). In date and times of day, units can be omitted and automatically complemented in some cases. For example, in date keyboard, 4 digits are regarded as month and day. If it is blank, nothing is stored.

| 7 | 8 | 9 | ⊗ | ← Clear inputted number. It doesn't work by short touch.

| 4 | 5 | 6 | ← | ← Delete last 1 character.

| 1 | 2 | 3 |

| 0 | year | mon | day | ← Bottom line unit keys vary depending on the keyboard.

✓ ← Finish number input and **quit** this sheet.

Other operations

* **Selector**:
Thin colored small squares below of the Date calculation (with the day of the week) sheet are selectors.
You can choose from the defined contents by touch and following action (Release without move/Up/Down).
The day of the week excluding from interval can be selected.
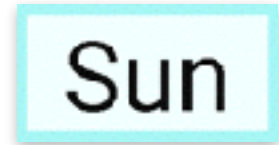
* **Switch units**
On second place from left side of interval field, a button showing present unit is displayed in both number input field and calculation result field. Touching of this switches to the next unit. Value is converted depending on the unit.
Time can be switched from 4 units, hour:minute:second, hour, minute and second. Days can be switched from 4 units, year-month-day, year, month and day. (Right figure is units connection symbol, hour:minute:second and year-month-day.)

* **Calculation result field**
In calculation result field, before calculation, blank is displayed (Right figure).
At the time inputted number amount reaches to the possible level, the calculation is automatically done and the result is displayed when it is in the range.
The calculation result except for date is rounded according to the setting (P.10) and displayed in thick.

Touch to calculation result field, regardless of which blank or result, changes it to number input field.
(However, there are cases logically impossible. Neither software keyboard nor lock button works in the situation.)
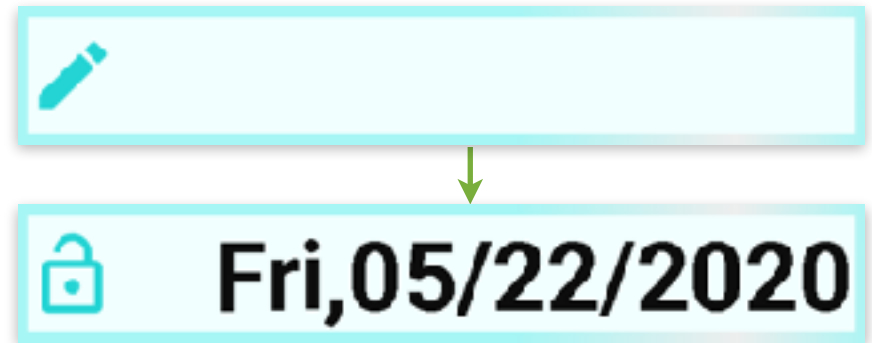
* Lock of number

Lock button is displayed left side of both number inputted and calculated (Right figure). The number is locked by touch to the button.
The value is held while locking. However, it changes by reset or reload operation (P.10).
Re-touch to lock button releases this lock state. As a prevention of value change by miss touch, it doesn't work by short touch.

🔓 Fri,05/22/2020

🔒 Fri,05/22/2020
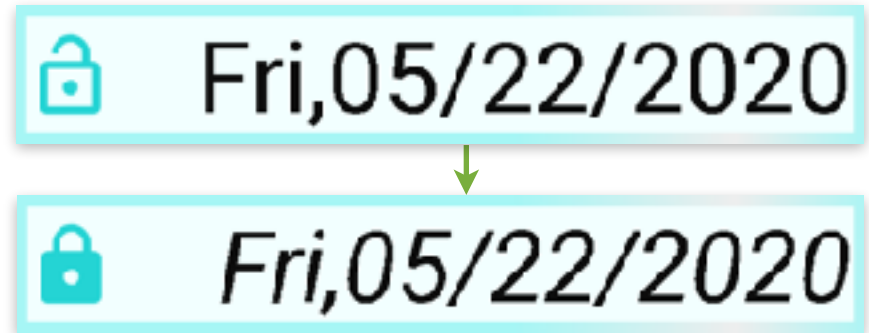
* Setting change

Settings sheet (P.10) appears by touch to the gear button (Right figure, bottom left of sheet).

⚙

Settings

Date		
Y-M-D	**M/D/Y**	D.M.Y
365.25		360
Both	**Either**	Neither

Year-month-day order.

These financial calculation settings work in Days/Date calculation (for financial or with time). 1year=360days and interval ends selection are available.

Use AM/PM or not.

Time	
24	**12**

Rounding location is same in all numbers. Choose decimal part length. '.' is full digit display.(Until 9 or 13 digits. Digit is reduced depending on format.)

Rounding rule is same in all numbers. (Round down/Round off/Round up)

Rounding					
•	**0**	1	2	3	4
↓	**5/4**				↑

Decimal point/Separator character
Blank: Default of the unit
,. : 1,234,567,890.
., : 1.234.567.890,
. : 1 234 567 890.
, : 1 234 567 890,
'. : 1'234'567'890.

Separator location
- : 1234567890.
3-3-3 : 1,234,567,890.
2-2-3 : 1,23,45,67,890.
4-4-4 : 12,3456,7890.

Numeric Format					
	,.	.,	.	,	'.
-	**3-3-3**	2-2-3	4-4-4		

Number type
19 type numbers are available and switched by touch. (Up/Down)

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Reset: Use it only when you want to initialize this application.

Reload the situation this application started. It doesn't work by short touch.

Show this manual. (The reload situation is updated.)

Finish these settings and **quit** this sheet.

Date Calculation

From

🔓 **Mon,09/30/2019**

To

🔓 Tue,10/08/2019

Interval

🔓 day   7.

Exclude

Sun	Sat	

In Days/Date calculation (with the day of the week), period always includes both end dates.
Exclusion days of the week are cut from 'From' and 'To' calculation result date.
In the left example, 9/29, 9/28 can be 'From' answer date. But such results are processed to cut.

From

🔓   10/29/2019

🔓   AM08:30:00.

To

🔓   11/12/2019

🔓   PM02:30:00.

Interval

🔓 day   0.

🔓 hour   342.

The time more than 24 hours is automatically converted to the days, like the right example.

Modification history