



ESYS Braille Series

Tutorial 3 – Calculator

ESYS FEATURES

INTRODUCTION

Pressing centrally on the Left Joystick (LJ) will display the application menu. Pressing centrally a second time will display the main menu of **ESYS**. The four directions (UP, DOWN, LEFT, RIGHT) of the Right Joystick are used in combination with actions on the Left Joystick or navigation wheels to create shortcuts; for example, by using the LEFT direction on the LJ and pushing on the wheels towards the left, you will go back to the beginning of a line.

RIGHT JOYSTICK RJ

Pressing centrally on the Right Joystick (RJ) will allow you to act on a focused item. Its four direction keys will allow you to move the focus accordingly, pretty much like the four arrow keys on a computer keyboard or the navigation joystick of a mobile phone.

NAVIGATION SCROLLING WHEELS M

When the wheel is moved towards the right, the Braille line will move to the next 12 /24/40/64/80 characters. When it is moved to the left, the Braille display will move to the previous 12 /24/40/64/80 characters.

ESYS SHORTCUTS

ESYS SHORTCUT	DESCRIPTION
<RJ UP>	Return to the previous item while in a tree folder or in a list.
<RJ DOWN>	Go to the next item while in a tree folder or in a list.
<RJ RIGHT>	Move focus to the next item. When editing an edit box field, it moves the cursor to the right
<RJ LEFT>	Move focus to previous item. When editing into an edit box field : move cursor left
<RJ MIDDLE>	Activate/Deactivate a focused item while in the navigation menu Allows to enter a submenu while navigating inside a menu In a tree folder structure, it allows to enter a folder
<W RIGHT>	Display the next 12/24/40/64/80 characters
<W LEFT>	Display the previous 12/24/40/64/80 characters
<LJ LEFT + RJ RIGHT>	Places the cursor at the end of the line
<LJ LEFT + RJ LEFT> >	Places the cursor at the beginning of the line
<LJ LEFT + W LEFT> or <LJ LEFT + RJ UP>	Places the cursor at the beginning of the text
<LJ LEFT + W RIGHT> or <LJ LEFT + RJ DOWN>	Places the cursor at the end of the text





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CALCULATOR

INTRODUCTION

Using the calculator, it is possible to execute simple mathematical functions as addition, subtraction, multiplication and division. The following is also available: percent, square root, and currency conversion. The calculator has four memory functions.

Numbers have the following structure: 8 number positions before the comma, 2 number positions after. When you open the calculator application, a "0" or "0.00" can be read on the very right hand side of the Braille line. The mathematical signs plus, minus, divided and multiplied by can either be used through the "operators" menu or by moving the right joystick upwards for "+", downwards for "-", left for "*" and right for "/".

To make a simple calculation using one of the expressions above, begin by typing a number, select the wanted mathematical sign by using the right hand side joystick, enter the next number. The product of the calculation will be displayed on the Braille line and it is possible to make different calculations after each other. To calculate the product of the expression, click once in the centre of the right joystick, press the space and backspace buttons at the same time or select "equal" in the "operator" menu explained below. The product of the calculation is now displayed on the Braille line.

NOTE: The mathematical sign will be taken into account only after typing numbers. Until equal is selected it is possible to modify the entered information. If a value is not calculable or incorrect, the error message "Overflow!" is shown.

Braille keyboard combination:

You can use the calculator through menus or by pressing keystrokes on the Braille keyboard. You can insert both standard Braille (language dependent) and mathematical Braille. See the following table for details.

OPERATOR	STANDARD BRAILLE	MATHEMATICAL BRAILLE
Decimal separator	. or ,	3 or 6
Addition	+	235
Subtraction	-	36
Multiplication	* or x	236
Division	/	256
Equal	=	2356
Square root		345
Percentage	%	





CALCULATOR

Additional functions using the Braille keyboard:

Backspace	partial deleting
Space or Delete	complete deleting
Enter	equal

Below a description of menu items follows. In order to access to items, press on the left joystick having the calculator application open. The following will be displayed on the Braille line:

“clc:operators memory currency T”.

OPERATORS MENU

This menu item contains eight different functions.

“opr:equal addition subtraction, multiplication division percentage square root T”

Begin by typing a number, continue by going to the operators menu, select the correct operator and proceed by entering the next number, then press the item “equal”.

To calculate a percentage expression, begin by typing the number, select a classical operator such as “+”, “-”, “*”, “/” and type the percentage you want to calculate from the first value. For instance: 5 + 20% will add 5 + 20% of 5 which will give a result of 6.

To calculate the square of a number, type a number, for example 7. Proceed by going to the operators menu and select “square”. The product or 49.00 is now displayed on the Braille line.

To calculate the square root of an expression, type a number and go to operators menu. Select square root. For example, type 49.00. Go to operators menu and select “square root”. The product or 7.00 is now displayed on the Braille line.

MEMORY MENU

This menu item contains four standard memory functions which are displayed below:

“mem:memorize recall add to memory sub to memory T”

MEMORIZE

By selecting “memorize”, it is possible to save a value that can be used in different calculations. Just click on “memorize” when the application displays the number you want to store. Only one value can be used at the time.

RECALL

To use a stored value press “recall”.





CALCULATOR

ADD TO MEMORY

Use the “add to memory” function to add a value to an already memorized number. For instance, the number 10 is stored using the “memorize” function and you want to add the result of another operation to this value, click on “Add to memory” while the application displays the wanted result. If your result was 2, the value of the number stored in the “memorize” function will be 12. It is possible to repeat this procedure as many times as necessary.

SUB TO MEMORY

Use the “sub to memory” function to subtract a value to an already stored number. For instance, the number 10 is stored using the “memorize” function and you want to subtract the result of another operation to this value, click on “sub to memory” while the application displays the wanted result. If your result was 2, the value of the number stored in the “memorize” function will be 10. It is possible to repeat this procedure as many times as necessary.

CURRENCY MENU

This menu will help you to convert your currency into Euro or the opposite. This is the currency menu:

“cur :currency to euro euro to currency store currency constant default currency constant T”

At the moment there are no factory settings made to adjust to each country’s currency conversion automatically. To store the current conversion rate for your currency, go to “store currency constant”. Enter the conversion rate; for example “0.717” to convert USD to EUR. This value will now be saved.

CURRENCY TO EURO

To use this mode, you first have to assign a value to your currency, for further information, refer to “store currency” section. To use this function, type the number you want to convert into euro in the application and click on “currency to euro”. The result of the conversion will be displayed.

EURO TO CURRENCY

To use this mode, you first have to assign a value to your currency, for further information, refer to “store currency” section. To use this function, type the number you want to convert into your currency in the application and click on “euro to currency”. The result of the conversion will be displayed.

STORE CURRENCY CONSTANT

Assists to assign a value to your currency. To do so, type a number in the calculator and click on “store currency constant”.

NOTE: you can modify this value by repeating the same procedure.

DEFAULT CURRENCY CONSTANT

By selecting this item, the value of the stored currency will be reset to the value of your [esys](#) operating system money currency compared to Euro.





CALCULATOR

CALCULATOR SPECIFIC SHORTCUTS

ESYS ACTIONS	DESCRIPTION
<JR Up>	Addition
<JR Down>	Subtraction
<JR Right>	Division
<JR Left>	Multiplication
<JL Left > + <JR Up>	Percent
<JL Left > + <JR Down >	
<JL Left > + <JR Right >	Square root
<JL Left > + <JR Gauche>	Square
<JL Right > + <JR Up>	Add to memory
<JL Right > + <JR Down >	Subtract from memory
<JL Right > + <JR Right >	Memorize
<JL Right > + <JR Left >	Recall memory
<JL Up> + <JR Up>	Currency -> euro
<JL Up> + <JR Down >	Euro -> currency
<JL Up> + <JR Right >	-
<JL Up> + <JR Left >	-

