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# Introduction

fx-ES PLUS Emulator is software that emulates operation of a scientific calculator.
 It displays an image of one of the following CASIO scientific calculators on your computer screen.

fx-82ES PLUS

fx-85ES PLUS

fx-350FS PLUS

fx-82AU PLUS

fx-86DE PLUS

fx-92 Collège 2D+

fx-95SG PLUS

fx-500VN PLUS

- You also can display the LCD of the calculator in a separate window, which can be zoomed as required.
- An image of the LCD can be captured (copied to the Windows clipboard).

#### Important!

If you use a projector to project screen images, do not project onto a blackboard. Doing so can make the fx-ES PLUS Emulator screen difficult to see.

#### ■ Using This Manual

- This manual covers the operation of the software on your computer. It does not cover the actual
  operation of your computer. The procedures in this manual assume that you are already familiar
  with the following standard computer operations.
  - Menu operations using the mouse, including: clicking, double-clicking, dragging, etc.
  - Text input using the keyboard
  - Icon operations, general window operations, etc.

If you are not familiar with these types of operations, refer to the user documentation for your computer.

- The screen shots shown in this manual are all from the English version of Windows® XP.
- Note that the actual appearance of the screen display by this software depends on your computer system setup and on the operating system you are using.
- Display examples shown in this User's Guide are intended for illustrative purposes only. The
  actual text and values that appear on display may differ from the examples shown in this User's
  Guide.

## **■** System Requirements

Operating Systems: Windows® 2000, Windows® XP, Windows Vista®

\* Operation on a computer running Windows® XP Professional x64 Edition is

not supported.

\* For Windows Vista®, operation is supported for the 32-bit version only.

The 64-bit version is not supported.

Computer: Computer with one of the Windows® operating systems pre-installed

(Excluding computers with an upgraded operating system and self-built

computers.)

CPU: Intel® Pentium® III 800 MHz or higher recommended

Disk Space: 100 MB for installation and uninstall (Installation on Windows® 2000 and

Windows® XP requires administrator privileges.)

Memory: RAM to support version of Windows® being used.

Does not include memory required for Operating System.

Other: Video adapter and monitor must support resolution of XGA (1024×768) or

higher, 16-bit or higher system color.

CD-ROM drive.

Adobe® Reader® 6.0 or later.

#### Note

- Windows is a registered trademark or trademark of Microsoft Corporation in the United States and/or other countries.
- Intel and Pentium are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.
- Company and product names used herein are trademarks of their respective owners.

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# 1 Installing and Uninstalling fx-ES PLUS Emulator

#### To install fx-ES PLUS Emulator

- ${\it 1}$  . Place the CD-ROM into your computer's CD-ROM drive.
  - This will display a screen like the one shown below automatically.

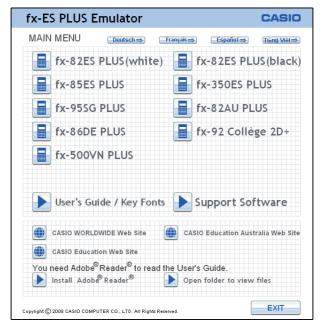


- 2. Click "Install". Perform operations as instructed by the text that appears on the screen.
  - A language selection dialog box will appear at the beginning of the installation procedure. The user's guide language version that is installed will be for the language you select. If there is no user's guide version for the language you select, an English language version user's guide will be installed. Note, however, that regardless of the language you select, user's guide language versions for the following models are available for the noted languages only: fx-500VN PLUS: Vietnamese, fx-86DE PLUS: German, fx-92 Collège 2D+: French.

3. The dialog box shown below will appear when installation is complete.



- 4. Click the [Finish] button.
  - The fx-ES PLUS Emulator Menu screen will appear after installation is complete.



5. Click [EXIT].

#### Note

- You could start up the emulator after step 4, if you like.
- If the fx-ES PLUS Emulator Menu screen does not appear in step 4, clicking "Click here if a jump is not performed automatically after installation is complete." will display it.

#### To uninstall fx-ES PLUS Emulator

- 1. Display the Windows Control Panel.
- 2. Click [Add or Remove Programs].
- $\it 3.$  On the list of applications that appears, select "CASIO fx-ES PLUS Emulator".
- 4. Click the [Remove] button.
- 5. Click the [Yes] button.
  - This completes the uninstall operation.

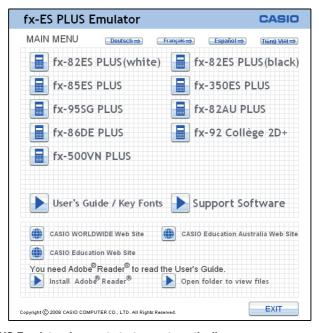
# 2 Using fx-ES PLUS Emulator

#### Important!

fx-ES PLUS Emulator will not start up unless its CD-ROM is in the CD-ROM drive of your computer.

## To start up the emulator

- 1. Place the bundled CD-ROM into your computer's CD-ROM drive.
  - This will cause fx-ES PLUS Emulator to start up automatically and display its Menu screen.



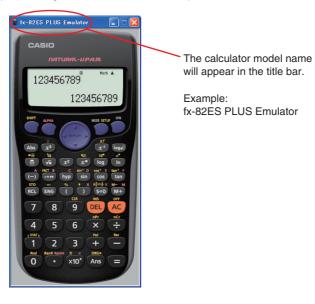
#### If fx-ES PLUS Emulator does not start up automatically...

If fx-ES PLUS Emulator does not start up automatically when you set the CD-ROM into your computer's CD-ROM drive or if you start up your computer with the CD-ROM already in the drive, navigate to the Window's "My Computer" window and double-click "CD-ROM Drive". This will start up fx-ES PLUS Emulator.

If fx-ES PLUS Emulator still does not start up, navigate to the CD-ROM and double-click "fxESPLUS.exe".

 $\it 2.$  Select the calculator model you want to start up its emulator.

Example: Clicking "fx-82ES PLUS" will start up the fx-82ES PLUS Emulator.



# **■** Emulator Operations

- To operate the virtual calculator on your computer screen, "press" its buttons by clicking them.
- You also can perform the following key operations on your computer keyboard.

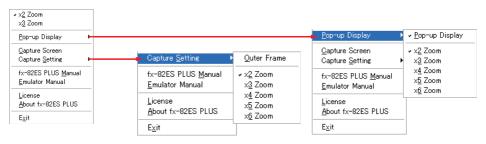
	fx-82ES PLUS fx-85ES PLUS fx-350ES PLUS fx-82AU PLUS fx-86DE PLUS fx-95SG PLUS fx-500VN PLUS	fx-92 Collège 2D+	
Computer Keyboard	Calculator Key		
TAB	A	C	
Space	AC		
F1	SHIFT		
F2	ALPHA		
F3	MODE		
F4	ON		
Home	MODE		
Enter		EXE	
Delete	D	EL .	
Back Space	DEL		
$\downarrow \uparrow \rightarrow \leftarrow$	$\bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$		
۸	x*		
(			
)	$\bigcirc\!$		
+-*/	$+$ $ \times$ $\div$		
. (Period) , (Comma)	•		
0 — 9	0-9		
Х		X	
Υ		Y	
%		%	
=			
Ctrl+C	Screen Capture		

#### Note

• The calculation speed of the emulators depends on the speed of your computer, and will be different from the calculating speed of the actual calculator.

## **■** Emulator Shortcut Menus

 Right-clicking your mouse while the mouse pointer is located on the emulator will display a shortcut menu.



Menu Item	Submenu Item	Description
×2 Zoom		Makes the emulator image double the size of the actual calculator.*1 (initial default)
×3 Zoom		Makes the emulator image triple the size of the actual calculator.
Pop-up Display	Pop-up Display	When selected (indicated by a check mark), displays the calculator LCD as a separate window.
	×2 Zoom	Makes the LCD window double normal size. (initial default)
	×3 Zoom	Makes the LCD window triple normal size.
	×4 Zoom	Makes the LCD window four times normal size.
	×5 Zoom	Makes the LCD window five times normal size.
	×6 Zoom	Makes the LCD window six times normal size.
Capture Screen		Captures the calculator LCD image to the Windows clipboard.
Capture Setting	Outer Frame	When selected (indicated by a check mark), the calculator LCD image is captured and a boundary is put around it.
	×2 Zoom	LCD image is captured at double its normal size. (initial default)
	×3 Zoom	LCD image is captured at triple its normal size.
	×4 Zoom	LCD image is captured at four times its normal size.
	×5 Zoom	LCD image is captured at five times its normal size.
	×6 Zoom	LCD image is captured at six times its normal size.

Menu Item	Submenu Item	Description
fx-*** Manual		Displays a calculator User's Guide.
Emulator Manual		Displays the fx-ES PLUS Emulator User's Guide.
License		Displays the end user license agreement (EULA).
About fx-***		Displays version information.
Exit		Exits the emulator.

<sup>\*1</sup> Each dot of the actual calculator LCD corresponds to one pixel on the computer screen. In the case of double size, one dot corresponds to 2 × 2 pixels.

#### Note

• While the calculator LCD is displayed as a separate window, right-clicking the LCD also will display the shortcut menu.

# To change the size of the emulator

- 1. Display the shortcut menu.
- 2. Select "x2 Zoom" or "x3 Zoom".

To display this size:	Select this command:
Double the actual calculator size • One LCD dot corresponds to 2 × 2 pixels.	×2 Zoom
Triple the actual calculator size • One LCD dot corresponds to 3 × 3 pixels.	×3 Zoom

## To display the LCD as a separate window

- 1. Display the shortcut menu.
- 2. Select "Pop-up Display" to display a sub-menu.
- 3. Select "Pop-up Display" to display the LCD as a separate window.
  - A check mark will be next to "Pop-up Display" on the sub-menu while the LCD is displayed as a separate window.
  - To close the separate window, select "Pop-up Display" again.



# To change the LCD window size

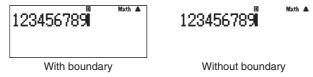
- 1. Display the shortcut menu.
- 2. Select "Pop-up Display" to display a sub-menu.
- Select one of the zoom commands from "x2 Zoom" through "x6 Zoom" to change the size of the LCD window.
  - The currently selected window size will have " " next to it.

# To capture the calculator LCD image to the Windows clipboard

- 1. Display the shortcut menu.
- 2. Select "Capture Screen" to capture an image of the LCD.
  - You can also use Ctrl+C in place of the above two steps to capture the LCD image.

#### To specify a frame around the LCD image

- 1. Display the shortcut menu.
- 2. Select "Capture Setting" to display a sub-menu.
- 3. Select "Outer Frame".
  - To remove the boundary from the LCD image, select "Outer Frame" again.



## To specify the zoom factor for the captured LCD image

- 1. Display the shortcut menu.
- 2. Select "Capture Setting" to display a sub-menu.
- 3. Select a setting from "x2 Zoom" through "x6 Zoom" to specify the zoom factor.
  - The currently selected zoom factor size will have " " next to it.

#### To exit the emulator

- 1. Display the shortcut menu.
- 2. On the shortcut menu, select [Exit].
- 3. On the Menu screen that appears, click [EXIT].

#### Note

- The settings listed below are saved whenever you exit the emulator. If you are using the emulator while logged on as a GUEST user, however, these settings will return to their initial defaults.
  - · Calculator memory contents
  - Window position
  - Emulator zoom factor
  - · LCD separate window setting
  - · Capture zoom and boundary settings

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