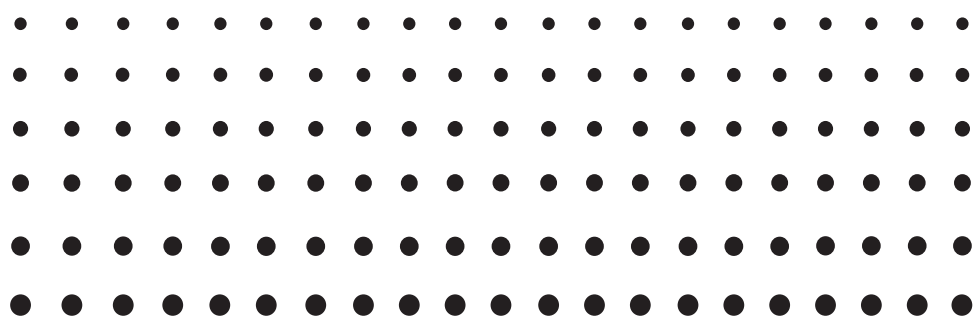


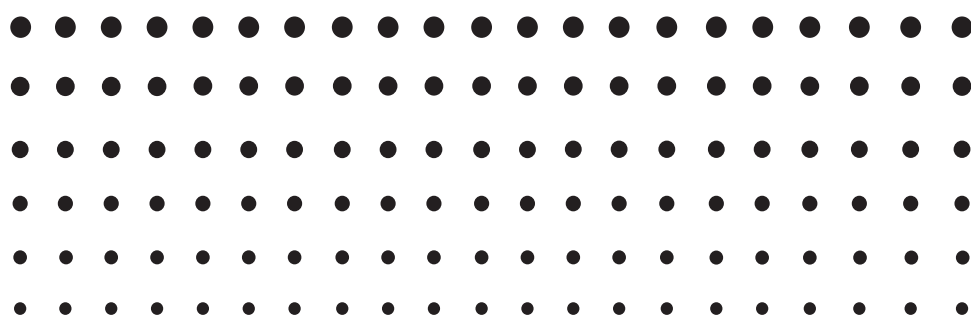
For fx-CG500

EN



CASIO fx-CG500 App
(for Android, for iOS)

User's Guide



CASIO Education website URL

<https://edu.casio.com>

Manuals are available in multi languages at

<https://world.casio.com/manual/calc/>

CASIO®

Getting Started

- You can use fx-CG500 App to develop programs and eActivities using the same commands as those available on the fx-CG500. You can store your programs and eActivities on your mobile device.
- fx-CG500 App provides the following capabilities.
 - fx-CG500 emulation, which lets you perform fx-CG500 operations on your mobile device
 - fx-CG500 emulation screen capture (to the clipboard)
 - Copy and paste of data (text, values, expressions, etc.) between fx-CG500 App and other applications

Note

- See your fx-CG500 User's Guide for details about operating the on-screen fx-CG500 unit emulator.
- 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.

Note

- For the latest information about system requirements, visit the website at the URL below:
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Chapter 1

fx-CG500 App Overview

The fx-CG500 App puts a virtual fx-CG500 on your mobile device screen, which you can use to perform almost all of the operations that are available on your fx-CG500. This section explains the differences between fx-CG500 App operations and the fx-CG500 unit, and among the two fx-CG500 App modes.

Differences between the fx-CG500 App and the Functions of fx-CG500 Applications

The following are the differences between the fx-CG500 App and the functions of the fx-CG500 applications.

- Certain fx-CG500 settings and functions that are not required when running on a mobile device (such as touch panel calibration) are disabled on the fx-CG500 App. Attempting to access a disabled setting or function will cause the message “Unavailable” to appear on the display.



- The E-CON3 application is not supported by the fx-CG500 App.

fx-CG500 App Data

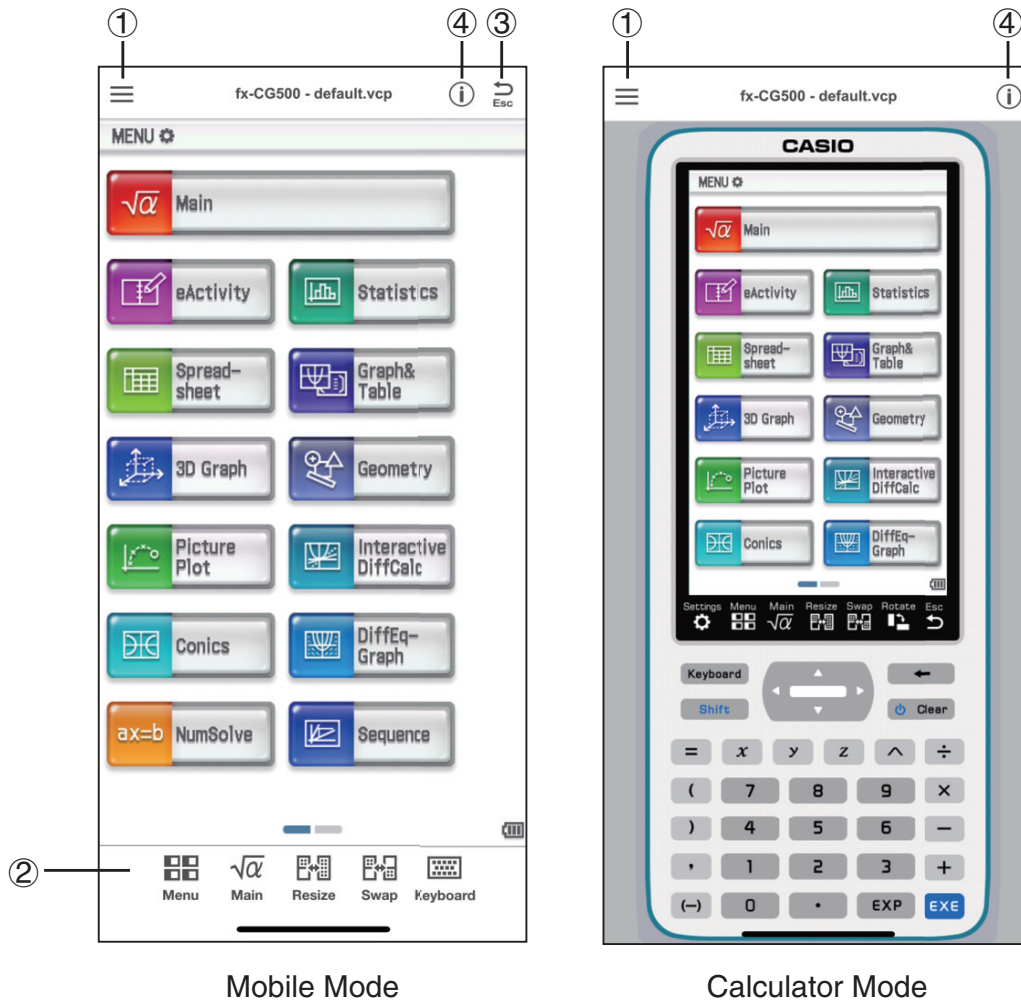
Your fx-CG500 stores eActivity data in one memory area, and all other data (application data and variables) in a different memory area. eActivity data is stored in “eActivity area”, while other data is stored in “Main memory”. For details, see the fx-CG500 User’s Guide.

fx-CG500 App stores both types of data on your mobile device in “Virtual File” (.vcp) format files. Under initial default settings, a file named “default.vcp” is created automatically for use as the fx-CG500 App’s “Active Document”.

fx-CG500 App Display Mode

The fx-CG500 App has two display modes: a Mobile Mode and a Calculator Mode.

- The Calculator Mode displays a virtual fx-CG500 that looks almost the same as your fx-CG500 unit.



① Menu button (☰) ... Displays the drawer menu.

② Tab bar



Menu, Main, Resize, Swap ... Same as the following icons on the fx-CG500 icon panel: .



Keyboard ... Toggles a soft keyboard at the bottom of the display between show and hide.

③ Escape button (Esc) ... Same as the following icon on the fx-CG500 icon panel: .

④ Information button (i) ... Displays an information screen.

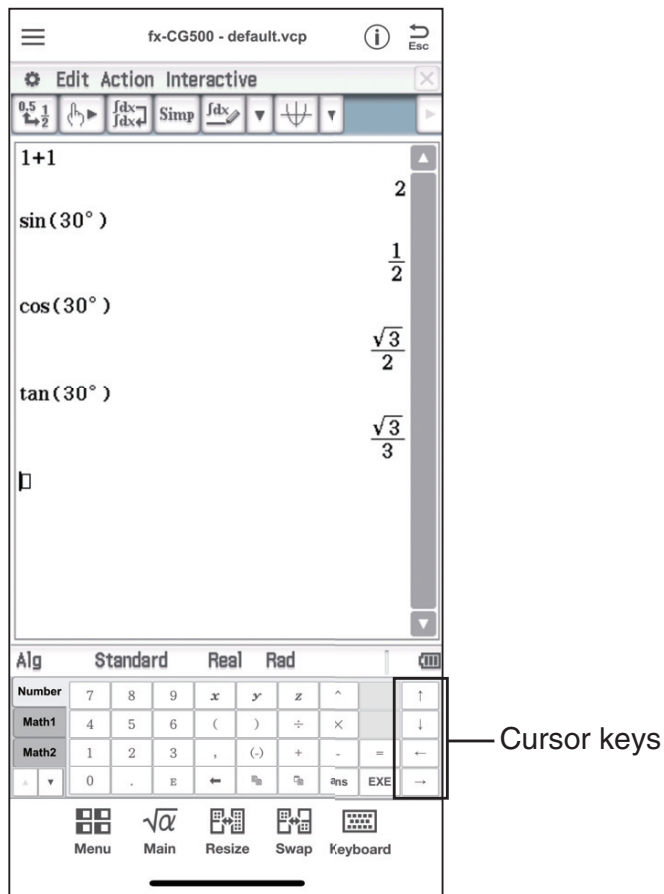
■ To enter the Mobile Mode or Calculator Mode

1. Tap ☰ - [Window].

2. Tap [Mobile Mode] or [Calculator Mode].

■ To use the soft keyboard (Mobile Mode only)

On the tab bar, tap  to display a soft keyboard like the one shown below.



- Cursor keys correspond to those of the fx-CG500.
- You can change the current key set the same as with the fx-CG500 soft keyboard.

Number	7	8	9	x	y	z	\wedge		↑
Math1	4	5	6	()	÷	×		↓
Math2	1	2	3	,	(-)	+	-	=	←
⌵	0	.	E	←	→	ans	EXE	→	

[Number]

Number	Line	$\sqrt{\square}$	π	\Rightarrow		log□	\square^{\square}	↑	
Math1	\square^{\square}	e^{\square}	ln	\square^{\square}	x^2	x^{-1}	ln□	solvet	↓
Math2	sin	cos	tan	*	r	\square^{\square}	lnMS	←	
⌵	(□)	(□)	←	→	ans	EXE	→		

[Math1]

Number	Line	$\sqrt{\square}$	π	\Rightarrow	i	∞		↑
Math1	\square^{\square}	e^{\square}	ln	\square^{\square}	\square^{\square}	\square^{\square}	\square^{\square}	↓
Math2	sin	cos	tan	\square^{\square}	\square^{\square}	\square^{\square}	\square^{\square}	←
⌵	θ	t	←	→	ans	EXE	→	

[Math2]

Math3	Line	$\sqrt{\square}$	π	\Rightarrow	i	∞		↑
Trig	Defin	f	g	solvet	dSlv	'	\square^{\square}	↓
Var	<	>	(□)	(□)	□	≤	≥	←
⌵	≠	∠	←	→	ans	EXE	→	

[Math3]

Math3	Line	$\sqrt{\square}$	π	\Rightarrow	i	∞		↑	
Trig	sin	cos	tan	\sin^{-1}	\cos^{-1}	\tan^{-1}	θ	t	↓
Var	sinh	cosh	tanh	*	r	\sinh^{\square}	\cosh^{\square}	\tanh^{\square}	←
⌵	\square^{\square}		←	→	ans	EXE	→		

[Trig]

Math3	a	b	c	d	e	f	g	h	↑
Trig	i	j	k	l	m	n	o	p	↓
Var	q	r	s	t	u	v	w	CAPS	←
⌵	x	y	z	←	→	ans	EXE	→	

[Var]

Catalog	◀	A	B	C	D	E	F	G	H	▶	All	↑
abc	B ₀	B ₁	B ₂	abExpR	abExpReg						INPUT	↓
⌵											EXE	→

[Catalog]

←	1	2	3	4	5	6	7	8	9	0	-	↑	abc
Space	a	b	c	d	e	f	g	h	i	j	@	↓	αβγ
EXE	k	l	m	n	o	p	q	r	s	:	←		Math
⌵	t	u	v	w	x	y	z	.	CAPS	→			Symbol

[abc]

Catalog	Line											↑
abc	int	! nPr	nCr	a _n	b _n	c _n	rSlv	↓				
Advance	F _□	F _□	E _□	E _□	Γ _□	+1	+2	n	←			
⌵	\square^{\square}	\square^{\square}	H _□	←	→	ans	EXE	→				

[Advance]

Chapter 2

fx-CG500 App Operations

This section explains the operations you can perform on the Mobile Mode and Calculator Mode screens of the fx-CG500 App.

Copy and Paste

■ To copy alphanumeric text from the screen to the clipboard

1. On the fx-CG500 App, select the text you want to copy.
2. Tap \equiv - [Edit] - [Copy Special] - [Unicode].
 - This copies the text you selected in step 1 to the clipboard (as Unicode text).
 - After that, you can paste the text you copied into another application (as Unicode text).

■ To paste text from the clipboard into the fx-CG500 App

1. In other applications, copy the text you want to the clipboard.
2. On the fx-CG500 App, open the fx-CG500 application into which you want to paste the clipboard text.
3. Tap \equiv - [Edit] - [Paste Special].
 - This pastes the text on the clipboard into the fx-CG500 App.

Note

“Paste Special” detects what is on the clipboard and then pastes it as text, or MathML data. You can use “Paste Special” to paste text or MathML data created by other applications.

Important Warning

When the fx-CG500 detects MathML data on the clipboard, the fx-CG500 will attempt to paste it in a 2D math form (natural input form) without warning you. There is no guarantee that the pasted form will be identical to what was copied from other applications.

Saving a Screenshot Image

■ To save a screenshot image

1. Display the screen whose image you want to save.
2. Tap ≡ - [Edit] - [Capture Screen].

Tip

- If you want to save the active window only, tap the following in step 2: ≡ - [Edit] - [Capture Current Panel].

vcp File Operations (New, Open, Save, Save As, Send)

This section explains how to perform the following vcp file operations on the fx-CG500 App: New, Open, Save, Save As, and Send.

■ To create a new vcp file

1. Tap ≡ - [File] - [New].
2. Type the name of the new file into the “File Name” box.
3. Tap [Save].
 - This creates a new vcp file and makes it the active document.

■ To open an existing vcp file

1. Tap ≡ - [File] - [Open].
2. Select the file you want to open and then tap [Open].
 - This opens the file you selected and makes it the active document.

■ To save the currently open vcp file

Tap ≡ - [File] - [Save].

Note

The current active document is saved automatically whenever you quit fx-CG500 App. When you start up fx-CG500 App the next time, the active document that was open during your last session opens automatically.

■ To save the currently open vcp file under a different name

1. Tap \equiv - [File] - [Save As].
2. Type the new name into the “File Name” box.
3. Tap [Save].
 - This saves the currently open vcp file under the new name and makes the new file the active document.

■ To attach a vcp file to a mail message

1. Tap \equiv - [File] - [Send].
 - This displays the Send dialog box.
2. Select the file you want to send and then tap [Open].
 - This starts up the mailer with the file attached.

Note

- If the mobile device that receives the mail has fx-CG500 App installed, opening the file will start up fx-CG500 App. However, this operation is limited to the mailers below.

iOS: Standard mailer

Android: Gmail via Chrome

Clearing Main Memory (Reset)

■ To clear all data, except for eActivity files

1. Tap \equiv - [File] - [Reset].
 - This will display a confirmation dialog box with the message “Reset Memory? Are you sure?”.
2. To clear memory, tap [Yes]. To cancel the operation without clearing anything, tap [No].

Generating MathML Data

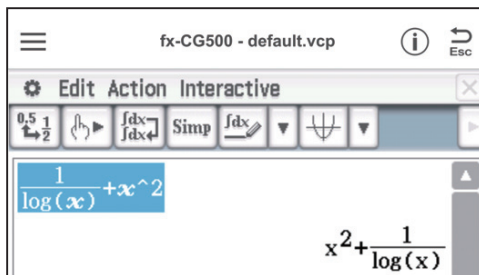
fx-CG500 App can output algebraic expressions and text you input with the Main application, eActivity application, or other application as a MathML file (.mml). You can also copy algebraic expressions and text as MathML data (content, presentation, or combined format) to the clipboard.

■ To export a selected algebraic expression to a MathML file

Example: To output an algebraic expression input with the Main application to a MathML file

1. Tap \equiv - [Application] - [Main] to start up the Main application.
2. Input the algebraic expression you want to output to the MathML file.

3. Select expression.



4. Tap \equiv - [File] - [Export MathML].

5. Type in the file name, and then tap [Save].

- This saves the expression you selected in step 3 as an mml file.

■ To copy a selected algebraic expression as MathML data to the clipboard

1. Select the expression you want to copy.

2. Tap \equiv - [Edit] - [Copy Special] - [MathML].

3. Tap the sub-menu item you want.

To copy data using this type of MathML markup:	Select this option:
Content • Content markup captures the mathematical structure.	Content
Presentation • Presentation markup captures notational structure.	Presentation
Combined • Combined uses content markup whenever possible. Otherwise, it uses presentation markup.	Combined

- Please consult the Internet or other publications for full details about MathML content markup and presentation markup.

Copying algebraic Expressions and Text as Unicode Text

You can use the procedure below to copy text or an algebraic expression you selected on the fx-CG500 application to the clipboard as Unicode text.

■ To copy algebraic expressions or text as Unicode text

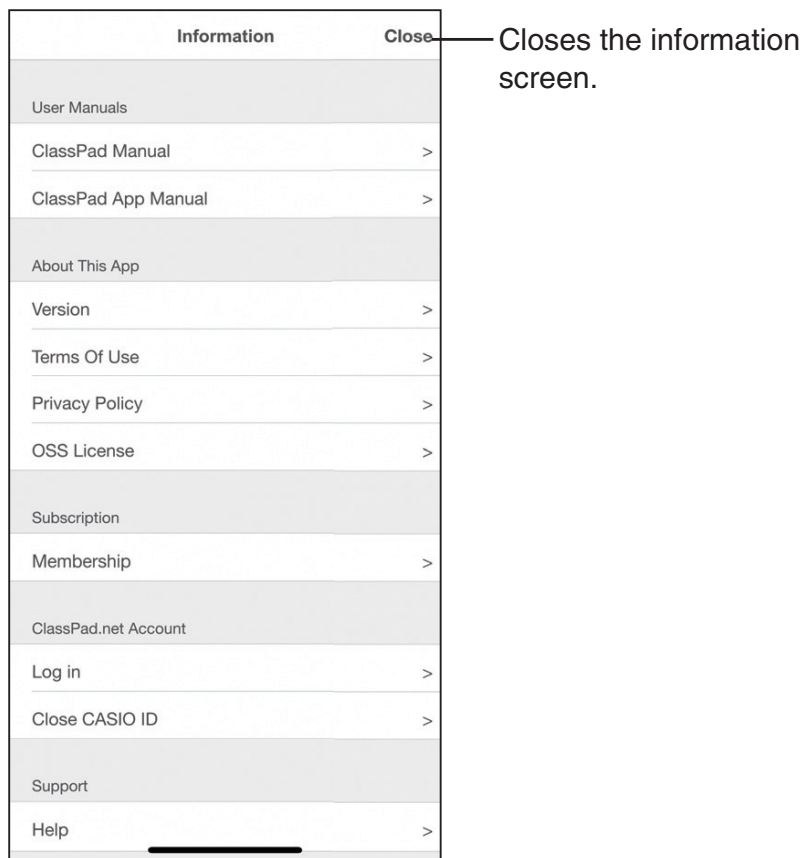
1. Select the expression or text you want to copy.

2. Tap \equiv - [Edit] - [Copy Special] - [Unicode].

- This copies the selected expression or text to the clipboard as Unicode text.
- You can paste the copied text into any other application that supports text editing.

Information Screen

Tapping the information button (ⓘ) will display a screen like the one shown below.



To do this:	Select this:
User Manuals	
Open the fx-CG500 manual	fx-CG500 Manual
Open the fx-CG500 App manual	fx-CG500 App Manual
About This App	
Show fx-CG500 App version and other information	Version
Show information about the terms of use	Terms of Use
Show information about the privacy policy	Privacy Policy
Show information about the OSS license	OSS License
Subscription	
Display the Membership screen	Membership
ClassPad.net Account	
Display the Log in screen	Log in
Display the Close CASIO ID screen	Close CASIO ID
Support	
Display the fx-CG500 App FAQ	Help
Start up your browser and go to the CASIO WorldWide Education Website	CASIO WorldWide Education Website

Information (Android only)

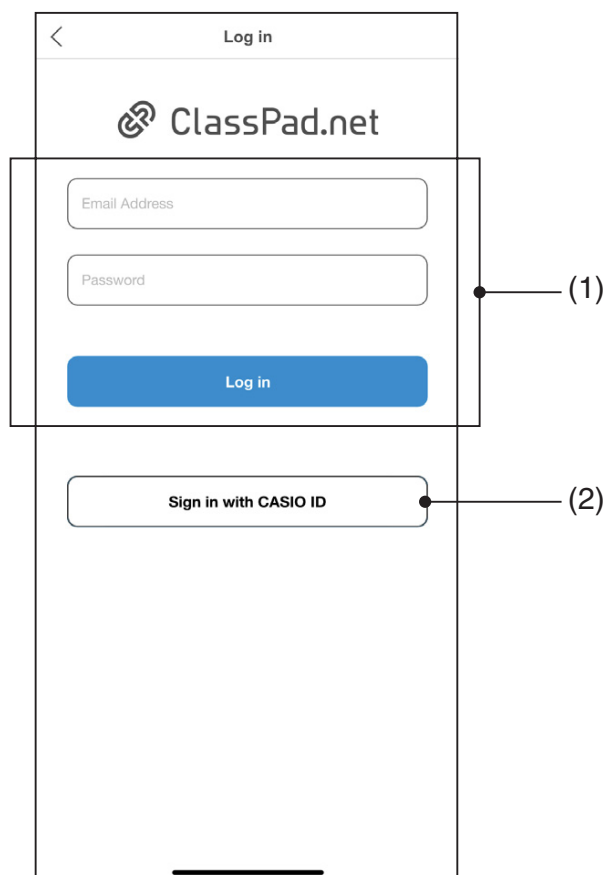
Configure Google Analytics settings*

Auto send usage information

* For iOS, select “Settings” application on the home screen and then configure “Auto send usage information” settings.

■ Log in Function

Tapping [Log in] on the Information screen will display the **Log in** screen like the one below.



(1) After inputting your Math version of ClassPad.net account information (email address and password), tap [Log in]. This will apply your fx-CG500 App subscription status to your ClassPad.net account.

(2) Tapping this button will display the **Log In to CASIO ID** screen (see the next page). You can use a CASIO ID to log in to ClassPad.net.

- You need to create a ClassPad.net account before logging in.
- You will be able to use ClassPad Math Plus License functions from the first time you log into a ClassPad.net account after subscribing with the fx-CG500 App.

Note

- For information about the difference between the Math version of ClassPad.net account and the ClassPad.net account, visit the website at the URL below:
<https://classpad.net>

Log In to CASIO ID screen

Tapping [Sign in with CASIO ID] on the **Log in** screen will display the **Log In to CASIO ID** screen like the one below.

The image shows a mobile application screen for logging in. At the top is the CASIO logo. Below it is the title "Log In to CASIO ID". There are two input fields: "Email Address" with the placeholder "example@casio.com" and "Password" with a toggle icon. Below the password field is a link "Forgot your password?". A black button labeled "LOG IN" is centered below the input fields. At the bottom of this section is a link "Not a Member Yet? Create an Account". Below this section is a horizontal line, followed by the title "Log in with a social media account". There are three buttons: "Sign in with Apple", "Sign in with Microsoft", and "Sign in with Google".

(3) Use your CASIO ID to log in to ClassPad.net. You can also create a new CASIO ID if you do not have one.

(4) You can also use your existing SNS account to log in to ClassPad.net.

Drawer Menu Commands

To do this:	Select this menu item:			
Create a new vcp file	File	New		
Open an existing vcp file		Open		
Save changes to the current vcp file		Save		
Save the current vcp file with a new name		Save As		
Attach a vcp file to a mail message		Send		
Clear Main memory		Reset		
Export selected math expressions and text to an mml file		Export MathML		
Reopen one of the four most recently opened files		1 <file name> 2 <file name> 3 <file name>		
Copy the selected math expression with content markup	Edit	Copy Special	MathML	Content
Copy the selected math expression with presentation markup				Presentation
Copy the selected math expression with combined content and presentation markup				Combined
Copy the selected text as Unicode				Unicode
Paste text from the clipboard		Paste Special		
Save a screenshot of the virtual fx-CG500 screen		Capture Screen		
Save a screenshot of the current active panel		Capture Current Panel		
Start up an application		Applications	Applicable menu item	
Change to the Calculator Mode* ¹	Window	Calculator Mode		
Change to the Mobile Mode* ²		Mobile Mode		

*1 Mobile Mode only

*2 Calculator Mode only

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The qtmain Library

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Shift-JIS Text Codec

Shift JIS (Shift Japanese Industrial Standards, also SJIS, MIME name Shift_JIS) is a character encoding for Japanese. It was originally developed by ASCII Corporation in conjunction with Microsoft.

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ISO 2022-JP (JIS) Text Codec

ISO/IEC 2022 is an ISO standard specifying: - a technique for including multiple character sets in a single character encoding system, and - a technique for representing these character sets in both 7 and 8 bit systems using the same encoding.

ISO-2022-JP is a widely used encoding for Japanese.

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Unicode

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Included in util/unicode/data, tests/auto/qtextboundaryfinder/data and tests/auto/qchar

Parts of the makeqpf tool

Macros for building Qt files

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qtbase/src/corelib/Qt5CoreMacros.cmake

qtbase/src/dbus/Qt5DBusMacros.cmake

qtbase/src/widgets/Qt5WidgetsMacros.cmake

qttools/src/linguist/Qt5LinguistToolsMacros.cmake

Android GNU C++ Run-time Licensing

The Android platform does not provide a full implementation of the C++ run-time. Instead, apps that depend on features such as STL, exceptions, or RTTI, must include an additional native run-time library that provides the features they need.

Qt will by default use the GNU libstdc++ library which is distributed as part of the Google Android NDK. Qt Creator will copy this library into the .APK for any Qt-based Android app. The library will then be loaded by the app on start-up to meet the run-time requirements of Qt.

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QImage

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Pixman (pixman) version 0.17.11

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