http://dcs.cemetech.net

User Manual

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1| Quick Start Guide

1.1| Pre-Installation

Before you can install Doors CS, you must first unzip the file you downloaded. If your computer is running Microsoft Windows XP, you can simply double click this file and select the "Extract All" tab on the side of the screen. Once you have done this, proceed to the "Transfer" Section.

If you are not running Microsoft Windows XP (or newer), you may need to use software such as WinZip or 7-zip to unzip the files. Follow the instructions included with your program to extract the files, then proceed to the transfer step.

1.2| Transfer

Once you have unzipped Doors CS, you can begin the transfer. On Windows or Macintosh machines, you will probably do best with TIConnect software, available from Texas Instruments or on the CD that came with your calculator. For Linux based computers, a number of utilities exist and can be found at Ticalc.org.

1.2.1| TI-Connect Instructions

1. Run TIConnect from your start menu.
2. Select the "Device Explorer" button.
3. Select the proper device from the list (Calculator should be plugged in)
4. Open the folder you extracted Doors CS to.
5. Inside this folder, select the appropriate version of DCS, based on your calculator model.
6. Drag and Drop the file dcs6.8xk from the folder to the TIConnect Device Explorer.
7. Follow the TIConnect prompts to send the file to your calculator.

1.2.2| Alternate Instructions

1. Find the appropiate file inside the ZIP file.
2. Copy it to your desktop
3. Attach calculator and turn it on
4. Right click on file and select Send to TI
5. Select appropiate connection
6. Click on Send to Device to begin transfer

1.3| First Use

Sending the file to your calculator installs it; no further installation is necessary. To run Doors CS at any time, press the blue Apps key(83+) or purple Apps key(84+) on your calculator, and either use the arrows to select DoorsCS6 and press Enter or press the number corresponding to the DoorsCS6 entry in the menu. The first time that you run Doors CS, it will invisibly install an AppVar that contains default preferences. You can edit these preferences via the submenus of the DCS Menu in the lower left of the Doors CS desktop

1.4| Usage Overview

1.4.1| Keys

To navigate Doors CS, use the mouse cursor, controlled by the four arrow keys on your calculator. To normal or "left" click, press the [Trace] or [2nd] keys. To secondary or "right" click, press the [Graph] or [Alpha] keys. You can turn your calculator off from Doors CS by pressing the [ON] key; press it again to turn the device back on. [Clear] quits immediately back to the homescreen from the desktop.

Key	Function
Arrows	Move cursor
[Trace] or [2nd]	Left-click
[Graph] or [Alpha]	Right-click
[Clear]	Quit
[+] [-]	Scroll up/down
[ON]	Turn calc on/off

Figure 1.1 – Key bindings

1.4.2| Area of the Screen

In the main area of the desktop are up to six icons representing programs or files on your calculator, accompanied by filenames of up to eight characters. You can left-click on any compatible file to run it. If Doors CS cannot run a file for some reason, whether due to incompatibility or corruption, it will alert you to this fact. When you finish using a program, it should return you to the Doors CS desktop. You can also right-click on files to edit their options or create folders.

At the right side of the screen is the scrollbar. You can expedite scrolling by using the [-] and [+] keys to go one page up and one page down respectively. You can also click on the bar itself to scroll down one page, or click the arrows at each end of the bar. The lower right of the screen contains, from left to right, the free RAM meter, the battery power meter, and the close button. The close button is equivalent to pressing [Clear].

The bottom left of the screen contains the icon seen in the top left of this page, the Doors CS Menu, usually abbreviated as the DCS Menu. This provides access to options and advanced features of Doors CS. Some provide redundant access to features for those familiar with desktop computer interfaces. You can read more about the DCS Menu later in this manual.

1.5| Quick Start Conclusion

You now have a working knowledge of utilizing Doors CS and its features. You are welcome to comment, ask questions, suggest features, or just make your voice heard on the Cemetech Forum (http://www.cemetech.net/forum), or send an email to dcs@cemetech.net. Good luck with Doors CS!

2| Installation

2.1| Pre-Installation

Before you can install Doors CS, you must first unzip the file you downloaded. If your computer is running Microsoft Windows XP, you can simply double click this file and select the "Extract All" tab on the side of the screen. Once you have done this, proceed to the "Transfer" Section.

If you are not running Microsoft Windows XP (or newer), you may need to use software such as WinZip or 7-zip to unzip the files. Follow the instructions included with your program to extract the files, then proceed to the transfer step.

2.2| Transfer

Once you have unzipped Doors CS, you can begin the transfer. First, open your transfer program. On Windows or Macintosh machines, you will probably do best with TIConnect software, available from http://education.ti.com or on the CD that came with your calculator. For Linux based computers, a number of utilities exist and can be found at http://www.ticalc.org.

2.2.1| TI-Connect Instructions

1. Run TIConnect from your start menu.
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5. Select appropiate connection
6. Click on Send to Device to begin transfer

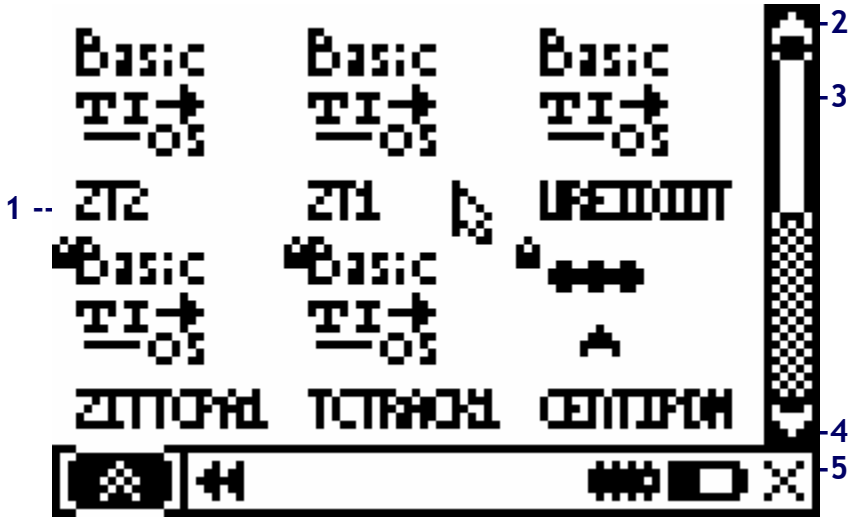
3| Usage Overview

3.1| Running Doors CS

Caution: If you had a previous version of Doors CS installed, be sure to delete the appvars DCS6 and DCS6b. Once you have installed Doors CS, you can run it at any time by pressing the blue or purple **[Apps]** button on your calculator and choosing `DoorsCS6`. The first time you run Doors CS after installing it, you will see the splash screen indicating the version of Doors CS you have installed and providing a link to the help documentation (http://dcs.cemetech.net). Press any key, and you will be taken to the desktop. To quit at any time, hit the [Clear] button.

3.2| The Desktop

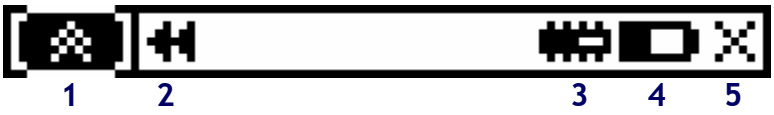
The main area of Doors CS 6 is the desktop, the large area of the screen that may have from zero to six icons and program names on it at any time.



1 The Desktop
2. Scroll up one page
3. The scrollbar
4. Scroll down one page
5. The Taskbar

Figure 3.1 – The Desktop

To the right of the desktop is the scrollbar, and below is the taskbar. The taskbar has two main areas, the DCS Menu at left, and the meters at left. The DCS Menu provides access to most of the settings and advanced features of Doors CS, including options for customizing your mouse, turning networking support on and off, and adjusting your contrasts. There are also entries on the DCS Menu for viewing the intro screen and shutting down the calculator. The right of the taskbar contains the battery and memory meters along with the close button at far right.

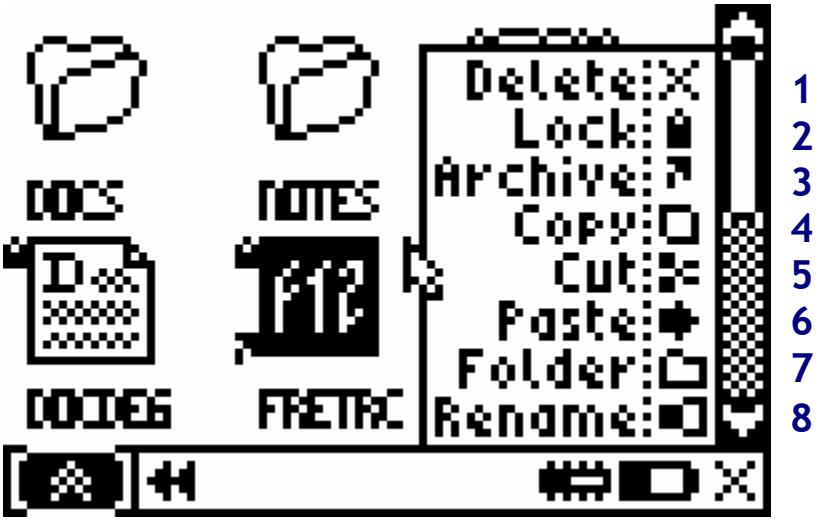


1. The DCS Menu — Single-click to open
2. Up one folder — Single-click to go up one folder
3. Memory Meter — Filled = all RAM free; empty = none free
4. Battery Meter — Filled = full battery; empty = low battery
5. Quit — Single-click to quit Doors CS

Figure 3.2 – The Taskbar

3.3| Files and Folders

Each file or folder in Doors CS is represented by an icon on the desktop with an associated name or title. You can run a file or program by single left-clicking on it, with [Trace] or [2nd]. To create a folder or work with existing files and folders, you must access the context menu, equivalent to right-clicking on an icon in most computer OSes, by using [Graph] or [Alpha]. You should see the following screen, as explained below. To exit this screen without doing anything, simply click anywhere outside its borders.



1. Delete file, folder, or program
2. Lock/unlock file for editing
3. Archive/unarchive file
4. Copy file, folder, or program
5. Cut file, folder, or program
6. Paste file, folder, or program
7. Create new folder
8. Rename file or program

Figure 3.3 – The Context Menu

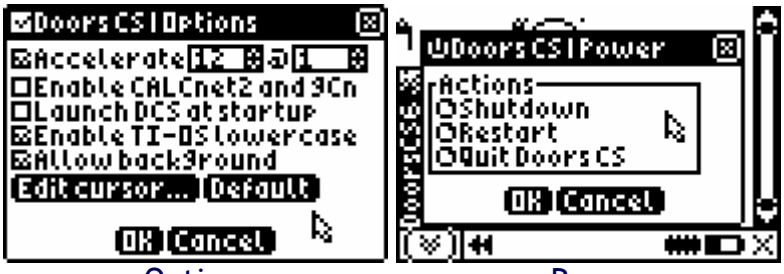
3.4| The DCS Menu

The DCS Menu provides access to all the advanced options that Doors CS 6 provides. To access the menu, single-click on the upwards-arrows symbol in the bottom left of the desktop. You will be greeted with a menu in the language of your choice. It will display five options; you may click one, or click outside the menu to close the DCS menu. The icon will switch to point downwards to indicate the menu is open.

Figure 3.4 – DCS Menu

The five options on the DCS Menu bring up any of the five following menus, each of which can be exited by left-clicking on the [X] in the upper-right of the window.

Link Display About



Options Power

Figure 3.5 – DCS Menu Submenus

3.4.1| Link Menu
The link menu displays the current status of the CALCnet2 networking interface, showing the number of bytes received and transmitted as well as the available of a gCn metanetwork. The only interaction this window accepts is exiting via the [X].

3.4.2| Display Menu
From this menu, you can adjust the contrast of your calculator's LCD and set whether programs and folders are sorted by their names in alphabetical order. Click OK to apply any changes, or Cancel to undo your changes.

3.4.3| About Screen
This will fade in and show the title, credits, help URL, and version for your copy of Doors CS 6. Press any key and it will fade out again.

3.4.4| Options Menu
The most complex of the DCS Menu submenus, the Options menu lets you set mouse speed and cursor, enable networking features, make Doors CS start when your calculator is turned on, enable lowercase, and allow background within Doors CS. Click OK to apply any changes, or Cancel to undo and go back.

3.4.5| Power
Select any of the three radio buttons (or click the [X] or cancel to go back), then click OK to execute the selected option.

4| Technical Specs

4.1| Recognized File Types

		TI-83	TI-83+/SE	TI-84+/SE
	Doors CS 5-6 ASM Programs	(5 only)	•	•
	Ion 1.0-1.6 ASM Program	•	•	•
	TI-OS ASM Program	•	•	•
	TI-OS BASIC Program	•	•	•
	SOS ASM Program	•		
	AShell ASM Program	•		
	MirageOS ASM Programs		•	•
	MirageOS BASIC Programs	•	•	•
(Varies)	Doors CS 4-5 BASIC Programs	•	•	•
(Varies)	Doors CS 6 BASIC Programs		•	•

4.2| Underpinnings

- **Source Language** z80 assembly for TASM
- **Compiled Format** z80 machine language
- **Total Size (Unassembled)** ~280K, 28 source files
- **Total Size (Assembled)** 32K, 1 8xk Intel-coded hex file
- **Total App Size (Used/Free)** 32,046 bytes / 530 bytes

5| License

5.1| Doors CS 6 End-User License

5.1.1| Preamble

This license applies to any and all possible pieces of human- and machine-readable computer code, prose, graphics, and other materials in the assembly, basic, and other languages, including associated documentation, ideas, and intellectual property created, designed, and/or written by Christopher Mitchell, programming alias KERM MARTIAN. Any and all use and reuse of this code for a purpose other than an official release of a compiled version by "Kerm Martian" himself is governed by this agreement. Any attempt to use or reuse this source code or compiled code for release under "Kerm Martian" or another name must be explicitly approved by "Kerm Martian", except if such use or reuse has been previously approved by "Kerm Martian".

By opening, downloading, or viewing this document or the source code of DOORS CALCULATOR SHELL ("Doors CS"), THE USER ("you") implicitly agree to the terms of this license agreement (LICENSE or AGREEMENT). If you do not accept the terms of this agreement, you are to immediately delete any source code you have viewed, downloaded, or cached. This license does not covered the compiled Application version of Doors CS, which is released with its own license agreement.

All legal rights accorded copyrighted or protected works not expressly covered in this document are reserved by "Kerm Martian". Note that while Doors CS is partially open-source, the original code remains copyright "Kerm Martian". However, as stated below, portions of the code may be reused as long as all strictures both implicitly and expressly stated in this license are followed.

5.1.2| Availability

The Doors CS source code shall be openly available to the general public after May 31, 2006. This availability cannot be applied to past Doors CS releases, although the author, "Kerm Martian", may choose to make such source code available at his own discretion. The source code may be found on Cemetech, http://www.cemetech.net, or http://doorscs.cemetech.net. If the code is not found there, the author may be contacted to obtain the full source code. At any point, "Kerm Martian" may choose to return Doors CS to closed source status, in which state the code would not be released to any programmer, user, or other individual, corporation, or legal body whatsoever. Such a change would be accompanied by an updated license and at least 1-week notification on http://www.cemetech.net. This change would retroactively forbid derivative works based in whole or part on original code taken from Doors CS; in the event of such a move, an author could submit a written request to retain rights to the derivative code.

5.1.3| Scope

This license covers the electronically-encoded, hardcopy, and any other instance of the source and assembled code for the graphing calculator shell Doors CS, its derivatives, and its modules. This license does NOT cover any program written to work with Doors CS by either "Kerm Martian" or any other user, group, or organization. Certain portions of the code,

including routines in whole or in part, have been used with the permission of the original third-party author(s). They may or may not be covered by original licenses. A user wishing to use that code should contact those authors for permission to use their code, or "Kerm Martian" may be able to contact the author on the user's behalf.

5.1.4| Usage

Under abolutely no circumstances whatsoever may the source code of Doors CS may be recompiled in whole or in part and released by an individual, group, or third party other than "Kerm Martian" without express, expicit written permission from "Kerm Martian". Sections of code may be used in other published projects only with the written permission of "Kerm Martian". The source code of Doors CS may be freely examined and reverse-engineered only for constructive purposes. It is explicitly illegal and contrary to this agreement to use any of the information covered directly or indirectly by this agreement for malicious or harmful purposes.

Optimizations, corrections, and bugfixes to this code may be submitted to the author, "Kerm Martian". Such items may be accepted or denies as additions or changes to the official source code maintained by "Kerm Martian" for official releases at "Kerm Martian"'s discretion. As a general rule, good, constructive suggestions will be almost definitely accepted.

5.1.5| Liability

Cemetech and “Kerm Martian” hereby disclaim any and all responsibility for damage and/or injury to persons or property, both tangible and intangible, as a direct or indirect result of using Doors CS 6. Among the implicit areas of non-liability deemed necessary for explicit statement here are “RAM Cleared” events, rendering of a mobile unit nonfunctional (“bricking”), and unwanted additional, removal, or modification of data on a device due directly or indirectly to Doors CS 6, though all reasonable care has been taken to remove instability from this final release.

5.1.6| Updates

Frequent changes are made to the Doors CS source code as development progresses. These changes are mirrored in the released source code, but there might be a slight delay due to scheduling or "Kerm Martian" forgetting to upload the source on any given week. New source code releases are generally made after major changes or the addition of new features, and do not occur after minor bugfixes. If you need an up-to-date version, contact "Kerm Martian".