
**Caterpillar
Customer
Communication
Module PC**

**Getting Started
Users Manual**



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Introduction

About Caterpillar Customer Communication Module PC

Section 1

All Caterpillar Customer Communication Module PC (Cat CCM PC) documentation is directed towards the user with some Microsoft Windows experience. If this does not describe you, please take some time to acquaint yourself with Windows before installing Cat CCM PC.

This software package allows remote access to an Electronic Control Module (ECM) and/or Electronic Modular Control Panel II (EMCP II) equipped with the Caterpillar Communication Module (CCM) interface. Cat CCM PC provides the following services:

- Remote control ability
- Parameter status display
- Diagnostic viewing/clearing options
- Parameter logging



PC Software Hotline Services

Section 2

Caterpillar Inc. provides a well-trained technical support staff to assist you with any problems. If you need software support of Cat CCM PC and wish to contact the Caterpillar PC Software Hotline, please completely fill out the information from the Caterpillar CCM PC Install Problem Tracking Form or Caterpillar CCM PC Communication Tracking Form. These questions are necessary for the Caterpillar PC Software Hotline to solve your problem.

Also, be prepared to:

- Give a brief explanation of the problem you are having
- Include the **exact wording** of any error or warning messages you have received
- Give the sequence of steps you took before the error or warning message
- Describe any recent changes made to your personal computer (PC) and know if Cat CCM PC Software was running correctly in the past to help isolate the problem

Note: If you call outside of these hours, leave a voice message, and a Caterpillar PC Software Hotline staff member will respond to your problem the next business day.

Caterpillar PC Software Hotline

Voice: (800) THE-PCDR (843-7237) or (309) 266-2751

Fax: (309) 263-0127

E-mail: THEPCDR@catsupport.com or
Thepcdr@MAILHUB (Lotus Notes)

Hours: 8:00am to 5:00pm (Central Standard Time)

Mail To: The PC Doctor
c/o CSE Software Inc.
2109 S. Main Street
Morton, Illinois 61550-2917

Caterpillar CCM PC Install Problem Tracking Form

Name: _____

Dealership: _____

Telephone Number: _____

Computer type: _____

Operating System: _____

Memory: _____

Available Hard Drive Space: _____

Version of Cat CCM PC: _____

Previous Version
of Cat CCM PC: _____

Subscription: _____

Exact Error message: _____

Caterpillar CCM PC Communications Tracking Form

Name: _____

Dealership: _____

Section
2

Telephone Number: _____

Computer type: _____

Operating System: _____

Version of Cat CCM PC: _____

Product being monitored: _____

Personality Module Part

Number & Date on ECM: _____

Exact Error message: _____

CCM Part Number: _____

Modem Manufacture: _____

Modem Module Number: _____



What You Need to Run Caterpillar CCM PC

In order to successfully run Cat CCM PC, you will need the following items: computer hardware, communication hardware, cables, and software.

Note: The minimum PC Configurations should not be used as a standard when buying new personal computers to run Cat CCM PC. If you have existing equipment that meets these minimum requirements, it will run Cat CCM PC.

**Section
3**

Hardware Requirements

Minimum PC Configurations

- IBM® PC compatible with 486-50 MHz processor or greater
- 8-MB of RAM
- 100-MB of available hard disk drive
- CD-ROM drive
- 3.5" 1.44-MB floppy disk drive
- VGA monitor or display
- Microsoft® Windows™ version 3.1 or greater, Windows NT, Windows 95, or Windows 98
- RS232 port with 16550AF UART
- Built in pointing device or mouse

Recommended PC Configurations

- IBM® PC compatible with Pentium II 300 MHz processor
- 24-MB RAM
- 1 GB of available hard disk drive
- 24X speed CD-ROM drive
- 3.5" 1.44-MB floppy disk drive
- Super VGA color monitor or display
- Microsoft® Windows™ NT, Windows 95, or Windows 98
- RS232 port with 16550AF UART
- Built in pointing device or mouse

Other Requirements

- 9600 BPS or faster Hayes compatible data modem
- Caterpillar Communication Module (CCM)
- Serial cables



Installing Caterpillar Customer Communication Module PC

Purpose

The installation procedure, described below, is for installing Cat CCM PC. The installation program is designed to run under Microsoft Windows. It requires one Cat CCM PC Install CD-ROM. This installation process will upgrade the existing Cat CCM PC, and preserve files created such as defined Status and Data Logger Groups, Phone Book connections, Define Relay Outputs, and Define Spare Inputs.

Section
4

Instructions

Perform the following steps to install Cat CCM PC from a CD:

Step 1 Close any applications you are running. This includes any connections to mainframe computers or networks.

Note: If you are running Windows NT, you may need administrative rights on your computer system to install Cat CCM PC.

Step 2 Insert the Cat CCM PC Install CD-ROM into your computer's CD-ROM drive.

Step 3 Press the "Start" pushbutton on the Task Bar. On the file menu, select "Run." The Run dialog box displays.



Illustration 4-1: Run dialog box

Step 4 In the text box type:

z:\setup.exe

If the CD is in a CD-ROM drive other than “z,” substitute “z” with the appropriate drive letter.

- Step 5 Press “OK.” The “Setup is preparing...” status box displays.

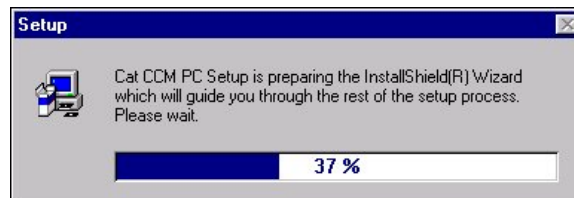


Illustration 4-2: “Setup is preparing...” status box

When it is finished, the Welcome dialog box displays.

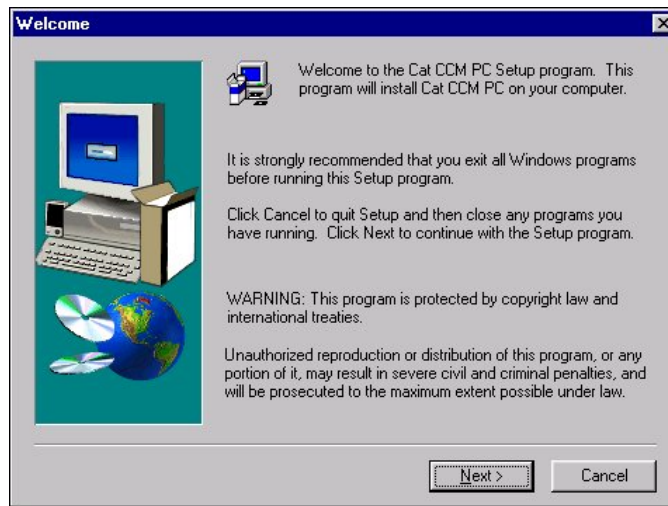


Illustration 4-3: Welcome dialog box

- Step 6 Read through the welcome message. Press the “Next>” pushbutton to continue the setup. The Software License Agreement dialog box displays. Press “Cancel” to abort the setup process.

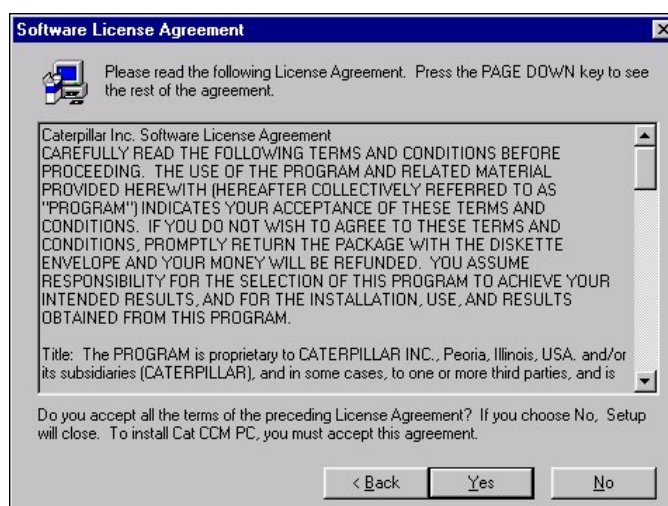


Illustration 4-4: Software License Agreement dialog box

- Step 7 Read through the license agreement. Press the “Yes” pushbutton to accept the terms and conditions. The Choose Destination Location dialog box displays. Press “<Back” to return to the previous screen. Press “No” to abort the setup process.



Illustration 4-5: Choose Destination Location dialog box

- Step 8 Press the “Next>” pushbutton if you are satisfied with the default destination folder. The Select Program Folder dialog box displays.

To select a different path than the one shown in the Destination Folder area, press the “Browse...” pushbutton. The Choose Folder dialog box will display. In this dialog box, you can change the directory path by selecting the drive and folder where you want to install Cat CCM PC or by typing the complete path in the Path text box.

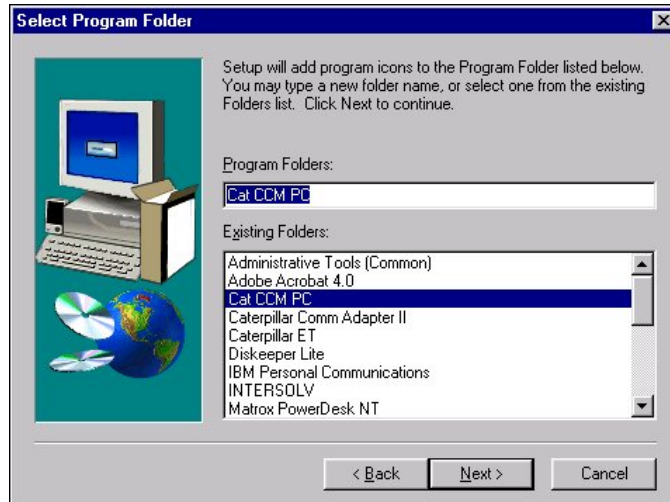
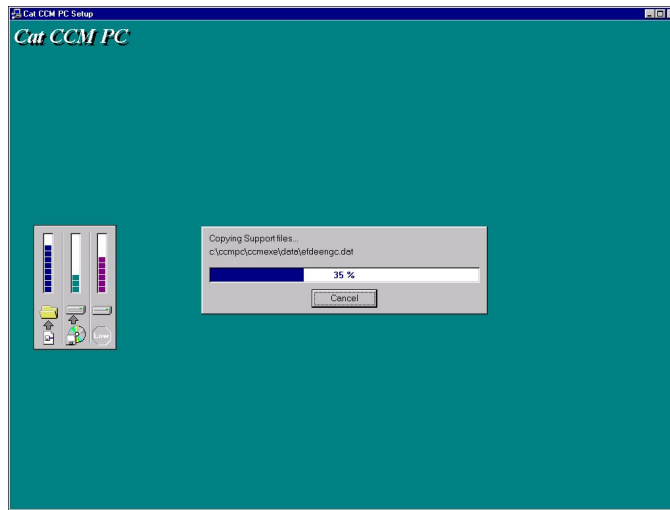


Illustration 4-6: Select Program Folder dialog box

- Step 9 Cat CCM PC is the default Program Folder name. If you want to change the Program Folder name, select a folder from the Existing Folders text box, or type a folder name in the Program Folders text box.

Press the “Next>” pushbutton to begin setting up Cat CCM PC. The Copying program files progress bar displays. Press “<Back” to return to the previous screen. Press “Cancel” to abort the setup process.



Section 4

Illustration 4-7: Copying program files progress bar

- Step 10 The setup process begins installing Cat CCM PC to the destination folder. The Cat CCM PC Setup screen will display with progress bars. Press "Cancel" to abort the setup install procedure.

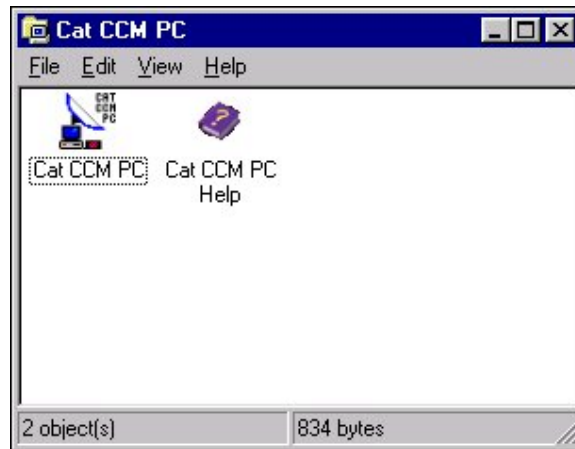
When the installation process is completed, the Setup Complete dialog box displays.



Illustration 4-8: Setup Complete dialog box

Step 11 Press the “Finish” pushbutton to complete the setup process. The “<Back” pushbutton is disabled.

Cat CCM PC Group Box



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5

Illustration 5-1: Cat CCM PC Group Box

The following items are available in the group box:

Cat CCM PC – The Cat CCM PC program

Cat CCM PC Help – Complete online help for Cat CCM PC

Starting Caterpillar CCM PC

Purpose

You can connect to Cat CCM PC either by a **Direct** connection or by a **Modem** connection.

Instructions

Perform the following steps to start Cat CCM PC:

- Step 1 Select Caterpillar CCM PC for Windows from the Programs menu, and then select CCM PC for Windows from the sub-menu. The Phone Book dialog box displays.

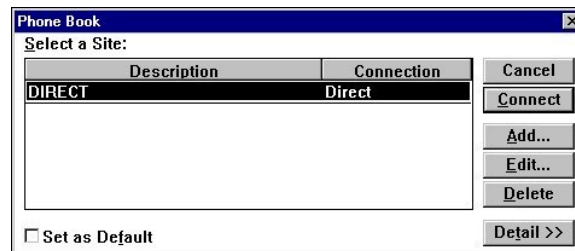
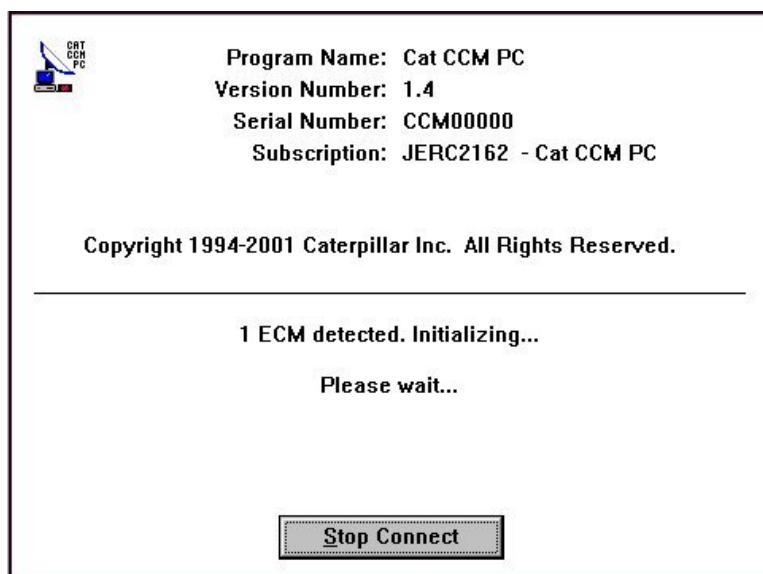


Illustration 5-2: Phone Book dialog box

Note: See “Phone Book,” section 11, page 1, for a complete description of the Phone Book dialog box.

- Step 2 Select the desired site and press the “Connect” pushbutton. The Cat CCM PC Connection message box displays.



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Illustration 5-3: Cat CCM PC Connection message box

If the CCM requires a login password, the Password Login dialog box displays.

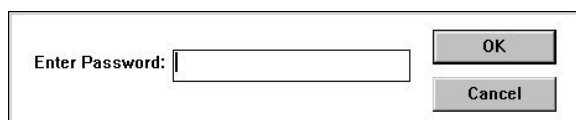


Illustration 5-4: Password Login dialog box

- Step 3** Enter the password in the Enter Password text box and Press "OK." The Cat CCM PC Connection message box displays keeping you updated on the connection status. If more than one ECM is detected, the ECM Selector dialog box displays. Press "Cancel" to exit the Password Login dialog box. You will disconnect from Cat CCM PC.

Note: Passwords are stored in the CCM and not in the Cat CCM PC. The first time the CCM is used no passwords are needed. Leave the Enter Password text box blank and press "OK." You are at CCM Security Level 3. To change your CCM Security Level passwords, see "CCM Configuration," section 12, page 4.

WARNING! You must remember your CCM Security Level 3 password. If you forget your password, you must replace your CCM.

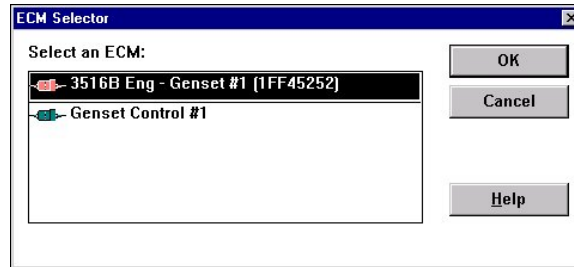


Illustration 5-5: ECM Selector dialog box

Note: The CCM ECM is not displayed in the ECM Selector box when you initially connect to Cat CCM PC. To display the ECM, select the Select ECM from the Data Link Menu. The ECM Selector dialog box displays with the available ECMs.

- Step 4 Select an ECM and press “OK.” When the data is loaded, the ECM Summary dialog box displays. Press “Cancel” to exit the ECM Selector dialog box, thus leaving Cat CCM PC in a disconnected state. Press “Help” to open online help for assistance.

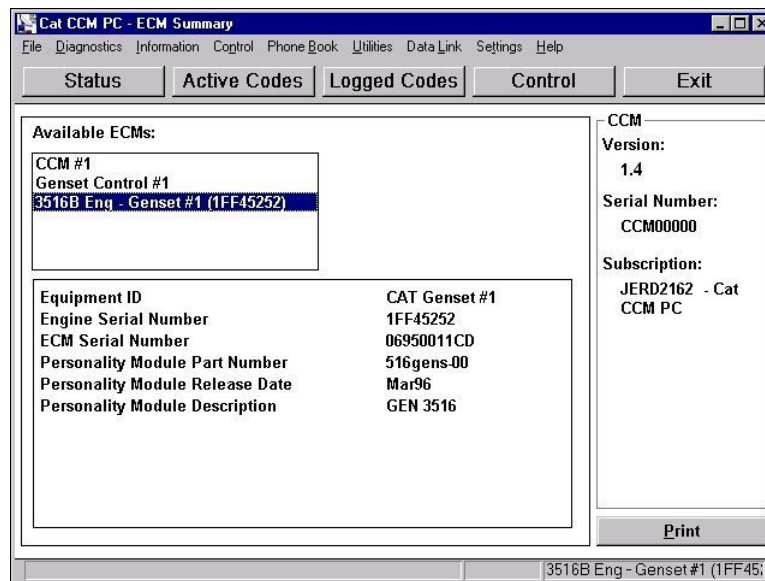


Illustration 5-6: ECM Summary screen

Caterpillar CCM PC Online Help

Purpose

The Help Contents function allows you to access the online help file for Cat CCM PC. This file gives valuable information about each feature and provides step-by-step instructions for all Cat CCM PC functions.

Instructions

There are three ways to access Help:

- Select Contents from the Help menu
- Push the F1 key (content sensitive)
- Select Caterpillar CCM PC for Windows from the Programs menu, and then select CCM PC for Windows Help from the sub-menu.

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The Caterpillar CCM PC Help Table of Contents displays.

Note: Caterpillar CCM PC Online Help is content sensitive. By pushing F1, help information for the active Cat CCM PC screen displays.



Printing a Document



Illustration 6-1: Print Document dialog box

Purpose

The Print Document dialog box allows you to send a report to a printer, print a report to the screen, or save a report to a file. The report includes the source of data, time and date of report generation, ECM connection, list of parameters and their values, and information that is unique to the function that you are printing.

Note: Windows NT does not support the Print to Screen option.

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6

Instructions

To print a report to a printer:

- Step 1 Press the "Print" pushbutton. The Print Document dialog box displays.
- Step 2 Press the "Print to Printer" radio button, and then press "OK." The "Print to Printer is complete" message box displays. Press "Cancel" to exit the Print Document dialog box.

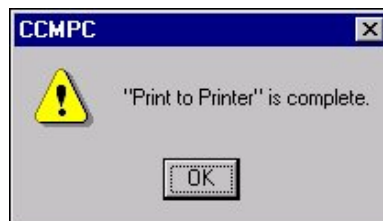


Illustration 6-2: "Print to Printer" is complete message box

- Step 3 Press "OK" to return to the last active screen.

To print a report to the screen:

- Step 1** Press the “Print” pushbutton. The Print Document dialog box displays.
- Step 2** Press the “Print Preview” radio button, and then press “OK.” The Print Preview screen displays.

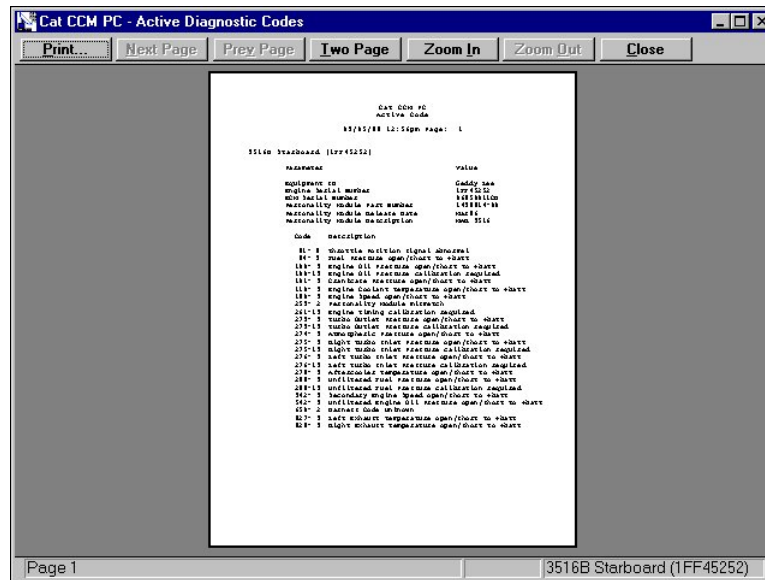


Illustration 6-3: Print Preview screen

This screen gives you a sample of how the report looks when printed. Choose the appropriate pushbutton to aid in viewing the document.

- Print** Prints the report to a printer.
- Next Page** Views the next page of the report. “Next Page” is disabled if you are on the last page or if it is a one-page report.
- Prev Page** Views the previous page of the report. “Prev Page” is disabled if you are on the first page or if it is a one-page report.
- Two Page** Displays two pages of the report at once. “Two Page” pushbutton is replaced with

“One Page” pushbutton; press the “One Page” pushbutton to view one page.

- Zoom In** Magnifies the text. “Zoom In” is disabled when the text is fully magnified.
- Zoom Out** Decreases the text size. “Zoom Out” is disabled when the text is at normal size.
- Close** Exits print preview and returns to Cat CCM PC.



File Drop-Down Menu Functions



Illustration 7-1: File drop-down menu

Purpose

File drop-down menu functions allow you to setup a printer for copying reports or to exit from Cat CCM PC.

Cat CCM PC **does not support** the “New,” “Open,” “Close,” or “File Management” functions of the File drop-down menu.

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The following two functions are available under the File drop-down menu:

- Print Setup
- Exit

Print Setup

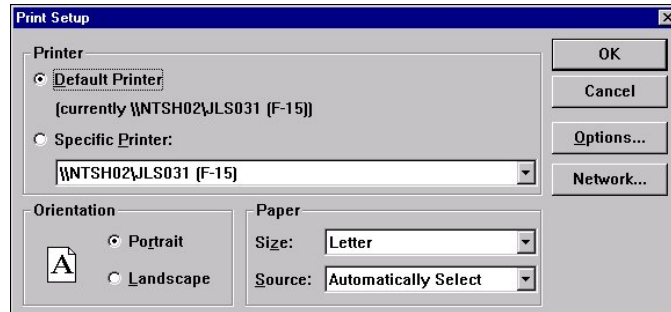


Illustration 7-2: An example of a Print Setup dialog box

Purpose

The Print Setup function displays one of the standard Print Setup dialog boxes, which allows you to select or change the default printer. Changing the default printer in this dialog box affects the default printer for all other applications, including Cat CCM PC.

Instructions

To make changes to the printer setup:

- Step 1 Select Print Setup... from the File menu. The Print Setup dialog box displays.
- Step 2 If you want to print to the default printer that has been setup in your operating system, press the “Default Printer” radio button. The current default printer is listed under the Default Printer option. See your PC or printer manual for information concerning printers.

If you want to print to a different printer press the “Specific Printer” radio button. Select the printer from the Specific Printer drop-down list. Only the printers that have been set up in your operating system display in this list.

Step 3 Press the radio button for the desired paper orientation.



Portrait: height is greater than the width.



Landscape: width is greater than the height.

Step 4 Select the paper size to be used from the Size drop-down list. The drop-down list contains all the paper size choices for the selected printer.

Step 5 Select the paper source to be used from the Source drop-down list. The drop-down list contains all the paper source options available for the selected printer.

Step 6 If you need to make additional technical changes to the printing environment for the selected printer, press the “Options” pushbutton. The Advanced Document Properties dialog box displays. For information on how to modify the printer environment, consult your PC or printer manuals.

Within the Advanced Properties dialog box, there is another “More Options” pushbutton. Pressing this takes you to the More Options dialog box.

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Step 7 To connect a printer to a network, press the “Network...” pushbutton. The Connect to Printer dialog box displays.

Note: The “Network...” pushbutton is only displayed if your PC is on a network.

Step 8 Press the “OK” pushbutton. The modifications you have made in the Print Setup dialog box are saved. Press “Cancel” to exit the Print Setup without modifying the printer.

The printer selection made on the Print Setup dialog box remains in effect for all subsequent reports, until a different printer is selected.

Exiting Caterpillar CCM PC

Instructions

To exit Cat CCM PC:

Select Exit from the File menu, push the F9 key, or press the “Exit” pushbutton from the toolbar. You will exit Cat CCM PC.

Diagnostics Drop-Down Menu Functions



Illustration 8-1: Diagnostic drop-down menu

Overview

The Diagnostics drop-down menu functions allow you to monitor active, logged, and CCM diagnostic codes, display active alarms and shutdown condition for current ECM, and provides a list of currently active derates.

The following functions are available under the Diagnostics drop-down menu:

- Active Diagnostic Codes
- Logged Diagnostic Codes
- Active Events
- Logged Events
- CCM Diagnostic Codes
- Alarms
- Shutdowns
- Derates

**Section
8**

Active Diagnostic Codes

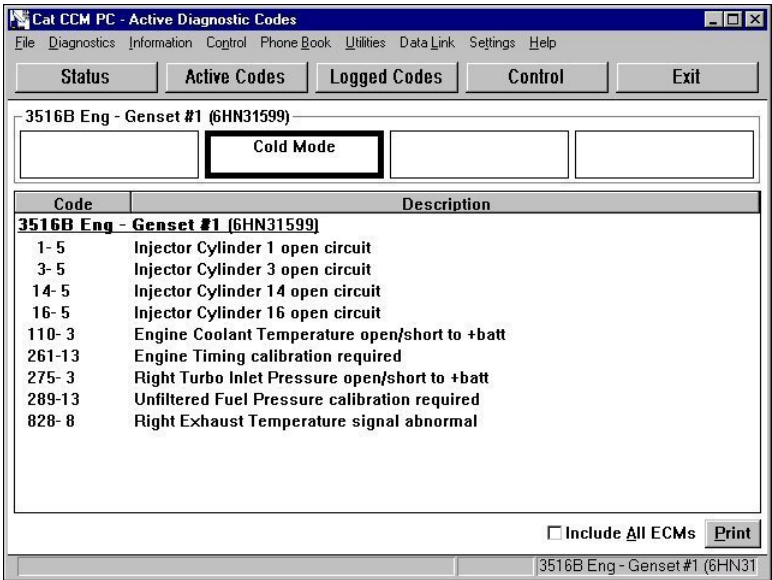


Illustration 8-2: Active Diagnostic Codes screen

Purpose

The Active Diagnostic Codes function provides information to warn the vehicle operator of a potential problem and indicates to the service technician the nature of the problem. The codes that are diagnosed in this screen are active (occurring as you view them). Some codes are used only to record an event and do not indicate a problem.

Instructions

To run the Active Diagnostic Codes function:

Select Active Codes from the Diagnostics menu; push the F3 key, or press the “Active Codes” pushbutton from the toolbar. The Active Diagnostic Codes screen displays.

Screen Layout

The Active Diagnostic Codes screen has the following areas:

Status Flag Area

Cat CCM PC displays up to four Status Flag indicators across the top of the screen. These flags are used to notify you of currently active conditions, such as Low Oil Pressure, Engine Overspeed, etc. When a warning condition exists, it is described in the appropriate flag indicator area. The name of the active ECM displays above the flags.

Display Area

The Active Diagnostic Codes display area has two columns: Code and Description. The code numbers that appear are used to identify the diagnostic codes. The Description column informs you of the problem that is occurring.

The list of codes is grouped according to the ECM that it is retrieved from. The ECM names appear as subtitles in the list. If there is more than one ECM connected, the subtitles are arranged alphabetically.

Include All ECMs Check Box

When the Include All ECMs check box is checked, active codes from all available ECMs are retrieved and displayed. When there is a single ECM on the data link, this check box is disabled.

Note: The CCM Diagnostic Codes are not included in the Active Diagnostic Codes. See “CCM Diagnostic Codes,” section 8, page 13.

Pushbutton

One pushbutton is available on the Active Diagnostic Codes screen:

- Print

Note: See “Printing a Document” section 6.

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Logged Diagnostic Codes

Code	Description	Occ.	First	Last
3516B Eng - Genset #1 (6HN31599) - Diagnostic Clock = 3 hour				
1- 5	Injector Cylinder 1 open circuit	2	2	2
3- 5	Injector Cylinder 3 open circuit	2	2	2
5- 5	Injector Cylinder 5 open circuit	2	2	2
7- 5	Injector Cylinder 7 open circuit	1	2	2
14- 5	Injector Cylinder 14 open circuit	1	2	2
16- 5	Injector Cylinder 16 open circuit	2	2	2
289- 3	Unfiltered Fuel Pressure open/short to +batt	4	2	2
Genset Control #1 - Diagnostic Clock = 20142 hours				
100- 2	Engine Oil Pressure out of range	2	20139	20142
100- 3	Engine Oil Pressure open/short to +batt	1	20142	20142
100- 4	Engine Oil Pressure short to ground	2	20139	20142
110- 2	Engine Coolant Temperature out of range	1	20142	20142
110- 3	Engine Coolant Temperature open/short to +batt	1	20142	20142
190- 2	Loss of Engine Speed signal	1	20142	20142
336- 2	Incorrect ECS Switch inputs	1	20142	20142

Illustration 8-3: Logged Diagnostic Codes screen

Purpose

The Logged Diagnostic Codes function provides a list of diagnostic codes logged by the ECM. These codes are similar to the active diagnostic codes except they are logged over time.

Instructions

To run the Logged Diagnostic Codes function:

Select Logged Codes from the Diagnostics menu, push the F4 key, or press the “Logged Codes” pushbutton from the toolbar. The Logged Diagnostic Codes screen displays.

Screen Layout

The Logged Diagnostic Codes screen has the following areas:

Display Area

The Logged Diagnostic Codes display area has five columns: Code, Description, Occ., First, and Last. The code numbers that appear are used to identify the diagnostic codes. The Description column

informs you of the problem that is occurring. Occ. (occurrences) column informs you of the number of times that the problem occurred. The columns marked First and Last indicate the first and last ECM hour that the problem occurred.

The list of codes is grouped according to the ECM that it is retrieved from, and they appear ordered chronologically by the most recent ECM hour of last occurrence. The ECM names appear as subtitles in the list. On the same line as the ECM subtitle, the number of ECM diagnostic clock hours displays. These hours represent the time that the ECM has been connected and running.

Include All ECMs Check Box

When the Include All ECMs check box is checked, logged codes from all available ECMs are retrieved and displayed. When there is a single ECM on the data link, this check box is disabled. CCM Diagnostic Codes are not available.

Pushbuttons

The pushbuttons available in the Logged Diagnostic Codes screen are:

- Clear
- Print

Note: See "Printing a Document" section 6.

**Section
8**



Clearing Logged Diagnostic Codes

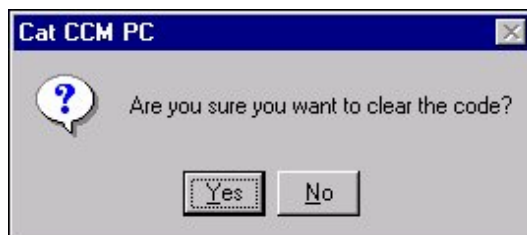


Illustration 8-4: "Are you sure..." message box

Purpose

The "Clear" pushbutton allows you to clear logged diagnostic codes from the list in the Logged Diagnostic Codes screen.

Note: The "Clear" pushbutton is disabled at CCM Security Level 1.

Instructions

To clear a logged diagnostic code:

- Step 1 Select one of the logged diagnostic codes from the list on the Logged Diagnostic Codes screen. This enables the "Clear" pushbutton.
- Step 2 Press the "Clear" pushbutton. The "Are you sure..." message box displays.
- Step 3 Press "Yes" to clear the selected code or "No" if you do not want to clear the code. You will return to the Logged Diagnostic Codes screen.

Events

Overview

Events allow you to view information tracked by the ECMs which is typically used for warranty verification information and for reviewing how the equipment has been operated.

An example of an event tracked for an engine is Engine Overspeed. During normal operation of an engine, this event may occur a few times. However, a high number of occurrences of this type of an event may indicate user operation problems.

Clearing any event codes logged by the onboard electronics may require proper password authorization.

Event functions currently available on various applications are:

- Active
- Logged

Active Event Codes

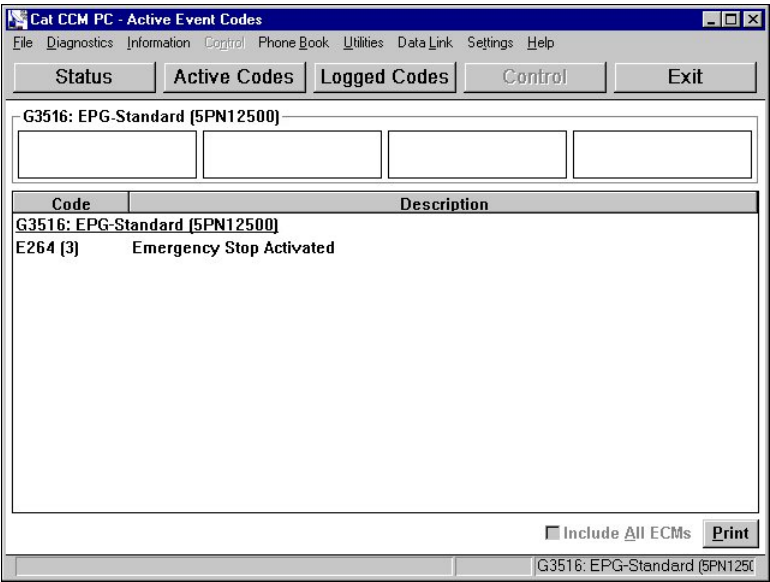


Illustration 8-5: Active Event Codes screen

Purpose

The Active Event Codes function provides information about events currently occurring. These codes are similar to the active diagnostic codes, except that the event represents the symptom of an operational problem. These codes indicate to the manager or technician how the machine or equipment is being operated.

Accessing

To run the Active Event Codes function:

Select Active Events from the Diagnostics menu. The Active Event Codes screen displays.

Screen Layout

The Active Event Codes screen has the following areas:

Display Area

The Active Event Codes display area has two columns: Code and Description. The code numbers that appear are used to identify the

events. The Description column informs you of the event that is occurring.

Warning category indicator immediately follows the code number and is in parenthesis. It is a number ranging from 1 to 3, where 3 is the most severe, and it indicates the severity of the associated code number. The warning category provides an indication to the type of behavior and/or actions, which must be taken by the operator, or by the control system for some engine applications, to address the severity of the associated situation.

The list of codes is grouped according to the ECM that it is retrieved from. They appear in chronological order by the most recent ECM hour of last occurrence. The ECM names appear as subtitles in the list. If there is more than one ECM connected, the subtitles are arranged alphabetically.

Include All ECMs Check Box

When the Include All ECMs check box is checked, active codes from all available ECMs are retrieved and displayed. When there is a single ECM on the data link, this check box is disabled.

Pushbuttons

The pushbutton available in the Active Event Codes screen is:

- Print

Note: See "Printing a Document" section 6.

Logged Events Codes

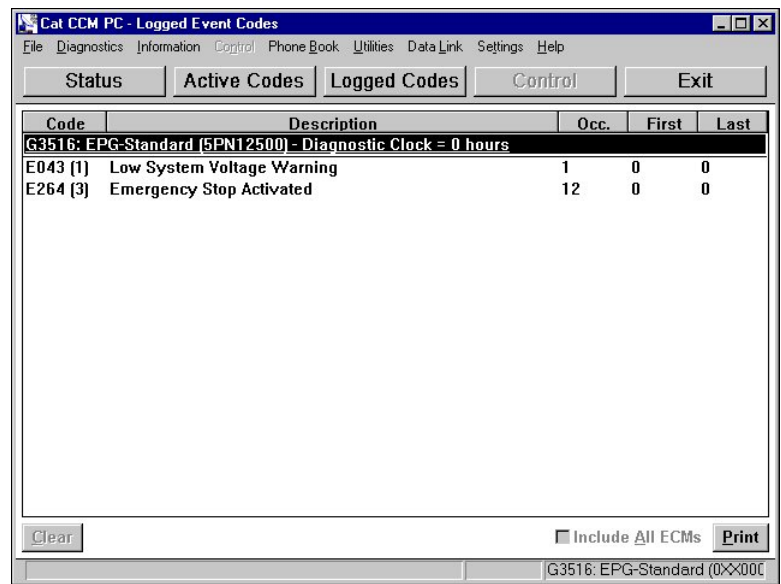


Illustration 8-6: Logged Event Codes screen

Purpose

The Logged Event Codes function provides a list of event codes logged by the ECM. These codes are similar to the logged diagnostic codes, except that the event represents the symptom of the operational problem. These codes indicate to the manager or technician how the machine/equipment is being operated.

Accessing

To run the Logged Events Codes function:

Select Logged Events from the Diagnostics menu. The Logged Event Codes screen displays.

Screen Layout

The Logged Event Codes screen has the following areas:

Display Area

The logged event codes are grouped according to the ECM that they are retrieved from. They appear in chronological order by the most recent ECM hour of last occurrence. The ECM names appear as subtitles in the list. If there is more than one ECM connected, the subtitles are arranged alphabetically. On the same line as the ECM subtitle, the number of ECM diagnostic clock hours is displayed. These hours represent the time that the ECM has been connected and running.

The Logged Event Codes screen has five columns: Code, Description, Occ., First, and Last. The code numbers that appear are used to identify the events. The Description column informs you of the symptom that is occurring. The Occ. (occurrences) column informs you of the number of times that the symptom occurred. The columns marked First and Last indicate the first and last ECM hour that the problem occurred.

Note: On some ECMs, a warning category indicator may immediately follow the code number. It indicates the severity of an associated event. If the warning category is present, it will be in parenthesis. It is a number ranging from 1 to 3 ("3" being the most severe). The warning category can give clues to the severity of an engine application's behavior.

Include All ECMs Check Box

When the Include All ECMs check box is checked, logged codes from all available ECMs are retrieved and displayed. When there is a single ECM on the data link, this check box is disabled.

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Pushbuttons

The pushbuttons available in the Logged Event Codes screen are:

- Clear
- Print

Note: See "Printing a Document" section 6.

 Clearing Logged Event Codes

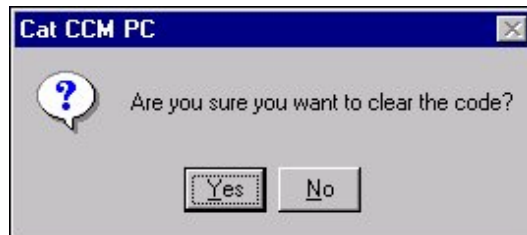


Illustration 8-7: “Are you sure...” message box.

Purpose

The “Clear” pushbutton allows you to clear logged event codes from the Logged Event Codes screen.

Instructions

Perform the following steps to clear a logged event code:

- Step 1 Select one of the logged event codes from the list on the Logged Event Codes screen. This enables the “Clear” pushbutton.
- Step 2 Press the “Clear” pushbutton. The “Are you sure...” message box displays.
- Step 3 Press “Yes” to clear the selected code, or press “No” to not clear the code. In either case, you will return to the Logged Event Codes screen.

CCM Diagnostic Codes

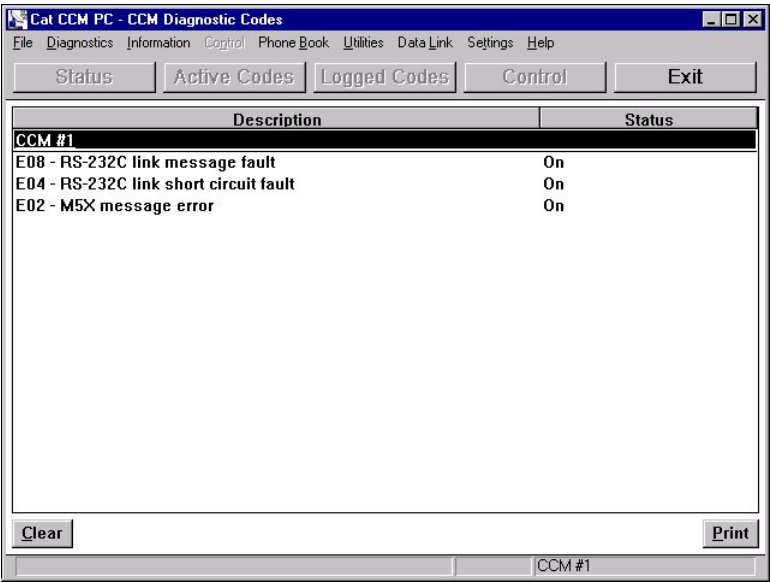


Illustration 8-8: CCM Diagnostic Codes screen

Purpose

The CCM Diagnostic Codes function displays the current CCM diagnostic fault codes and allows you to clear them.

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Instructions

Perform the following steps to run the CCM Diagnostic Codes function:

Note: If CCM is the currently selected ECM, begin at Step 3.

- Step 1 Choose the Select ECM from the Data Link menu. The ECM Selector dialog box displays.

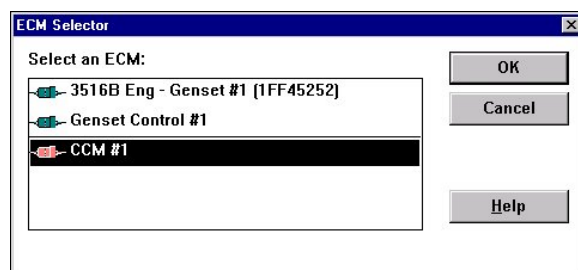


Illustration 8-9: ECM Selector dialog box

Step 2 Select the CCM ECM and press “OK.”

Press “Cancel” to exit the ECM Selector dialog box.
Press “Help” to open online help for assistance.

Step 3 Select CCM Diagnostic Codes from the Diagnostics menu. The CCM Diagnostic Codes screen displays.

Screen Layout

The CCM Diagnostic Codes screen has the following areas:

Display Area

The CCM Diagnostic Codes screen has two columns: Description and Status. The Description column informs you of the problem that is occurring. The CCM code numbers shown in front of the description are used to identify the diagnostic codes. The Status column displays if the fault codes are active.

Pushbuttons

The pushbuttons available in the CCM Diagnostic Codes screen are:

- Clear
- Print

Note: See “Printing a Document” section 6.

 Clearing the CCM Diagnostic Codes

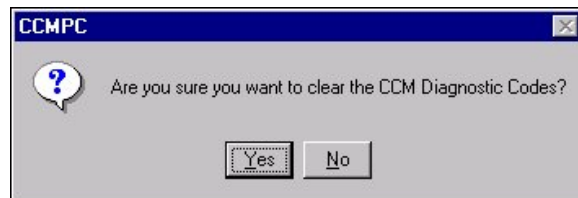


Illustration 8-10: “Are you sure...” message box

Purpose

The “Clear” pushbutton allows you to clear CCM diagnostic codes from the list in the CCM Diagnostic Codes screen.

Instructions

To clear a logged diagnostic code:

- Step 1 Select one of the logged diagnostic codes from the list on the CCM Diagnostic Codes screen. This enables the “Clear” pushbutton.
- Step 2 Press the “Clear” pushbutton. The “Are you sure...” message box displays.
- Step 3 Press “Yes” to clear the selected code or “No” if you do not want to clear the code. You will return to the CCM Diagnostic Codes screen.

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Alarms

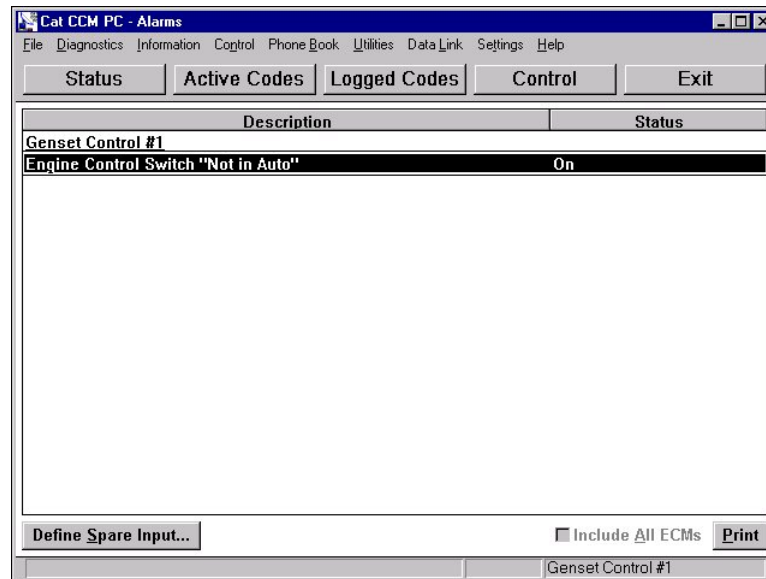


Illustration 8-11: Alarms screen

Purpose

The Alarms function displays a list of alarms currently active on the ECM. The alarms are grouped by ECM name.

Instructions

To run the Alarms function:

Select Alarms from the Diagnostics menu. The Alarms screen displays.

Screen Layout

The Alarms screen has the following areas:

Display Area

The Alarms screen has two columns: Description and Status. The Description column informs you of the problem that is occurring. The Status column displays if the alarm is active.

The list of alarms is grouped according to the ECM that it is retrieved from. The ECM names appear as subtitles in the list. If there is more than one ECM connected, the subtitles are arranged alphabetically.

Include All ECMs Check Box

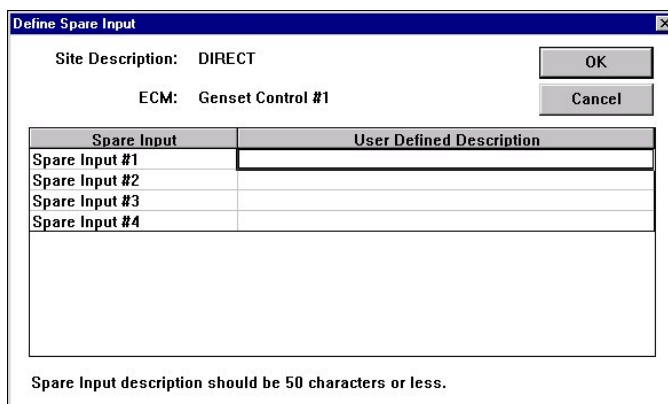
When the Include All ECMs check box is checked, alarms from all available ECMs are retrieved and displayed. When there is a single ECM on the data link, this check box is disabled.

Pushbuttons

The pushbuttons available in the Alarms screen are:

- Define Spare Input...
- Print

Note: See “Printing a Document” section 6.



Spare Input	User Defined Description
Spare Input #1	
Spare Input #2	
Spare Input #3	
Spare Input #4	

Spare Input description should be 50 characters or less.

Illustration 8-12: Define Spare Input dialog box

Purpose

The Define Spare Input function allows you to define descriptions for the Electronic Modular Control Panel II (EMCP II). The description defined displays in the Alarms function when a spare input alarm is active. Spare Input descriptions can be defined for each EMCP II control. However, the User Defined Description is in the Cat CCM PC program and not in an individual EMCP II.

The “Define Spare Inputs...” pushbutton is enabled when the current ECM is an EMCP II.

Instructions

Perform the following steps to define a description for spare inputs:

- Step 1 Press the “Define Spare Inputs...” pushbutton on the Alarms screen. The Define Spare Inputs dialog box displays.
- Step 2 Enter (up to 50 characters) a description for the Spare Input in the User Defined Description text box.

Note: You can edit the descriptions in the Define Spare Input dialog box using the ↑ and ↓ keys.

- Step 3 Press “OK” to save the defined descriptions. Press “Cancel” if you do not want to define a description.

Shutdowns

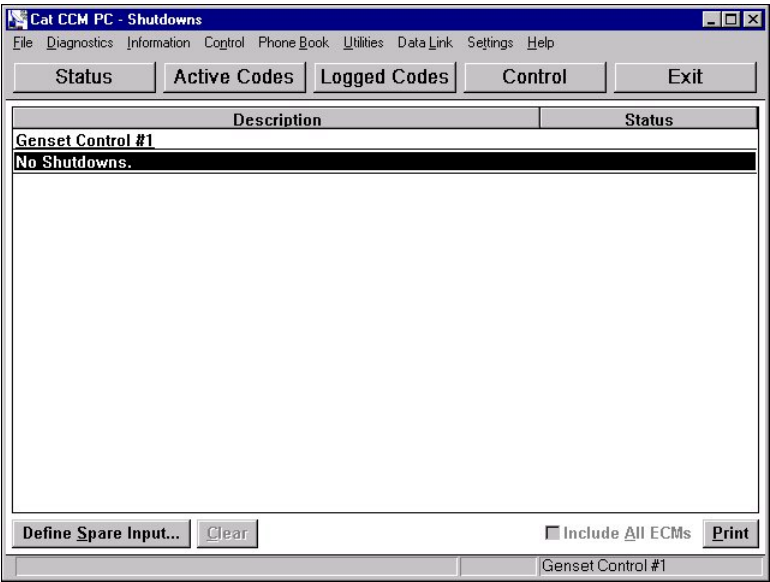


Illustration 8-13: Shutdowns screen

Purpose

The Shutdowns function displays a list of shutdowns currently active on the ECM. The shutdowns are classified by ECM name.

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Instructions

To run the Shutdowns function:

Select Shutdowns from the Diagnostics menu. The Shutdowns screen displays.

Screen Layout

The Shutdowns screen has the following areas:

Display Area

The display area has two columns: Description and Status. The Description column informs you of the problem that is occurring. The Status column displays if the shutdown is active.

The list of shutdowns is grouped according to the ECM that it is retrieved from. The ECM names appear as subtitles in the list. If there is more than one ECM connected, the subtitles are arranged alphabetically.

Include All ECMs Check Box

When the Include All ECMs check box is checked, shutdowns from all available ECMs are retrieved and displayed. When there is a single ECM on the data link, this check box is disabled.

Pushbuttons

The pushbuttons available in the Shutdowns screen are:

- Define Spare Input...
- Clear
- Print

Note: See “Printing a Document” section 6.

Spare Input	User Defined Description
Spare Input #1	
Spare Input #2	
Spare Input #3	
Spare Input #4	

Illustration 8-14: Define Spare Input dialog box

Purpose

The Define Spare Input function allows you to define descriptions for the EMCP II. The description defined displays in the Shutdowns function when a spare input shutdown is active. Spare Input descriptions can be defined for each EMCP II control.

The “Define Spare Inputs...” pushbutton is enabled when the current ECM is an EMPC II.

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Instructions

Perform the following steps to define a description for spare inputs:

- Step 1 Press the “Define Spare Inputs...” pushbutton from the Shutdowns screen. The Define Spare Inputs dialog box displays.
- Step 2 Enter (up to 50 characters) a description for the Spare Input in the User Defined Description text box.

Note: You can edit the descriptions in the Define Spare Input dialog box using the ↑ and ↓ keys.

- Step 3 Press “OK” to save the defined descriptions. Press “Cancel” if you do not want to define a description.

Clear *Clearing a Shutdown*

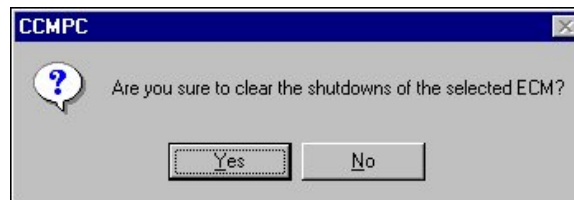


Illustration 8-15: "Are you sure..." message box

Purpose

The "Clear" pushbutton allows you to clear shutdowns from the list in the Shutdowns screen.

Instructions

Perform the following steps to clear shutdowns:

- Step 1 Select one of the shutdowns from the list on the Shutdowns screen. This enables the "Clear" pushbutton.
- Step 2 Press the "Clear" pushbutton. The "Are you sure..." message box displays.
- Step 3 Press "Yes" to clear the shutdowns or "No" if you do not want to clear the shutdowns. You will return to the Shutdowns screen.

Derates

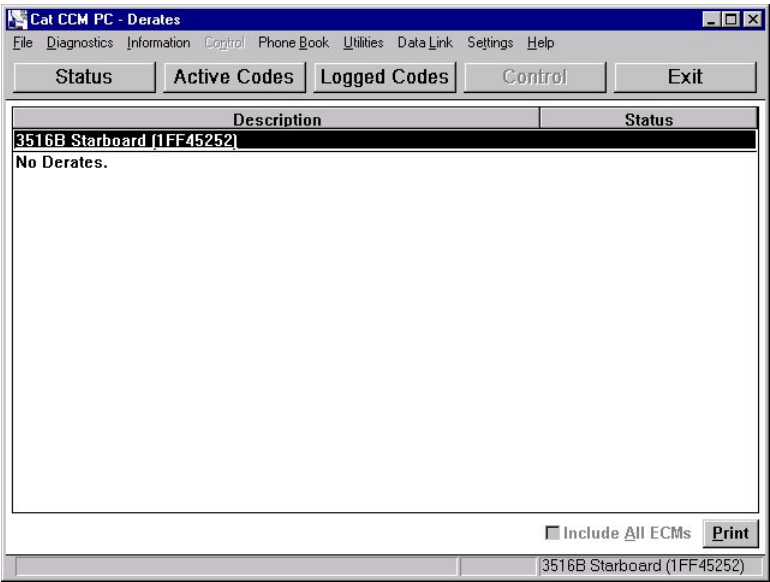


Illustration 8-16: Derates screen

Purpose

The Derates function displays a list of derates currently active on the ECM. Derates are grouped by ECM name.

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Instructions

To run the Derates function:

Select Derates from the Diagnostics menu. The Derates screen displays.

Screen Layout

The Derates screen has the following areas:

Display Area

The display area has two columns: Description and Status. The Description column informs you of the problem that is occurring. The Status column displays if the derate is active.

The list of derates is grouped according to the ECM that it is retrieved from. The ECM names appear as subtitles in the list. If there is more than one ECM connected, the subtitles are arranged alphabetically.

Include All ECMs Check Box

When the Include All ECMs check box is checked, derates from all available ECMs are retrieved and displayed. When there is a single ECM on the data link, this check box is disabled.

Pushbuttons

The pushbutton available in the Derates screen is:

- Print

Note: See "Printing a Document" section 6.

Information Drop-Down Menu Functions

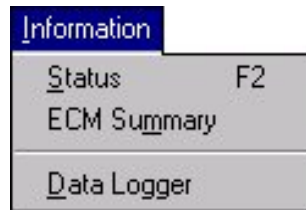


Illustration 9-1: Information drop-down menu

Overview

The Information drop-down menu functions allow you to receive information about the ECM. This includes specific ECM data and Cat CCM PC software information. It allows you to receive specific information about parameters that you wish to monitor and log selected parameters data to a file.

The following functions are available under the Information drop-down menu:

- Status
- ECM Summary
- Data Logger

Status

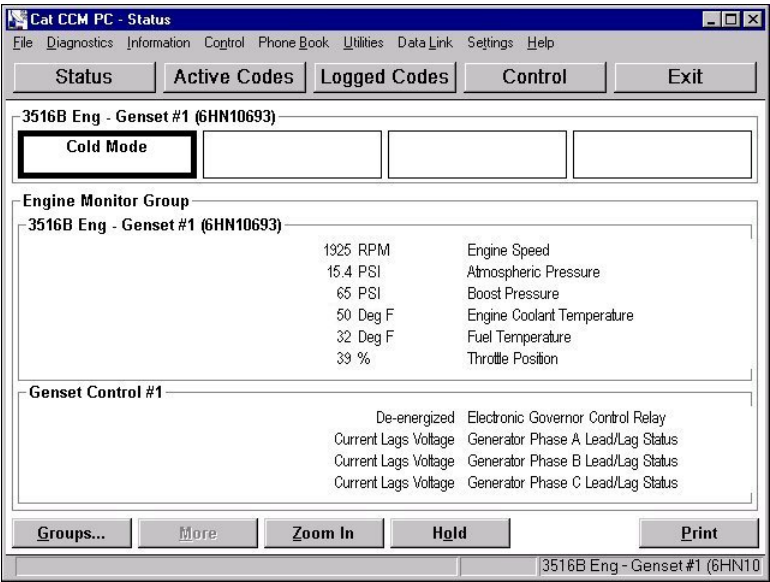


Illustration 9-2: Status screen

Purpose

The Status tool monitors ECM data as it occurs. When running the Status tool for the first time, you must select a group of parameters to monitor.

Instructions

To run the Status function:

Select Status from the Information menu, push the F2 key, or press the "Status" pushbutton from the toolbar. The Status screen displays.

Note: The Select Group dialog box displays the first time you try to use this tool.

If the Select Group dialog box displays, perform the next two steps:

- Step 1 Select a group from the Select a group list box. As you select a group, the parameters for that group are displayed in the Parameters list box.

Note: Using the ↑ and ↓ keys, you can consecutively view each group and its parameters in the Select Group dialog box. If a group is created, you can choose that group by selecting the first letter of its name.

Step 2 Press “OK” to accept the selected group. The group data that you selected displays in the Status screen.
Press “Cancel” to leave this screen without choosing a group.

Note: In the Status dialog box, you can view each group consecutively by using the “Page Up” and “Page Down” keys. You can view a specific default group by selecting the key number corresponding to that Group.

Screen Layout

The Status screen has the following areas:

Status Flag Area:

Cat CCM PC displays up to four Status Flag indicators across the top of the screen. These flags are used to notify you of currently active conditions, such as Low Oil Pressure, Engine Overspeed, etc. When a warning condition exists, it is described in the appropriate flag indicator area. The name of the active ECM displays above the flags.

ECM Title Area

The ECM title area displays the ECM group and ECM name that you have chosen. This area is located in the upper left-hand corner of the screen below the Status Flags.

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Display Area

The Status display area is located in the center of the screen. It displays the values, units, and descriptions of the ECM parameters for the group you have chosen. When a parameter is not supported by the current ECM, or if an error occurred while reading the data, the word “Unavailable” displays.

Pushbuttons

The following pushbuttons are available in the Status screen:

- Groups...
- More
- Zoom In/Zoom Out
- Hold/Resume

-
- Print

Note: See “Printing a Document” section 6.

Groups... *Selecting a Group*

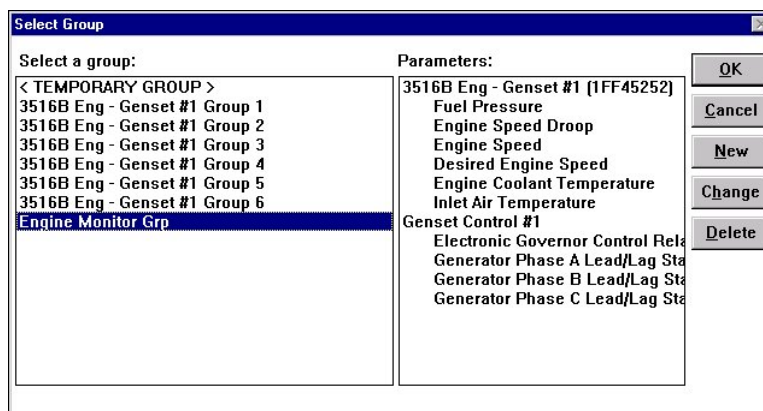


Illustration 9-3: Select Group dialog box

Purpose

The “Groups...” pushbutton allows you to display the Select Group dialog box. This dialog box displays available default groups of parameters to monitor, and provides access for creating, changing, and deleting groups. This dialog box allows you to reassign a group in Cat CCM PC.

The Maintain Groups dialog box allows you to assign parameters to a new group that you are creating. It also allows you to change parameters in a group you created and/or in the Temporary Group.

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Instructions

To select a group perform the following two steps:

- Step 1 Press the “Groups...” pushbutton from the Status screen. The Select Group dialog box displays.
- Step 2 Select a group from the Select a group list box and press “OK.” The Status screen displays showing the selected group and its parameters.

Note: Using the ↑ and ↓ keys, you can consecutively view each group and its parameters in the Select Group dialog box. If a group is created, you can choose that group by selecting the first letter of its name.

Perform the following steps to create a new group (with one ECM):

- Step 1 Press the “Groups...” pushbutton on the Status screen. The Select Group dialog box displays.
- Step 2 Press the “New” pushbutton to create a new group. The Maintain Groups dialog box displays.

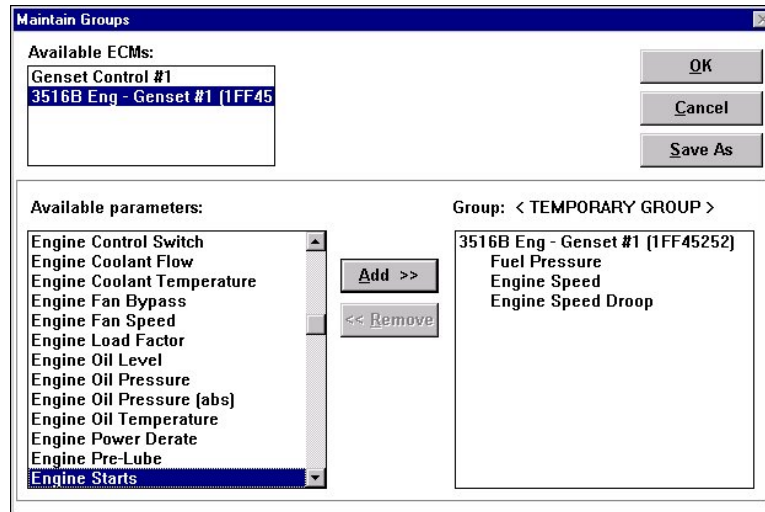


Illustration 9-4: Maintain Groups dialog box

- Step 3 Select a parameter in the Available parameters list box and press the “Add>>” pushbutton. This moves parameters, one at a time, from the Available Parameters list box to the Group list box, (selecting a parameter in the Group list box and pressing the “<<Remove” pushbutton moves it back).

A maximum of ten parameters can be added to the Groups list box.

- Step 4 Press the “Save As” pushbutton. The Save Group dialog box displays.

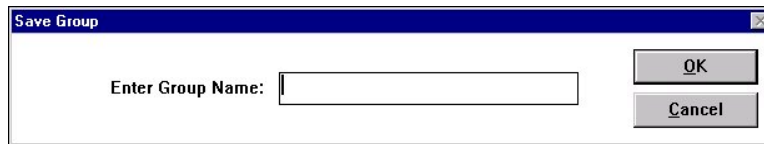


Illustration 9-5: Save Group dialog box

Step 5 Enter the group name in the Enter Group Name text box.

Step 6 Press “OK” if you want to save the new group name.
You will return to the Select Group dialog box.

Press “Cancel” if you want to leave the Save Group dialog box without assigning a name. You will return to the Maintain Group dialog box.

Perform the following steps to create a new group (with multiple ECMs):

Step 1 Press the “Groups...” pushbutton on the Status screen.
The Select Group dialog box displays.

Step 2 Press the “New” pushbutton to create a new group. The
Maintain Groups dialog box displays.

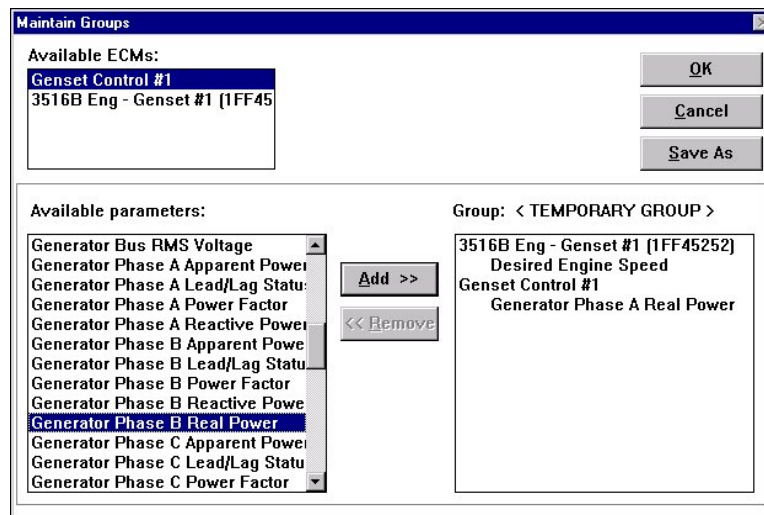


Illustration 9-6: Maintain Group dialog box

Step 3 Select an ECM in the Available ECMs list box.

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-
- Step 4 Select a parameter in the Available parameters list box and press the “Add>>” pushbutton. This moves parameters, one at a time, from the Available Parameters list box to the Group list box, (selecting a parameter in the Group list box and pressing the “<<Remove” pushbutton moves it back).
- When finished, you can select a different ECM and then choose from its Available parameters. A maximum of ten parameters can be added to the Groups list box.
- Step 5 Press the “Save As” pushbutton. The Save Group dialog box displays.
- Step 6 Enter the group name in the Enter Group Name text box.
- Step 7 Press “OK” if you want to save the new group name. You will return to the Select Group dialog box. Press “Cancel” if you want to leave the Save Group dialog box without assigning a name. You will return to the Maintain Group dialog box.

Perform the following steps to change a group:

- Step 1 Press the “Groups...” pushbutton on the Status screen. The Select Group dialog box displays.
- Step 2 Select either the Temporary Group or a group that you created from the Select a group list box and press “Change.” The Maintain Groups dialog box displays.

Note: Groups that are already set in the Select a group dialog box as default cannot be changed.

- Step 3 Select a parameter in the Available parameters list box and press the “ Add>>” pushbutton to move the parameters, one at a time to the Group list box. Select a parameter in the Group list box and press the “<<Remove” pushbutton to move it back to the Available parameters.
- Step 4 Press “OK” when you are finished making changes in the Maintain Groups dialog box. Press “Cancel” if you do
-

not want to save the changes. You will return to the Select Group dialog box.

Note: Press the “Save As” pushbutton if you decide to save the current group’s changes to another group name.

Perform the following steps to delete a group:

Step 1 Press the “Groups...” pushbutton. The Select Group dialog box displays.

Step 2 Select a group from the Select a group list box and press “Delete.” The “Are you sure...” message box displays.

Note: The temporary group or groups that are already set in the Select a group dialog box as default cannot be deleted.

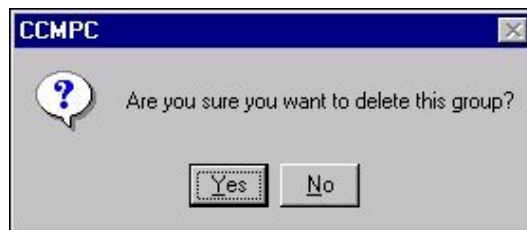


Illustration 9-7: “Are you sure...” message box

Step 3 Press “Yes” if you want to delete the group or “No” if you do not want to delete the group. You will return to the Select Group dialog box.

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To leave a screen at any time:

Press “Cancel” if you do not want to make any changes. You will return to the “Status” screen.

More

Displaying More

Purpose

The “More” pushbutton is enabled when there are more than five parameters in a group and the “Zoom In” function is used. The “More” pushbutton toggles between two sets of parameters. For example, if there were seven parameters in a group and the “Zoom In” function was being used, you would be able to view the first five parameters in the group. Once the “More” pushbutton was pressed, the remaining two parameters would display on the screen. Pushing “More” again would cause the first five to display again.

Instructions

To see more parameters:

Press the “More” pushbutton after the “Zoom In” pushbutton is pressed. This toggles you between the two sets of parameters.

Zoom In

Zoom In/Zoom Out

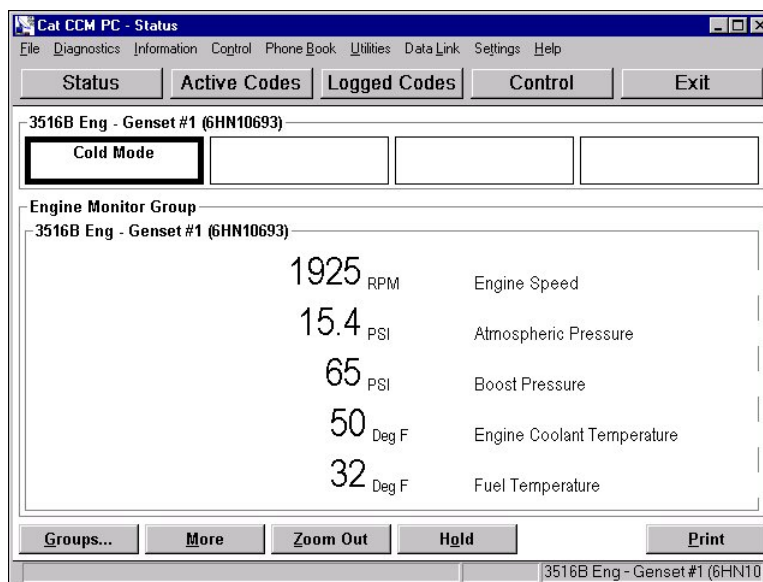


Illustration 9-8: Status screen illustrating “Zoom In”

Purpose

The “Zoom In” pushbutton allows you to display values in larger text for increased visibility. The “Zoom Out” pushbutton allows you to return the parameter values to normal size text. A maximum of five parameters in larger text displays on the screen. Groups with more than five parameters are divided in two subgroups.

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Instructions

To zoom in and out of the display:

- Step 1 Press the “Zoom In” pushbutton from the Status screen. The display text increases.
- Step 2 Press the “Zoom Out” pushbutton to return to the normal text display mode.

The icon is a rectangular button with a dashed border and the word "Hold" in the center.

Pausing the Display

Purpose

The “Hold” pushbutton allows you to freeze the display so you can view the status of the parameters at a specific moment.

Instructions

To pause the display:

- Step 1 Press the “Hold” pushbutton from the Status screen. Cat CCM PC immediately stops updating the Status tool. The “Hold” pushbutton changes to the “Resume” pushbutton.
- Step 2 Press the “Resume” pushbutton to have Cat CCM PC continue updating the display.

ECM Summary

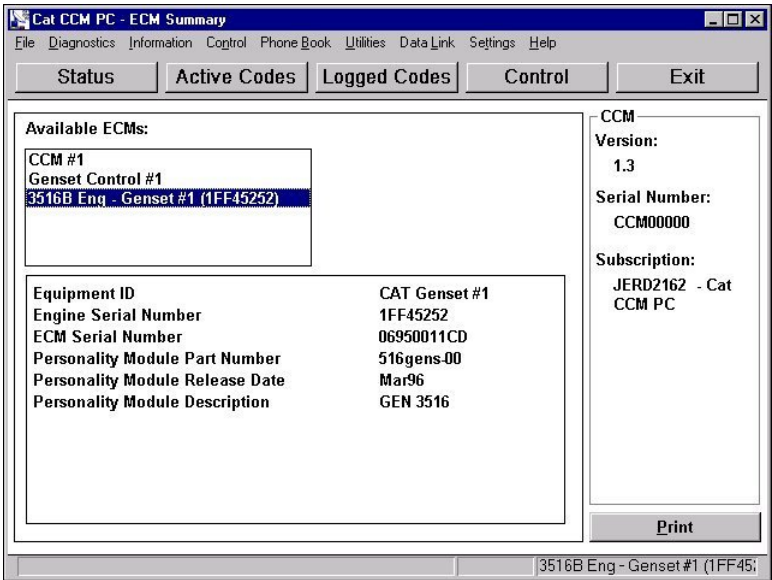


Illustration 9-9: ECM Summary screen

Purpose

The ECM Summary screen allows you to view all of the useful ECM and Cat CCM PC Software information. This screen is automatically displayed each time that you start Cat CCM PC or establish a new connection through the Connect function under the Data Link menu. It can also be seen at any time by choosing ECM Summary from the Information menu.

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When you are reporting problems or requesting help for Cat CCM PC from the PC Software Hotline Services, you need to give the information that displays on the ECM Summary screen.

Instructions

To run the ECM Summary function:

Select ECM Summary from the Information menu. The ECM Summary screen displays.

Screen Layout

The ECM Summary screen has the following areas:

Available ECMs List Box

The Available ECMs list box displays the description of each ECM on the data link. The ECMs are listed alphabetically. The highlighted ECM is the one that is currently selected. You can only select one ECM at a time.

Data Area

The ECM summary data area is located in the center of the screen. It displays a summary of descriptive parameters that identify the currently selected ECM. The left side of this area displays the parameter name, and the right side displays the data information for each parameter.

Cat CCM PC Information Area

The Cat CCM PC information area is located on the right of the screen. It displays the Cat CCM PC software version, serial number, and subscription information.

Pushbuttons

The pushbutton available in the ECM Summary screen is:

- Print

Note: See “Printing a Document” section 6.

Data Logger

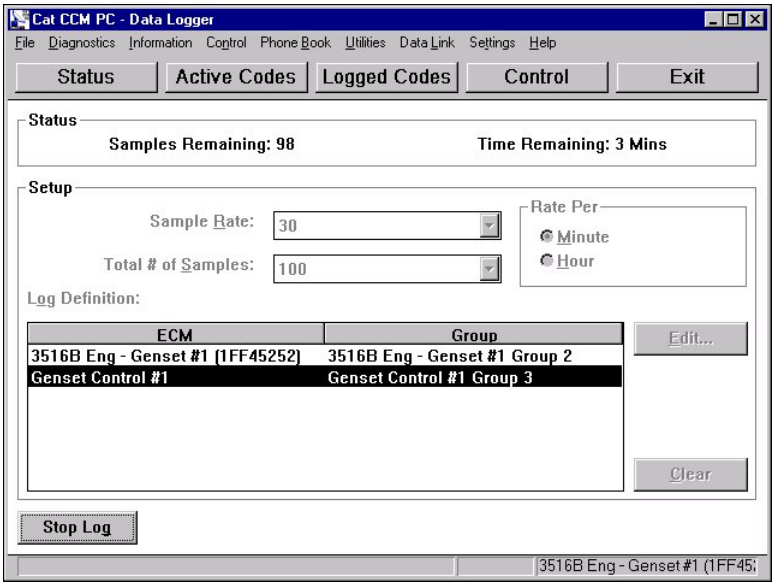


Illustration 9-10: Data Logger screen

Purpose

The Data Logger function allows you to record real data of a selected group(s) of parameters from the ECM as it occurs. This data is saved as a comma separated value *.txt file that can be imported into other applications (For example Excel or Lotus 123).

Note: If Cat CCM PC is unable to read the data, “Unavailable” is inserted into the *.txt file.

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Instructions

To run the Data Logger function:

Select Data Logger from the Information menu. The Data Logger dialog box displays.

Screen Layout

The Data Logger screen has the following areas:

Status Area

The Data Logger status area monitors the logged data and displays the time remaining for the current sample. The Time Remaining is calculated by Cat CCM PC based on the information you enter in Setup.

Setup Area

The Data Logger setup area allows you to select the sample rate, the total number of samples taken, and the parameters of the log.

The Log Definition area has two columns: ECM and Group. The ECM column displays all the ECMs on the Data Link. The group column displays the selected group name of the parameters being logged from the corresponding ECM. If the ECM does not have a selected group, "Not Defined" displays in the group column.

Pushbuttons

The following pushbuttons are available in the Data Logger screen:

- Edit
- Clear
- Start Log/Stop Log

Using Data Logger

Perform the following steps to start logging:

- | | |
|--------|--|
| Step 1 | Select how many times you want the sample taken in the Sample Rate drop-down list. Select either the hour or minute radio button in the Rate Per area. |
| Step 2 | Select the total number of samples you want taken in the Total # of Samples drop-down list. |
| Step 3 | Select an ECM from the Log Definition area. Press the "Edit..." pushbutton. The Select Group dialog box displays. |
| Step 4 | Select a group from the Select a Group text box. Press "OK." |

Note: For more information on the Select Group dialog box, see "Selecting a Group," section 9, page 5.

- | | |
|--------|---|
| Step 5 | Press the "Start Log" pushbutton. The Save As dialog box displays with the default drive. |
|--------|---|

Step 6 Press “OK” if you are satisfied with the default drive. The Data Logger process begins. The samples and time remaining display in the status area.

If a file exists with the same file name, a warning box displays asking if you want to replace the existing file. Press “Yes” to replace the existing file, or “No” to save the file as a different name. The Save Group dialog box displays.

Note: The “Start Log” pushbutton is replaced with the “Stop Log” pushbutton until the “Stop Log” is pressed or the test is done.

To clear one group:

Select the ECM from the Log Definition area. Press the “Clear” pushbutton. “Not Defined” displays in the Group column for the selected ECM.

Selecting a File

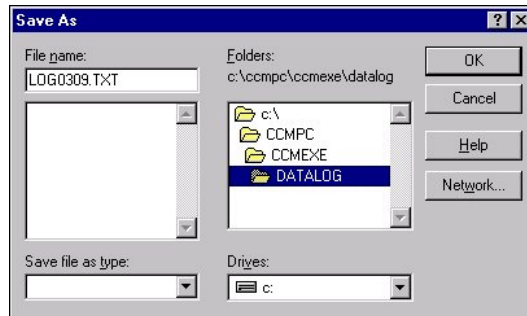


Illustration 9-11: Save As dialog box

Purpose

The Save As dialog box allows you to save Data Logger files on a drive other than the default drive.

Instructions

Perform the following steps to save a Data Logger file:

- Step 1 Select the file type from the "Save files of type:" drop-down list. This data is saved as a *.txt file
- Step 2 Select the drive from the Drives drop-down list.
- Step 3 In the Directories list box, Select the directory that you want to store the file in.
- Step 4 Type the name of the file In front of the file extension, in the File Name text box (be sure you remove the *). A file name can contain up to eight characters, plus the extension (.txt).

Note: By default the file name is saved by the date the log was taken.

- Step 6 To connect to a network drive, press the "Network..." pushbutton. The Map Network Drive dialog box displays.

Press "OK" when you have finished with the desired connections. Press "Cancel" if you decide not to make a

network connection. Press “Help” to open online help for assistance. You will return to the Save As dialog box.

Note: The “Network...” pushbutton is only displayed if your PC is on a network.

Step 7 Press “OK” once you have selected the desired file. Press “Cancel” to exit without saving the file. Press “Help” to open online help for assistance. You will return to the Data Logger screen.



Control Drop-Down Menu Functions

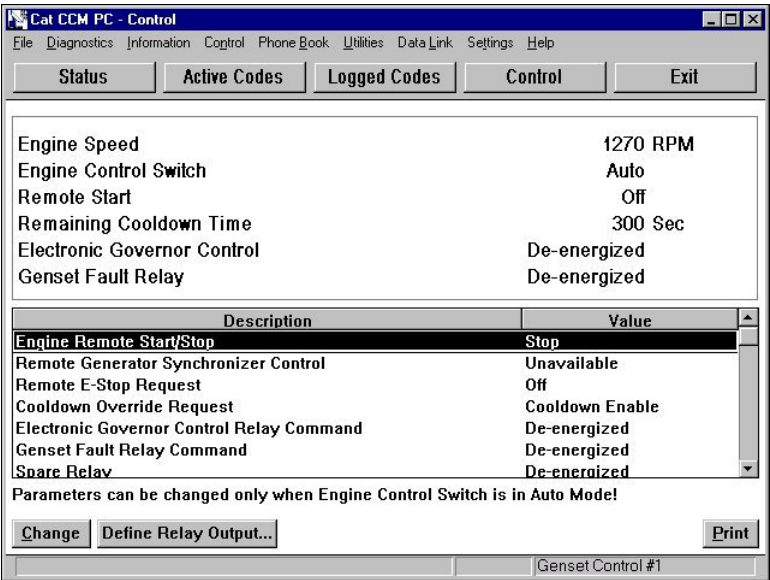


Illustration 10-1: Control screen

Purpose

The Control function allows you to view and change control parameters. Parameters can only be changed when the Engine Control Switch is in the Auto Mode.

Instructions

To run the Control function:

Select the Control menu, push the F5 key, or press the “Control” pushbutton on the toolbar. The Control screen displays.

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Screen Layout

The Control screen has the following areas:

Status Parameter Area

The Control status parameter area lists the required parameters and their current values. A value of “Unavailable” displays if a parameter is not supported by the current ECM or if an error occurs while reading the data.

Display Area

The Control display area has two columns: Description and Value. The Description column gives a brief description of the parameter. The Value column displays the status of the current parameters.

Pushbuttons

The following pushbuttons are available in the Control screen:

- Change
- Define Relay Output...
- Print

Note: See “Printing a Document” section 6.



Changing the Parameter Values

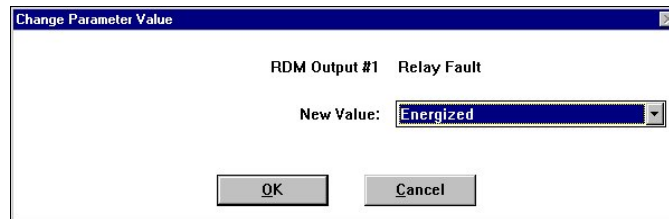


Illustration 10-2: Change Parameter Value dialog box

Purpose

The “Change” pushbutton allows you to change the selected parameter’s value.

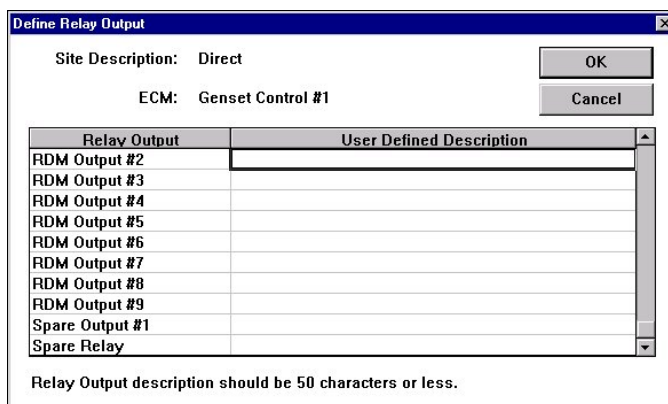
Instructions

To change the selected parameter:

- Step 1 In the display area, select the parameter value you want to change and press the “Change” pushbutton. The Change Parameter Value dialog box displays.
- Step 2 Depending on the parameter you select to change, enter the new value in the New value text box or select the New Value from the drop-down list.
- Step 3 Press “OK” to accept the new value. The “Are you sure...” message box displays. Press “Yes” if you want to change this parameter, or press “No” if you do not want to change the parameter.

Press “Cancel” to exit the dialog box without saving the new value. You will return to the Control screen.

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10**



Relay Output	User Defined Description
RDM Output #2	
RDM Output #3	
RDM Output #4	
RDM Output #5	
RDM Output #6	
RDM Output #7	
RDM Output #8	
RDM Output #9	
Spare Output #1	
Spare Relay	

Relay Output description should be 50 characters or less.

Illustration 10-3: Define Relay Output dialog box

Purpose

The Define Relay Output function allows you to define Relay Driver Modules (RDM), Spare Output, and Spare Relay descriptions for the EMCP II. The description defined displays in the Control function when a relay output is active.

The “Define Relay Outputs...” pushbutton is enabled when the current ECM is an EMCP II.

Instructions

Perform the following steps to define a description for spare inputs:

- Step 1 Press the “Define Relay Outputs...” pushbutton from the Control screen. The Define Relay Output dialog box displays.
- Step 2 Enter (up to 50 characters) a description for the Relay Outputs in the User Defined Description text box.

Note: You can edit the descriptions in the Define Relay Outputs dialog box using the ↑ and ↓ keys.

- Step 3 Press “OK” to save the defined descriptions. Press “Cancel” if you do not want to define a description.

Phone Book Drop-Down Menu Functions

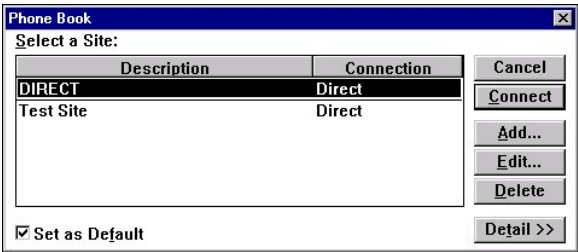


Illustration 11-1: Phone Book dialog box

Purpose

The Phone Book tool displays defined connection sites from the current CCM, allowing you to manage multiple CCM connection sites. The sites can be connected to either Directly or by Modem.

Note: This dialog box is also displayed when Cat CCM PC starts up.

Instructions

To open the Phone Book dialog box:

Select the Phone Book menu or select Connect from the Data Link menu. The Phone Book dialog box displays.

Screen Layout

The Phone Book dialog box has the following areas:

Display Area

The Phone Book display area has two columns: Description and Connection. The Description column gives the site description name. The Connection column displays if the site connection is Modem or Direct.

Set As Default Check Box

Check the Set As Default check box to select a default site. The default site will be highlighted when you start CCM PC.

Pushbuttons

The following pushbuttons are available in the Control screen:

- Cancel
- Connect
- Add...
- Edit...
- Delete
- Detail>>

Using Phone Book

To add a new site to the phone book:

- Step 1 Press the “Add...” pushbutton on the Phone Book dialog box. The Add Site dialog box displays.

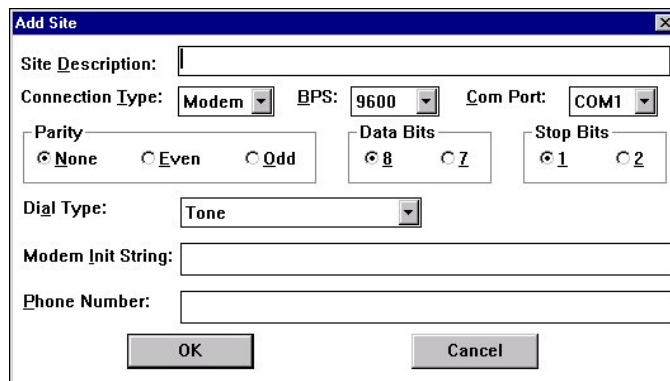


Illustration 11-2: Add Site dialog box

- Step 2 Enter (up to 50 characters) a description in the Site Description text box.
- Step 3 Select either Direct or Modem in the Connection Type drop-down list. The Direct connection allows Cat CCM PC to connect to the CCM directly through a serial port. The Modem connection allows Cat CCM PC to connect to the CCM through a modem.

Note: When Direct is selected the Dial Type, Modem Init String, and Phone Number text boxes are disabled.

-
- Step 4 Select the Bits Per Second (BPS) in the BPS drop-down list. The BPS rate needs to match the baud rate of the CCM in the Direct connection and the BPS needs to match the baud rate of the connected modem in the Modem connection.
 - Step 5 Select the serial port in the Com Port drop-down list.
 - Step 6 Press the radio button for the desired Parity.
 - Step 7 Press the radio button for the desired Data Bits.
 - Step 8 Press the radio button for the desired Stop Bits.

Note: The Baud Rate, Stop Bits, Data Bits, and Parity must be set to match what is configured for the CCM in the CCM Configuration tool.

- Step 9 Select tone or pulse from the Dial Type drop-down list.
- Step 10 If the Modem requires a special initialization before the telephone number is dialed, up to 50 characters can be entered in the Modem Init Spring text box. These characters are sent to the modem just ahead of the telephone numbers.
- Step 11 Enter the sites telephone number to dial (up to 50 characters) in the Phone Number text box.
- Step 12 Press "OK" to add the site description. Press "Cancel" to exit the setup. You will return to the Phone Book dialog box.

Perform the following steps to edit an existing site:

- Step 1 Select the site you want to edit from the Phone Book dialog box.
- Step 2 Press the "Edit..." pushbutton. The Edit Site dialog box displays.

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11**

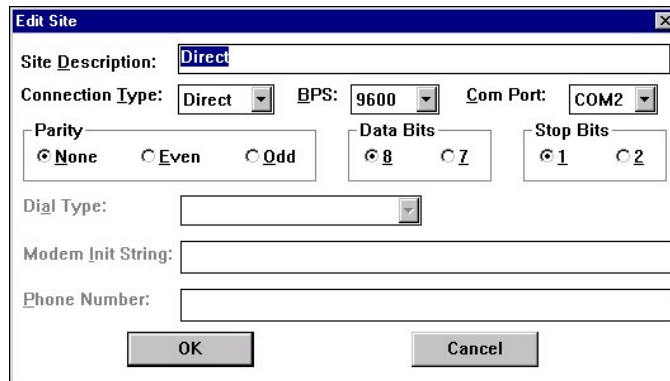


Illustration 11-3: Edit Site dialog box

- Step 3 Make the changes to the selected site. Press “OK” to accept the changes in the site. Press “Cancel” to exit the Edit Site dialog box without making changes. You will return to the Phone Book dialog box.

Perform the following steps to delete a site:

- Step 1 Select the site you want to delete from the Phone Book dialog box.
- Step 2 Press the “Delete” pushbutton. The “Are you sure...” message box displays.



Illustration 11-4: “Are you sure...” message box

- Step 3 Press “Yes” if you want to delete the site, or press “No” if you do not want to delete the site. You will return to the Phone Book dialog box.

Perform the following two steps to view the details of a site:

- Step 1 Select the site you want to view from the Phone Book dialog box.

Step 2 Press the “Detail>>” pushbutton. The Phone Book dialog box expands to display the settings of the selected site.

To leave Phone Book at any time:

Press “Cancel” to exit the Phone Book dialog box. You will return to the last active screen.

To connect to Cat CCM PC:

Select the desired site, and press the “Connect” pushbutton on the Phone Book dialog box. The Cat CCM PC Connection message box displays.



Utilities Drop-Down Menu Functions



Illustration 12-1: Utilities drop-down menu

Overview

The Utilities drop-down menu functions allow you to change the CCM's security level and CCM configurations. It also allows you to select the phase for the EMCP II Genset Control.

The following three functions are available under the Utilities drop-down menu:

- CCM Security Level
- CCM Configuration
- Phase Selector

CCM Security Level

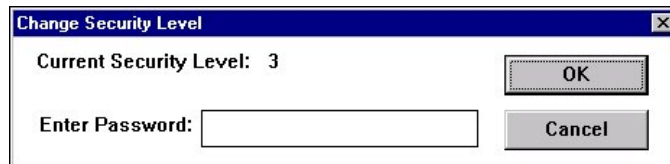


Illustration 12-2: Change Security Level dialog box

Purpose

The Change CCM Security Level function allows you to change the security level without exiting Cat CCM PC. The CCM has three security levels:

WARNING! You must remember your CCM Security Level 3 password. If you forget your password, you must replace your CCM.

- Level 1** This is the lowest level. Monitoring operations are available at this level.
- Level 2** This is the middle level. Writing or changing operations are available at this level and the operations of Level 1.
- Level 3** This is the highest level. This level allows you to change the CCM Configuration parameters and the operations of Level 2 and 3.

Note: The first time the CCM is used, no password is needed; press “OK,” you will enter at CCM Security Level 3. To change the passwords for the different CCM Security Levels, see “CCM Configuration,” section 12, page 4.

Instructions

Perform the following steps to change the CCM security level:

Note: If CCM is the currently selected ECM, begin at Step 3.

- Step 1** Choose the Select ECM from the Data Link menu. The ECM Selector dialog box displays.

Step 2 Select the CCM ECM and press “OK.”

Press “Cancel” to exit the ECM Selector dialog box. Press “Help” to open online help for assistance.

Step 3 Select CCM Security Level from the Utilities menu. The Change Security Level dialog box displays.

Step 4 Enter the password of the desired security level in the Enter Password text box.

Step 5 Press “OK.” The “CCM security level is changed” message box displays. Press “OK.”



Illustration 12-3: CCM Security Level message box

Press “Cancel” to exit the dialog box without changing the CCM security level. You will return to the Cat CCM PC main screen.

CCM Configuration

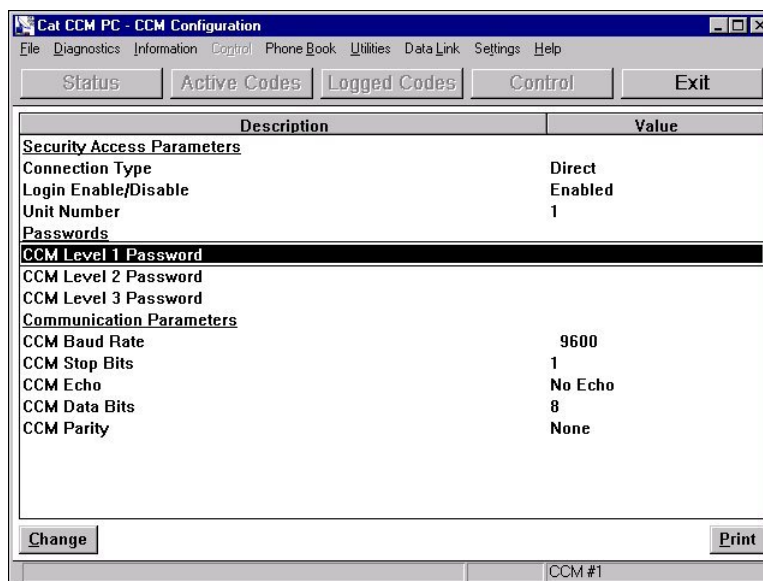


Illustration 12-4: CCM Configuration screen

Purpose

The CCM Configuration function allows you to view and change the ECM's CCM configurable information.

WARNING! You must remember your CCM Security Level 3 password. If you forget your password, you must replace your CCM.

Instructions

Perform the following steps to run the Configuration tool:

Note: If CCM is the currently selected ECM, begin at Step 3.

- Step 1 Select the Select ECM from the Data Link menu. The ECM Selector dialog box displays.

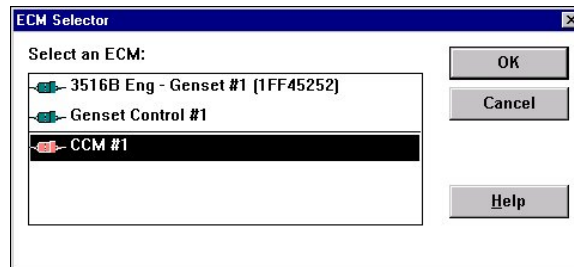


Illustration 12-5: ECM Selector dialog box

Step 2 Select the CCM ECM and press "OK."

Press "Cancel" to exit the ECM Selector dialog box. Press "Help" to open online help for assistance.

Step 3 Select CCM Configuration from the Utilities menu. The CCM Configuration screen displays.

Screen Layout

The CCM Configuration screen has the following areas:

Display Area

The CCM Configuration display area has two columns: Description and Value. The Description column gives a brief description of the parameters that are set to configure. The Value column displays the status of the current parameter.

Pushbuttons

The following two pushbuttons are available in the CCM Configuration screen:

- Change
- Print

Note: See "Printing a Document" section 6.

Change *Changing CCM Configuration Parameter Values*

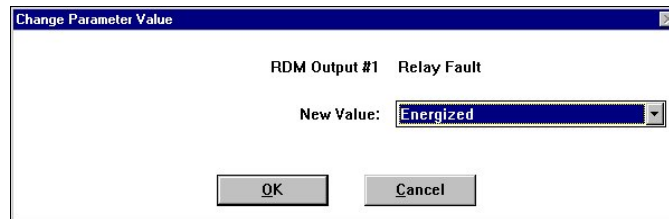


Illustration 12-6: Change Parameter Value dialog box

Purpose

The “Change” pushbutton allows you to change the CCM configuration parameter values. This pushbutton is enabled when a parameter’s configuration can be changed.

WARNING! You must remember your CCM Security Level 3 password. If you forget your password, you must replace your CCM.

Instructions

Perform the following steps to change the selected parameter:

- Step 1 Select the parameter you want to change and press the “Change” pushbutton. The Change Parameter Value dialog box displays.
- Step 2 Depending on the parameter you select to change, enter the new value in the New Value text box or select the New Value from the drop-down list.
- Step 3 Press “OK” to accept the new value. The “Are you sure...” message box displays. Press “Yes” if you want to change this parameter, or press “No” if you do not want to change the parameter.

Press “Cancel” to exit the dialog box without saving the new value. You will return to the CCM Configuration screen.

Phase Selector

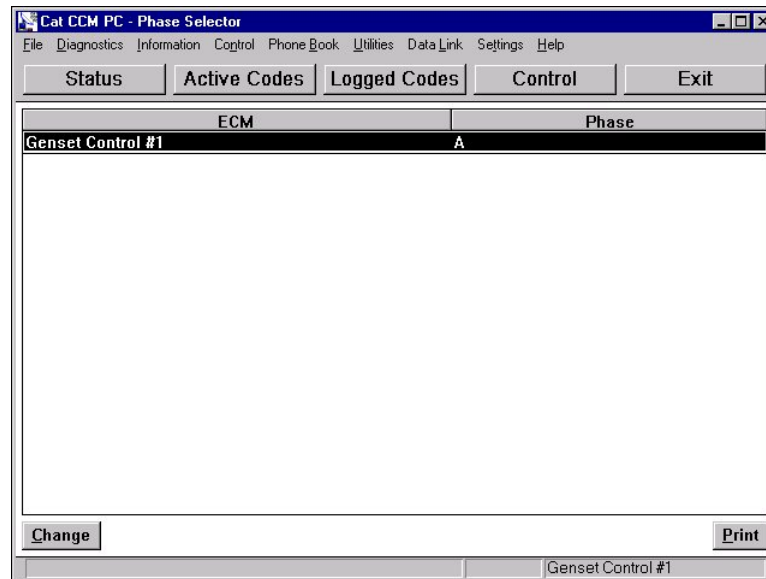


Illustration 12-7: Phase Selector screen

Purpose

The Phase Selector function allows you to view and change the EMCP II Genset Control phase to monitor.

Instructions

To view the Phase Selector:

Note: If Genset Control is the currently selected ECM, begin at Step 3.

- Step 1 Select the Select ECM from the Data Link menu. The ECM Selector dialog box displays.

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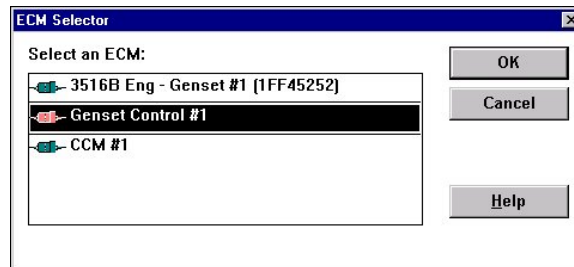


Illustration 12-8: ECM Selector dialog box

Step 2 Select the Genset Control ECM and press “OK.”

Press “Cancel” to exit the ECM Selector dialog box. Press “Help” to open online help for assistance.

Step 3 Select Phase Selector from the Utilities menu. The Phase Selector screen displays.

Screen Layout

The Phase Selector screen has the following areas:

Display Area

The Phase Selector display area has two columns: ECM and Phase. The ECM column lists the Genset Controls supported by Phase change. The Phase column displays the supported Genset Control current phase.

Pushbuttons

The following two pushbuttons are available in the CCM Configuration screen:

- Change
- Print

Note: See “Printing a Document” section 6.



Changing the Phase of the Genset Control

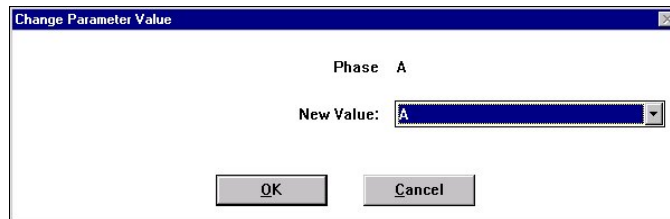


Illustration 12-9: Change Parameter Value dialog box

Purpose

The “Change” pushbutton allows you to change the phase of the Genset Control.

Do not change the Phase while the Data Logger is running.
Changing the Phase results in stopping the Data Logger.

Instructions

To change the phase:

- Step 1 Select the Genset Control you want to change and press the “Change” pushbutton. The Change Parameter Value dialog box displays.
- Step 2 Select the New Value from the drop-down list.
- Step 3 Press “OK” to accept the new value. The “Are you sure...” message box displays.

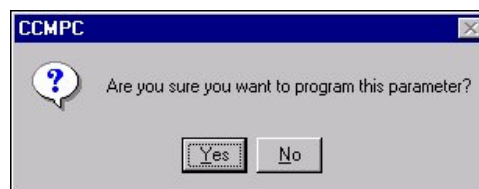


Illustration 12-10: “Are you sure...” message box

- Step 4 Press “Yes” if you want to change the phase or “No” if you do not want to change the phase.

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12

Press “Cancel” to exit the dialog box without saving the new value. You will return to the Phase screen.

Data Link Drop-Down Menu Functions



Illustration 13-1: Data Link drop-down menu

Overview

The Data Link drop-down menu functions allow you to connect and disconnect from Cat CCM PC. When Cat CCM PC is connected, the Disconnect function is active. When Cat CCM PC is disconnected, the Connect function is active. This menu also allows you to select a different ECM in two instances: 1) if more than one is connected and 2) when there is a CAT Data Link connection.

The functions available under the Data Link drop-down menu are:

- Select ECM (when there is more than one ECM connected)
- Connect
- Disconnect

Note: Cat CCM PC automatically attempts a data link connection when you first enter the software, through the program group in Program Manager. If you do not want an automatic data link connection and you want to cancel this process, press the “Stop Connect” pushbutton. After pressing the “Stop Connect” pushbutton, the Cat CCM PC main screen will display.

If the connection process completes, Cat CCM PC identifies the product and makes the features and functions valid for the product available.

The application continuously displays “connection status” information throughout the status field on the screen. If a connection cannot be established or is lost, Cat CCM PC provides information about the connection failure and recommends steps for correcting the problem.

Selecting the ECM

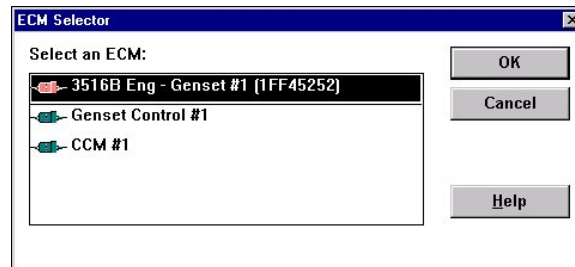


Illustration 13-2: ECM Selector dialog box

Purpose

The Select ECM menu function is only available when there is more than one ECM connected to Cat CCM PC. This function allows you to select the ECM that Cat CCM PC targets as the current ECM. Cat CCM PC's menus and functionality is based on this current ECM. The name of the current ECM displays in the right corner of the status bar.

Selecting the Select ECM menu function displays the ECM Selector dialog box. This dialog box displays a list of the ECMs currently available on the data link. Next to each of the ECM names, in the Select an ECM list box, there is an icon. If the icon shows a connection, then the ECM is currently communicating. If the icon shows a disconnection, then the ECM is not currently communicating.

Instructions

To select the ECM:

- Step 1 Choose the Select ECM from the Data Link menu. The ECM Selector dialog box displays.
- Step 2 Select an ECM and press "OK." As the data is loading from the ECM, a status bar displays.

Press "Cancel" to exit the ECM Selector dialog box. Press "Help" to open online help for assistance.

Connecting Cat CCM PC

Purpose

The Connect function allows you to access a connection, from the Data Link menu, to initiate data link connection. This function is available when there is no data link currently active.

When this function is selected, Cat CCM PC continues with the same data link connection procedures used during initial startup of the application.

When a data link is established, Cat CCM PC returns to the main menu and displays the ECM Summary screen. When a data link connection is not established, Cat CCM PC provides suggested steps for correcting the problem.

Instructions

To start a connection to Cat CCM PC:

Step 1 Select Connect from the Data Link menu or push the F8 key. The Phone Book message box displays. Select the desired site and press the "Connect" pushbutton. The Cat CCM PC Connection message box displays.

Note: See "Starting Caterpillar CCM PC," section 5, page 2, for more information.

Step 2 Press the "Stop Connect" pushbutton to cancel all attempts to communicate with the ECM through the data link. All functions that require an active data link connection are disabled. The Cat CCM PC main screen displays. The status bar is updated with the message "Disconnected."

Disconnecting Cat CCM PC

Purpose

The Disconnect function allows you to remove the current data link connection between Cat CCM PC and the ECM, and returns you to the main menu. This function is available when a data link connection is currently active. All Cat CCM PC functionality, menus, and toolbars are updated according to the state of the connection.

The following items are the Cat CCM PC menu functions are available without a data link connection:

File	Print Setup... Exit
Phone Book	Phone Book
Data Link	Connect
Settings	Preferences...
Help	Contents Using Help About Cat CCM PC

Instructions

To disconnect from Cat CCM PC:

Select Disconnect from the Data Link menu or push the F8 key.

Settings Drop-Down Menu Functions/ Preferences



Illustration 14-1: Settings drop-down menu

Purpose

The Setting/Preferences function allows you to make changes to different setting options in Cat CCM PC. You can hide/display the Cat CCM PC toolbar, select communication ports, and change the Measurement system between U.S. and Metric.

Note: Cat CCM PC does not support Default Paths, Communication Interface Device, Size of the Tool Bar, Computer Serial Number, and Flash Option preferences.

Instructions

To run the preferences dialog box:

- Step 1
- Select Preferences...from the Settings menu. The Preferences dialog box displays.

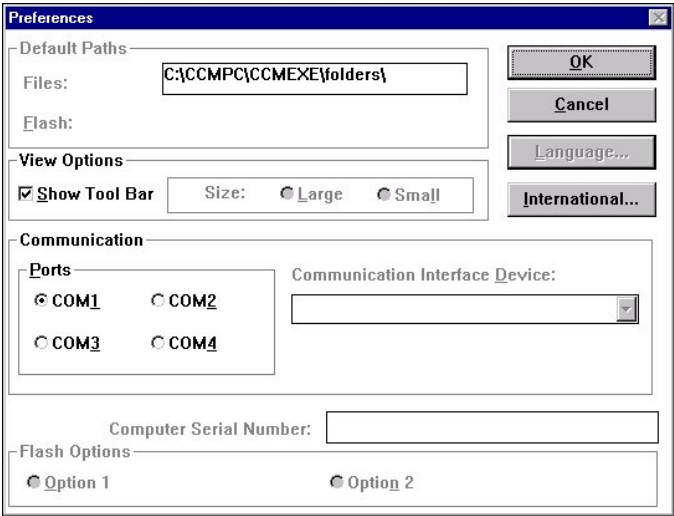


Illustration 14-2: Preferences dialog box

-
- | | |
|--------|---|
| Step 2 | Select the Show Tool Bar check box to display the pushbuttons on the Cat CCM PC toolbar. |
| Step 3 | To select the communication (COM) port that you are connected to, check the COM 1, COM 2, COM 3, or COM 4 radio button under the Ports section. The COM port radio button that you select must be the same as the COM port connection on the back of your PC. |
| Step 4 | Press the "International..." pushbutton, displaying the Regional Settings Properties dialog box, to make international PC adjustments. The standard Microsoft Windows International dialog box displays. See the Microsoft guide for help with this dialog box. |

Note: The Number tab in the Regional Settings Properties dialog box is where you change the Measurement system between U.S. and Metric.

Help Drop-Down Menu Functions



Illustration 15-1: Help drop-down menu

Section 15

Overview

The Help drop-down menu functions allow you to access the online help file and information about Cat CCM PC.

The functions available under the Help drop-down are the following:

- Contents
- Using Help
- About Cat CCM PC

Help Contents

Purpose

The Help Contents function allows you to access the online help file. This file gives valuable information about Cat CCM PC features and provides step-by-step procedures for all of the Cat CCM PC functions.

Instructions

To access the Help Contents:

Select Contents from the Help menu or push the F1 key. The Caterpillar CCM PC Help Table of Contents displays.

Note: Help in Cat CCM PC is content sensitive. Pushing F1 displays help information for the active Cat CCM PC screen.

Using Help

Purpose

The Using Help function allows you to get information on using the online help.

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Instructions

To get assistance for the online help:

Select Using Help from the Help menu. The Contents for How to Use Help window displays.

About Caterpillar CCM PC

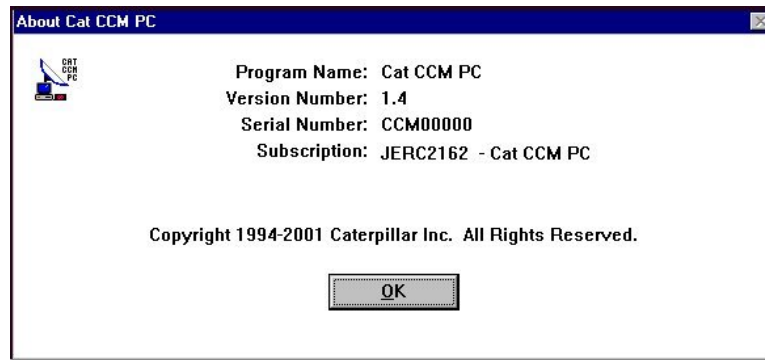


Illustration 15-2: About Cat CCM PC message box

Purpose

The About Cat CCM PC message box provides you with the following information:

- Program Name
- Version Number
- Serial Number
- Subscription
- Copyright Information

Instructions

To view the About Cat CCM PC message box:

- Step 1 Select About Cat CCM PC from the Help menu. The About Cat CCM PC message box displays.
- Step 2 Push "OK" when you are finished viewing the About Cat CCM PC message box.

Navigation Shortcuts

Keyboard Shortcuts

Keyboard Shortcuts give you the power to maneuver through Caterpillar applications solely using the keyboard. The shortcuts include using Alt, Tab, Shift, Ctrl (Control), Enter, the space bar, multiple letters and arrow keys (separately and combined with each other) to accomplish an action.

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Alt Key + Letter

Holding down the Alt key and pressing a letter allows you to navigate drop-down menus. For example, pressing “F,” while holding down the Alt key, opens the File Menu. While this menu is open, pressing the underlined letters in that menu performs the related tasks. In this case, pressing “N” would prompt the New File box (see Letters).

Tab Key

The Tab key moves the cursor between option pushbuttons (“OK,” “Cancel,” “Print,” etc.). A pushbutton that can be activated by pressing enter is highlighted (marked with black dashes around the border). Using the Tab and Shift Keys at the same time reverses the tab order. On different screens, you can use the Tab button to move from one area to another. This is called “tab ability.”

Arrow Keys

The arrow keys have many uses. The first function of the keys is to move between and through the menus after holding down the Alt key and pressing a letter (see the example given under Alt Key + Letter). The arrow keys and Enter key can be used instead of pressing the letter of the corresponding function.

The second use of the arrow keys is similar to that of the Tab key because the arrows can be used to move between option pushbuttons. The up and right arrows move the cursor down the option pushbuttons, and the down and left arrows move the cursor up the option pushbuttons.

The third function of the arrow keys is to scroll through lists. In some screens, you must highlight the “OK” pushbutton with the Tab key before using the arrows to scroll the list. In others, you must use the tab key to get into the box with the list before using the arrows.

Letters

Not all pushbuttons have tab ability. If you enter a screen where the Tab key does not highlight a pushbutton, the underlined letter on the pushbutton can be pressed on the keyboard to perform that function. For example, the pushbuttons in the Status Screen do not have tab ability. Therefore, to return to the Groups screen, press G, or, to Zoom In or Zoom Out, press Z.

Keyboard Only	
Desired Result	Necessary Action
Activate a menu bar:	Press ALT.
Cancel the dialog box:	Press Esc (Escape).
Carry out a function:	Press Enter or the space bar.
Choose a menu function:	Press the underlined letter in the function name or use the Arrow key to scroll down the menu. When the action is highlighted, press Enter.
Move between pushbuttons, dialog boxes, menu commands, or items in a list:	Press Tab (Tab + Shift reverses tab order), Arrow Keys, or underlined letters.
Open a menu:	Press ALT plus the underlined letter in the menu name.

***Note:** You must use the Tab key to get into the correct box before you are able to complete any actions. Press Enter after you select all desired files.

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