CV-10 is a collection Windows programs and utilities that enable a user to pull back sales and send programming data between an ECR and PC.

This manual has been split into three different sections. The first explains how to install the software onto the PC, wiring configuration to a PC or modem to the various different ECR models.

The second section explains how to use CVW program (CASIO Vision for Window). A simple and easy to use utility that enables a user to pull back programming information, modify this data and then send it back to the ECR.

The third section explains how to use the other utilities enclosed with CV-10. These have been designed to be incorporated by a software developer into their own package. By doing this the developer does not have to waste time developing communications software.

Installing CV-10.

To install CV-10.

- Insert CV-10 disk to A: drive.
- Select A: drive from Windows explorer and double click the install file.
- Select OK when setup directory screen is displayed.
- You will be warned that the CVW directory already exists, click OK to continue.
- Select OK from Exit setup screen.

After the installation is complete all the files will be installed into a directory called CVW.

To execute CVW.EXE

- From Windows explorer select CVW from CVW folder or.
- Click the Start button.
- Select Programs.
- Select CV-10 For Windows 95-98.
- Double click CV-10.

Communication Ports.

The PC and ECR both have a communications ports that enable them to talk to one another. There are three different ports available.

RS232
All PC are equipped with at least one RS232 port, this port can communicate to a ECR's RS232 port at a top speed of 19,200bps and a maximum cable distance of 15 meters. A modem can also be connected to each of these ports to allow remote communications.

In-Line
You can install an I/O-PB12 board into your PC that enables In-Line communications speeds of up to 1.25Mbps and a maximum distance of 600 meters. It also enable you to communicate to individual ECRs (this is not possible using the RS232 port). Not all ECRs are capable of being installed with an In-Line board.

STANDARD.
The standard port (more often known as the DF-2 port) is located on the side of the TK-23/27/5100 and CE-4700 models. This port can communicate to the RS232 port of the PC.

The chart below shows what ports are available on each ECR model type and how they can communicate to a PC, it also explains what ports are provided as standard.

ECR MODEL	RS232		IN-LINE		STANDARD (DF-2)	
	Available	Installed as standard	Available	Installed as standard	Available	Installed as standard
CE-300	YES	YES	NO	NO	NO	NO
CE-4000	YES	YES	NO	NO	NO	NO
CE-4700	YES	NO *1	YES	NO *1	YES	YES
TK-800	YES	YES	NO	NO	NO	NO
TK-23/27/5100	YES	NO *1	YES	NO *1	YES	YES
QT-2000	YES	YES	YES	YES	NO	NO

*1 must install an optional I/O-PB12 into the PC and a I/O-PB-11 into the ECR.

Wiring

Figures 1.1 and 1.2 show the diagram for a CE-300, CE-4000, TK-800 and QT-2000. Figure 1.1 is a direct connection between the ECR to PC and figure 1.2 is the wiring between a modem and the ECR.

Figure 1.1

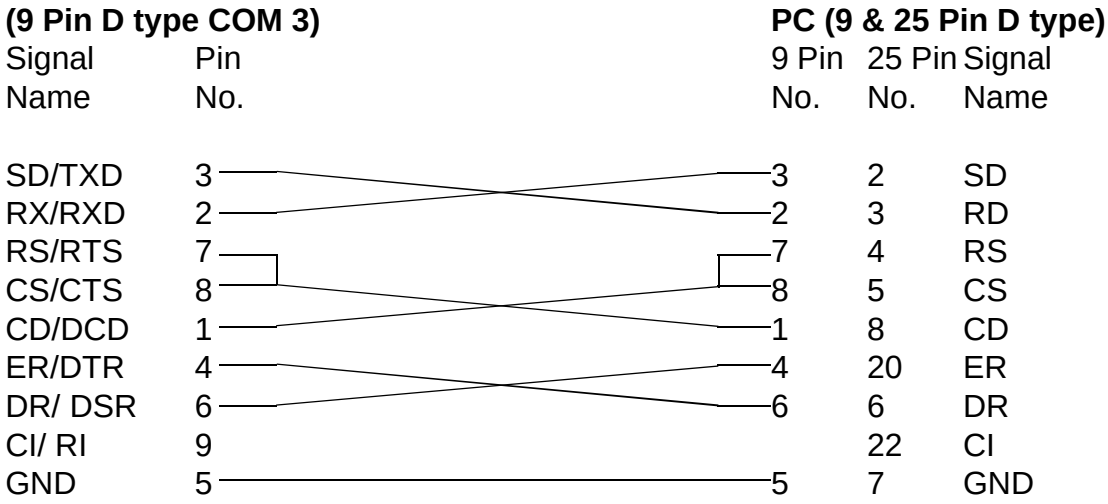
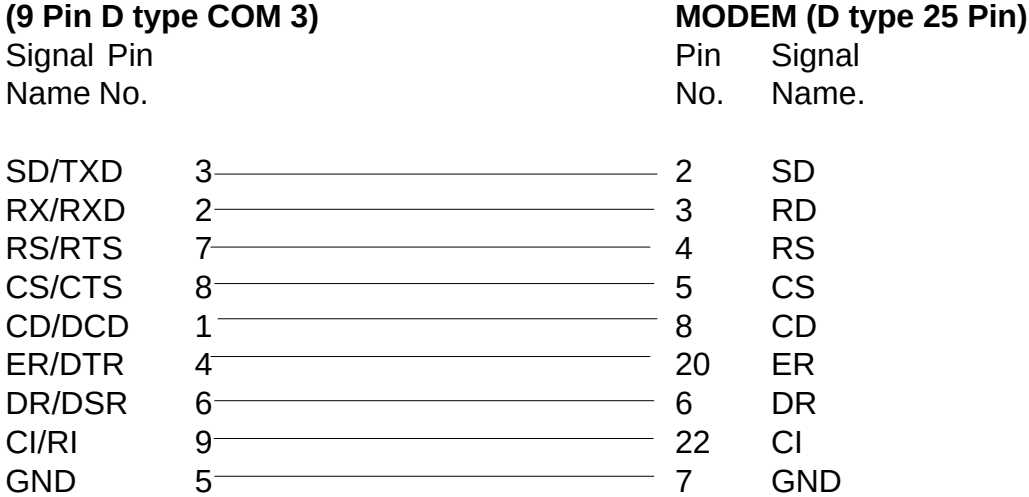


Figure 1.2 E.C.R. to Modem Cable (ONL-CB-9)



Figures 1.3 and 1.4 show the wiring for connection from a TK-23/27/5100 or CE-4700. Figure 1.3 is a direct connection between the ECR to PC and figure 1.4 is the wiring between a modem and the ECR.

Figure 1.3

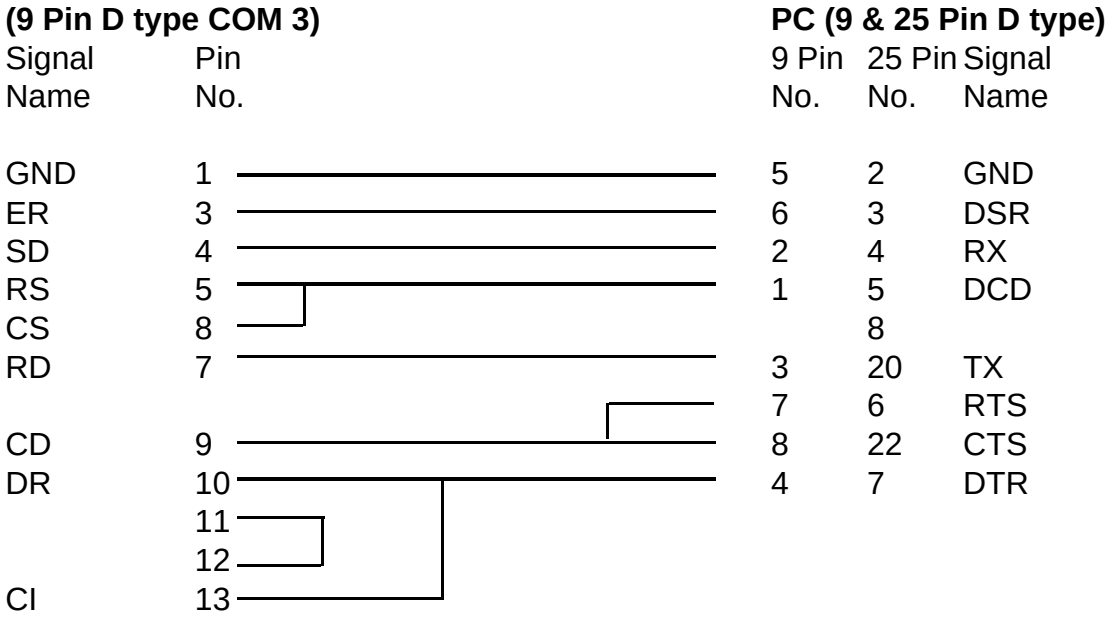


Figure 1.4 E.C.R. to Modem Cable (ONL-CB-9)

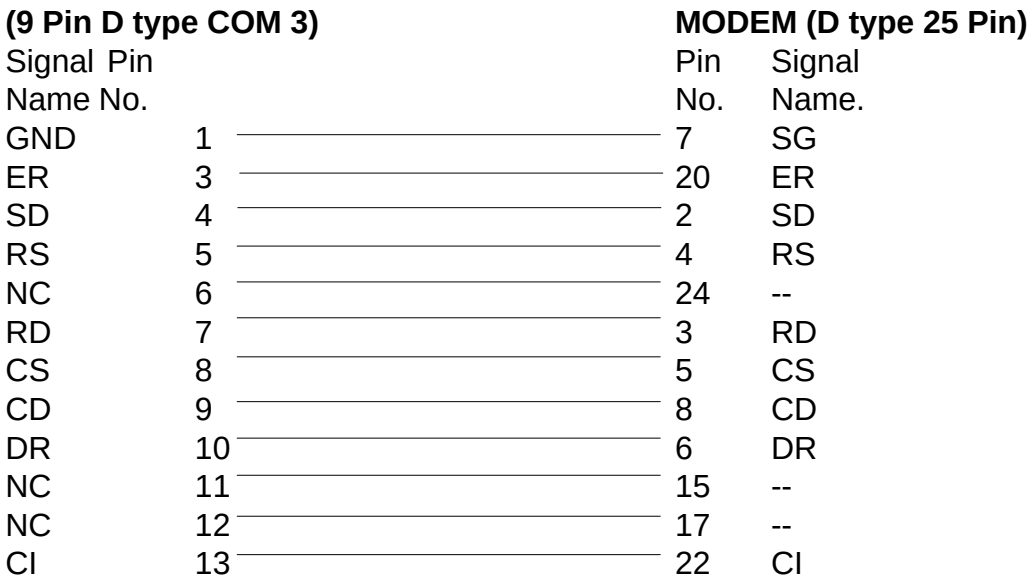


Figure 1.5 shows the wiring for connection from a TK-23/27/5100 and CE-4700 standard port (DF-2) to a PC's RS232 port.

Figure 1.5

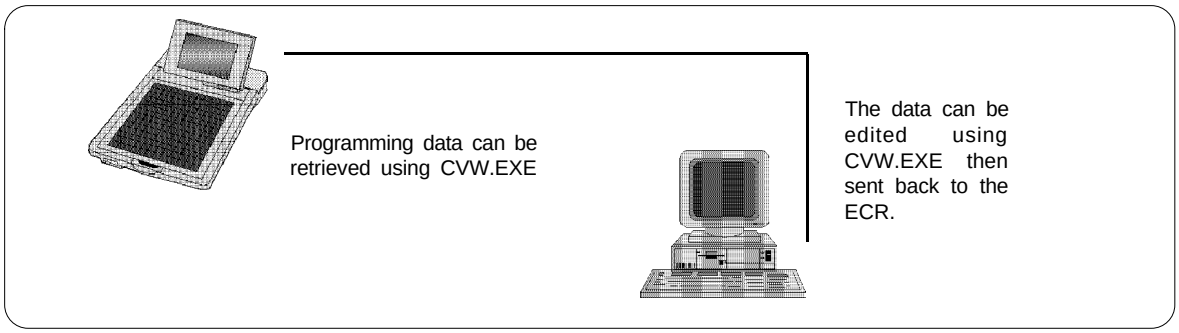
(8 Pin DIN type)			**PC (D type 25 Pin)**	
Signal Name	Pin No.		Pin No.	Signal Name.
GND	2	———	7	GND
TXD	4	———	20	RX
RXD	5	———	2	TX
FG	8	———	4	FG

CVW.EXE Overview.

CVW.EXE is a Windows program that enables a user to receive programming data from an ECR, modify this data and then send it back. CVW has been designed for users who do not know a lot about PCs or Windows and simply wish to change the ECR's program data with as little inconvenience as possible.

Figure 2.1 shows that the user simply pulls back the data, edits the data and then sends it back. These action are all done by CVW.EXE and it is not necessary to use any other tools or utilities to convert the data.

Figure 2.1



To execute CVW.

- select Start from Task bar.
- Select programs
- Select Casio CV-10
- Select CV-10

When you execute CVW the data maintenance screen will be displayed as shown in figure 2.4.

Stores.

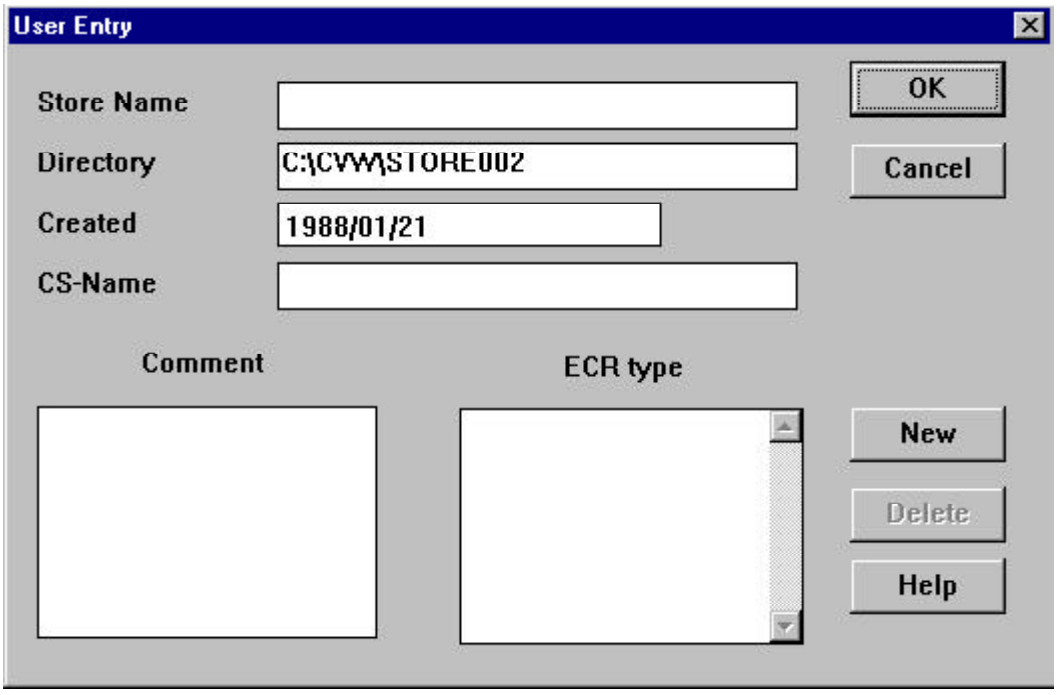
Why have stores?
CVW has been designed so that you can maintain individual customers, this is done by creating stores. Each store contains the details of the customers ECR models and the programs contained on these ECRs. By having stores you can keep your customers programs separate and backed up.

Is it necessary to create a store to use CVW?
Yes, unless a store is created with the details of the ECR you are connected to it not possible to communicate.

Creating a Store.

To create a new store press the New command button and the User entry screen will be displayed as shown in figure 2.2. Enter the details of the store.

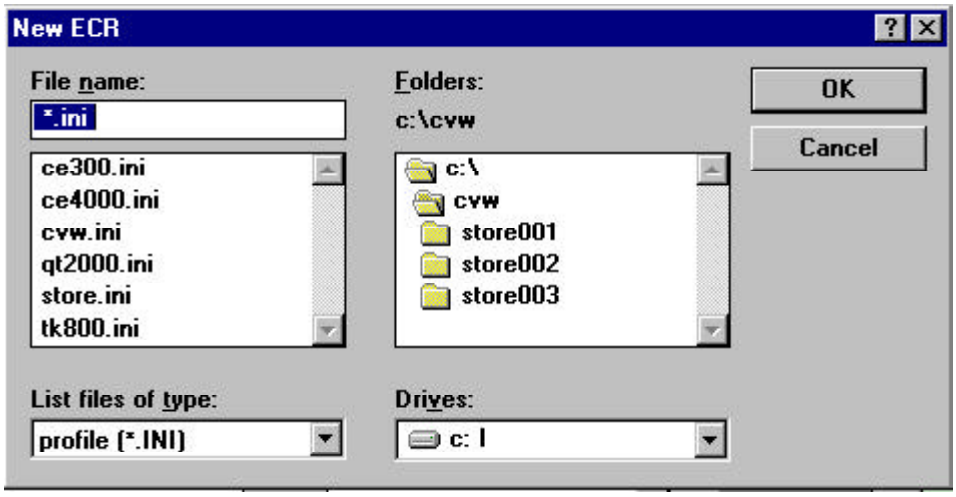
Figure 2.2



Store Name	Input the name of the store.
Directory	Automatically creates a directory to hold the files that will be used for this store. This name cannot be modified.
Created	Date the store was created.
CS-Name	Enter the name of the customer e.g. Mr. S. Smith.
Comment	Input any extra comments about the customer e.g. telephone 0181 450 9131
ECR type	Input an ECR type by pressing the New command button. The New ECR windows is displayed as shown in figure 2.3. Select an *.INI file for ECR type you are using. You can have several ECR types for each store.
Delete	Will delete an ECR type from the store.
Cancel	Closes users entry screen without saving any changes.
OK	When you have finished entering all the details press the OK command button to save any modifications and finish.

After you have filled all the necessary details press the OK command button to save and close this screen. The CV-10 screen is displayed with two icons Store/ ECR and Auto PGM maintenance.

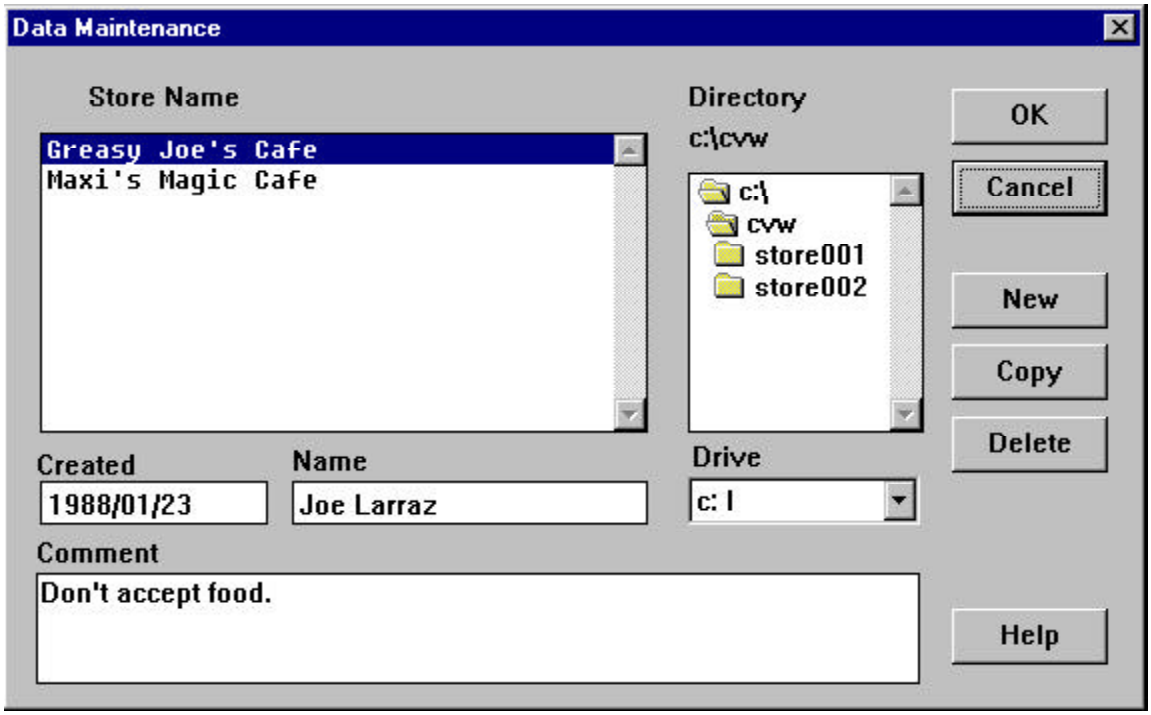
Figure 2.3



Modifying A Store's details.

From the CVW screen select the ECR/ Store icon and the Data Maintenance screen will be displayed with the details of any stores that are currently set up. Figure 2.4 shows two stores called Greasy Joe's Cafe and Maxi's Magic Cafe.

Figure 2.4



To modify the details highlight the store name you wish to modify and click the OK command button. The user entry screen will be displayed and you can modify the store name, CS-name, comments and add or remove an ECR models (figure 2.2).

Why modify the store details?
The details of each store are maintained like a database. By maintaining the store details, such as the name of the customer and what ECR types they have you can easily track and maintain their site, so if anything should go wrong with an ECR you are prepared.

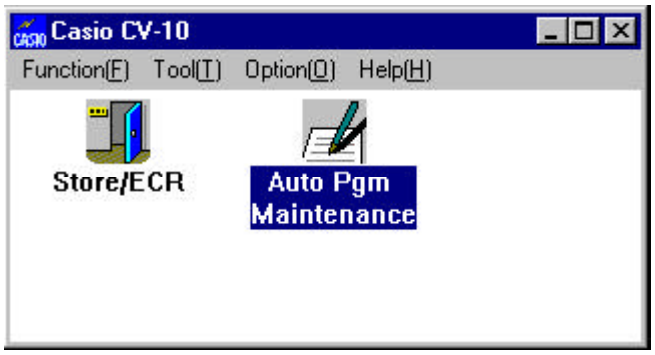
Auto Program Maintenance.

Selecting a store.

To select a store and an ECR type

- Select the Store/ ECR icon from the CV-10 screen as shown in figure 2.5.
- Select a store from the list of store names displayed and press the OK command button. The User maintenance screen will then be displayed showing all the details regarding this store.
- Select the ECR type that the PC is connected to then press OK. You will now return to the CV-10 screen.

Figure 2.5.

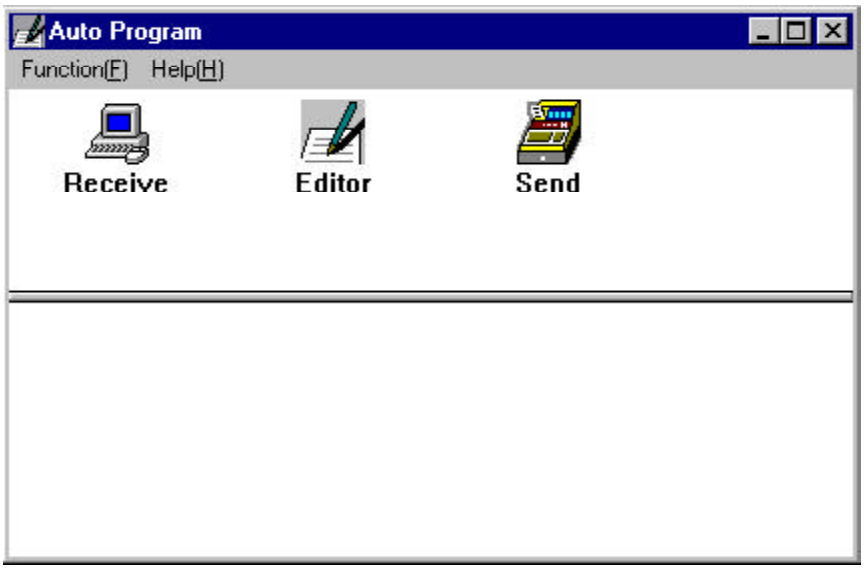


Note: Before you can receive, send programming data between an ECR and PC you must select a store and the ECR type. If you have not created any stores you will have to do so to continue, refer to stores on page 8.

Receiving Programming data.

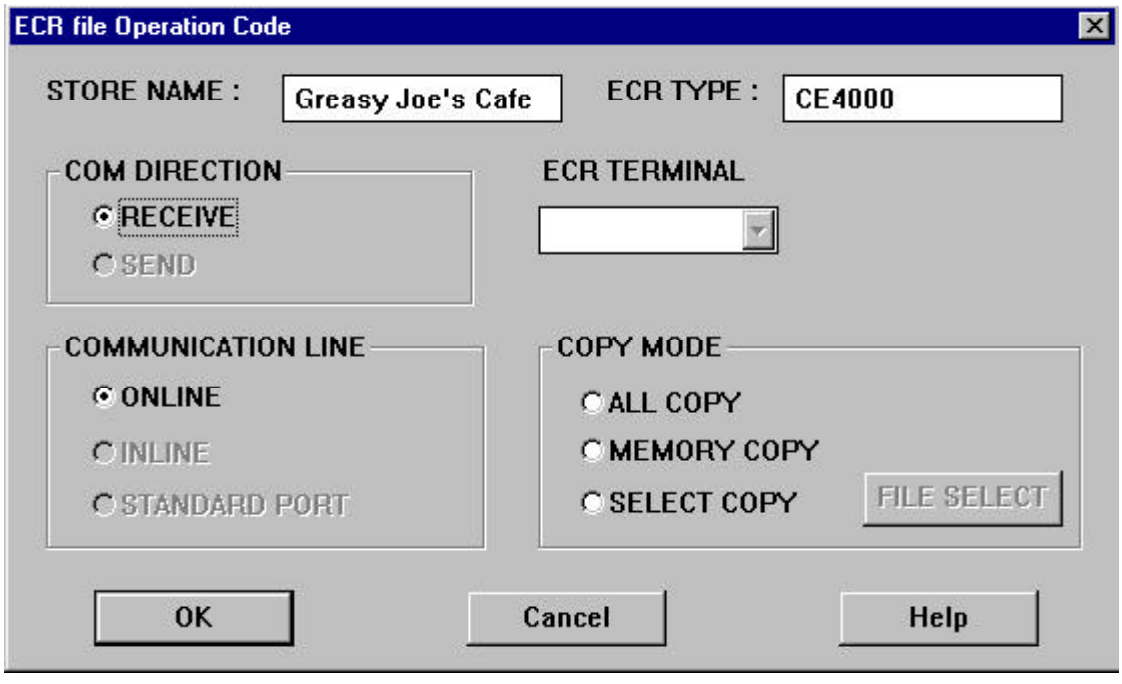
Now you have selected your Store and ECR type you can now start to receive, modify and send data between the ECR and PC.
Double click the AutoPGM maintenance icon from within the CV-10 screen and the Auto Program screen is displayed as shown in figure 2.6.

Figure 2.6



There are three icons receive, editor and send. Double click the receive icon. To enter the ECR file operation code screen that will enable you to receive data, double click the receive icon as shown in figure 2.7.

Figure 2.7



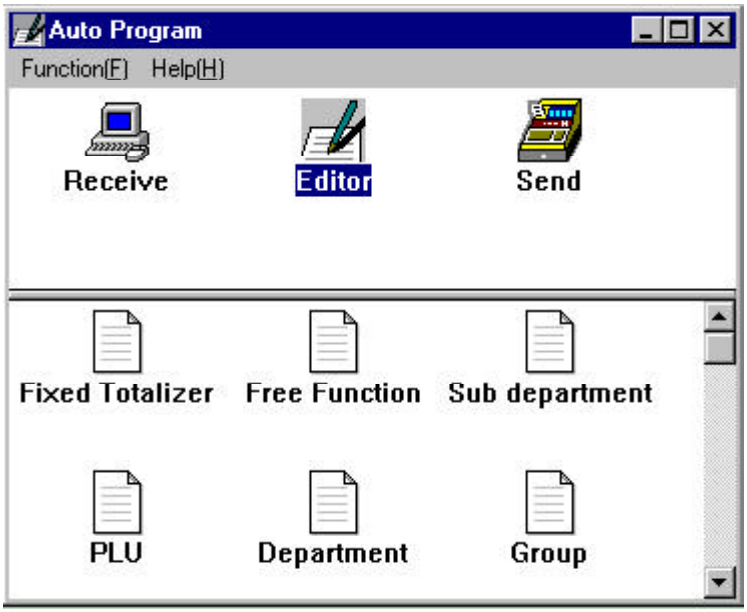
STORE NAME	The name of the store you are communicating with.
ECR TYPE	The ECR model the PC is connected to.
COM DIRECTION	This will be set to receive.
ECR TERMINAL	If using an I/O-PB12 you can communicate to individual ECRs within an In-Line network. The COMMUNICATION LINE option must be set to In-Line.
COMMUNICATION LINE	Which port the PC and ECR will communicate to. ON-LINE RS-232 port to On-line port of the ECR. IN-LINE I/O-PB-12 to In-Line port of ECR (only available with TK-23/27/5100, CE-4700 and QT-2000). STANDARD PORT RS232 port of the PC communicating with the DF-2 port of the ECR.
COPY MODE	You can select the data you wish to receive from the ECR. ALL COPY. Receives all programming data file by file. Enabling editing of programming files of ECR. MEMORY COPY. Receives all programming data and memory allocation from ECR, however you cannot edit the programming data. SELECT COPY. Receives a specified file from ECR which can be edited.
Cancel	Closes screen without executing a receive command.
OK	Executes a receive command with the parameter you have preset.

Note: Some the options may not highlighted such as Send, In-Line and standard port, this means these options are not available with this ECR type however they may be available for other ECR models.

Editing Programming Data.

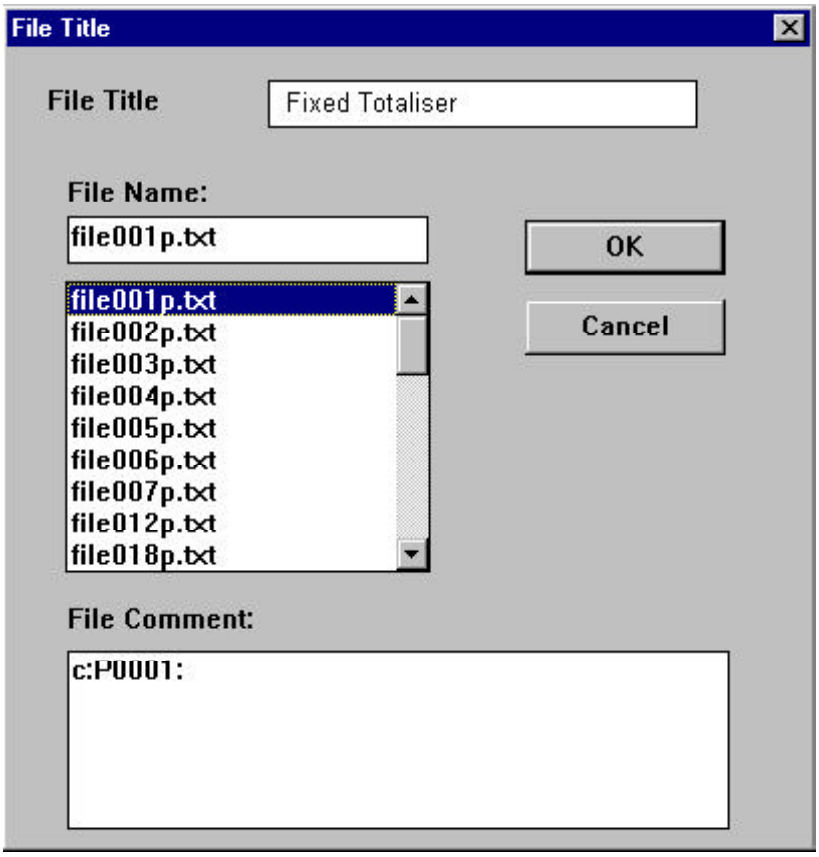
Once the data has been received from the ECR you can then edit it. The files are received back to the PC one by one enabling the user to edit the individual file. Figure 2.8 shows the Autoprogram screen with ECR files.

Figure 2.8



There are two way to edit files. Simply double click the file you wish to edit or double click the editor icon. If you select the editor icon you will be shown the File Title screen as shown in figure 2.9.

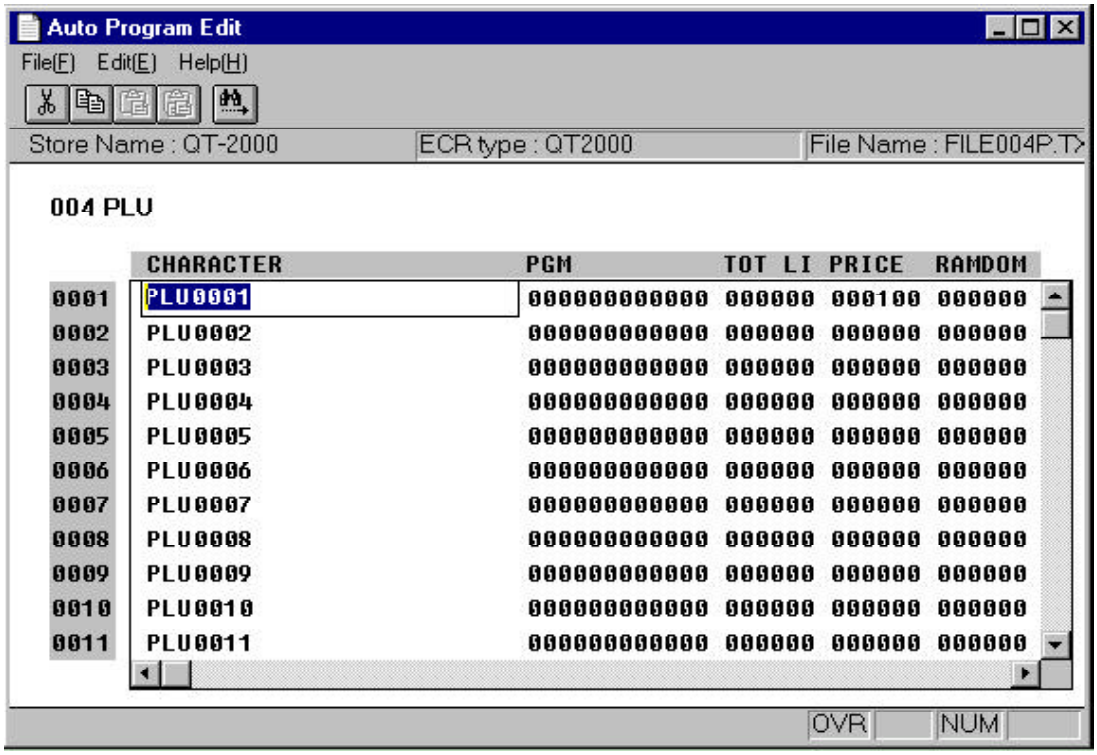
Figure 2.9



File Title	Short description of the selected file contents.
File Name	Select a file by either typing in the file name or selecting a file from the list below and double clicking.
File Comment	Add extra comments regarding the selected file.
Cancel	Closed file title screen without opening or saving any details to any of the files.
OK	Opens the selected file.

After you have selected the file the Auto Program Edit screen will be displayed. This screen enables you to edit the file contents. Figure 2.11 shows the Auto Program Edit file screen with the contents of the PLU file. Prices, descriptions, status and other programming can be edited, if the contents are saved the new edited file can be sent to the ECR.

Figure 2.11



On the left hand side and highlighted in grey are the record numbers of each record within the file. Each file will have a starting record number of 0001. This number will increase up to the number of records contained within the file.

Highlighted in grey at the top are the field names. E.g. The CHARACTER field description indicates that the fields below are the item descriptions.

There are five icons . 

 Cuts the selected characters.

 Copies the selected characters.

 Pastes the cut or copied characters

 Pastes back the cut or copied text back to a range of records.

 Searched through file for specified text.

To edit any of the records, double click the field you wish to modify. A rectangle will be displayed to indicate that you can now edit this field, edit the field then press the enter key to finish or double click another field to edit another record.

There are three pull down menus located at the top of the screen, File (F), Edit (E) and Help (H). They can be selected with the mouse or by hold down the Alt key and pressing the letter in brackets.

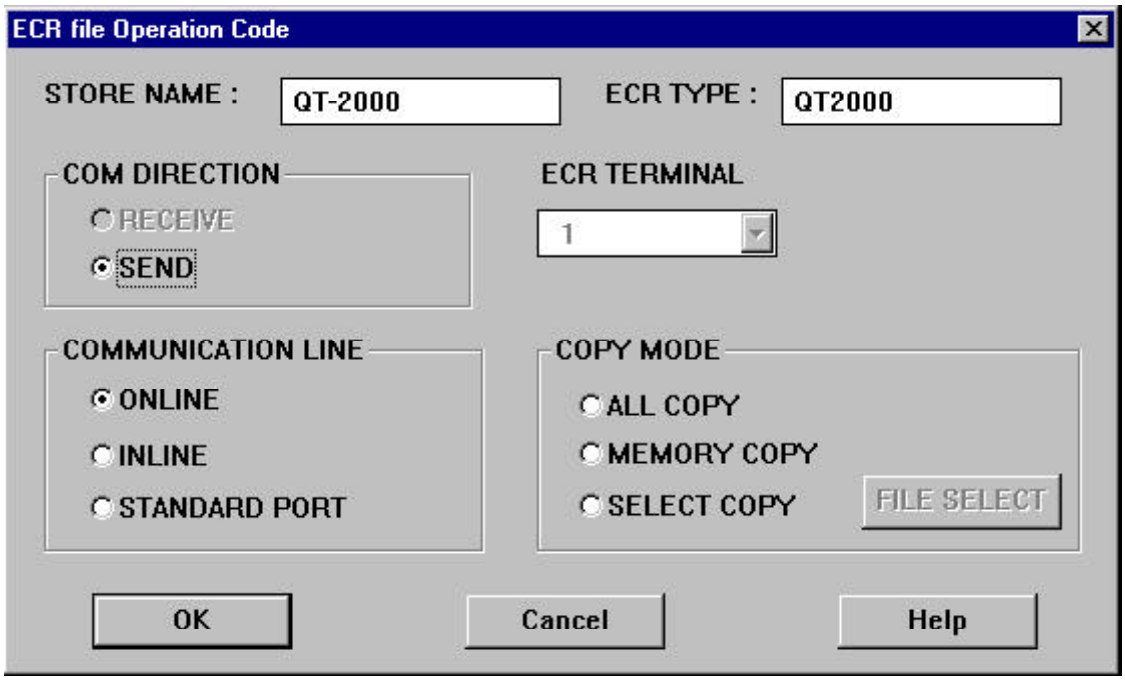
File (F)	Contains three options	
	Close	Closes the file that is currently open. If the file has not been saved then you are given the option to do so.
	Save	Saves any modifications.
	Exit	Closes the file that is currently open. If the file has not been saved then you are given the option to do so.
Edit (E)	Contains five options.	
	Cut	Cuts the selected characters.
	Copy	Copies the selected characters.
	Paste	Pastes the cut or copied characters
	Range Paste	Pastes back the cut or copied text to a range of records.
	Find	Search through file for specified text.
Help (H)	Contains 3 options.	
	Help	General overview of screen.
	File help	Detailed description of the contents of what each field of the file contains.
	About	Displays version number.

Sending Programming data.

After you have modified your data you will probably want to send the modifications back to the ECR.

Double click the send icon from within the Auto Program screen and the ECR file Operation Code screen is displayed as shown in figure 2.12

Figure 2.12



STORE NAME	The name of the store you are communicating with.
ECR TYPE	The ECR type the PC is connected to.
COM DIRECTION	This will be set to send.
ECR TERMINAL	If using an I/O-PB12 you can communicate to individual ECRs within an In-Line network. The COMMUNICATION LINE option must be set to In-Line.
COMMUNICATION LINE	Which port the PC and ECR will communicate to. ON-LINE RS-232 port to On-line port of the ECR. IN-LINE I/O-PB-12 to In-Line port of ECR (only available with TK-23/27/5100, CE-4700 and QT-2000). STANDARD PORT RS232 port of the PC communicating with the DF-2 port of the ECR.
COPY MODE	You can select the data you wish to send from the ECR. ALL COPY. Receives all programming data and memory allocation. Enabling editing of programming files of ECR.

	MEMORY COPY.	Sends all programming data and memory allocation from ECR, however you cannot edit the programming data.
	SELECT COPY.	Sends specified file from ECR which can be edited.
Cancel	Closes screen without executing a send command.	
OK	Executes a send command with the parameter you have preset.	

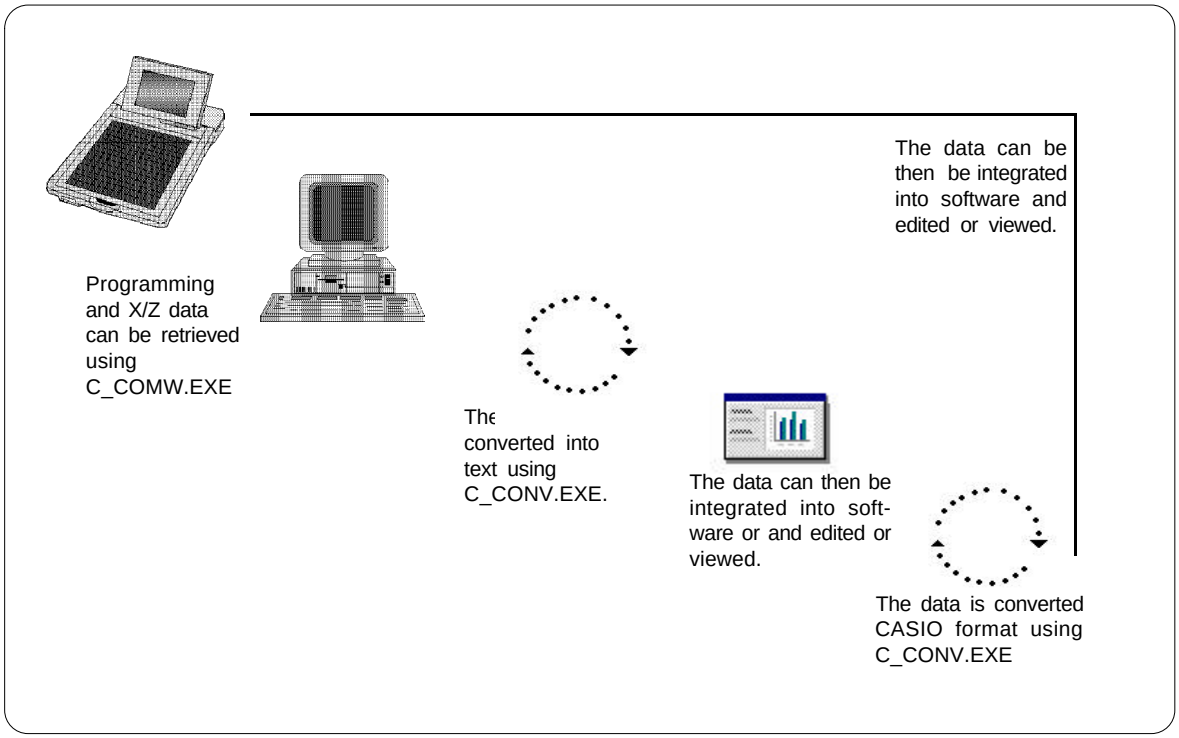
Note: Some options may not be highlighted such as Send, In-Line and standard port, this means these options are not available with this ECR type however they may be available for other ECR models.

CV-10 Utilities Overview.

CV-10 contains Windows utilities that enable a developer to incorporated the ECR communications into their own software.

Figure 3.1 shows how different utilities are used. C_COMW.EXE pulls back the sales or programming from the ECR, the data is converted into text using C_CONV.EXE, the data can be imported into third party software, the data is converted back into a CASIO format and programming data can be sent back to the ECR.

Figure 3.1



C_COMW.EXE

Is a utility that enables communications between the ECR and PC. You can receive programming and X/Z sales data back to the PC. You can send back programming data only (you cannot send back X/Z data) to the ECR.

Syntax

C_COMW.EXE [R/S/X/Z] [File name] [file number] switches

R/S/X/Z Select from Receive/Send/X/Z.

File name Receive —> File name to be received and saved.
Send —> File name to be sent.

File number Operation code of received data. Valid in receiving (R/X/Z).

Switches

-l Specify communication line.
-lo :ONLINE -li :INLINE -ls :Standard port

-d Specify profile name with path. Use this setting to select the ECR type you are communicating with.
ex) -dc:\casio\c_util.ini

-t Specify communication terminal number or ALL terminals. Valid in In-Line communications.
ex) -t1 :Terminal number 1 -tALL :All terminals

-i Specify to initialize the profile. If the *.INI file does not have the details of a file use this setting to write the file details to the INI file. Valid in auto program receiving.

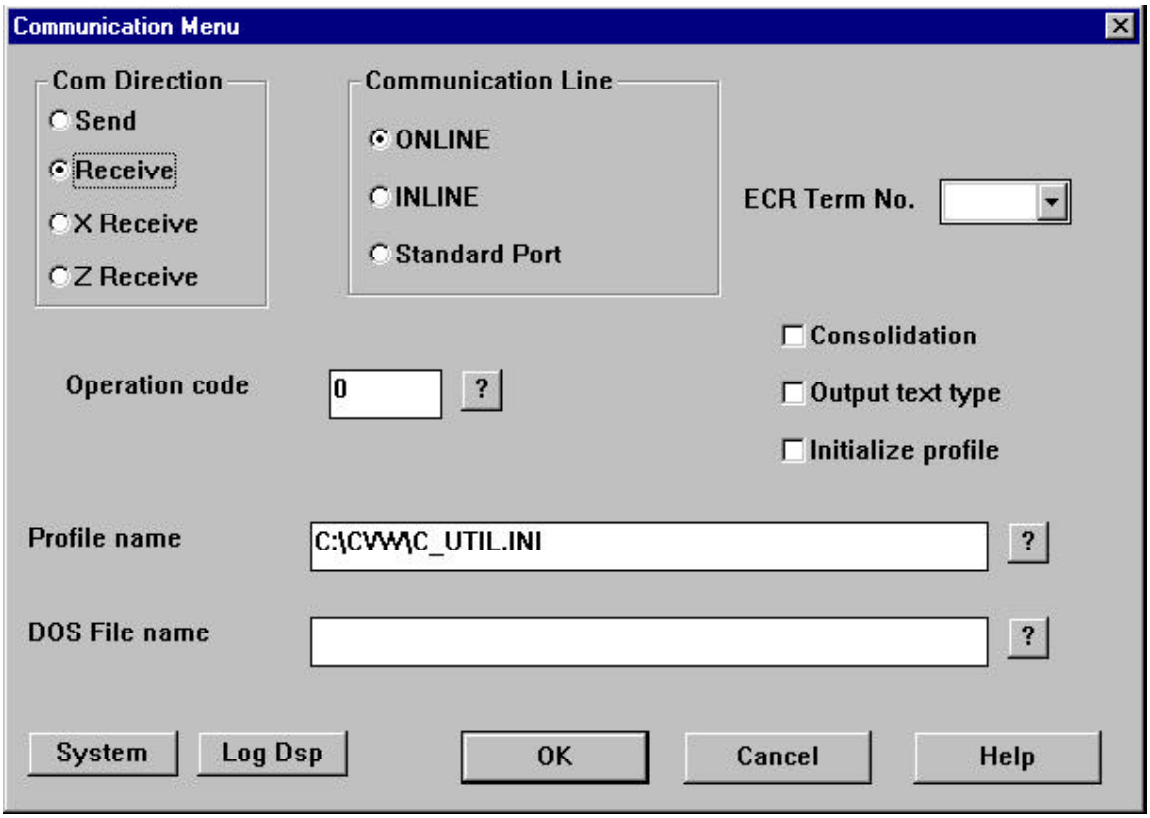
-T Specify to output text type. Will automatically convert the file into a text format. Valid in receiving.

-w Specify to display data converting window.
Normally, executing under the communication window.

-u Specify to confirm profile update.

If you input the wrong syntax then the Communication Menu screen will be shown as in figure 3.2.

Figure 3.2



Comm Direction What The PC will do with data.

Send send programming data back to ECR.

Receive Receive programming data from the ECR to PC.

X Receive Pull back a sales file.

Z Receive Pull back a sales file then reset it.

Communication Line

Which port the PC and ECR will communicate to.

ON-LINE RS-232 port to the On-Line port of the ECR.

IN-LINE I/O-PB-12 to In-Line port of ECR (only available with TK-23/27/5100, CE-4700 and QT-2000).

STANDARD PORT RS232 port of the PC communicating with the DF-2 port of the ECR.

ECR Term No. Select the individual ECR number or ALL. If you click the ? a list of Terminal numbers will be displayed. This is only valid when the In-Line port is selected.

Operation Code Select the file number of the programming file or sales file to be received. If you select ? a list of files is displayed. It is not necessary to input when send back a programming file.

Profile name Select the INI file that relates to the ECR type. If you select the ? you can browser for a *.INI file.

Dos File Name	The name of the file the data is being received to or sent from. If you select the ? when sending a file you can browser for the file you wish to send.
System	Opens note pad and displays the INI file that has been selected in the profile name field. You can edit these setting if you wish.
Log Dsp	Opens note pad and displays any communications between the PC and ECR. Also shows if communications were successful.
OK	Executes communications.
Cancel	Closes screen without executing any communications.
Help	Displays a help screen.

C_CNVW.EXE

ECR Data format that is retrieved is easily read and data held in text format cannot be sent to the ECR. C_CNVW.EXE convert ECR data into text and text data into ECR data.

Syntax

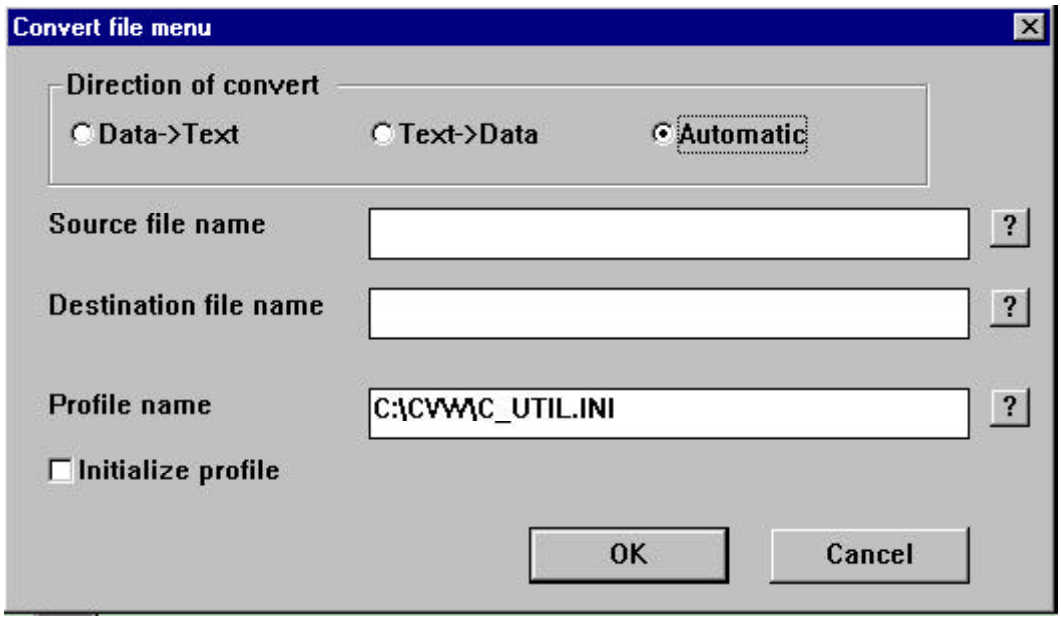
C_CNVW.EXE Filename1.ext Filename2.ext

Filename1.ext Source file name.

Filename2.ext Destination file name that will have either the new ECR format data or the text format data.

If you input the wrong syntax then the Convert file menu is displayed as shown in figure 3.3

Figure 3.3



Direction of convert. Data->Text Convert ECR data to text.
Text-Data Converts Text data to ECR data.
Automatic Automatically detects the data and converts appropriate.

Source file name The name of the file the data is being converted from. If you select the ? you can browser for file.

Destination file name The name of the file the new data will be written to. If you select the ? you can browser for a file.

Profile name Select the INI file. If you select the ? you can browser for a file.

Initialize profile	Specify to initialize the profile. If the profile name does not have the details of a file use this setting to write the file details to the INI file.
OK	Executes the conversion.
Cancel	Closes screen without executing any conversions.

C_ADDW.EXE

C_ADDW.EXE is used to add the X/Z sales totals of individual ECRs that are in the same in-line network and put the totals into one file. To pull back the sales totals of individual ECRs you must install an I/O-PB12 into the PC and communicate to the ECRs via the In-Line port.

Syntax

C_ADDW.EXE Filename switches

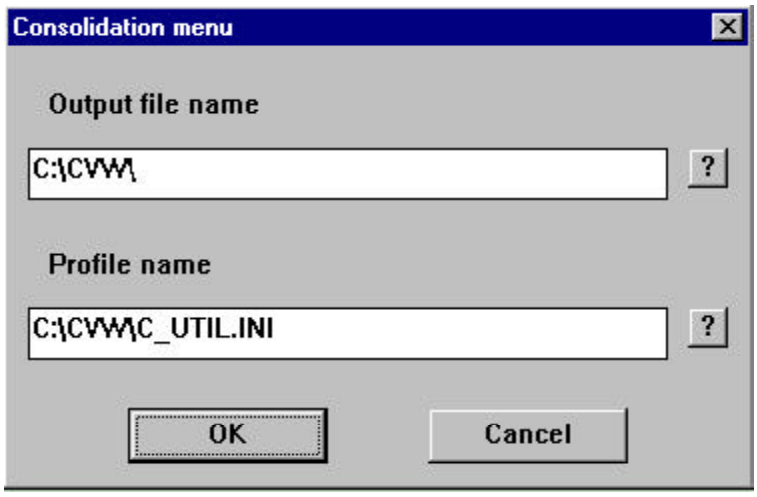
Filename When you receive data from all ECRs they are put into individual files. The format of these files is Filexxxy.zzT
xxx= file number y= X or Z sales data zz= ECR number. The filename you enter above does not need an extension it will automatically be given the TTL extension.

Switches.

-d Specify profile name with path. Use this setting to select the ECR type you are communicating with.
ex) -dc:\casio\c_util.ini

If you input any incorrect filename or switches then the consolidation menu is shown as in figure 3.4.

Figure 3.4



Output file name The name of the file that the data will be consolidated to. Do not enter the file name extension as TTL extension is given automatically. If you select the ? you can browser for a file to consolidate to.

Profile name Specify profile name with path. If you select the ? you can browser for a *.INI file.

OK Executes consolidation.

Cancel Closes screen without consolidating.

Modifying Profiles.

Profiles are *.INI files that give CVW, C_COMW, C_CNVW and C_ADDW information about the ECR type they are talking to, how many ECRs are connected, is the PC communicating via a modem to the ECR or directly to the ECR. C_CNVW will need to know how the file is structured as one ECR will have different field and field lengths for different file types.

Below is an example of the first few lines that relate to a profile. Any text beginning with # means comments.

```
[SYSTEM]
# ECR Machine type.
MACHINE_TYPE=16          # 8:TK1300 1:CE4700 2:TK2300 3:TK2700  4:TK5100 16:CE4000

LOG=ECR.LOG              # DOS Logfile name

# Character type of ECR.
LANGUAGE=4               #      0:CASIO, 1:CASIO(Japan), 2:CASIO(Japan/TK5100)
                         #      3:CASIO(Korea) 4:ASCII(New CASIO) no support,
                         #      5:ASCII(Shift JIS) no support

STRATREC=1               # Start Rec No. for TEXT file.

# Compress received data.
COMPRESS=OFF             # for c_comw.exe receive data from ECR. ON (for VHS) or OFF (for
                                                                  CE4000).
# Select available Communication line. (ON:Use / OFF:Not use)
# Valid for CVW only. (Not support c_comw.exe menu)
ONLINE=ON
INLINE=OFF
STDCOM=OFF
COMMUNICATION=1

[DISPLAY]
# Display (execute message) mode.
DISPTYPE=0               # 0:Norma / 1: With X/Y location / 2:Not display / 3: Standard error
# Display Location.
X_START=10               # at VIDEOMODE=1   +-----X-----+
Y_START=3                # at VIDEOMODE=1   |1,1       |
X_WIDTH=50               # at VIDEOMODE=1   Y          |
Y_WIDTH=5                # at VIDEOMODE=1   +-----------+ x=80,Y=25

# [ONLINE] is for c_online/c_comw.exe
[ONLINE]
COM=1                    # PC RS232C Port.  COM=1 or COM=2
SPEED=9600               # Baud rate.  1200,2400,4800,9600,19200 (BPS)
TEL=1                    # DIAL_COM For dialing modem. 0:Normal 1: Use (Modem)
DIAL_COM=ATD4500956      # AT Command For dialing modem. (TEL=1)

# Check Signal (ON) or Not (OFF)
#   CTS(CS) / DSR(DR) / CD
CTS_FLOW=OFF
DSR_FLOW=ON
CD_FLOW=OFF
```

```
XMODE=SUM128            # XMODEM Check SUM=CRC1024(VHS) or SUM128(CE4000)


# [INLINE] is for CNET INLINE.
[INLINE]
TARGET=0                # Default target ECR terminal number.

ECRS=0                  # Number of ECRS in CNET. Use for define terminal number as
                                                                        "ALL"
```

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