CONETIC

SOFTWARE SYSTEMS, INC.

C/BASE & C/BOOKS
VERSION 5.6

SETUP AND INSTALLATION GUIDE

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C/Base & C/Books

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SanAntonio, Texas 78205-3806.

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INTRODUCTION

Welcome to Conetic Software System's version 5.6 of C/Base and C/Books. With the introduction of Version 5.6, Conetic Software Systems family of information management products take financial information systems to a new digital level. Touting new features such as a:

- Fully optimized Client/Server engine (fast).
- Multi-threaded Libraries and executables.
- New Suite of Development tools.
- WYSIWYG Visual Reporting.
- Built-in IE browser (Optimized interface for dynamic HTML pages).
- New ActiveX Network Enabled (C/BASE Libraries).
- Powerful integration with desktop office software, such as MS-Office.
- New Built-in Graphs (over 20 predefined graphic charts; Pie charts; bar charts, etc…)
- New ActiveX Network Enabled (C/BASE Libraries).
- State of the Art DIGITAL RECORD KEEPING SYSTEM (Fully intergraded with C/ Books)
- State of the Art DIGITAL REPORT ARCHIVE SYSTEM (Fully intergraded with C/ Books).

This manual will guide you through the installation and setup of C/Base and C/Books. It will also provide a brief look at several new tools that will aid in the setup of the environment in which the Conetic products are run. Please be sure to pay close attention to the notes and warnings.

1 BEFORE YOU BEGIN

1.1 Server side - Requirements for C/Base and C/Books

C/Base and C/Books were designed to run with the following minimum requirements:

1. For Windows Servers:
   a. Pentium II class or better.
   b. Microsoft Windows NT, 2000 or XP. (Windows 2000 is recommended) It is recommended that all available current service packs have been installed prior to installing Conetic products.
   c. IExplorer 5.5 with SP2 – it is recommended that you are running IE 5.5 with the most current service pack (currently SP2). IE 6 is still a early released product, and may have bugs.
2. For Unix Servers:
   a. Intel servers should run Pentium II class or better.
      1. Intel supported Operating systems are:
         1.a Linux (RedHat 7.2/7.3/8 and soon 9)
         1.b UnixWare 7
         1.c SCO Openserver
   b. Sun servers should run a Ultrasparc processor or greater.
      1. Sun supported Operating systems are:
         1.a Solaris 8 (32-bit)
         1.b Solaris 9 (32-bit)
         1.c Solaris 9 (64-bit) * available soon!
3. 64 MEGS of memory (Single user) — 128 MEG of memory (five users) , 256 MEG of memory for (10 users), and 512 MEG of memory for (twenty plus users).
4. NIC Card – it is assumed that all Servers have Network Interface Card.
5. TCP/IP support must be installed and configured.
6. TCP/IP ports 5000 – 6000 are free and are not blocked by a firewall or router.

Note: Version 5.6 is client/server implementation, which means that the server is the primary work horse. All programs are executed on the server, and just displayed on the workstation. Therefore, most performance issues will be in direct reflection to the performance or lack of performance, and abilities of the server. The amount of disk space required will depend on the modules you are licensed for and decide to install. The following table provides liberal space requirements for the various modules

Modules	*Space Required*
C/Base 4GL Database	11,000 Kb
C/Base Development Utilities (libraries)	1,500 Kb
C/Books Core Accounting (GL,AR,AP)	5,000 Kb
Fixed Assets Module	750 Kb
Inventory Module	750 Kb
Job Costing Module	750 Kb
Order Entry Module	750 Kb
Payroll Module	750 Kb
Purchase Orders Module	1,000 Kb
C/Books Utilities	1,500 Kb

1.2 Client side - Requirements for C/Base and C/Books

C/Base ThinClient suites were designed to run with the following minimum requirements:

1. Pentium II class or better.
2. Microsoft Windows 98, ME, NT, 2000 or XP. (Windows 2000 is recommended) It is recommended that all available current service packs have been installed prior installing Conetic products.
3. Microsoft Internet Explorer Version 5.5 SP2 or greater.
4. 64 MEGS of memory (Single user) or better.
5. NIC Card – it is assumed that all Servers have Network Interface Card.
6. TCP/IP support needs to be installed and configured.
7. TCP/IP ports 5000 – 6000 are free and are not blocked by a firewall or router.

The amount of disk space required will depend on the client side modules you are licensed for and decide to install. The following table provides liberal space requirements for the various modules

Modules	*Required Space*
ThinClient Interface	18,500 Kb
Visual Grace Editor	5,500 Kb
Grid Form Designer	4,700 Kb
Visual Authoring Language (NetVal) Runtime	1,500 Kb
Visual Authoring Language (NetVal) Designer	750 Kb
C/Base ODBC Client	6,400 Kb
C/Base Scan Utilities	750 Kb
C/Base PDF Utilities	7,750 Kb
C/BaseX Activex libraries	1,500 Kb
Help Files (on-line manuals)	17,750 Kb

Note: The Client side installation doesn't require any software registration. Number of user access is control completely from the server. It is not uncommon for an organization to have a "10 concurrent" user license to have installed the ThinClient programs on more than 10 workstations. As policy, the ThinClient should be installed on all workstations wishing to connect to the C/BASE – C/BOOKS server.

1.3 Preparing a Windows Server - for Server Side Installation

Here are a few things you should do ahead of time to help the installation go smoothly:

1. Close down all unnecessary windows before running the installation.
2. If you will be using a compiler or development tools, install them first.
3. Create a "cbooks" user with "Administrator" privileges.
4. Login as the "Administrator", prior to starting the install process.
5. Locate and write down the IP Address of your server. The IP Address can be retrieved by running the following command:
   a. For Windows - "ipconfig /all"

1.4 Preparing a Unix Server - for Server Side Installation

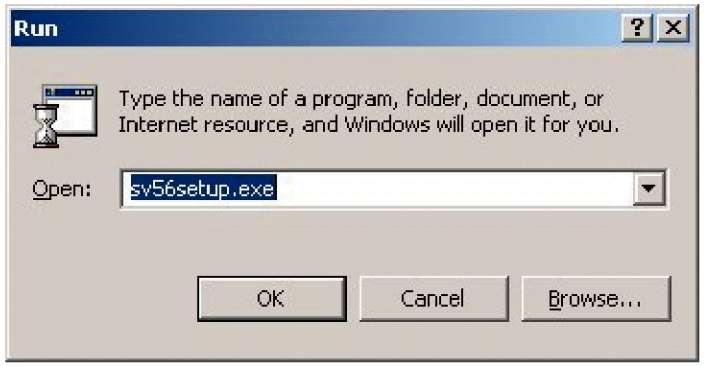
Here are a few things you should do ahead of time to help the installation go smoothly:

1. Close down all unnecessary windows before running the installation.
2. If you will be using a compiler or development tools, install them first.
3. Create a group name "conetic".
4. Create users for "cbase" and "cbooks". Make sure to assign "conetic" as their group.
5. Login as the "root", prior to starting the install process.
6. Set the umask to "0000"; by typing **`# umask 0000 <cr>`**

Locate and write down the IP Address of your server. The IP Address can be retrieved by running the following command: **`# ifconfig -a <cr>`**

1.5 For Windows

The Installation programs can be executed from the **Run** option under the **Start** button in the main menu bar. For example, if your CD drive is D: then go to **Start** =>**Run** and type **D:\the name of the current release!** in the edit box.



1.6 For Unix Servers

To start the installation program for the a unix server you will first need to mount the cd-rom drive . Once mounted you can run the binary program just by typing the program name. For example:

- Linux Installation program name **"redhat/name of current release.bin"**
- Sun Solaris 8 Installation program name **"sun_solaris/name of current reelase.bin"**

Note: You may be required to copy the installation program to the local hard disk drive.

2

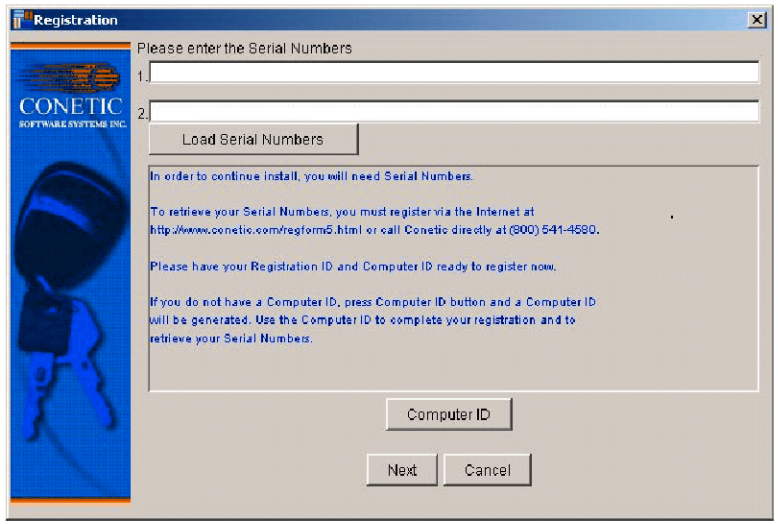
INSTALL - SERVER SIDE

Select the Server **Installation program.** A setup program wizard will begin to initialize, this may take a few moments. The wizard will guide you through the screens and allow you to go back to make any changes or corrections to the install processes.

2.1 Software Installation

The Conetic install process is straightforward. After an initial welcome screen and license agreement you will be asked for a directory location to install the Conetic products. You may select any directory on your local machine. If the directory doesn't exist the wizard will create it. The only restrictions are that you ***cannot install to a root directory*** *(C:\, D:\, etc) and* ***the drive cannot be a network drive.***

After selecting the installation directory, and providing the IP Address for the server, the install process will load a series of initial programs. Once these initial programs have been installed, the install wizard will begin the **REGISTRATION** process. The following screen will be displayed:



At this point you need to double click on the **COMPUTER ID** button. This button will produce a code that will get the finger print of the server.

Once you have your **COMPUTER ID** you need to communicate the "**COMPUTER ID**" to Conetic Software Systems, Inc. registration department. You have the option of registering via the internet at "**http://www.conetic.com/registration.htm**" or you can call Conetic Software Systems, Inc. at (800) 541-4580, Monday – Friday 8:30am – 5:00pm Central standard time. The internet registration is available 24 hours a day, seven days a week.

In the event you have elected to register via the internet, you need to start your browser and go to **http://www.conetic.com/registration.htm** to begin your registration process. The following screen will be displayed:

At this point you need to find your **REGISTRATION ID**, located on the invoice, in which the new software was provided. In the event you can not locate this id, please call Conetic at (800) 541-4580 to request your **REGISTRATION ID**.

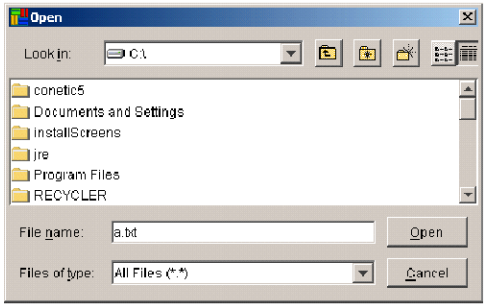
Now at this point you should have your **REGISTRATION ID** and your generated **COMPUTER ID**. Enter the values in their associated fields, and press the **SUBMIT** button.

If the **REGISTRATION ID** is valid, and you have not attempted to install before, the following screen will be generated:

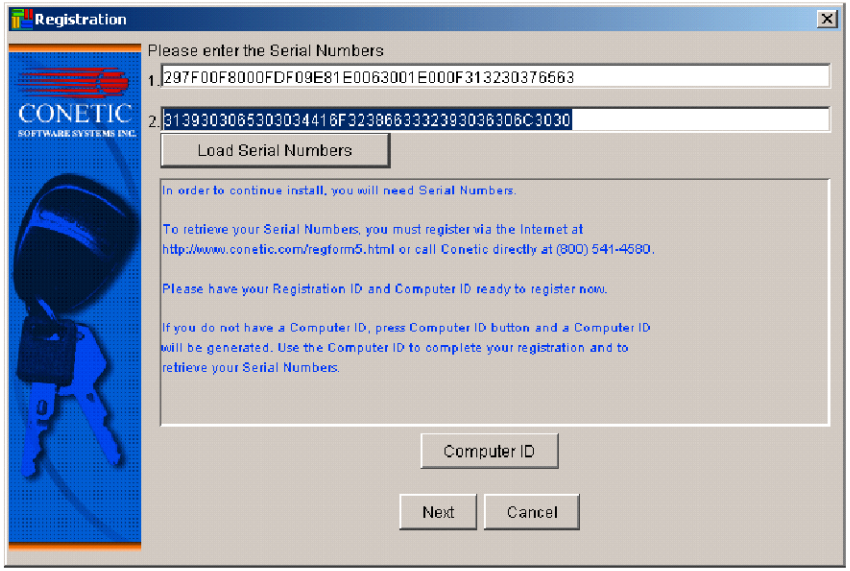
It is recommended that you print the Registration screen for your records. If you chose not to print, you MUST write down the **SERIAL NUMBERS** in order to continue with the installation.

Note: *Your* **SERIAL NUMBERS** *is good for the server you finger printed, for one day.*

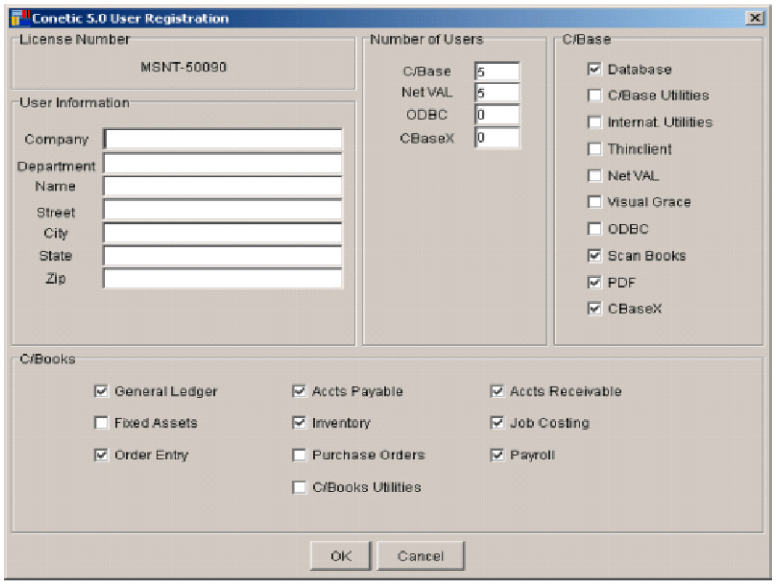
Once you have received your **SERIAL NUMBERS** you need to input the code into each associated field. If you have download the codes to a file, you can upload the SERIAL NUMBERS via the **LOAD SERIAL NUMBERS** button.



Once loaded your screen should look like:



At this point, press the **NEXT** button and continue. The install wizard will display the following screen:



Once the Registration Key has been verified and the above information stored, the install program will create a Conetic license file named **CONETIC56.DAT.** If a Conetic license file already exists on this machine you will be told and given the opportunity to exit the install before the file is overwritten. The Conetic license file contains the hardware "fingerprint" of the installed machine. This file must be present in order for the Conetic system to run. You cannot copy this file from another machine and have it work.

When the license file is created the wizard determines if you are licensed for a single user or client-server system. If you are installing a **Client-Server** version the installation process will skip to section **2.1.1**.

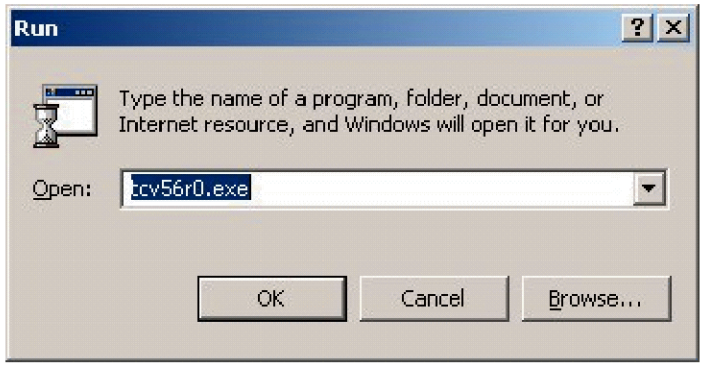
NOTE: Prior to continuing with the installation, the install program verifies the Company Name. The COMPANY NAME **MUST** be input exactly as displayed on your "Registration" web page. An incorrect entry will not allow the installation process to continue.

3

INSTALL - CLIENT SIDE

Due to the fact that the client software does not require registration the installation is quick and painless. The standard policy for client side software allows you to install the "client" side programs on any machine that you might use to access a Conetic Version 5 server. It is not uncommon to have installed the client side program on more workstations than are licensed for on the server. The Conetic Version 5.6 server will grant or deny access based on comparing the "con-current" number of users, against users licensed on your server.

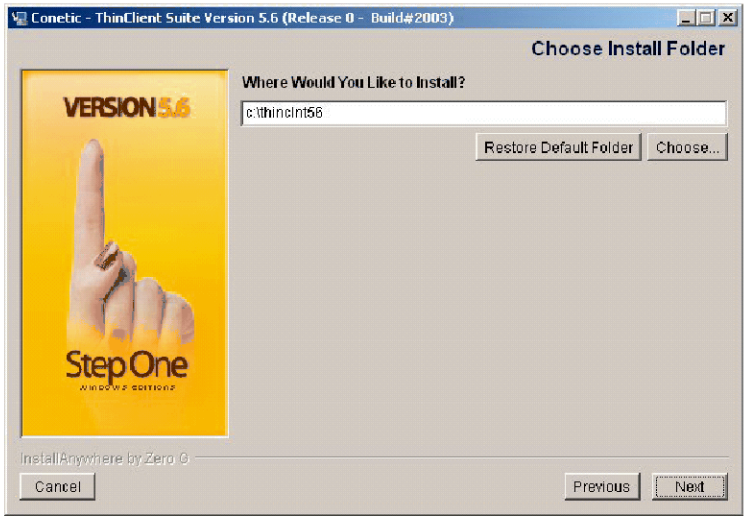
For Windows machines the installation CD contains an automatic startup feature. This feature provides a simple method to start the install process. Choose option two from the menu to install the Thinclient, but if you have the auto run feature disabled then you can do the following: The Client Installation programs can be executed from the **Run** option under the **Start** button in the main menu bar. For example, if your CD drive is D: then go to **Start** =>**Run** and type **D:\TC56SETUP.EXE** in the edit box.



Note: Once started the installation program will prompt you to answer a series of questions. In the event you are unsure of how to answer ANY question, please consult with your network engineer.

3.1 Choose Install Folder

This first installation screen asks the installer to "Choose Install Folder". The Install Folder is the location you wish to install your copy of the ThinClient programs. It is recommended that you accept the default value of **"C:\ThinclNt56".**



3.2 Network Information

Proceeding along, the next screen gathers Network Information for the install. Such as:

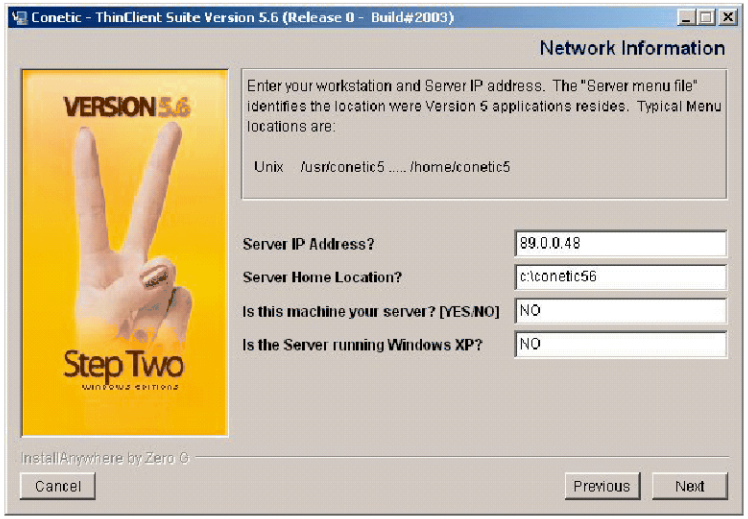
Server IP Address? – this is the network IP Address of the server running C/BASE 4GL and or C/Books accounting modules.

Server Home Location? – this is the Home location you installed your server software. For Example:

On a windows server the default values are "c:\conetic56".
On a Unix server the default values are "/home/conetic56"

Is this machine your server? – this question is used to identify if you are installing the client software on the same machine that is your server. Only Windows servers can run both the client and server on the same machine.

Is the Server run Win XP? – this question tells the installation to change the client install to address Windows XP TCP/IP port issues.

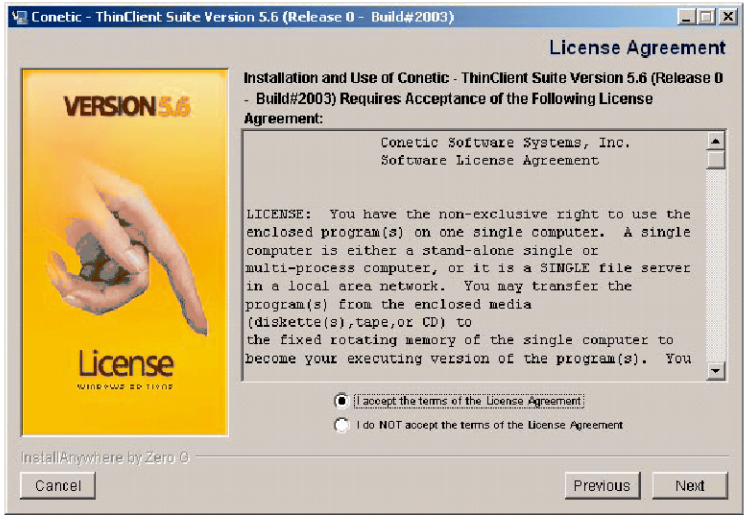


3.3 Choose Shortcut Folder

The following screen is used to identify the location in which the NEW Version 5.6 icons are created. It is recommended that you accept the defaults. In addition, we always recommend that you check of f **"Create icons for All Users"**. By checking the box, we are telling the installation program to create icons for every users unique profile.

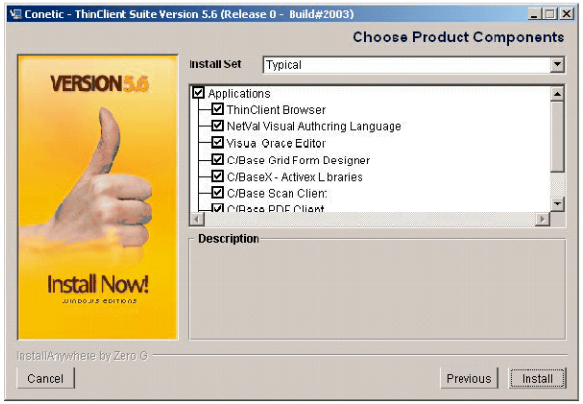
3.4 License Agreement

The license section is pretty straight forward. Acceptance is required prior to continuing with the installation.



3.5 Choose Product Components

Version 5.6 client side has a suite of components that can be installed. We recommend that you only install the components that are licensed on the server. Components are selected and de-selected by checking on and off the check box to the left of the component description



3.6 Installation error!

In the unlikely event the installation failed. It is recommended that you remove the installation directory, reboot, and re-install. If for some reason that does not work, please do not hesitate to call support at **1(800) 541-4580.**

3.7 Server Re-Registration Only

This process should only be used to increase number of users, or re-register/activate your server. The program will not install any files. It's sole objective is to update or create a new "conetic56.dat" license file.

Note: Each Client or Server has a unique *fingerprint* license file named **c:\CONETIC5.DAT.** Be sure not to overwrite this file.

3.8 Post Installation Process

The following instructions describe how to setup various features of the new Conetic system. Please carefully read all of the instructions before attempting the setups. Some of the commands will irreversibly change the data and/or settings of the system.

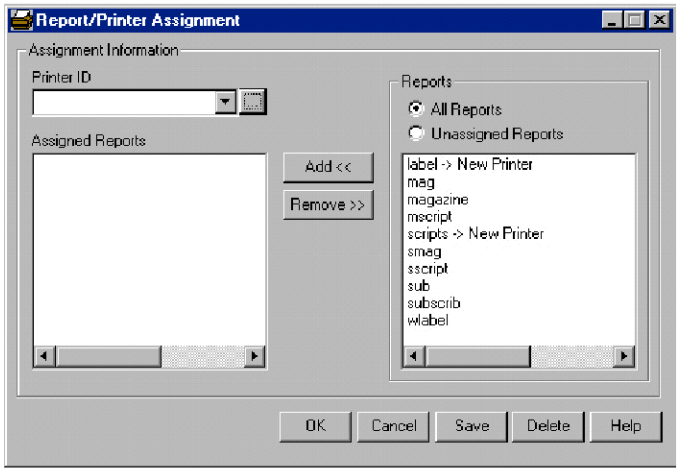
Several new tools have been implemented to assist you in taking full advantage of the Conetic system. This section will guide you through the basic operations and functions of the new tools.

3.9 Printer Setup

C/Base's new printer setup allows the system administrator to assign printers with default attributes, such as font, font style, point size, page orientation (portrait or landscape), etc… Once a printer is defined, reports are assigned to default "defined printer". This eliminates the need for operators to know what font, what size paper to use for each report. Just Click and Go! Every cataloged report should have a defined printer identification associated with it such as Wide Print, Regular, Check Print, etc. When reports are assigned they are stored in the current master catalog directory (pointed to by the environment variable CBASE). If you are using your own local catalog the report assignments will be valid only when you process the reports on your machine.

3.10 PRTSETUP

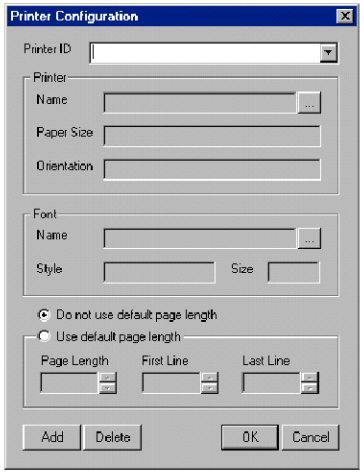
The **PRTSETUP** utility can be run from the Conetic group icon **Printer Setup** or from within the C/Books main menu **Setup** -> **Printer Setup**. The main printer setup screen will look similar to this:



The **Printer ID** dropdown contains the list of defined printers for the Conetic system. (See the next section for details on defining printers.) The printer setup dialog also contains two scroll lists. The **Reports** listbox displays all the cataloged reports for the current database (DBASE environment variable – see Appendix A). The reports that have printer assignments will have the printer id appended to them. In the above example the report **label** is assigned to **New Printer**. When a **Printer ID** is selected from the dropdown list all the reports that belong to that printer will be displayed in the **Assigned Reports** listbox.

3.11 Defining Printers

You can define new printers by clicking the button to the right of the **Printer ID** dropdown list. This will bring up the Printer Configuration dialog as shown.



Begin the process by assigning a unique ID string to the new printer. The **Printer ID** can be any meaningful unique string that will identify what type of printer setup it represents, i.e. HP Wide, Epson Compressed, etc.

The next step is to assign a *windows* printer that has been previously setup. Select a *windows* system printer by clicking the button in the Printer->Name editbox. This will display a **Print Setup** dialog with a dropdown list of all the printers available on your system. Select the printer, the paper size, the paper orientation, and click **O.K**. The information is returned to the Configuration dialog. The font can be setup in a similar fashion by clicking the Font->Name button and making your selections from the Font Setup dialog.

Finally, you can elect to override the Conetic default page parameters and define your own for this **Printer ID**. The variables pagelength, first line, last line can be set to override the internally defined values in the report. There is no verification that the parameters you choose are valid. Make sure to visually inspect and verify your reports.

3.12 Assigning Reports

To assign a report select the desired printer from the **Printer ID** dropdown list. Reports in the **Reports** listbox are highlighted with the mouse and assigned to the printer by clicking the **Add** button. Repeat this process until all the reports for this printer have been assigned. You will note that the newly assigned reports are flagged as **Not Applied**. Should a change be required in report assignments, non-applied reports can be highlighted and removed from the **Assigned Reports** listbox with the **Remove** button. Report assignments are not saved until the **O.K.** button or the **Save** button is clicked.

Once a report assignment has been saved to a **Printer ID** the only way to remove the assignment is to select that **Printer ID**, highlight the report in the **Assigned Reports** listbox, and click the **Delete** button. This will only move the report from assigned to unassigned. It will not delete the report from the system.

3.13 PRTSETUP Files

After you have made your **Printer IDs** and report assignments the PRTSETUP utility creates two files to save the information. The **Printer ID** information is stored in a file called **PRTSETUP.BIN** in the *LIB\CBASE* directory of the C/Base home directory (usually in *C:\CONETIC56\CBASE*). The actual printer structures are stored in this file. The report assignments are stored in an INI file named **CSSPRT.INI**. This is an editable text file located in the same directory as the PRTSETUP.BIN (*C:\CONETIC56\CBASE\LIB\CBASE*).

Once you have created a printer setup on one machine you can copy these two files to other machines (that are similarly configured and have the same operating systems) causing them to have an identical printer configuration.

Note: Due to differences in printer structures between **WINDOWS 95** and **WINDOWS NT** you *CANNOT* copy the **PRTSETUP.BIN** file between the two operating systems. You will have to create a separate **PRTSETUP** for each operating system and then copy the **WINDOWS 95** file to **WINDOWS 95** machines only. Since the CSSPRT.INI file is an ASCII file you can copy it between operating systems, but you must be sure to have identical printer IDs for every system.

3.14 C/Books Printer Setup

All of the C/Books reports have been assigned to one of three different Printer IDs. These printers are not initially configured/assigned to a *windows* system printer, printer font, page orientation (portrait), page length. In order for these report assignments to be valid you must create the **Printer ID.** Detailed information on how to use the Printer Configuration can be found in section 2.2.1.2. Check Print 44 page length, 80 page width

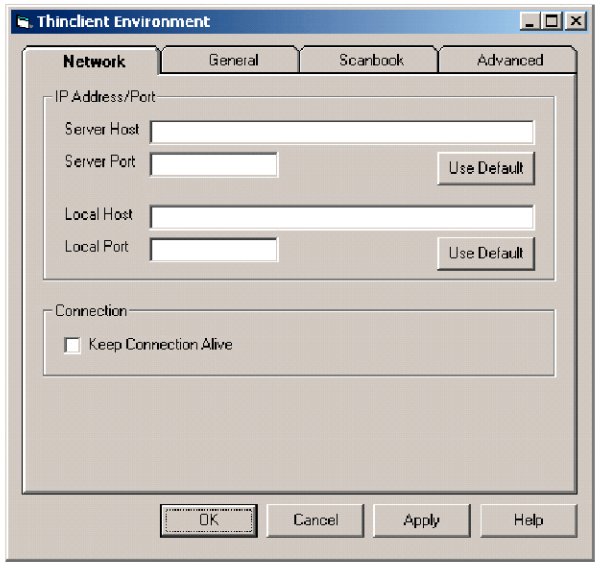
Printer I.D.	Page Parameter Description
Regular Print	80 page width
Wide Print	132 page width

Note: The Printer ID names are *case sensitive* and must match exactly. It is recommended that all forms printing be performed using the "windows - generic print" driver.

3.15 C/Base Environment Setup Utility

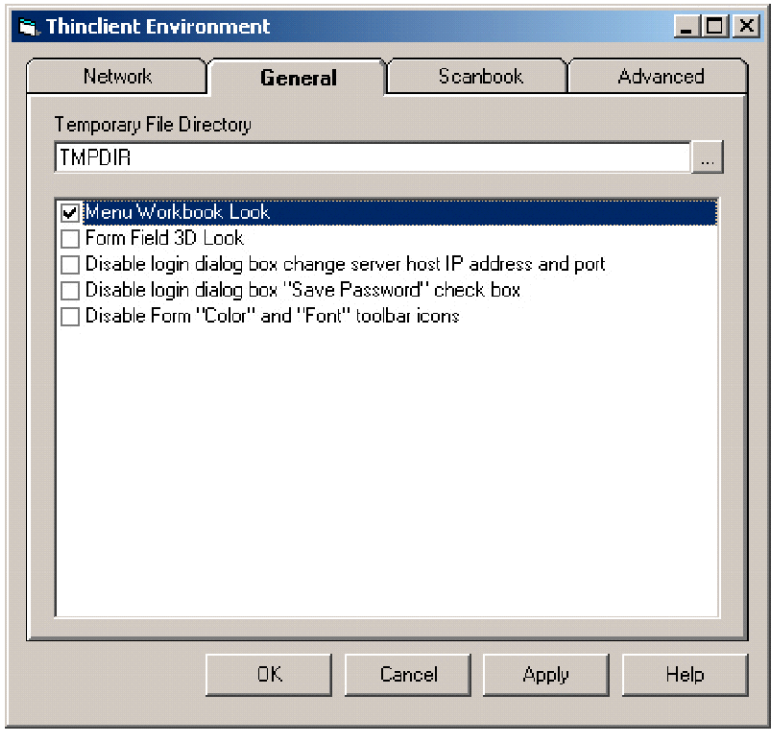
The TclEnv utility is used for setting up the Thinclient Client-side desktop run-time properties. These properties are stored in the *<Thinclient directory>\cssmenu.ini.*

3.16 Network



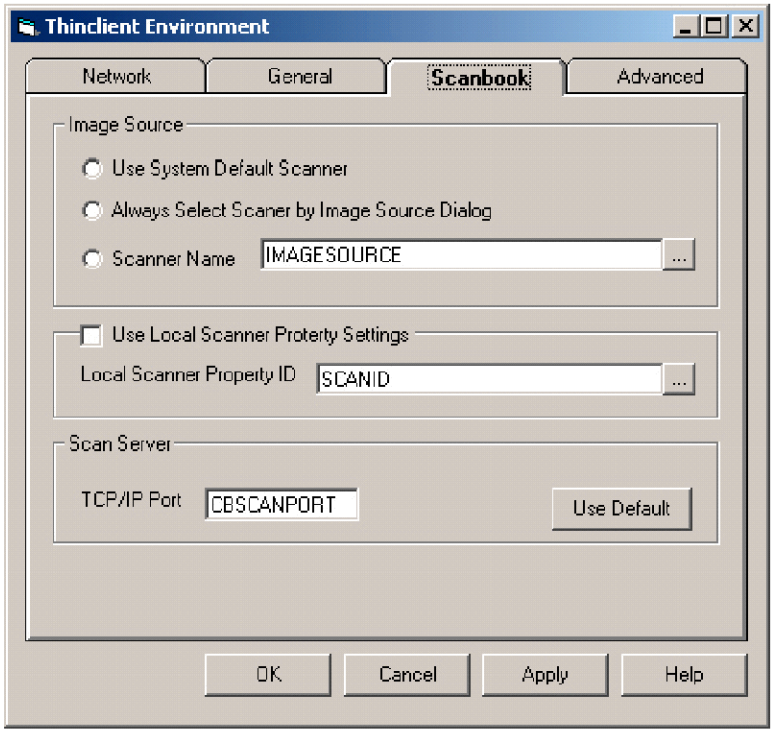
- Server Host – Thinclient Server **(cbmenudm.exe)** host IP address or host name.
- Server Port – Thinclient Server port **(default 5000).**
- Local Host – Thinclient client **(cssmenu.exe)**. Set this host IP address if it is different from the default IP address.
- Local Port – Thinclient client port. It should be set to a different value from Thinclient Server port if they run on the same computer.
- Keep Connection Alive – Keep update connection to thinclient Server **(yes/no)** default **"no".**

3.17 General



- Temporary File Directory – Temporary file directory.
- Menu Workbook Look – Workbook look. **(yes/no)** default is **"no."**
- Form Field 3D Look – Form Entry field 3D Look. **(yes/no)** default is **"yes."**
- Disable login dialog box change server host IP address and port – Enable or disable Change Server Host IP and Port on Thinclient login box **(Yes/no)** default is **"yes"**.
- Disable login dialog box "Save Password" check box – **(yes/no)** Enable or disable " Save Password" checkbox of Thinclient user login box.
- Disable Form "Color" and "Font" toolbar icons – **(yes/no)** Enable or disable Thinclient form toolbar color and font icons.

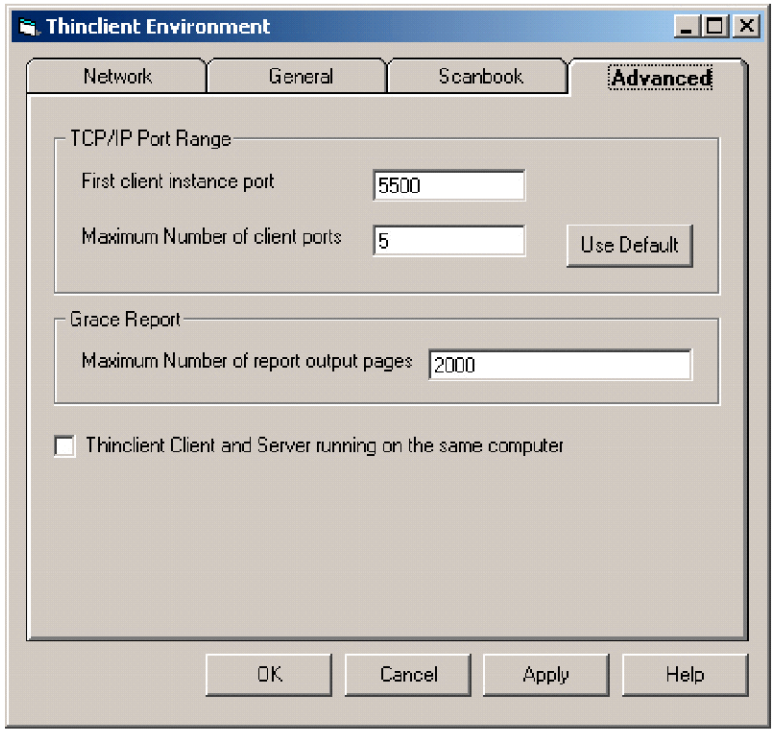
3.18 ScanBook



- Image Source – Use System Default Scanner **("")**.
  – Always Select Scanner by Image Source Dialog **("select")**.
  – Scanner Name **("image source name")**.

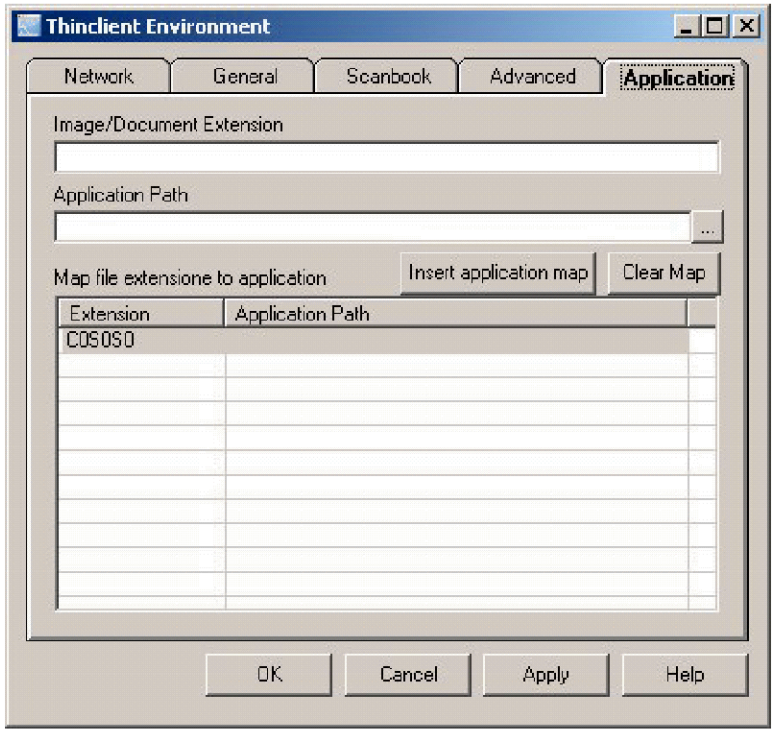
- Local Scanner Property ID – Local scanner property ID.
- Scanner Server (TCP/IP Port) – Scan Server IP port number default 5003.

3.19 Advanced



- First client instance port – First Thinclient client instance IP port. default is **5500**.
- Maximum Number of client ports – Maximum number of Thinclient client instance allowed to run on one client computer.
- Maximum Number of report output pages – Maximum number of Thinclient grace report pages.
- Thinclient Client and Server running on the same computer – **(yes/no)** Set it to "yes" if the Thinclient and the Server run on the same computer. The default value is "no".

3.19 Applications



- Image/Document Extension – Input Image/Document Extension.
- Application Path – Input Application path.
- Maps file extensions to application – Map file extension to application.

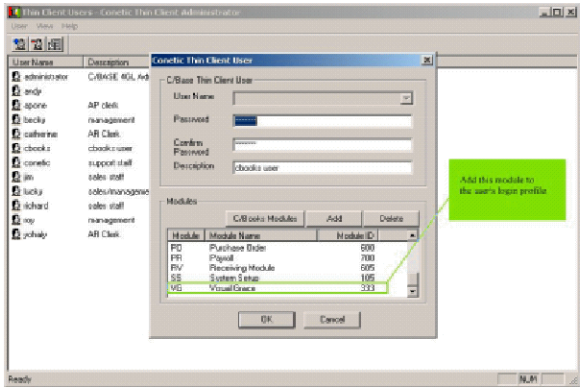
3.20 Viusal Grace Setup

In order for an end-user to access the server reports using Visual Grace, permission must be granted to the user. This is done by adding the **VG** module for the user in the list of modules for the users Thin-client login. This is performed by:

Step 1: Double clicking on the ThinClient Administrator icon. This will start the ThinClient Administrator login - if this is your first time the Administrator login is "Administrator"; with a password of "cbase".

Note: We highly recommend that the password for the Administrator be changed after the initial installation!

Step 2: Now select the user that you wish to grant access to all Conetic Grace Reports. The user is selected by placing the mouse pointer over the users name, and clicking. At this point the screen should look like below.



Step 3: Finaly click on the "ADD" button, and add the module as displayed above. The module **"VG"** with an id of **"333"**.

4 INTRODUCTION TO VAL

VAL consists of two components. The first component is the REPORT EDITOR. The REPORT EDITOR allows you to develop report layouts. The second component is the REPORT EXECUTER. The REPORT EXECUTER is used to print a report using a specific report layout.

VAL provides a comprehensive set of features. The intuitive graphic REPORT EDITOR allows even a novice user to become productive quickly. For the sake of user friendliness, every input parameter offers a default value. The advanced features of VAL can be used to generate sophisticated reports and documents.

4.1 Multiple File/Multiple Section

VAL does not impose any limitation on the number of Conetic data files that can used to supply data. You may decide to create a customer mailing list that uses only the customer datafile or you may elect to create a comprehensive invoice report which will use several different data files. A report document can have up to 9 sort break sections. Your application supplies a list of data fields that can be used as the sort fields, in addition to the sort sections. The sections footers can display subtotals, average, minimum, maximum and count fields.

The **REPORT EDITOR** also allows you to specify a selection criteria for the records to be printed. This feature allows the user to print the desired subset of the file.

The **REPORT EDITOR** utilizes a drag and drop method of placing the report items. Various item arrangement tools can be used to align the items horizontally or vertically. Multiple items can be selected and manipulated. The items can be sized by simply pulling the sizing tabs.

A number of advanced features are also available. For example you can specify the calculated fields for a section break. A report section can be conditionally suppressed using a section criteria. A section can be instructed to print with every page break or a blank space before every section. Moreover, multiple records can be printed across the page.

4.2 Fields

The **VAL REPORT EDITOR** supports all standard Conetic data types - *boolean*, *character*, *date*, *integer*, *money*, *real*, *string*, and *time.* A long text string field can be word wrapped for printing. The **VAL** Report **EDITOR** fields can come from one of the following sources:

Data Field: A field that is associated with a data record.
Calculation Field: Specified using constants, operators, functions and other fields.
System Field: Page number, current record number, date, time.
Dialog Field: Used to prompt the user for data during the report execution. It can also be printed for information purposes. Traditionally used to select a range of records to be displayed.

4.3 Word Wrapping

The memo fields can be word wrapped. The blank space after the section can be suppressed to support variable length memo fields. The memo fields can consist of multiple paragraphs.

4.4 Text Formatting Options

The **REPORT EDITOR** allows multiple fonts, point sizes and character styles. You can select foreground and background colors for the text. The text can be centered or justified in the horizontal or vertical direction.

4.5 Line/Box, and Picture Items

The **REPORT EDITOR** supports lines at any angle. You can control the color, thickness and style of the line objects. VAL Reports allow you to import pictures from the clipboard or bitmap files. The picture can be sized by simply pulling the sizing tabs.

A box item is treated as a special label item with a blank *label* text. You can specify any shade or color for the box. You can specify boundary color and style for the box and embed a box within another box.

4.6 Printing

The Report Executor can print to a printer, or to the screen. The user selects the printing device before the report execution. The screen output is buffered, which allow the operator to print selected pages from the screen to the printer.

4.7 VAL Toolbar

The **REPORT EDITOR** provides a comprehensive toolbar to allow quick access to the most used features of VAL.


Open a VAL report file.


Save a VAL report file.


Insert a data field from a Conetic data file.


Add a system field such as system date or time.


Change the current Conetic data file.


Insert a calculation field.


Insert a text label.


Insert a BMP picture.


Draw lines.


Create record selection criteria.


Cut an object out of a VAL report.


Copy a VAL object in a report.


Paste a VAL object from the clipboard.

The Report Editor also has a toolbar to control font style, size, color and alignment.

Change active text to Bold, Italic, and/or Underline.

Align active text left, center, or right within the text box.

Change active text color.

Change text style and size.

The REPORT EXECUTER uses the following toolbar items:

Run a report.

View a report saved to file.

Print report.

Goto first page of report

Goto next page of report

Goto previous page of report.

Goto last page of report.

Zoom in, view partial page.

Zoom out, view whole page.

4.8 Interface with Your Application

VAL has the ability to be fully integrated with new or existing C/BASE 4GL applications. The VAL runtime (valrun.exe) engine is provided with C/BASE 4GL version 4.2 or greater.

The VAL runtime engine (***valrun.exe***) can be called from inside existing C/BASE menus. In addition, the runtime has the ability to read program environment variables set by menu or a menu parameter.

VALRUN.EXE command arguments are:

-R Retrieve the report name from the command line.
(ie. valrun.exe -R c:\cbase\val\reportfilename.val)
-V View previously printed report.
(ie. valrun.exe -V c:\cbase\val\reportfilename.frc)
-n Used to set the network ip address and port number.
(ie. valrun.exe -n 89.0.0.1 5001 -rreportname)
-u Used to set the username and password.
(ie. valrun.exe -u cbooks cbooks1 -rreportname)

Note: The above options are typically used in combination. For example:
(ie. valrun.exe -Rc:\conetic5\cbase\val\demo\myreport -n 89.0.0.1 5001 -u cbooks cbooks1)

4.9 VAL & C/BOOKS Accounting

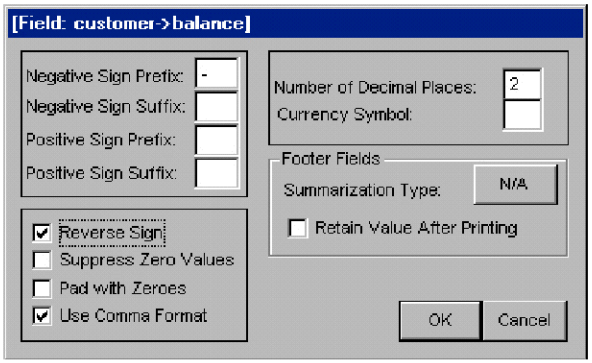
VAL has built-in intelligence with regards to C/BOOKS data files. In C/BOOKS the natural balance of money field is dependent on a associated field – typically name debit . A invoice record where the "balance"=$500.00 and "debit"=no; has a natural balance of a negative $500.00 dollars.

The "cssval.ini**" file contains the C/Books file and field names which are dependent on one another for the natural balance. In the event you have added fields which are dependent upon another field's value; make sure to edit and add your entries into the "cssval.ini" text file. The "cssval.ini" file should be located in the cbase\wbin directory.**

Note: The above is very important when working with another third party report writer via our ODBC interface.

Reversing the sign

VAL has the ability to reverse the sign on the display of a field. To reverse the sign select your money data field by clicking the mouse pointer once on the associated field. Once selected double click the mouse on the field to view the dialog box below.



1. Check the Reverse Sign option
2. Save the change by clicking the mouse on OK.
3. DONE!

Note: Standard C/Books modules use a "debit" field to determine the value of an associated "balance and or amount" field. VAL has the built in ability to determine the value by associating the field being displayed/printed with a defined record in the "cssval.ini" file. The "cssval.ini" file identifies the file and fields debit or credit value by the associated "debit" field for each defined "file/field". ***It is very important that each set of accounting books be defined in this file.***

4.10 VAL & Variable Bitmaps (Photos)

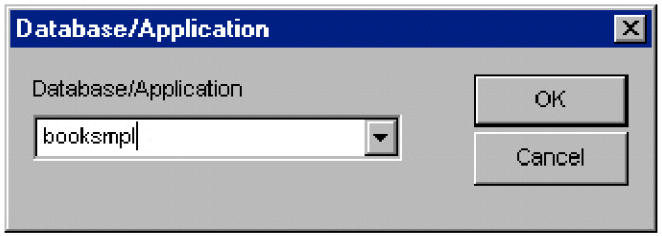
VAL has built in support for displaying bitmaps that are linked to RMS records. These are known as variable bitmaps, since they change from record to record. Variable bitmaps are linked to RMS files through a special reserved **field** call **csspic#*n*** (csspic#1, csspic#2, etc). The **csspic#*n* field** value contains the name of the bitmap file it is linked to. VAL treats the **csspic#*n*** fields like any other normal RMS fields so you can design the report accordingly. The only caveat is that VAL must either have 1) an absolute pathname to that bitmap as the field value or 2) the VAL report must be in the same directory as the bitmap contained in the field value.

5 VAL QUICK START

Click on the VAL icon found in the Conetic group to start the **REPORT EDITOR**. The editor will open with a blank report displayed. The basic report is composed of two sections, a header section and a detail section. The following steps describe how to create and run a simple customer list.

5.1 Selecting the Database

When starting a new report it is imperative that VAL is looking to the correct Conetic application for the data files. The setup procedure installed a sample set of the C/Books core (GL-AR-AP) application called **booksmpl** along with several sample VAL reports. Set the application by selecting the menubar option **Field** and submenu option **Database/ Application**. The **Database/Application** dialog dropdown list will display all currently available applications. For this example select the database called **booksmpl**.



5.2 Report Design

A VAL report is created by populating the various report sections with the desired data. The HEADER section is displayed once per page at the top. The DETAIL section(s) will display as many records as will fit on a page after the HEADER section.

5.3 HEADER Design

The HEADER of our customer list report will contain 1) a report title 2) the page number 3) detail column names. Click the **Label/Text** toolbar item. A dashed rectangle will appear within the report body. Drag the rectangle to the top of the **HEADER** section and click once to release it. The text **Label** will appear within the rectangle and also in the text edit box in the top left hand corner of the **REPORT EDITOR**. The text can be edited by moving

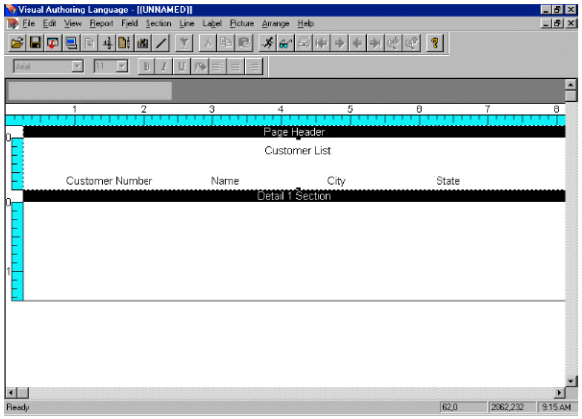
the cursor within the text edit box and single clicking the left mouse button. Now change the word **LABEL** in the text edit box to *CUSTOMER LIST* and press Enter. The text rectangle in the report expands to hold the larger amount of text.

To finish the report title we will use the VAL centering option. Select the menu option **Edit**, submenu option **Center**. This will center the active text box in the report. While this label is highlighted you can increase the font size, change the font type, and change the text color using the font toolbar. Please note that the text toolbar button for centering aligns only within the actual text box itself, not the whole report.

Next we'll insert a system field for page number. Click the ***System*** toolbar icon. Select the PAGE option. Drag the new dashed rectangle to the right of the report title and press the left mouse button. This will insert a page number at the top of each report page.

Finally we need to add 4 labels to mark the detail columns. Create the labels **Customer Number**, **Name**, **City**, and **State** and space them evenly on the bottom of the **HEADER** section.

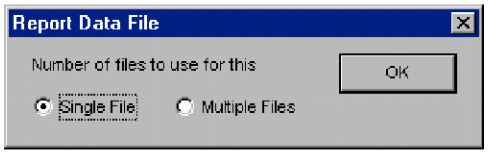
You can reduce the size of a section by clicking anywhere in the white space of that section which will create anchor points at the top and bottom of the section which you can drag up or down to reduce or increase that section's size. You should have something like this:



5.4 Designing the Detail Section

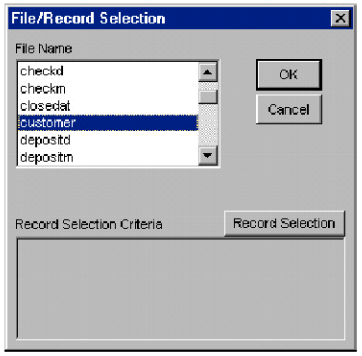
The **DETAIL** section of our report will be populated with fields from the customer data file. After the application name is set, you can now select the data file(s) that the report will use for information.

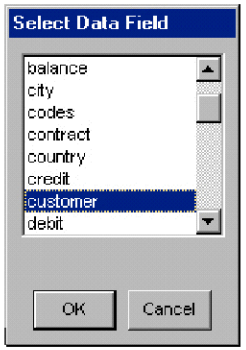
Select the **Data** icon  from the toolbar. You will be asked if this report will be using single or multiple datafiles. Select single data file.



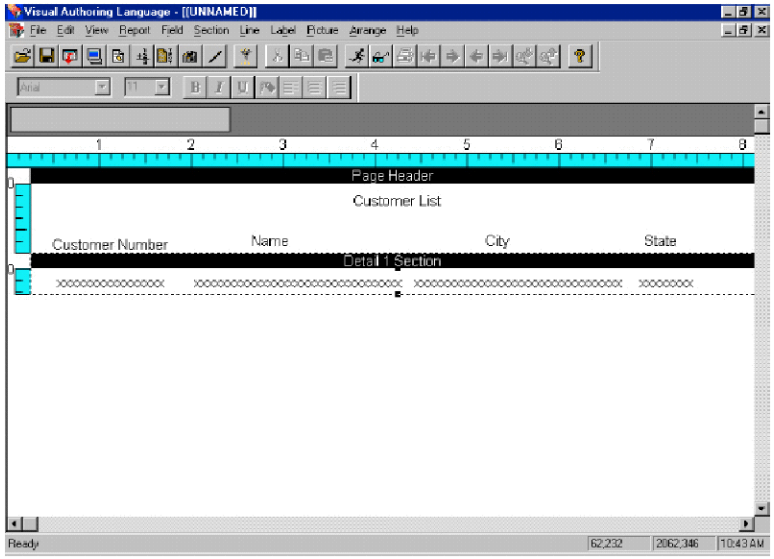
A dialog will display a list of available data files for this application and ask for the name of the data file to be used. For this report select the data file named **customer**.

Once the data file is selected, you will not have to select it again. Now a new dialog box will display a list of the fields contained within the selected data file. It is from this list that we will design the details for this report.





Each time a field is selected a dashed rectangle filled with **xxx** 's will be created. From the dropdown list select the field **customer** which is the customer number. Drag and drop the **customer** data box at the desired location in the DETAIL section under the column text you created in the **HEADER** section called **Customer Number**. Now simply perform the same drag and drop procedure for the fields — **name**, **city**, and **state** placing them under the appropriate **HEADER** labels. The final resulting report looks like this:



The size of the detail section was reduced to be as small as possible by using the anchor points previously described. This will allow more detail lines to be displayed per page.

See Appendix A for a list all of the standard variables that the Conetic programs use.

The **GRACE** program also has been enhanced to allow fast generic printing. Generic printing sends the report to the printer as text only. There is no font information. This greatly speeds up the printing especially on dot matrix printers. The generic printing is activated by first creating a printer (through the standard Windows Add Printer setup) with the Windows generic driver and prefixing the printer name with "Generic", i.e. Generic HP, Generic Epson, etc. When you want to generic print click the **To Printer** checkbox in the **GRACE** dialog and select the "Generic" printer. **GRACE** will sense that a generic printer has been selected and send the report out to that printer as text only.

6 WHAT'S NEW

6.1 Overview

The Windows environment has opened many new avenues for the Conetic product lines. This dynamically linked (dll), graphical arena is the catalyst for a new generation of tools and products which has opened the door to a new breed of Conetic applications. Tools that allow the free exchange of Conetic data between products like Microsoft's Word and Excel. Data entry forms and menus have a whole new look and feel without losing the powerful functionality of their character-based cousins. The **GRACE** report writer touts a sexy, new look and has enhanced graphical printing capabilities. Older proven GRACE reports have new unchallenged drill-down functionality, allowing the user to drill to transaction records and digital scanned paper.

6.2 Compilers and C/Base API's

The Version 5.6 of C/Base and C/Books was compile with Microsoft C/C++ version 6.0 compiler. The Conetic products are dynamically linked to 3 main DLL libraries. These libraries handle all the RMS functions and screen handling routines. The new C/Base Object module allows programmers to access the C/Base functions using much simplified C++ and Visual Basic routines. The monotonous programming task of declaring fields and structures, and opening files is handled with one line of code in Visual Basic or C++. Processing data has never been easier.

6.3 Menu Enhancements

The MENU program has been modified to combine the Windows menu bar structure with a built-in browser. The browser is based on Microsoft's Internet Explorer, however it has been enhanced for integration with C/Base and C/Books. Great pains were taken to maintain the syntax and functionality of menus that users have grown accustomed to and expect. With very few changes to the standard Conetic menu file the Windows version of MENU now supports:

- Dropdown lookups in parameter forms
- Background color
- Background bitmap *tiled, center,* and *stretch*
- Cascading menus
- Calendar button lookups and number spindles in parameter forms
- A printable error message box
- Acceleration keys
- Full support of pipes (|) and redirects (<,>)
- Tab Controls - provides a simple method for switching between screens
- Built-in security structure; granting or no-granting user access to menus or specific options.

6.4 Data Entry Screen (FORM) Enhancements

The data entry screens have been given a major overhaul in both appearance and functionality. As with MENU the FORM program has maintained a backward compatibility. Data Entry forms developed in a character-based mode will run without modification in Windows and it will support all the new features. Some of the new FORM features are:

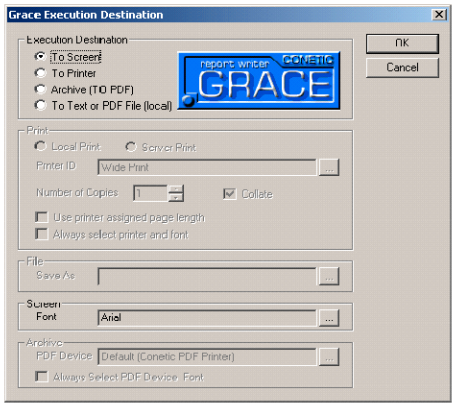
- Quick indexed dropdown lookups in entry fields
- Background color
- Background bitmap tiled, center, and stretch support
- Comprehensive dockable toolbar
- Calendar button lookups and number spindles
- Flat or 3D field display.
- A status/error bar
- A help window supporting standard FORM help file
- Built-in memo form interface
- Built-in scan and file support. (Digital paper archiving)

The standard FORM function keys still work (F1-F8) along with validation form lookups.

6.5 Reporting (GRACE) Enhancements

The 4GL GRACE report language hasn't been altered. Older reports will run with out change. What has changed about GRACE is a new appearance and a much improved printing capability. When a report is run in Windows, GRACE will display the following dialog:

This dialog allows the use to select the output destination, printer destinations, and output fonts. If licensed, the new print dialog will allow you to Archive your report in a PDF format and store on the server. In addition, the Archive license also provides a PDF converter. Which enables the user to print to a PDF data file. This is a nice option when wanting to email a report or invoice to a customer.



GRACE Printer ID's have been improved to allow more control of windows print attributes. The Printer ID configuration process allows the user to select and set, *font, font style, point size, paper size, firstline of report, lastline of report, and pagelength of report.* Once a Printer ID is configured, reports are assigned to you can setup any number of printers for GRACE to use and assign an application's reports to these printers. Section 2.2.1 describes the printer setup process in detail. From the GRACE dialog you can send a report to the assigned printer or to any other printer defined or not. You can also elect to override the reports set page parameters and use the page parameters defined for the Printer I.D.

All of the above selections can also be preset using environment variables in the CSSMENU.INI file. The following is a brief description of the most common variables the GRACE program uses:

If any of the following 3 variables are set to "yes" the GRACE dialog will not display. Do not set more than
one of these variables to "yes", unpredictable results will occur.

1. **TOFILE** = "yes" | "no" => send report to a file
    1.1 **OUTFILE**: name of output file
2. **ONPRINTER** = "yes" | "no" => send report to a printer
    2.1 **CHECKPRINT** ="yes" | "no" => always ask for a printer destination
    2.2 **PRINTID =** "defined Printer I.D. to send report to"
3. **TOSCREEN**: "yes" | "no" => send report to the screen

See ***Appendix A*** for a list all of the standard variables that the Conetic programs use.

The **GRACE** program also has been enhanced to allow fast generic printing. Generic printing sends the report to the printer as text only. There is no font information. This greatly speeds up the printing especially on dot matrix printers. The generic printing is activated by first creating a printer (through the standard Windows Add Printer setup) with the Windows generic driver and prefixing the printer name with "Generic", i.e. Generic HP, Generic Epson, etc. When you want to generic print click the **To Printer** checkbox in the **GRACE** dialog and select the "Generic" printer. **GRACE** will sense that a generic printer has been selected and send the report out to that printer as text only.

6.6 New Programs

Several new programs have been added to the Conetic repertoire to allow for greater flexibility and customization of the product.

6.7 Printer Setup (Prtsetup.exe)

C/Base now has extensive printer setup capabilities for reports. The **PRTSETUP** utility can be run from the Conetic group icon **Printer Setup** or from within the C/Books main menubar **Setup** -> **Printer Setup**.

System printers are selected, defined, and assigned a Printer I.D. for use by the **GRACE** program. Every system printer can have a print type/font characteristic associated with it such as wide, compressed, landscape, etc. Each system printer can have an unlimited number of Printer I.D.s. After one or more Printer I.D.s are setup you can assign specific reports to that I.D. The **PRTSETUP** dialog will display all the reports for an application. Simply select the desired Printer I.D., highlight the report name and click the ADD button. The reports that have printer assignments will have the Printer I.D. appended to them. When a printer I.D. is selected from the dropdown list all the reports that belong to that printer will be displayed in the **Assigned Reports** listbox. Clicking OK or Save will apply all new assignments. When GRACE runs a report with a printer assignment the GRACE dialog will display the assigned Printer I.D. as the default printer when the report output is to "To Printer". Please see section 2.2.1.1 for more details on **PRTSETUP**.

6.8 Environment Variable Setup (cssenv.exe)

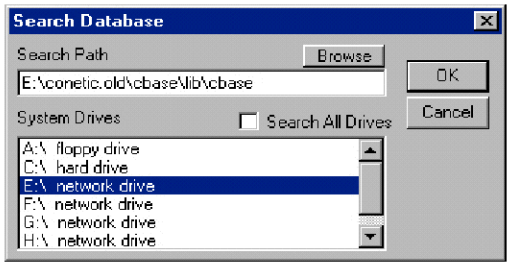
The TCLENV tool allows to you to graphically setup the most common Conetic environment variables. Appendix A contains a list of standard Conetic variables that populate the CSSMENU56.INI file. The utility allows you to set these variables without you having to know what they are. TCLENV is used to change the default values for colors, fonts, and various other settings. When the CSSENV utility is run it displays the default values for the variables. When you click OK any changes you've made will become the new defaults.

The TCLENV tool is run from an icon on your desktop. A tabulated dialog is shown displaying the parameters that can be set along with their current settings. A tab for custom variables is included to allow you to create new items and their default settings.The variables that require pathnames have browse buttons. The color setups have a color selection dropdown button. Some selections are displayed as scrollable lists. Once you have made all your changes and selections click OK to save them.

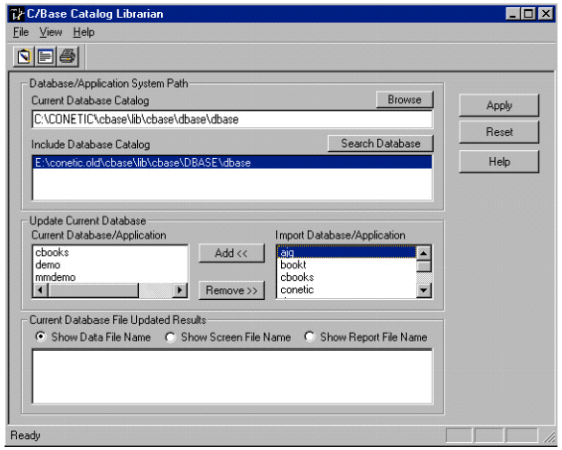
6.9 Catalog Librarian

The C/Base Catalog Librarian utility automates the process of transferring an existing database application's catalog entries from a source Conetic master catalog to a target Conetic master catalog. The source catalog may be on the local machine or it may be the master network catalog. The Librarian will read all the entries for the selected application(s) in the source catalog and remap them relative to the target catalog. The target catalog then has the remapped entries added to it's DBASE(application's name/ directory), LFILE(applcation's logical file), SFILE(application's data entry screens), and RFILE files(application's report files).

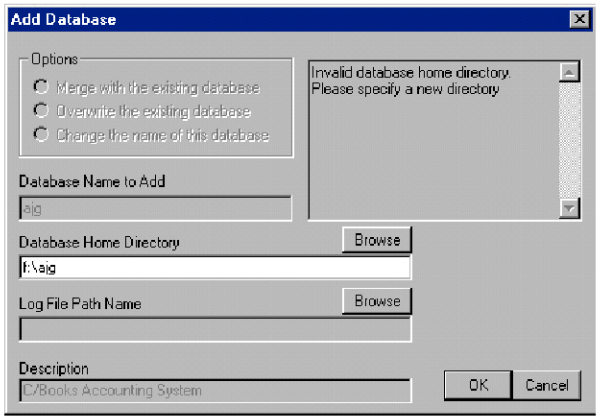
This Librarian utility is essential for networked applications where an application on the server machine may be in **C:\mydir\newcbase**, but on a networked machine the location is **f:\newbase**. In addition to properly remapping an application the librarian will verify that the home directory of the application exists relative to the target machine and that each of the RMS files, screens, and reports are in the proper locations. When you click on the **Catalog Librarian** in the Conetic group you will see this initial screen:



If the search returns several different catalogs to the **Current Database Catalog** listbox you will have to choose one and highlight it in order to proceed. When you select your desired source catalog the librarian will populate the **Import Application/Database** listbox with all the cataloged databases in the selected source catalog. It is from this listbox that you can select which database(s) to copy from the source catalog to the target catalog. In the example below the **ajg** database from the **E:\CONETIC.OLD\CBASE\LIB\CBASE\ DBASE\DBASE** catalog has been selected to be cataloged to the **C:\CONETIC\CBASE\ LIB\CBASE\DBASE\DBASE** catalog.

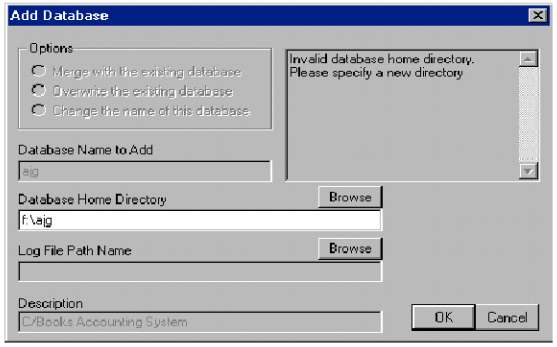


When the **ADD** button is clicked the librarian will display an **Add Database** dialog asking for the home directory of the selected database application. This is the location of the home directory relative to the machine you're currently on. For instance, on the server machine the location of the **ajg** database is c:\ajg, but you've got the server mounted as f:\. So you would enter f:\ajg as the home directory. The librarian will verify that the given location does exist.

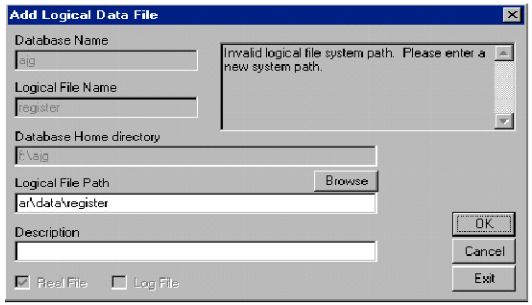


Once the home directory is verified the librarian will then begin making entries for all the RMS files, screens and reports using the given home directory as a relative starting point. Each item is verified to exist before being cataloged. If the librarian fails to find something a dialog is popped asking for the location of the missing file.

When the **ADD** button is clicked the librarian will display an **Add Database** dialog asking for the home directory of the selected database application. This is the location of the home directory relative to the machine you're currently on. For instance, on the server machine the location of the **ajg** database is c:\ajg, but you've got the server mounted as f:\. So you would enter f:\ajg as the home directory. The librarian will verify that the given location does exist.



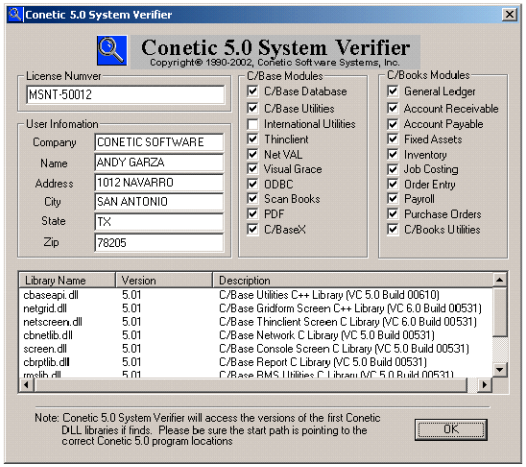
Once the home directory is verified the librarian will then begin making entries for all the RMS files, screens and reports using the given home directory as a relative starting point. Each item is verified to exist before being cataloged. If the librarian fails to find something a dialog is popped up asking for the location of the missing file.



If you press **Cancel** in the dialog the librarian skips the RMS file, screen, or report without making an entry and continues with the copy process. If you give the dialog a new location to look and it's verified the librarian will make the entry accordingly.

When the librarian has finished making all the entries it will display a congratulatory banner. At that point you will have access to the selected database through your current catalog. You can use the TCLENV utility described previously to set your database to, as in the example, **ajg**.

6.10 C/Base Systems Verifier



The C/Base System Verifier is a utility program that provides detailed information about the Conetic programs and libraries installed. The primary objective is to provide detail information on what version, release, and patch level your software is currently running. Great for support!

7 COMPILING C PROGRAMS

The Conetic system programs were compiled on Microsoft's Visual C++ Version 4.2 compiler. The FORM.EXE program, all the useredits, MENU.EXE, and most of the new utilities are MFC C++ programs. The older programs such as PULL.EXE and MAKELF.EXE remain as C applications. All of the Conetic programs are linked to DLL's. The four main DLL's are called CSSLIB.DLL, RMSLIB.DLL, WSCREEN.DLL and SCREEN.DLL.

7.1 Compiler Setup

There are 5 things that must be set in the compiler.

1. The include file search path (**Tools=>Options=>Directories=>Include Files**) must contain:
   1.1 the C/Base include directory in the C/Base home directory
   1.2 the newmfc include directory in the C/Base home directory
2. The library file search path (**Tools=>Options=>Directories=>Library Files**) must contain:
   2.1 the C/Base lib directory in the C/Base home directory
   2.2 the newmfc lib directory in the C/Base home directory
3. The following 3 Conetic DLLs must be added to the link line (**Build=>Settings=>Link=>Object/Library Modules**) in the given order.
   3.1 WSCREEN.LIB (or SCREEN.LIB for character based programs)
   3.2 RMSLIB.LIB
   3.3 CSSLIB.LIB
4. Add the flag _SECDLL to the preprocessor definitions (**Build=>Settings=>C/C++=>General=>Preprocessor Definitions**)
5. Turn off precompiled headers (**Build=>Settings=>C/C++=>Precompiled Headers**)

7.2 Developing/Port User Edits

The useredit programs are developed using C++ and must be **ANSI** compliant. The code can be written in **C**, but the project must be a MFC project and program must have a **.cpp** extension. Whether you are starting a program from scratch or porting an existing useredit program the following rules apply:

7.2.1 All procedures must be predeclared.

7.2.2 Every procedure's parameter list must be ANSI compliant i.e. type declarations are included in parameter list instead being declared below it.

7.2.3 In order to properly link to the functions contained in the DLLs add the line **#include <cbase/libfunc2.h>**

7.2.4 Remove the **main()** procedure and replace it with the following

```
StartProc(int argc, char **argv)
{
// do any initialization here
        return 0;
}
```

7.2.5 The following nine modules are include in the distribution and must linked to your useredit program:

7.2.5.1 booldiag.obj
7.2.5.2 mainfrm.obj
7.2.5.3 newform.obj
7.2.5.4 newformdoc.obj (or newfrmdc.obj)
7.2.5.5 newformview.obj (or newfrmvw.obj)
7.2.5.6 secbmpdg.obj
7.2.5.7 stdafx.obj
7.2.5.8 newform.res
7.2.5.9 stdafx.h

A sample Magazine Subscription System useredit project is contained in the home directory of C/Base under **demo\winsrc\wsform**.

After you have the compiler configured as described in section 7.1 and written your useredit you are ready to begin. The easiest way to start a new useredit project is to create a MFC project through the Microsoft C++ Developer's Studio. Place the project in any location and accept all the wizard's defaults. Once the project has been created delete all the **.cpp**, **.rc**, and **.h** files from the project home directory and the project's file list (in the Project Workspace click File View, double click project name, delete every file from the list).

Now add the files listed in section 7.2.5 to the project through the menu item **Insert =>Files into Project**. You may copy the files into the project's home directory or you may link to them from a standard location. Finally add you own **.cpp** useredit program to the file list and then build the project.

7.3 Other C Programs

Programs other than useredits can be written with either C or C++. All the Conetic function calls and return values remain the same. If you write a C program do not include the **libfunc2.h** file and you may create the project as an application instead of MFC project.

Appendix A

A.1 Conetics and the Environment

The Conetic programs look to a file named CSSMENU.INI located in the C:\ directory for their system variables. These variables control such things as the directories for the master catalog, tmpfiles, and application home directories. The variables also control the currently active database application being run and names of various hi/lo values for reports.

A.2 VAL Environment Variables

Variable Name	Function
AVI	The location for AVI files to be used by form. If this value is not set, the location for AVI files defaults to %CBASE%\AVI.
BITMAP	The location for bitmap files to be used by form. If this value is not set, the location for bitmap files defaults to%CBASE%\BITMAP.
CBASE	The location for the C/Base catalog files, i.e. CBASE=c:\conetic\cbase\lib\cbase. **This is a required variable.**
CHECKPAGE	This variable set to "no" will turn off the GRACE report check that warns if a report's font settings exceed the size of the page and will cause GRACE to use the settings unaltered. Default is "yes".
CHECKPRINT	This variable set to "yes" will cause GRACE (WTR) to always display a printer/font selection dialogs for reports sent to the prnter.
COUNTRY	The variable which contains the name of a country, used to change Conetic language resource files, i.e. COUNTRY=39. Used as a part of the International Utilities module.

CSSIN	The name and directory location of the input file for a Win dows Conetic command. (See Special Considerations below).
CSSOUT	The name and directory location of the output file for a Windows Conetic command. (See Special Considerations below).
DBASE	The name of the database being presently utilized, i.e.DBASE=demo. **This is a required variable.**
DBHOME	The home directory of database that is currently being used.
DEFPAGELEN	This variable set to "yes" will cause GRACE (WTR) to overwrite the page length set in a report and use the page length set in the Printer ID assignment for the report. If the report does not have a printer assignment then this variable has no effect.
DEFSCHEDULE	This variable allows you to set the default schedule print job to "nowait" or "regular".
EDITOR	The name of the editor that report editor will use.
ERRORBEEP	This variable set to "no" will turn off the data entry screen's tone when errors are displayed in the status pane. Default="yes".
ERRORLOG	This variable set with a pathname and file name will cause all data entry screen errors to be written to the specified log file.
EXIT	This variable is set by Conetic programs to indicate their exit status to other programs such as MENU. In general you should not try to set this parameter manually.
FONTMAX	This variable is used to set the maximum font size allowed to be selected from the font dialog box.
FORMBMP	This variable will set the path and filename for a bitmap to be used for the data entry screens' background.

FORMSTYLE	This variable is used to set the style that will be used to display the background data entry screen bitmap. The values are "CENTER", "FILL", "TILE", and "TOPLEFT". The default is "TILE".
LINEHEIGHT	This variable sets the height of printed GRACE report lines in pixels.
MAXPAGE	This variable set the maximum number of pages for a GRACE report. The default is 999 pages.
MENUBMP	This variable will set the path and filename for a bitmap to be used for the MENU program's background.
MENUSTYLE	This variable is used to set the style that will be used to display the background menu bitmap. The values are "CENTER", "FILL", "TILE", and "TOPLEFT". The default is "TILE".
NCOPIES	This set the number of copies of a report to be printed usually set by GRACE.EXE, i.e. NCOPIES=1 .
ONPRINTER	A boolean flag to determine whether reports go to the printer or not, usually set by GRACE.EXE, i.e. ONPRINTER=yes. Default is "no".
OUTFILE	The path and filename that GRACE will sent a report if TOFILE is selected.
PANETEXT	This value allows you to change the "**Ready To Proceed**" FORM status bar text to any string less than 80 characters.
PATH	The path to the directories which contain the Conetics executable programs. This variable must be set in the system environment rather than in the CSSMENU.INI file.
PRINTER	The name of a printer to send a report file. This is generally used for the character based version of GRACE.
PRINTID	This variable sets the Printer ID for all reports which will override the PRTSETUP assignments.

PRTINI	This variable allows you to change the path where the PRTSETUP files PRTSETUP.BIN and CSSPRT.INI files are located.
RETBEEP	This value set to "no" will turn off the FORM beep sound when moving from field to field. The default is "yes".
RGROUP	The report group for the Print Scheduler module. This should be set in MENU. See Scheduler help file for details.
RPATH	The path to the directory which contains the Conetic resource files, overrides the CBASE variable, i.e. RPATH=C:\CBASE\LIB\CBASE\RESOURCE.
RPRINT	The variable set to "yes" will prevent the GRACE dialog from appearing for a scheduled print job.
RSTATUS	This variable if set to "yes" will display a dialog box when a scheduled print job has finished. Default = "no".
SCR_FACENAME	This variable controls the screen font name for FORM and GRACE. This should be set through the CSSENV utility.
SCR_HEIGHT	This variable controls the screen font height for FORM and GRACE. This should be set through the CSSENV utility.
SCR_ITALIC	This variable controls if the screen font is italic for FORM and GRACE. This should be set through the CSSENV utility.
SCR_POINTSIZE	This variable controls the screen font point size for FORM and GRACE. This should be set through the CSSENV utility.
SCR_STYLE	This variable controls the screen font style for FORM and GRACE. This should be set through the CSSENV utility.
SCR_WEIGHT	This variable controls the screen font weight for FORM and GRACE. This should be set through the CSSENV utility.
SEL	This variable is set by MENU to identify the selected option.
TERM	The name of a terminal type used by Conetics programs running under MS-DOS, i.e. TERM=DOS, TERM=BLUE, etc.. running under Unix TERM=4410, TERM=wyse50, etc.... Terminal definition files are located in the *"conetic5/cbase/lib/cbase/escape"* directory.

TMPDIR	The location of an existing directory which will hold temporary files. **This is a required variable**.
TOFILE	A boolean flag used to determine whether to send a report output to the screen or to a file.
TOOLDOCK	This variable allows you to change the default dock location of the FORM toolbar to "BOTTOM", "LEFT", "RIGHT", "TOP". The default is BOTTOM.
TOSCREEN	This variable set to "yes" the GRACE report will be sent directly to the screen without the GRACE dialog box asking.
VALDEST	This variable sets the output destination for a VAL report("file", "printer", "screen")
VALINI	This variable will change the location of the CSSVAL .ini environment file. It contains the pathname to the new location. The default is **cbase/lib/cbase** under the home directory of C/Base.
VALSTATUS	This variable set to "yes" will display a status information box of the VAL report execution.
VDROPPAGELEN	This variable controls how many initial items will be displayed in the data entry form's validation dropdown list. (You may scroll through the entire list but only VDROPPAGELEN items will be displayed at one time.) The default is 25.

A.4 Special Considerations

Under the Windows environment a command line (run from a menu, icon, or Program Manager) cannot contain any redirection symbols or pipes, i.e. > , < , | . Conetic Windows commands such as PULL.EXE and PUT.EXE check the environment as described above for variables CSSIN and CSSOUT. The variable CSSIN denotes a pathname to a file which will be used as input to the executed command, i.e. CSSIN=C:\TMP\INPUT. The variable CSSOUT denotes a pathname to a file to which the output of the given command will be sent, i.e. CSSOUT=C:\TMP\RESULT.

The variable TMPDIR must be set when running under both Microsoft Windows and MS-DOS in order for GRACE.EXE to process the report correctly. The TMPDIR variable is set to an existing directory which will be used to hold the intermediate report files used by GRACE.EXE, i.e. TMPDIR=C:\TMP.

Appendix B

B1. C/Books File Changes for Version 4.2

The following C/Books RMS files were changed in the new version to facilitate the use of quick lookup feature in the data entry screens.

RMS File	Location	Alteration
vendor	ap/data/vendor	Add the field **name** as a secondary index
customer	ar/data/customer	Add the field **name** as a secondary index
product	in/data/product	Add the field **description** as a secondary index
glacct	gl/data/glacct	Add the field **name** as a secondary index
dept	ss/data/dept	Add the field **name** as a secondary index
salestax	ss/data/salestax	Add the field **name** as a secondary index
terms	ss/data/terms	Add the field **description** as a secondary index
employee	pr/data/employee	Add the field **name** as a secondary index
deductm	pr/data/deductm	Add the field **description** as a secondary index