

# DataEase User's Guide

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## Copyright and Trademarks

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## Sales and Support

### United Kingdom

Sapphire International  
Lambourne House  
7 Western Road  
Romford  
Essex  
RM1 3LD

Tel: +44 (0)1708 333 700

Fax: +44 (0)1708 333 800

### United States

Sapphire International Limited  
3060 Main Street  
Suite 202  
Stratford  
Connecticut 06614

Tel: +001 203 375 8668

Fax: +001 203 375 1965

## **Acknowledgments**

### **DataEase 6.5 is the product of:**

Peter J. Tabord

### **Engineering**

Eugene V. Bragin

Paul Davis

Andrey Drozdov

Alexander P Dymov

Duncan Ferguson

Kevin Glossop

Alexander N. Glushakov

Andrew Y. Puzfrew

### **Quality Assurance**

Tim Griffith

Mark Povey

Wayne Roberts

Catriona Tabord

Anne Williams

### **Documentation**

Dave Morgan

### **Marketing**

Katia Robertson

Paul Temple

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Paul Kinch

Helen Leahy

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## Introduction : A User's View of DataEase

### Welcome to the User's Guide

Welcome to the **DataEase User's Guide**. This guide explains how to start **DataEase** and sign on to a custom application, open previously designed record entry forms, view records, print reports, and use the following special features:

- Application Catalog
- Toolbar
- Query By Form (QBF)
- Query By Model (QBM)
- DataEase Multiforms
- Command Buttons
- Custom Menus
- Dynamic Data Exchange (DDE)
- Object Linking and Embedding (OLE)
- Transparent SQL Connectivity

This documentation includes an introduction to the DataEase graphical user interface, special guidelines for using DataEase in a Client-server environment, and reference information for all data entry, record searching, database administration, and routine maintenance tasks that the users of an application need to understand.

### Who Should Read this Documentation

This guide is written for people who enter and modify data, search for information, run predefined reports, and carry out other day-to-day tasks to manage data in a custom application.

If you are not familiar with DataEase, we recommend that you begin by performing the hands-on lessons in the **DataEase Quick Start Guide (QSG)**.

If you are responsible for designing custom applications, you'll find reference information on creating tables, forms, reports, and menus, defining relationships, and other database design guidelines in the **DataEase Designer's Guide (DG)**.

If you are an application designer, system administrator, or experienced user who wants to extend the power of your applications by creating DataEase Query Language (DQL) programs, you'll find the information you need in the **DataEase DQL Programmer's Guide (DQL)**.

**Note:** If you haven't installed DataEase, follow the installation instructions in **Appendix A** at the back of this guide. For information about using DataEase to access an application built with a character-based version of DataEase, see the **Conversion Guide**.

## How this Documentation Is Organized

This documentation is organized into three sections, as follows:

Section I, **Orientation**, includes several introductory chapters that present a general overview of the features available in User View. If you have never used DataEase before, we recommend that you read this section before trying to use the software. Section I contains Chapters I-2.

Section II, **Menus**, includes a separate chapter for each menu in User View. These chapters are presented in the order the menus appear on the Menu Bar, beginning with the File menu on the left and ending with the Help menu on the right. Section II contains Chapters 3-10.

Section III, **Appendices**, includes one or more appendices (identified by the alphabetical characters A, B, C, etc.) that contain infrequently used technical information, such as special Client-server environment guidelines. Section III contains Chapters A-B.

## Typographical Conventions

Throughout the DataEase manuals, we've used the following typographical conventions to make the documentation easier to understand.

Term	Typeface Used	Example
Glossary Term	Italic	<i>Data Model</i>
Menu Option	Bold	<b>File&gt;&gt;Open</b>
Function Key	Uppercase	F7 DELETE RECORD
Document/Table Name	Uppercase	MEMBERS
Field Name	Small Capitals	FIRST NAME
DQL Term	Bold Lowercase	<b>highest of</b>
SQL Command	Uppercase	CREATE TABLE

Glossary terms with special meaning in DataEase are printed in italics the first time they occur in the text and are defined in the on-line glossary available in Help.

## Getting Help

The Help menu on the right end of the Menu Bar is used to access the DataEase Help system. The DataEase Help system is a separate hypertext program that runs in its own moveable, resizable window and operates concurrently with DataEase. This program uses many of the standard navigational tools the Windows Help system provides.

To quickly access the DataEase Help system, press F1 HELP. To display specific help on a menu option, dialog, or Toolbar button, press Shift + F1 CONTEXT-SENSITIVE HELP.

## Sample Application

**Club ParaDEASE**, the sample application shipped with DataEase, is based on a fictitious travel industry organization. This application is used throughout the DataEase documentation to illustrate data entry, application query, form/report design, and other important procedures, and help you learn how to use a DataEase application in a realistic context.

Our sample application, **Club ParaDEASE**, runs an expanding set of resort clubs situated in exotic locales around the world. Each club provides the setting for a week-long vacation package, with air/land travel arrangements, accommodations, and other hospitality services included at a discount price. Special facilities, equipment, and intensive training workshops are offered for various sport activities at each club.

### How Club ParaDEASE Works

Club ParaDEASE uses forms to enter, update, and report information about Clubs, Activities, Members, Reservations, and other aspects of club business. The CLUBS form is shown below.

The screenshot displays the 'CLUBS' form in the Club ParaDEASE application. The form is titled 'CLUBS' and includes navigation buttons for 'Previous' and 'Next'. The main form area contains the following information:

- Club Name:** Playa Blanca
- Telephone:** (52) 333-20440
- Street:** 497 Costa de Chamela
- City:** Jalisco
- Country:** Mexico
- Description:** Playa Blanca, located 120 miles south of Puerto Vallarta on Mexico's sunny Pacific coast, is our hottest winter holiday vacation spot. Enjoy snorkeling, deep-sea fishing, and peppery cuisine.
- Map:** A map of Mexico with a red pin indicating the location of Playa Blanca.
- Activities:** A row of icons representing various activities: Baseball, Waterski, Biking, Hangliding, Snorkel, and Theater.

On the left side of the form, there is a sidebar with the following information and controls:

- Club ID:** 00001
- Rooms:** 196
- Buttons:** New, Save, Delete, Close, Activities, Reservations.

## What Is DataEase?

DataEase is an innovative program that combines the organizational power of the DataEase relational database management system with the popular and easy-to-use graphical user interface of Microsoft Windows. This unique combination of native relational database power, instant SQL connectivity, and point-and-click desktop application development makes DataEase the premier tool for building sophisticated business applications.

## Visual Database Applications

DataEase is a visual database manager that integrates any kind of graphical information (photos, line drawings, scanned images, etc.) with the text and numerical information normally found in a business database. DataEase lets you include pictures of people, places, and objects in a fully relational database application. This feature makes DataEase an ideal tool for managing all kinds of visually-oriented data, such as art and advertising comps, blueprints and engineering drawings, manufactured part assemblies, personnel records, etc.



## Client-Server Applications

See **USER GUIDE Appendix B** for information about using DataEase in a Client-server environment.

See **USER GUIDE Chapter 1** for information about the Windows environment.

When DataEase first appeared, many organizations were just beginning to migrate from paper-based file systems to computerized record keeping. Today, in contrast, most business organizations have accumulated a vast amount of data that now exists in a variety of formats from different vendors. Using industry-standard ODBC drivers, DataEase provides instant, completely transparent connectivity to any number of existing data sources, including IBM DB2, Microsoft/Sybase SQL Server, Oracle Server, and other leading SQL database engines.

## Microsoft Windows Environment

Because DataEase runs in the Microsoft Windows environment, you may already be familiar with its pull-down menus, dialogs, and mouse-controlled selection techniques. Unlike other database systems, you don't have to memorize complex commands to enter data, find specific records, or run reports.

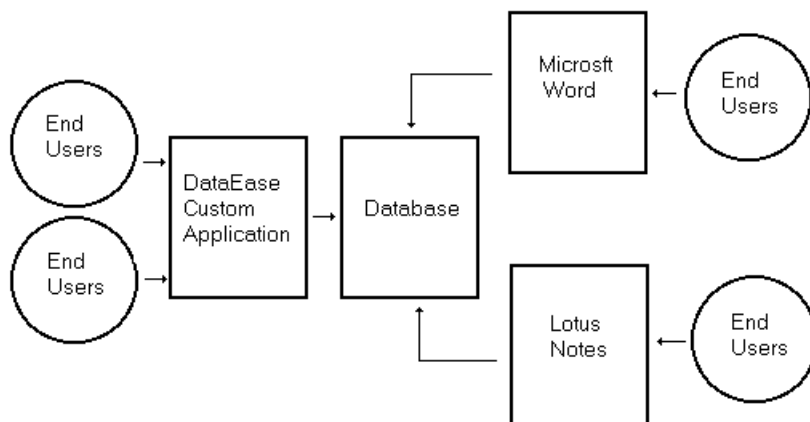
If you haven't used Windows previously, be sure to read the **Microsoft Windows User's Guide**. Most Windows programs use similar techniques to open, print, and close files; cut, copy, and paste data; and perform many other standard operations.

## Terms and Concepts

This section provides some brief definitions to help you understand how DataEase works and what it can do. Terms are introduced in alphabetical order.

### Application

A DataEase application is a custom program that performs organization, calculation, and other business record-keeping and reporting tasks. With DataEase, organizations can quickly create customized applications that track customers, sales, appointments, reservations, employees, expenses, or any other type of data.



### Database

A database is simply a collection of related information (data). An example of a commonly used database is the phonebook. A DataEase database contains data stored in the DataEase Native engine format.

### Database Table

The data in a database is stored in one or more tables. Each table is a rectangular array that holds data about one specific entity (a person, place, or thing). A database table consists of a varying number of named columns and unnamed rows. Each column in a table defines one attribute of the entity (e.g., last name, first name, department, salary, etc.). Each row represents one instance of that object (e.g., the name, department, and salary of a particular employee).

**EMPLOYEES**

<b>EMPLOYEE ID</b>	<b>LAST NAME</b>	<b>FIRST NAME</b>	<b>DEPARTMENT</b>	<b>SALARY</b>
425	Carlyle	Robert	Accounting	24800
524	Delucca	Anthony	Sales	26380
525	Prentiss	Barbara	Sales	27400
630	Black	Michael	Shipping	25625

## Document

A document is an application object that is used to enter, view, manipulate, or print data, or simply help a user move from one part of the application to another. A DataEase application can contain four types of documents: form, report, menu, or procedure.

The screenshot displays the Club ParaDEASE application interface. At the top, the title 'MEMBERS' is shown with 'Previous' and 'Next' buttons. The main area is divided into several sections:

- Form:** A data entry form for member information, including fields for Last Name, First Name, Initial, Street, City, Expiration, and Favorite Activity. A label 'Form' points to this section.
- Menu:** A vertical list of buttons on the left side: New, Save, Delete, Close, Clubs, and Reservations. A label 'Menu' points to this section.
- Procedure:** A code block at the bottom left showing a DataEase Query Language (DQL) procedure. A label 'Procedure' points to this section.
- Report:** An 'ACTIVITY SURVEY' report table on the right. A label 'Report' points to this section.

The 'ACTIVITY SURVEY' report table contains the following data:

Activity Name	Members favoring activity	Percent favoring activity
Baseball	6	3.0
Tennis	25	12.4
Biking	12	6.0
Snorkel	10	5.0
Sailing	2	1.0

```

if data-entry ROOMS_REQUIRED > any CLUB ROOMS with
(DEPARTURE DATE = data-entry DEPARTURE_DATE and CLUB ID =
data-entry CLUB_ID) VACANCIES then
    message "Not enough rooms are available. | Please
else
    while current status not = 1 do
        input using MEMBERS into "TEMPMEM" .
        case ( current status )
            value 1 :
                exit .
            value 2 :
                modify records in CLUB ROOMS with
                (CLUB ID = data-entry CLUB ID and

```

**Form** accepts, validates, and displays data stored in one or more database tables. A form is used to enter, view, modify, delete, or search for records on the screen.

**Report** displays data from one or more tables in a convenient layout on screen or on paper. A report is frequently used to print a list of sorted and/or grouped records to help the user analyze a specific set of data. You can use QBF (Query By Form) or QBM (Query By Model) to filter the data displayed in a report or form.

**Menu** displays a list of choices. Each choice tells DataEase to perform a specific task, such as open a form or print a report.

**Procedure** lets you use the DataEase Query Language (DQL) to perform a task(s), such as generate a report, manipulate data directly, or control access to an application.

## DQL

DataEase Query Language (DQL) is the language used to define and manipulate data in the DataEase Native engine format. See **Appendix A, Using DataEase in a Client-Server Environment**, for more information about the DataEase Native database engine.

## Field

A field is a document object that corresponds to a column in a database table. A field represents the smallest complete unit of information about one person, place, or thing.

## Multiform

A Multiform is a set of two or more related forms that appear on the screen at the same time and behave as if they were a single form. A Multiform is made up of a Main form and one or more Subforms.

The screenshot shows a DataEase application window titled "MEMBERS". The window is divided into a "Mainform" and a "Subform".

**Mainform:**

- Top left: Logo for "Club ParaDEASE" with the tagline "The Antidote to Documentation".
- Top right: "Previous" and "Next" navigation buttons.
- Left sidebar: A vertical menu with buttons for "New", "Save", "Delete", "Close", "Clubs", and "Reservations".
- Member ID: 00202
- Form fields: Last Name, First Name, Initial, Street, City, Zip Code, Expiration Date, Telephone.
- Form fields: Favorite Activity, Method of Payment, Card No.

**Subform:**

- Title: "Family Members"
- Table with columns: First Name, Last Name, Date of Birth.
- Membership Fees section:
 

Adult Annual Fee	\$35.00
Child Annual Fee	\$15.00
Adult Fees:	0
Child Fees:	0
Total Due:	0.00

## Record

A record is a document object that corresponds to a row in a database table. A record consists of a collection of fields that contains information about one person, place, or thing.

## Object

An object is any element in an application that displays data (e.g., a field, record, or form) and has physical properties (e.g., size, shape, or color) and/or functional properties (such as the ability to be moved or resized, or to execute a single command).

An object-oriented application like DataEase lets you create objects that combine graphic and alphanumeric data and that can invoke actions that display, derive, or manipulate data.



For example, in the figure below, which shows a Clubs holiday reservations form, each club has graphic presentation attributes (types of activity) and alphanumeric data attributes (number of rooms, prices, etc.). When you click on the Reservations button, DataEase opens a Reservations form which lets the bookings clerk enter the customer's name, address, credit card information, and so on.

The screenshot shows a web-based form titled "CLUBS" with a "Previous" and "Next" navigation bar. On the left, there is a logo for "Club ParaDEASE" with the tagline "The Antidote to Documentation". Below the logo, the form displays "Club ID: 00001" and "Rooms: 196". A vertical menu on the left contains buttons for "New", "Save", "Delete", "Close", "Activities", and "Reservations". The main content area is divided into several sections:
 

- Form Fields:** Club Name: Playa Blanca; Telephone: (52) 333-20440; Street: 497 Costa de Chamela; City: Jalisco; Country: Mexico.
- Description:** Playa Blanca, located 120 miles south of Puerto Vallarta on Mexico's sunny Pacific coast, is our hottest winter holiday vacation spot. Enjoy snorkeling, deep-sea fishing, and peppery cuisine.
- Map:** A map of Mexico with a red pin indicating the location of Playa Blanca.
- Activities:** A row of six icons representing different activities: Baseball, Waterski, Biking, Hangliding, Snorkel, and Theater.

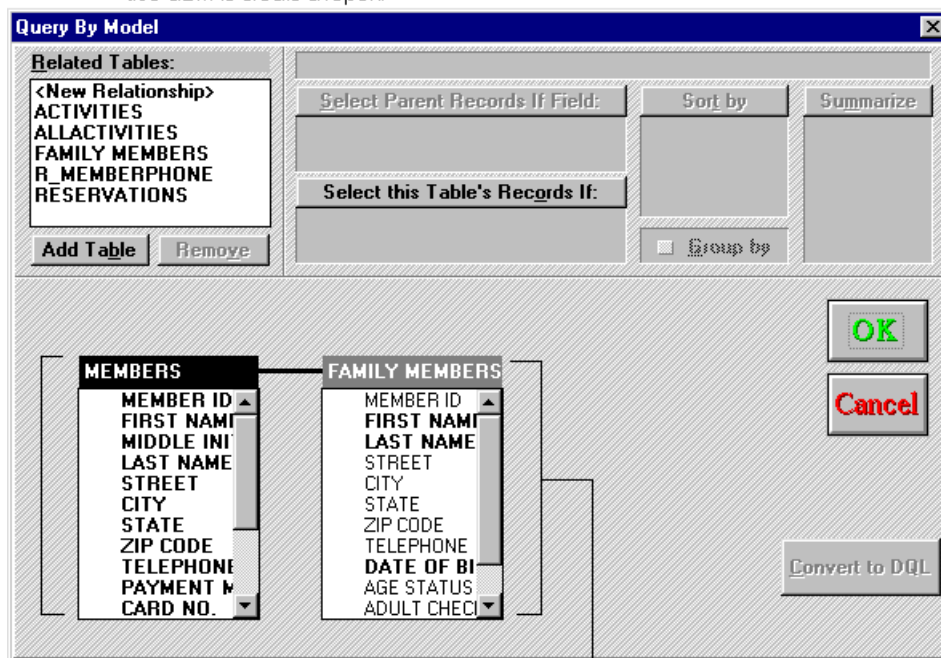
## Query

A query is a series of instructions that tell DataEase to retrieve a specific set of records in the database. Query By Form is an easy-to-use query method in which you enter sample data (called selection criteria) into fields on a record entry form without programming. In response to the query, DataEase retrieves all the records that contain exact matching values in these fields.

DataEase provides two query tools:

- **Query By Form (QBF)**, which lets you filter, sort, and view selected records by entering sample data in the same form you use to enter data.
- **Query By Model (QBM)**, which lets you select rows and columns from multiple database tables, compute summary statistics, and design a new layout for the retrieved data using a graphical data model of your information.

Alternatively, if you want to save a query for future use, you can use QBM to create a report.



The lower part of the QBM dialog shows the document's data structure.

## Relationship

A relationship is a link between two database tables. For two tables to be related, they must each contain one or more columns that are the same in each table. These **match** columns provide the link that identifies a row in one table as related to a row in the second table. When two tables are related, you can access information in one table while processing data in the other table. Because this relationship is stored in the database, it can be used in different procedures whenever necessary.

## Report

A report is a document that lets you retrieve, sort, and group specific sets of records and display (or print) selected fields in the layout you specify. A report is live (interactive) or static. A report is static after it is sent to a printer, a disk file, or an on-screen window.

A live report behaves like a data-entry form. You can enter search criteria in the report to filter the records the report displays.

Destination Club:		Reservation Date:	
Bora Bora		12/26/92	
Ariving at:		from	
Bora Bora		Cincinnati	
Last Name		First Name	
Denofsky		Doris	
Denofsky		Murray	
Guests arriving from this city:		2	
Ariving at:		from	
Bora Bora		Detroit	
Last Name		First Name	
Wilcox		Mark	
Wilcox		Gretchen	
Guests arriving from this city:		2	
Guests arriving from all cities:		4	
Guests arriving at all clubs:		4	

## SQL

Structured Query Language (SQL) is the widely used language for defining and manipulating data stored in different database engine formats. **See Appendix A, Using DataEase in a Client-Server Environment**, for more information about different database engines.

## Subform

A Subform is a form that is embedded in a Multiform to display related records. Before you can define a Multiform, you must create the Main form and each Subform separately. Then you must define a relationship between the Main form and each Subform. When you display a Multiform, it appears as if there is only one form on the screen. However, as you modify data, you are actually editing data in multiple tables simultaneously.

In a DataEase Multiform, FAMILY MEMBERS Subform records are related to the MEMBERS Main form record

The screenshot shows a DataEase Multiform titled "MEMBERS" for "Club ParaDEASE". The main form displays the following information for member Roger Birnbaum:

- Last Name:** Birnbaum
- First Name:** Roger
- Initial:** I
- Street:** 87 Grant Street
- City:** West Roxbury, **MA**, **Zip Code:** 02132-0000
- Expiration Date:** 11/26/94, **Telephone:** (617)832-8843
- Favorite Activity:** WATERSKI
- Method of Payment:** AMERICAN EXPRE
- Card No.:** 3788-356700-45332

Below the main form is a subform titled "Family Members" which displays a table of related records:

First Name	Last Name	Date of Birth
Roger	Birnbaum	06/20/55
Timothy	Birnbaum	04/19/91
Debra	Birnbaum	02/14/85

To the right of the "Family Members" table is a "Membership Fees" section:

- Adult Annual Fee \$35.00
- Child Annual Fee \$15.00
- Adult Fees: 35
- Child Fees: 30
- Total Due: 65.00

On the left side of the main form, there is a sidebar with the following elements:

- Member ID: 00001
- Buttons: New, Save, Delete, Close, Clubs, Reservations

Subform displaying Roger Birnbaum's relatives

## Toolbar

The Toolbar is the row of buttons DataEase displays directly under the Menu Bar, providing instant access to frequently used menu options. To execute an option, you simply click the corresponding Toolbar button. DataEase provides two Toolbars: one when the document in the active window is displayed in User View and another when the document is displayed in Designer View.

## View

A view is a document that displays data from one or more related tables in a single layout. The document hides data from certain users or simply make it easier to enter new data or analyze existing data. Think of a view as a special window through which different users can examine a subset of the data in the database.

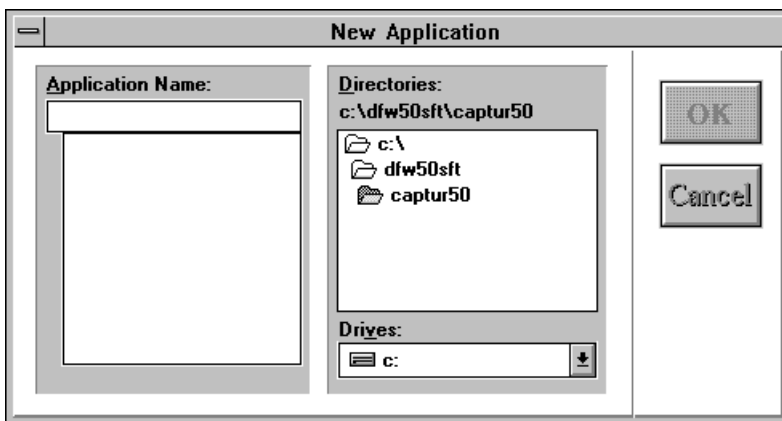
## Creating, Opening, and Deleting Applications

See **DESIGNER GUIDE Chapter 1** for additional Desktop File menu options.

When you start DataEase, before you sign on to an application, DataEase displays the Desktop Menu Bar, which lets you create an application, open an existing application, delete an application, and get on-line Help.

### Creating an Application

When you choose **File>>New Application**, DataEase displays the New Application dialog shown below. This dialog is used to specify the name of the application, the location in which you want to store the application, and the User Name and Password you want to use to gain access to the application in the future.



### New Application Dialog Options

**Application Name** lets you assign a name of up to 20 characters to the application.

**Directories** tell DataEase which directory stores your application. To select a directory, double-click on the name of the directory.

**Note:** We recommend that you store each application in a separate directory. To create a directory, use Windows File Manager.

**Drives** tell DataEase which disk drive stores your application. To select a drive, click on the drop-down arrow and then on the drive letter.

When you complete the New Application dialog and click OK, DataEase displays the Application Security dialog shown below.



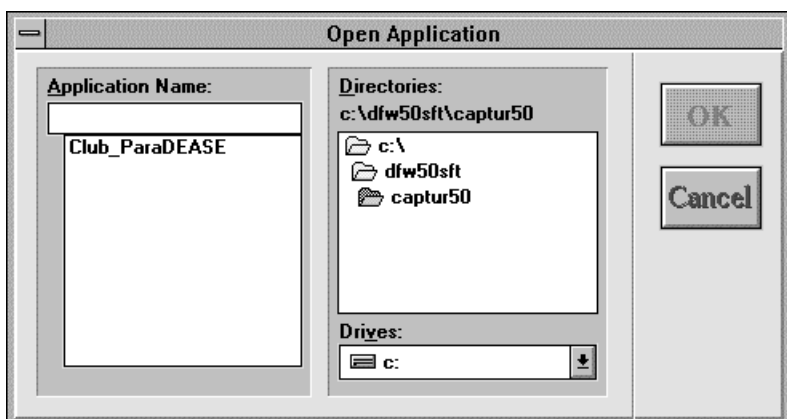
The Application Security dialog lets you enter the Name and Password you want to use when signing on to an application. Use:

- **Name** to enter a User Name of up to 15 characters. The Name can include uppercase and lowercase characters, spaces, symbols, and ANSI characters (accessed by pressing Alt and typing a value between 1 and 255 on the numeric keypad).
- **Password** to enter a Password of up to 8 characters. Password accepts the same characters as Name. During sign on, DataEase masks the Password with asterisks so that other users can't read it.

When you create an application, DataEase automatically stores the Name and Password combination you enter in the Users System form and assigns you a High Security Level.

## Opening an Application

When you choose **File>>Open Application**, DataEase displays the Open Application dialog shown below. This dialog lets you open an existing application. Only one application can be open at a time.



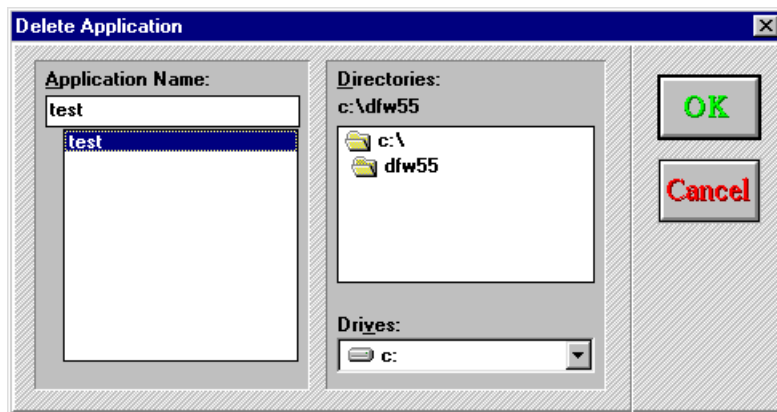
After you open an application, but before you open any documents, DataEase displays the Menu Bar but activates only the File, View, Application, and Help menus.

These menus let you create a document, open an existing document, use the Application Catalog, activate or deactivate the Toolbar and Status Bar, perform system administration tasks (e.g., add users, set application preferences), and get Help. Once you open a document, DataEase activates all the menus.

When you complete the Open Application dialog and click OK, DataEase displays the Application Security dialog. This dialog, which requires you to enter your assigned User Name and Password to access the application, is explained on the previous page.

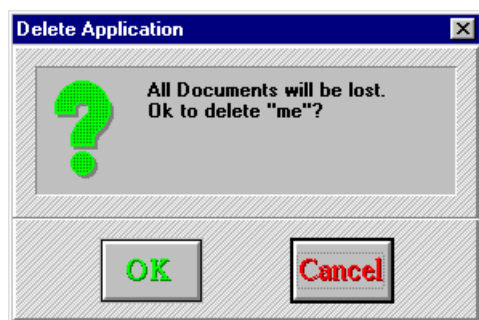
## Deleting an Application

When you choose **File>>Delete Application**, DataEase displays the Delete Application dialog. This dialog is used to delete an entire application, including all documents and data. Once an application is deleted, it is permanently erased.



When you complete the Delete Application dialog and click OK, DataEase displays the Application Security dialog. This dialog, which requires you to enter your assigned User Name and Password to access the application, is explained in the section, **New Application Dialog Options**, earlier in this chapter.

Before DataEase deletes an application, it displays the Delete Application alert message shown below.



The Delete Application alert message lets you confirm or cancel the deletion of your application. Click:

- **OK** to delete the entire application of all its files.
- **Cancel** to leave the application intact.

**Note:** If there are forms that own SQL tables, DataEase prompts you before deleting each table.

## How to Create, Open or Delete an Application

1. Choose **File>>New Application** or **File>>Open Application** or **File>>Delete Application**. DataEase opens the corresponding dialog.
2. Choose the drive and directory.
3. If you are creating an application, enter a name of up to 20 characters in the Application Name text box.

**Note:** If you are opening or deleting an application, click on the application name.

4. Click OK. DataEase displays the Name and Password dialog.
5. Enter a Name of up to 15 characters and a Password of up to 8 characters and click OK. If you are deleting an application, DataEase displays the Delete Application alert message. Click OK.

**Note:** When you first create an application, you have a one-time option to sign on with no User Name and Password. This option lets you subsequently sign on by simply pressing the Enter key twice in succession without specifying a Name or Password.

Before you can delete an application, you must enter a valid User Name/Password combination with a High Security Level.

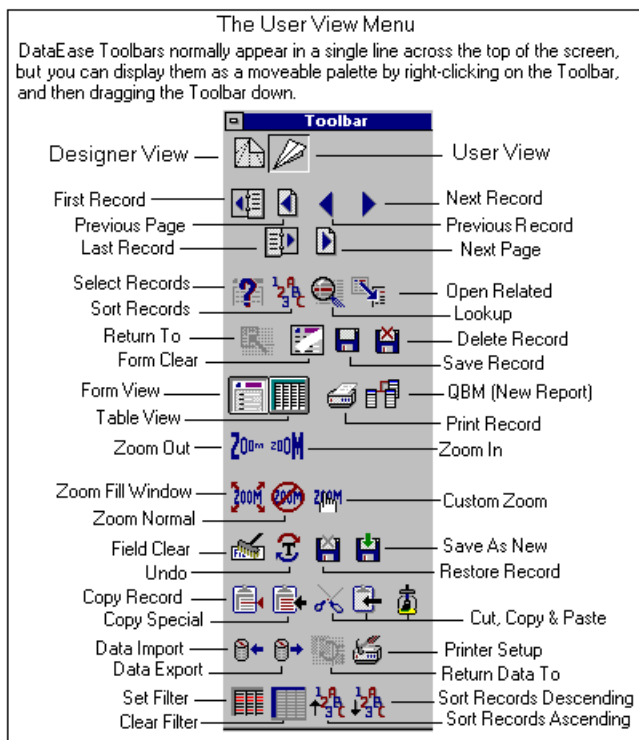


## Viewing Documents

The two basic views in which you can display a DataEase document are **User View** and **Designer View**.

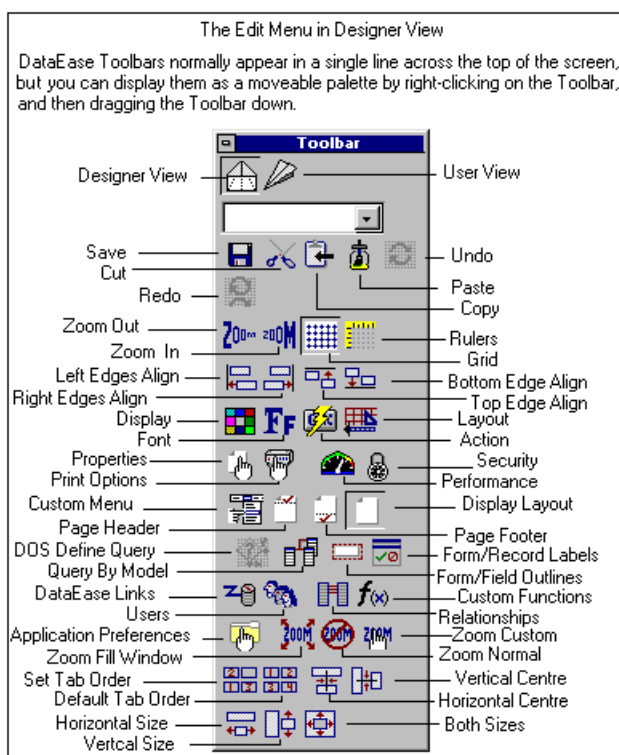
### User View

User View is the **data-oriented** environment of DataEase. In User View, you can view data in a single record or multiple records, enter new records, modify existing records, create reports, and run previously defined reports. User View also lets you use Query By Form techniques to find specific records in a form. The figure below summarizes the menus available when you view a document in User View.



## Designer View

Designer View is the **application design** environment of DataEase. In Designer View, you create the record entry forms, custom menus, and reports used in your application. Designer View lets you build special features into your application, including image fields, custom buttons, and direct links to other Windows applications (such as word processing, spreadsheet, and presentation graphics programs).



Although most menus on the DataEase Menu Bar are available in both views, each view has some unique menus as well as its own set of command buttons on the Toolbar.

The **DataEase Designer's Guide** explains the menus available when you view a document in Designer View.

## Exiting DataEase

To exit DataEase and return to the Windows Program Manager, choose **File>>Exit**. DataEase prompts you to save any changes you have made in your DataEase session.

## Chapter 1 : Windows Fundamentals

### Using DataEase Applications in the Windows Environment

This chapter introduces you to how DataEase operates in the Microsoft Windows environment. The chapter describes standard Windows features, such as the Scroll Bar and Status Bar, as well as specific parts of the DataEase user interface, including the pull-down menus, dialogs, and Toolbars.

See the **Microsoft Windows User's Guide** for more information on the Windows environment.

### The Microsoft Windows Environment

Unlike earlier generations of DOS programs, all Windows applications share the same basic look and feel. This property makes them much easier to learn. The key idea that underlies the Windows environment is that each application runs inside a moveable, resizable window. All Windows applications use similar menus to control accessing files, printing, editing data, managing the various windows displayed on the screen, and getting on-line Help.

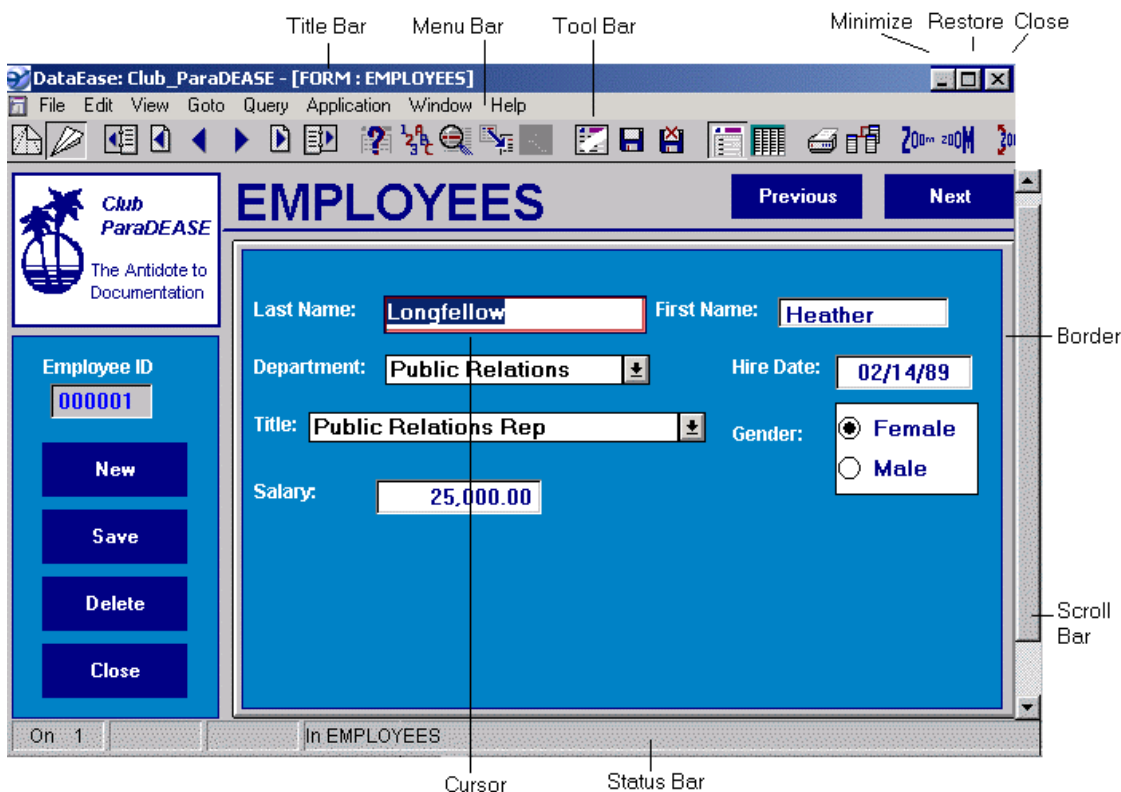
Many functions that you previously had to set up for each program now can be centrally controlled by Windows. For example, the Windows Control Panel lets you change the colors of various elements on the DataEase desktop. In addition, since you can run multiple windows applications concurrently, you can switch quickly between your word processor, spreadsheet, graphics, or database application, and transfer data easily from one document to another.

DataEase incorporates all standard Microsoft Windows features, including pull-down menus, dialogs, buttons, graphical icons, Dynamic Data Exchange, and Object Linking and Embedding. If you're already using other Windows applications like Microsoft Word for Windows, Microsoft Excel for Windows, or Lotus 1-2-3 for Windows, you'll find learning DataEase is a snap!

## The DataEase Window

A window is a rectangular area of your screen in which you view the forms, reports, or menus in an application. DataEase itself runs in an application window, which is comprised of many navigational and control elements. Application documents, such as forms and reports, run in separate windows.

The parts of the DataEase Window, shown in the figure below, are explained in this section.



### Parts of the DataEase Window

**Control Menu Box** is a special menu that lets you restore, resize, move, minimize, maximize, and close windows, switch active windows, and switch to the Windows Task List.

**Menu Bar** lists the DataEase pull-down menus. When you click on the menu name, DataEase displays the menu options. To execute a menu option from the keyboard, press Alt and the underlined letter in the menu name (e.g., Alt + V).

**Title Bar** displays the document type (Form, Report, Live Report, or Menu) followed by the document name. If the document is displayed in Designer View, DataEase inserts DESIGN before the document type. For example, if the MEMBERS form is opened in Designer View, DataEase displays the following in the Title Bar:

```
[DESIGN Form: MEMBERS]
```

If the document is maximized, the word DataEase and the Application's name is inserted before the document information. For example, if the MEMBERS form is maximized in Designer View, DataEase displays the following in the Title Bar:

```
DataEase: Club ParaDEASE - [DESIGN Form: MEMBERS]
```

To move a window, click on the Title Bar and drag the mouse.

**Toolbar** lets you select commonly used commands by simply clicking on a button.

**Minimize, Maximize, and Restore Buttons** automatically change the size of the active window.

**Border** is the outside edge of a window. To resize a window, position the mouse pointer over the border until it changes into a two-way arrow and then drag the border horizontally or vertically to the desired size.

**Scroll Bar** moves hidden parts of a document or window into view. Scroll Bars appear on the bottom and right side of DataEase windows and some DataEase dialogs. The vertical Scroll Bar moves the document up and down. The horizontal Scroll Bar moves the document left and right.

**Status Bar** in User View, displays the status of the Caps Lock, Num Lock, and Ins (Insert/Overstrike) keys, which record number is active, and whether you are viewing all records or only queried records. If the document uses SQL data, DataEase displays server messages on the Status Bar also. In Designer View, the Status Bar displays the x and y position of the highlighted object.

**Mouse Pointer** is the symbol that moves in tandem with your mouse on the screen. The pointer is used to select items on the screen.

**Cursor** indicates where you can type characters on the document.

**Corner** is a part of the border where two edges meet. To simultaneously adjust a window's length and width, simply drag the corner in the direction that you want the window to expand or shrink.

## Open versus Active Windows

See **USER GUIDE Chapter 3** for more information on opening forms and other documents.

Windows introduces two important terms for file management.

**Open** describes any window that contains an application or document running in memory. When you click on an open window, it becomes active.

**Active** describes the highlighted open window that is currently being used. When you execute a command, it affects only the active window.

Windows lets you maintain many open windows simultaneously, but only one window is active at any given time. When open windows overlap, Windows always displays the active window in front of the inactive windows.

For example, if you have the MEMBERS form running concurrently with DataEase Help, you can display them both on screen at the same time. However, when you click on the DataEase Help window, your keystrokes only affect Help until you click on the MEMBERS form to make it active again.

The CLUBS form is shown in an open Window.

The MEMBERS form is active

The screenshot shows two overlapping windows from the DataEase software. The top window, titled 'DataEase: Club\_ParaDEASE', is the 'FORM : CLUBS' window. It contains a menu bar (File, Edit, View, Goto, Query, Application, Window, Help) and a toolbar. The form fields include: Club Name: Playa Blanca, Telephone: (52) 333-20440, Street: 497 Costa de Chamela, City: Jalisco, Country: Mexico, Club ID: 00001, Rooms: 196, and Description: Playa Blanca, located 120 miles. The bottom window, titled 'FORM : MEMBERS', is the 'MEMBERS' window. It also has a menu bar and toolbar. The form fields include: Last Name, First Name, Initial, Street, City, Zip Code, Expiration Date, Telephone, Favorite Activity, Method of Payment, Card No., Family Members (with columns for First Name, Last Name, Date of Birth), and Membership Fees (Adult Annual Fee \$35.00, Child Annual Fee \$15.00, Adult Fees: 0, Child Fees: 0). Both windows have scroll bars on the right side.

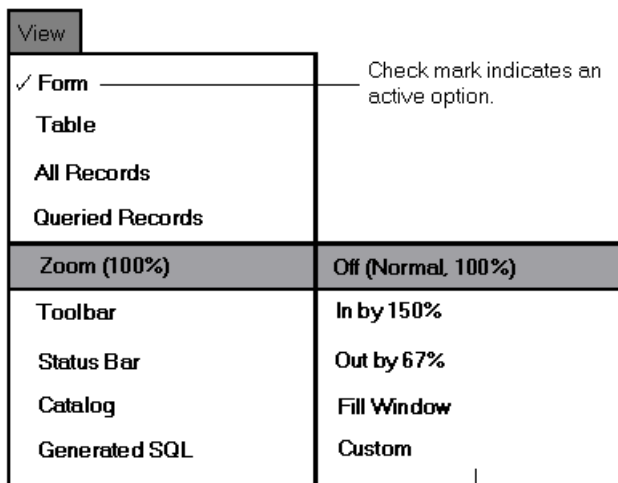
Note the Scroll Bars. Click on the scroll arrows to move the document.

### How to Use Scroll Bars

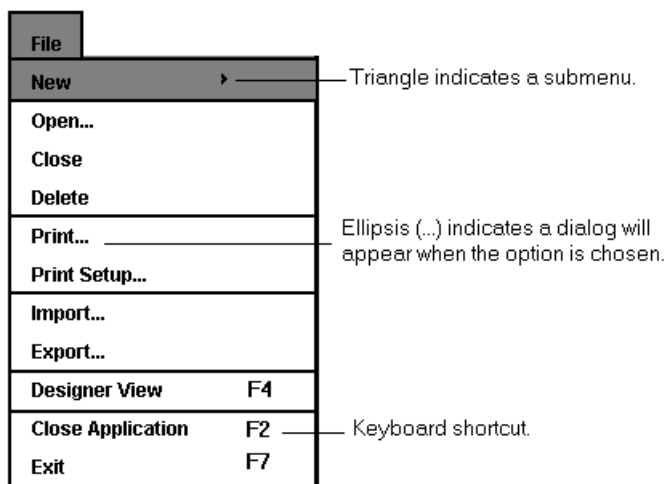
- Click on a scroll arrow (shown above) to move the document one vertical line or one horizontal column in the indicated direction.
- Click anywhere between the scroll arrow and scroll box to move a full screen in the indicated direction.
- Drag the scroll box to move the document a distance proportionate to the document's length or width.

## DataEase Menus

The Menu Bar lists all DataEase menus. Each word on the Menu Bar is a menu title. Each menu is a list of options. When you open a menu and select an option, DataEase performs a function. DataEase uses standard Windows conventions in its menus to convey status information about menu options. These conventions are shown in the figure below, and an explanation of each follows.



Cascade menu DataEase displays when you click on an option followed by a triangle.



**Triangle** indicates that DataEase displays a submenu (called a cascade menu) when you select the option.

**Ellipsis (...)** indicates that DataEase displays a dialog when you select the option. Dialogs are discussed later in this chapter.

**Check Mark** indicates an option is on (or active). This convention is used only with options that toggle between on and off settings. Click on an active option to deactivate it.

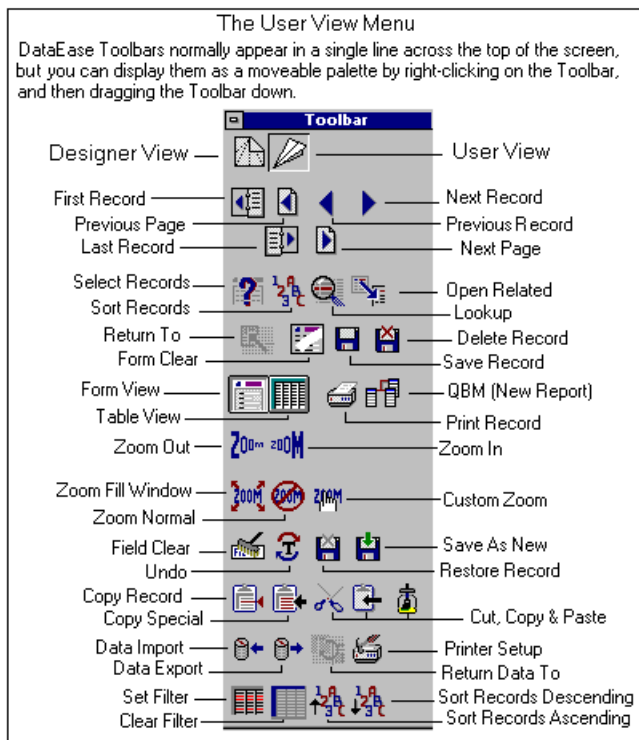
**Keyboard Shortcut** displays the keyboard combination for the menu option.

## DataEase Toolbars

The DataEase Toolbar lets you quickly access the most commonly used menu options in each mode without requiring you to open the appropriate pull-down menu. To execute the menu option, you just click on the corresponding Toolbar button.

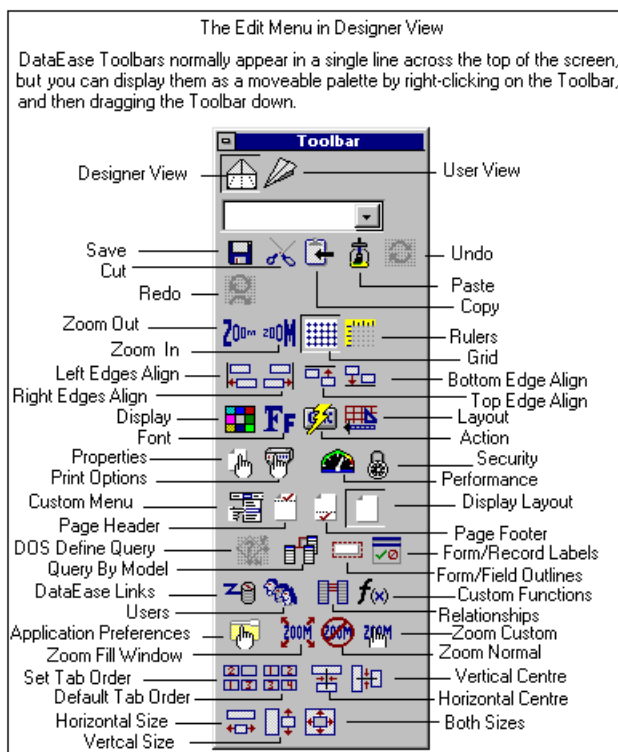
DataEase has two Toolbars, displayed in User View and Designer View respectively.

**User View Toolbar** provides instant access to User View options located on the Edit, View, Query, and Goto menus.





**Designer View Toolbar** provides instant access to Designer View options located on the Objects menu.

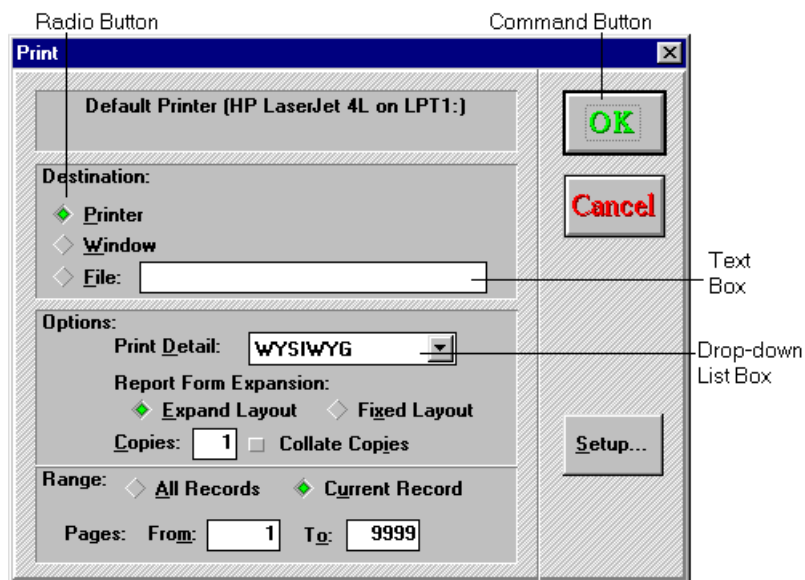


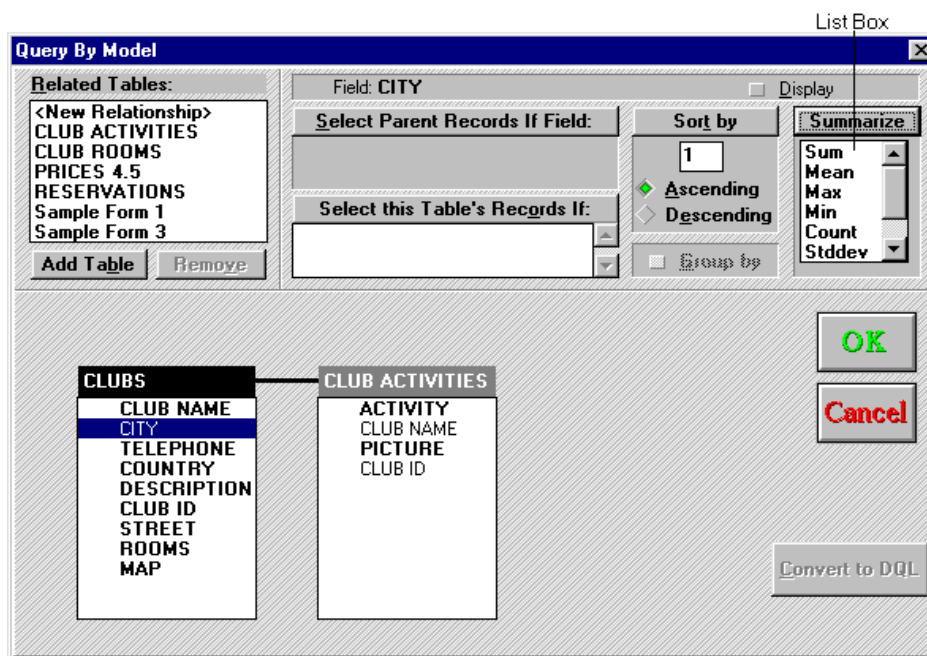
The DataEase Help file contains a button-by button description of the Toolbars.

## DataEase Dialogs

When you select a menu option followed by an ellipsis (...), DataEase opens a special type of window called a **dialog**. A dialog requests more information that tells DataEase how to execute the selected menu option.

DataEase highlights the active element in a dialog with a dotted outline. To switch from one group of choices to another, simply click on it. If you use the keyboard, press Tab to move the outline from choice to choice (press Shift + Tab to move the outline in reverse order). Each dialog choice has a graphic element that controls what kind of information it accepts (e.g., any text or numbers only). Each dialog control is shown in the figure below and explained in the table on the next page.





## DataEase Dialog Controls





The table below summarizes how to use each control that appears in a DataEase dialog.

Control	Lets you...	Using a Mouse	Using the Keyboard
Text Box	Fill with any text. Your text overwrites what is already there.	<ol style="list-style-type: none"> <li>1. Click on a text box.</li> <li>2. Begin typing when the cursor appears.</li> </ol>	<ol style="list-style-type: none"> <li>1. Tab to the text box.</li> <li>2. Begin typing when the cursor appears.</li> </ol>
List Box	Fill a text box with a selection from a defined list of options.	<ol style="list-style-type: none"> <li>1. Scroll the desired option into view.</li> <li>2. Click on it.</li> </ol>	<ol style="list-style-type: none"> <li>1. Press the arrow keys until the desired option is highlighted, then press Enter.</li> </ol>
Drop-Down List Box	Fill a text box with a selection from the list of choices that are displayed when you click on the drop-down arrow next to the text box.	<ol style="list-style-type: none"> <li>1. Click the drop-down arrow to display alternative options.</li> <li>2. Drag the mouse until your choice is highlighted.</li> <li>3. Release the mouse button to select.</li> </ol>	<ol style="list-style-type: none"> <li>1. Press Alt + i to open the list.</li> <li>2. Press the arrow keys until your choice is highlighted.</li> <li>3. Press Enter to select.</li> </ol>
Radio Button	Select only one option from a list of alternatives.	Click the desired button to select it.	<ol style="list-style-type: none"> <li>1. Press the arrow keys to move the cursor to your choice, then press the Spacebar.</li> </ol>
Check Box	Select one or more options from a list of alternatives.	Select and unselect in the same way as radio buttons.	

## Alert Messages

DataEase uses four icons to indicate the importance of alert messages (see table below).

### Alert Message Icons

Icon	Meaning
	Indicates a critical message.
	Indicates a warning.
	Indicates a warning that requires your input.
	Accompanies an informational message.

## Chapter 2 : Record Entry

### Creating, Modifying, and Deleting Records

See **Chapter 4 of the User Guide** for more information about creating, modifying, and deleting records.

This chapter provides general information on using DataEase forms, including:

- Viewing records
- Creating records
- Modifying records
- Deleting Records
- Using a form with a Custom Tab Order
- Using a form with buttons
- Using DataEase in a multi-user environment

Record entry is the most frequent operation performed in User View. In fact, most people who use a DataEase application spend the majority of their time entering new data and updating existing records.

As more data is added to a database each day by entering new records in DataEase record entry forms, an organization can immediately use this data to find specific records, answer business questions (called **queries**), create custom reports, process transactions, and take advantage of the easy access and strong analytical capabilities that DataEase provides.

The basic concepts that affect record entry operations are briefly summarized on the next two pages and explained in detail on the following pages.

### Overview of Record Entry Procedures

Topic	Summary
<b>Opening a Record Entry Form</b>	Choose <b>File&gt;&gt;Open</b> or double-click on the name of the form in the Application Catalog.
<b>Entering a New Record</b>	When you display a form in User View, DataEase automatically positions the cursor in the first field where you can enter data. To enter a new record, just type values in the blank fields and press F2 SAVE AS NEW RECORD.
<b>Moving the Cursor</b>	When you fill every character in a field, DataEase automatically moves the cursor into the next field. If the cursor does not move automatically, press Tab (or use the mouse pointer) to move the insertion point into the next field on the form. (DataEase does not automatically move through a derived or lookup field unless it is defined as Virtual.)
<b>Using a Custom Tab Order</b>	Normally, the cursor moves from the top left to the bottom right field on the form. However, if the application designer has assigned a Custom Tab

Order, the cursor moves from field to field in an assigned sequence. Buttons and graphics that execute actions are included in the form's tab order.

<b>Viewing Records</b>	Records in a Native DataEase form are stored in the order they are entered. Press F3 VIEW or choose <b>Goto&gt;&gt;Next Record</b> to view the record following the one you are currently viewing. Press Shift + F3 VIEW BACK or choose <b>Goto&gt;&gt;Previous Record</b> to view the record preceding the one you are currently viewing. You can also click the Previous Record and Next Record buttons on the Toolbar.
<b>Searching for Records</b>	Choose <b>Query&gt;&gt;Select Records</b> or click the QBF (Query By Form) button on the Toolbar to find a specific record. Enter your search criteria (sample values) into one or more fields on the form to tell DataEase which records you're looking for. Press F3 NEXT RECORD or choose <b>Goto&gt;&gt;Next Record</b> . DataEase displays the first record that contains the specified field value(s). Choose <b>View&gt;&gt;Table</b> to display all matching records.
<b>Accessing a Record in a Related Form</b>	Press F10 RELATED FORM or choose <b>Goto&gt;&gt;Related Form</b> to display a list of all the record entry forms related to the form you are currently viewing. Double-click on the name of the related form to open it. If the cursor occupies a Match field when you press F10 RELATED FORM, DataEase displays the first matching record in the related form. Press Ctrl + D RETURN DATA to return the data in each Match field to the original record and derive any fields based on those values. Press Shift+F10 RETURN TO to return to the original record without retrieving data.
<b>Using Forms That Include Buttons</b>	The application designer can insert any number of buttons on a form and assign each a predefined action that is automatically executed when you tab onto the button and press Enter, or click on the button. A button can perform a wide variety of actions, such as opening another form, saving data, or running a video presentation.
<b>Saving a Record</b>	Type a valid value into each field in the record entry form. Press F2 SAVE AS NEW RECORD or choose <b>Edit&gt;&gt;Save As New Record</b> to save all the data entered as a new record in the form.
<b>Modifying a Record</b>	Move the cursor into a field and type any changes you wish to make to the value. When you complete all your changes, press F8 SAVE or choose <b>Edit&gt;&gt;Save</b> to overwrite the existing record with the new information.
<b>Deleting a Record</b>	Press F7 DELETE or choose <b>Edit&gt;&gt;Delete Record</b> to delete the record the cursor is located in. If the record is stored in a DataEase Multiform, DataEase asks you how to delete the related Subform records.
<b>Printing Records</b>	Press Ctrl + P PRINT or choose <b>File&gt;&gt;Print</b> to print the record(s) in the document that is currently active.

## What Is a Record Entry Form?

A DataEase record entry form is a document that contains at least one data entry field. A form can also contain text, buttons, image data, and background graphics. A form is used to enter, find, display, and filter the data stored in a database table.

### Form Appearance

The appearance of a record entry form is defined by the application designer in Designer View. Because each form is designed for a specific purpose, the text, fields, and other elements vary from one form to another (just as an Employment Application form looks different from a Motor Vehicle Registration form).

In Designer View, DataEase displays the specified Field Name in each field.

The screenshot shows a record entry form for 'MEMBERS' in Designer View. The form is titled 'MEMBERS' and has 'Previous' and 'Next' buttons. It features a sidebar with a logo for 'Club ParaDEASE' and the tagline 'The Antidote to Documentation'. The sidebar contains buttons for 'New', 'Save', 'Delete', 'Close', 'Clubs', and 'Reservations'. The main form area includes fields for 'Last Name' (LAST NAME), 'First Name' (FIRST NAME), 'Initial' (M), 'Street' (STREET), 'City' (CITY), 'ST', 'Zip Code' (ZIP CODE), 'Expiration Date' (EXPIRAT), and 'Telephone' (TELEPHONE). There are also fields for 'Favorite Activity' (FAVORITE AC) and 'Method of Payment' (PAYMENT METHOD). Below these are 'Family Members' and 'Membership Fees' sections. The 'Family Members' section has a table with columns for 'First Name', 'Last Name', and 'Date of Birth'. The 'Membership Fees' section lists 'Adult Annual Fee \$35.00', 'Child Annual Fee \$15.00', 'Adult Fees' (FEES), 'Child Fees' (EES), and 'Total Due' (L DUE).

First Name	Last Name	Date of Birth
FIRST NAME	LAST NAME	DATE OF

When the form is initially displayed in User View, the data-entry fields are usually blank, so that you can enter new records.

**MEMBERS** Previous Next

Club ParaDEASE  
The Antidote to Documentation

Member ID: 00202

New  
Save  
Delete  
Close  
Clubs  
Reservations

Last Name:  First Name:  Initial:   
 Street:   
 City:  Zip Code:  -  
 Expiration Date:  Telephone: ( ) -

Favorite Activity:  Method of Payment:   
 Card No.

**Family Members**

First Name	Last Name	Date of Birth

**Membership Fees**  
 Adult Annual Fee \$35.00  
 Child Annual Fee \$15.00  
 Adult Fees:  0  
 Child Fees:  0  
 Total Due:  0.00

## System versus Custom Forms

**System Forms** are predefined forms that store the information DataEase needs to manage an application. DataEase uses three predefined System forms:

- **Users** contain information about the names, passwords, and security levels of users.
- **Relationships** contain information about how the application's database tables are related.
- **Custom Functions** contain information about which Custom-Defined Functions the application can use.
- **Custom Forms** display the data managed by the application. Custom forms are normally created by the application designer.

The RESERVATIONS form is a Custom form.

**RESERVATIONS** Previous Next

Club ParaDEASE  
The Antidote to Documentation

Reservation ID: 00202

New  
Save  
Delete  
Close  
Members  
Clubs

Member ID:  Date: 08/10/01  
 Last Name:  First Name:   
 Street:   
 City:  State:  Zip Code:  -

Club ID:  Departure City:   
 Club Name:  Departure Zone:   
 Club Location:  Departure Date:   
 Rooms Required:

**Reservation Detail**

First Name	Last Name	Age	Price
			0
			0
			0
			0
			0


**Reservation Price**  
 Total Adult Price:  0  
 Total Child Price:  0  
 Total Due:  0



## Multiforms

A Multiform is a Custom form that combines two or more related forms so that they appear on the screen at the same time. An application designer may design a Multiform without clearly defined boundary lines so it looks and behaves like a single form.

A Multiform lets you view, enter, modify, and delete data from two or more related forms simultaneously. This property makes it easier for you to enter and search for data in a complex database.



**Club ParaDEASE**  
The Antidote to Documentation

MEMBERS

Previous
Next

Member ID: 00202

New

Save

Delete

Close

Clubs

Reservations

Last Name:

Street:

City:  Zip Code:

Expiration Date:  Telephone:  -  -

First Name:  Initial:

Favorite Activity:

Method of Payment:

Card No.

### Family Members

First Name	Last Name	Date of Birth

#### Membership Fees

Adult Annual Fee \$35.00  
Child Annual Fee \$15.00

Adult Fees:

Child Fees:

Total Due:

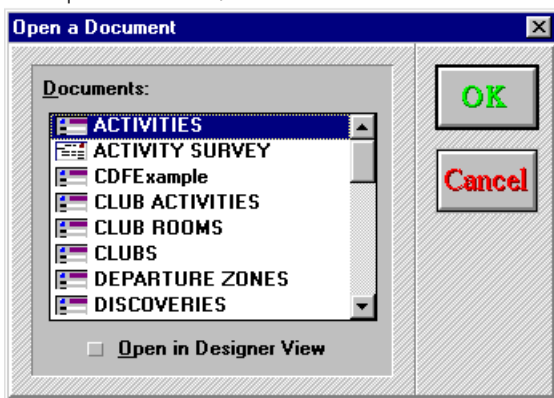
Subform (FAMILY MEMBERS)

## Opening a Record Entry Form

Before you can enter, view, modify, or delete records, you must open a record entry form in User View. DataEase provides two ways to open a form:

- If the Application Catalog is open, double-click on the name of the document to open it. DataEase lists the names of the documents in alphabetical order and groups the documents according to document type (i.e., form, report, menu).
- Choose **File>>Open** to display the Open a Document dialog.

Choose **File>>Open** to display the Open a Document dialog.  
To open a document, select the document name and click OK.



To open a document from the Application Catalog, double-click on the name of the document

## Form versus Table View

See **USER GUIDE Chapter 5** for information on how to switch between Form and Table View.

When you open a record entry form in User View, DataEase lets you display the form in Form View or Table View.

**Form View** displays one record at a time. In Form View, the form displays all the text, fields, graphics, and buttons the application designer defined.

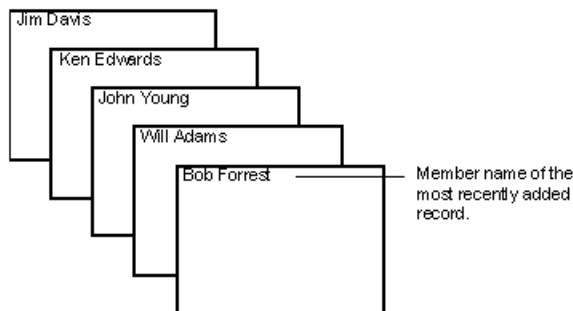
**Table View** displays multiple records on screen at one time. Each column in the table is a field, and each row in the table is a record. In Table View, the form does not display buttons, pictures, and/or graphics.



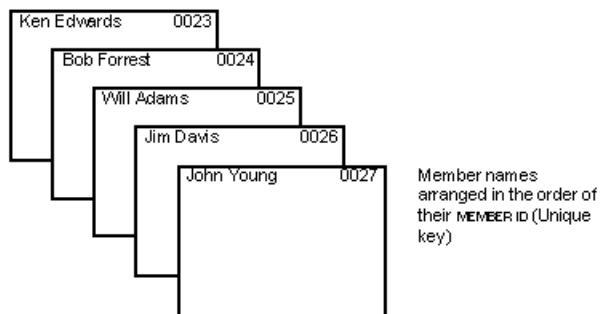
## How Records Are Arranged

When you view records in a DataEase record entry form, the order in which they are displayed depends on whether the database table is stored as a Native database or as an SQL database.

Records in a form based on a DataEase Native table are arranged in the order they are entered in the table (the most recently added record is always the last record in the table).



**Note:** Records in a form based on an SQL table are arranged in ascending order by the values in the Unique key (a single value derived by concatenating the values in all the Unique fields on the form).



## Customizing Table View to Facilitate Record Entry

DataEase lets you customize Table View by changing the size of the columns and rows in a table or by moving an entire column to a new location.

You can customize the appearance of Table View in several ways. To fit more information in the document window, you can decrease the width of the columns or the height of the rows. You can also move the columns that are most important into view.

For example, if you need to contact members by phone, you can move the TELEPHONE column in the MEMBERS form to the left side of the table. This adjustment makes it unnecessary for you to scroll the table to view the TELEPHONE column.

In the default Table View of the MEMBERS form, the member's name and telephone number do not appear on the same screen.

Row#	MEMBER	LAST NAME	FIRST NAME	STREET
1	00001	Birnbaum	Roger	87 Grant Street
2	00002	Perrault	George	38 Whitney Avenue
3	00003	Christino	Laura	4905 Radford Avenue
4	00004	Williams	Laura	17 Corinthian Way
5	00005	Riggs	Cynthia	11 Lilac Drive
6	00006	Shannon	Patrick	3 Pleasant Street
7	00007	Johannsson	David	1709 Division Street
8	00008	LaCoste	Fred	487 Lenox Road
9	00009	Hagerty	Sara	7861 Bird Road
10	00010	Cohen	Samuel	37 Tulip Lane
11	00011	Jones	Anita	801 South Perry Avenue
12	00012	Bennington	William	569 South Colorado Avenue

If you move the Telephone column to the left, you do not need to scroll to see the member's telephone number.

Row#	MEMBER	LAST NAME	FIRST NAME	TELEPHONE	STREET
1	00001	Birnbaum	Roger	(617)832-8843	87 Grant Street
2	00002	Perrault	George	(203)448-5821	38 Whitney Avenue
3	00003	Christino	Laura	(703)450-1192	4905 Radford Avenue
4	00004	Williams	Laura	(414)933-9224	17 Corinthian Way
5	00005	Riggs	Cynthia	(207)224-9921	11 Lilac Drive
6	00006	Shannon	Patrick	(617)862-1010	3 Pleasant Street
7	00007	Johannsson	David	(918)250-4432	1709 Division Street
8	00008	LaCoste	Fred	(404)265-1126	487 Lenox Road
9	00009	Hagerty	Sara	(305)896-9932	7861 Bird Road
10	00010	Cohen	Samuel	(914)882-8334	37 Tulip Lane
11	00011	Jones	Anita	(205)476-6665	801 South Perry Avenue
12	00012	Bennington	William	(303)699-2734	569 South Colorado Avenue

The changes you make to the columns and rows in Table View are temporary. These changes do not affect the position or size of the fields in Form View, and DataEase discards these changes when you close the document. The next time you open the form in Table View, DataEase displays the columns and rows in their original size and position.

To permanently change the column order, you can set a Custom Tab Order in Designer View.

## How to Change the Width of a Column in Table View

1. To increase or decrease a column's width, click the right column border in the column header.
2. When DataEase displays the double-sided arrow, drag the border to the right to increase the width or to the left to decrease the width.

3. Release the mouse button. The other columns shift to the right or left, but retain their original width.

Click the right column border of the LAST NAME Column. When DataEase displays the double-sided arrow, drag the column border to the left to decrease the column's width.

Row#	MEMBER	LAST NAME	FIRST NAME	TELEPHONE
1	00001	Birnbaum	Roger	(617)832-8843
2	00002	Perrault	George	(203)448-5821
3	00003	Christino	Laura	(703)450-1192
4	00004	Williams	Laura	(414)933-9224
5	00005	Riggs	Cynthia	(207)224-9921
6	00006	Shannon	Patrick	(617)862-1010
7	00007	Johannsson	David	(918)250-4432
8	00008	LaCoste	Fred	(404)265-1126
9	00009	Hagerty	Sara	(305)896-9932
10	00010	Cohen	Samuel	(914)882-8334
11	00011	Jones	Anita	(205)476-6665
12	00012	Bennington	William	(303)699-2734

Notice how the LAST NAME column has now been reduced in width.

Row#	MEMBER	LAST NAME	FIRST NAME	TELEPHONE
1	00001	Birnbaum	Roger	(617)832-8843
2	00002	Perrault	George	(203)448-5821
3	00003	Christino	Laura	(703)450-1192
4	00004	Williams	Laura	(414)933-9224
5	00005	Riggs	Cynthia	(207)224-9921
6	00006	Shannon	Patrick	(617)862-1010
7	00007	Johannssc	David	(918)250-4432
8	00008	LaCoste	Fred	(404)265-1126
9	00009	Hagerty	Sara	(305)896-9932
10	00010	Cohen	Samuel	(914)882-8334
11	00011	Jones	Anita	(205)476-6665
12	00012	Bennington	William	(303)699-2734

**Note:** When you increase or decrease a column's width, the text in all columns retains its size and position. However, if you decrease a column's width, some text in that column may be hidden by the right column border.

## How to Change the Height of All Rows in Table View

1. To increase or decrease the height of all rows, click the top or bottom row border of any row in the Row# column. DataEase displays the double-sided arrow.

- To increase the height of all rows, drag the bottom row border down or the top row border up the desired distance. To decrease the height of all rows, drag the top border down or drag the bottom row border up the desired distance.
- Release the mouse button. The text in the rows retains its size and position. If you decrease the height, some text may be hidden from view by the bottom row border.

Drag the border down, if you want to increase the depth of the table's rows.

Row#	MEMBER	LAST NAME	FIRST NAME	TELEPHONE
1	00001	Birnbaum	Roger	(617)832-8843
2	00002	Perrault	George	(203)448-5821
3	00003	Christino	Laura	(703)450-1192
4	00004	Williams	Laura	(414)933-9224

## How to Move a Column in Table View

- To select the column, click in the center of the column header and hold down the mouse button. DataEase highlights the column.
- Drag the selected column to its new position.
- Release the mouse button. DataEase shifts the other columns to the right or left to accommodate the repositioned column.

The selected TELEPHONE column is dragged to the left, and placed in its new position when the mouse button is released.

Row#	MEMBER	TELEPHONE	LAST NAME	FIRST NAME
1	00001	(617)832-8843	Birnbaum	Roger
2	00002	(203)448-5821	Perrault	George
3	00003	(703)450-1192	Christino	Laura
4	00004	(414)933-9224	Williams	Laura
5	00005	(207)224-9921	Riggs	Cynthia
6	00006	(617)862-1010	Shannon	Patrick
7	00007	(918)250-4432	Johannssc	David
8	00008	(404)265-1126	LaCoste	Fred
9	00009	(305)896-9932	Hagerty	Sara
10	00010	(914)882-8334	Cohen	Samuel
11	00011	(205)476-6665	Jones	Anita
12	00012	(303)699-2734	Bennington	William

## Creating a New Record

See **DESIGNER GUIDE Chapter 6** for more information on defining field-level security.

When you display a form in User View, DataEase automatically positions the cursor in the first field where you can enter data. To enter a new record, just type values in the blank fields on the form and press F2 SAVE AS NEW RECORD.

### How Document Security Affects Record Entry

When an application designer creates a record entry form in Designer View, he or she uses the Document Security dialog to assign the minimum security level required to perform the following record entry operations:

- Viewing Records
- Entering Records
- Modifying Existing Records
- Deleting Records

If your security level is lower than the minimum level specified for the attempted action in the Document Properties dialog, DataEase displays a Security Violation message and prohibits you from performing the action.

To perform a record entry operation on the data in an SQL table, you must have the required VIEW, INSERT, MODIFY, and/or DELETE permission on the SQL engine, in addition to the minimum security level required by DataEase.

**Note:** If your DataEase security level is insufficient, or you lack the required SQL permission to perform your assigned job responsibilities, ask the system/database administrator for assistance.

### How a Multi-User Environment Affects Record Entry

See **USER GUIDE Chapter 8** for more information on multi-user locking.

In a multi-user environment, two or more users can view the same record(s) simultaneously. However, when a user makes a change to either the document's design or the data, DataEase automatically locks the affected part of an application for the exclusive use of that user. The table below summarizes the locking rules DataEase follows in a multi-user environment.

#### Data Locking in a Multi-User Environment

DataEase Locks...	When...
<b>All the Records in a Form</b>	Any user tries to change any aspect of the form in Designer View.
<b>An Individual Record</b>	Any user tries to save changes to the data in the record.



## Resource Conflict Messages

In a multi-user environment, you may occasionally try to access a record that is not available because someone else has exclusive use of that record. When this event occurs, DataEase displays a Resource Conflict message similar to the following:

```
The resource you selected is currently in use:
```

```
By user: User Name
```

```
Machine: Computername
```

```
Waiting for form Formname definition
```

```
n attempts to access resource, Press ESC to abort
```

This message will vary slightly, depending on the type of resource DataEase is trying to access.

DataEase continues trying to access the record *n* times until the resource becomes available. The *n* is incremented every five seconds, indicating how many attempts have been made. As soon as the resource becomes available, the message disappears and DataEase resumes processing.

If you press Esc while this message is displayed, DataEase aborts the transaction within a few seconds. In some situations, however, you cannot abort a transaction without jeopardizing data integrity. In these situations, DataEase does not let you abort the transaction, and the message Press ESC to abort does not appear.

**Note:** Some networks do not let DataEase display the name of the user and the computer using the requested resource. The system administrator may also choose not to display this information. Therefore, depending on your system configuration, the User Name and Computername may not appear in the Resource Conflict message.

## How Field Type Affects Record Entry

In Designer View, DataEase lets the application designer create different types of fields when designing a record entry form: Text, Number, Numeric String, Currency, Date, Time, Choice List, Yes/No, Sequenced ID, and Memo.

When a form is displayed in User View, DataEase allows only certain characters to be entered in a field, depending on the Field Type. For example, the ROOMS field on the CLUBS form is defined as a Number field. If you try to enter an alphabetical letter in this field, DataEase displays an error message and does not let you save the record.

This restriction prevents you from saving incorrect data, which impairs your data's integrity. The restrictions that govern what type of data can be entered in each Field Type are summarized in the table below.

### Summary of Valid Data for Field Types

Field Type	Type of Data Entered	Sample Field Data/Format	Restrictions During Record Entry
<b>Text</b>	Alphanumeric and other keyboard characters, including ANSI characters.	David St. Hubbins 123 Maple Lane	Do not enter wild cards (*, ?, and ~) as part of a record.
<b>Numeric String</b>	Numbers used for identification only. Not used for calculations.		DataEase fills incompletely filled fields with leading zeros.
<b>No Format</b>	Numbers without formatting characters.	1234 2345678	
<b>Predefined Format</b>	Numbers with formatting characters.	123-45-6789 (123)456-7890 12345-6789	Social Security Number Telephone Number Custom Zip Code
<b>Number</b>	Numbers that denote a quantity. Used for calculations.		Type the minus sign (-) to make the number negative.
<b>Integer</b>	Numbers with no decimal point.	12,345 234	DataEase automatically inserts commas after every third digit.
<b>Fixed Point</b>	Numbers with a fixed number of digits to the right of the decimal point.	123.456 2.345	DataEase automatically inserts commas after every third digit.

<b>Floating Point</b>	Numbers with a user-entered decimal.	12.3456 2345.6	DataEase does not automatically insert commas.
<b>Currency</b>	Monetary values with two digits to the right of the decimal point.	1,234.56 23.45	DataEase automatically inserts commas after every third digit.
<b>Date</b>	Date values.	06/20/98 20/06/92 92/06/20	Date values contain numbers. You must enter the leading zeros, but you do not need to enter the slashes.
<b>Extended Date</b>	Date Values	16/09/1999 03/26/2000	Date format which uses 4-digits to show the Year.
<b>Time</b>	Time values.	10:57:36	Time values contain numbers.
<b>Choice List</b>	Values chosen from a list of up to 99 predefined choices.	1: Single 2: Married 3: Divorced	You can only enter choices that are listed for the field.
<b>Yes/No</b>	Yes or No values only.	1: Yes 2: No	You can only enter Yes or No.
<b>Sequenced ID</b>	Automatically incremented value (new field value = field value in the previous record + 1).	001Y 001Z 002A	Sequenced ID fields are usually Prevent Data-entry and do not usually need the unique flag.

---

**Note:** You must use the Windows Control Panel to change the default Date, Number, or Currency field format to another national format throughout your application.

## How Field Characteristics Affect Record Entry

In addition to specifying a Field Type, DataEase lets the application designer assign special Field Characteristics to a field when designing a record entry form.

When a form is displayed in User View, the Field Characteristics assigned to a field further restrict what kind of data you can enter in the field. For example, the CLUB ID field on the CLUBS form is assigned the Prevent Data-entry Field Characteristic, which prevents the cursor from entering this field. You cannot manually enter data in the field. The CLUB ID field is automatically filled by DataEase using a Derivation formula which derives a sequenced Numeric value (e.g., 00001, 00002, etc.).

The rules that govern how Field Characteristics affect record entry operations are summarized in the table below.

### Effect of Field Characteristics on Record Entry

Field Characteristic	Purpose	Effect on Record Entry
<b>Required</b>	Prevents you from saving the current record until you enter data in the field.	You must enter values in all Required fields on the form before you can save the record.
<b>Unique</b>	Prevents duplicate records (two records with exact matching field values).	If the form has more than one Unique field, DataEase combines the Unique field values into a Unique key. In this case, the same Unique field value may be saved in more than one record, as long as the combination (key) is unique.
<b>Validation Formula (Upper/Lower Limit)</b>	Allows only values that fall within the acceptable range.	Displays an error message if the value you enter is outside the predefined range.
<b>Derivation Formula</b>	Automatically enters a value when the form is displayed.	You can modify any derived value by typing a new value in the field (if the field is not Prevent Data-entry).
<b>Default</b>	Automatically fills in a constant value if you leave it blank.	
<b>Lookup</b>	Automatically retrieves the field value from a related form or a system value (e.g., current date).	

<b>Calculation</b>	Automatically derives a value based on a predefined formula.	A calculation can include the 58 DataEase functions, relational operators, default and lookup values, and system-provided values for date, time, user name, user security level, and computername.
<b>Prevent Data-entry</b>	Prevents you from entering data in a field with a Derivation Formula.	You cannot move the cursor into a Prevent Data-entry field (unless you are searching for records using QBF).
<b>Field Security</b>	Prevents you from viewing or entering field values.	Your security level must be equal to or higher than the minimum defined for the field.
<b>View Security</b>	Hides the field values.	
<b>Write Security</b>	Prevents the cursor from entering specific fields.	

---

## Moving the Cursor in a Record Entry Form

While entering records in User View, many users find it easier to move the cursor using the keyboard instead of the mouse. The keystrokes used to move the cursor in a record entry form displayed in User View are summarized in the table below.

### Cursor Movement in a Record Entry Form

Keystroke	Key Name	In Form View, moves to...	In Table View, moves to...
↑	Up Arrow	Line above in a multiline field. Otherwise, field or button above.	Record line above.
↓	Down Arrow	Line below in a multiline field. Otherwise, field or button below.	Record line below.
←	Left Arrow	Previous character.	Same.
→	Right Arrow	Next character.	Same.
↑	Previous Form	Main form (or Previous Subform).	First record on screen.
↓	Next Form	Next Subform (or Main form).	Last record on screen.
<b>Home</b>	Home	Beginning of the current line within a field.	Same.
<b>Ctrl + Home</b>	First Field	First field in current record. In a multiline field, moves to the first character in the current field.	
<b>End</b>	End	End of the current line within a field. In a multiline field, moves to the last character in the current field.	
<b>Ctrl + End</b>	Last Field	Last field in current record. If the cursor is already in the last field, Ctrl + End moves the cursor to the last field in the parent form.	
<b>PgUp</b>	Previous page	Previous screen, same horizontal position. In a multiline field, scrolls to the previous page in the current field.	N/A
<b>Ctrl + PgUp</b>	First page	One screen to the left.	Same.

<b>PgDn</b>	Next page	First field on next page. In a multiline field, scrolls to the next page in the current field.	First field on next page.
<b>Ctrl + PgDn</b>	Last page	One screen to the right.	Same.
←	Backspace	Delete previous character.	Same.
↵	Enter	Next field in tab order.	Same.
⇨	Tab	Next field in tab order.	Same.
⇩	Shift-Tab	Previous field in tab order.	Same.

---

## Moving the Cursor in a Record Entry Field

The keystrokes used to select, cut, copy, paste, and delete text within a field are summarized in the table below.

### Keys Used to Edit Data Values

Keystroke	Function
Ctrl + X	Cuts the selected text to the Clipboard.
Ctrl + C	Copies the selected text to the Clipboard.
Ctrl + V	Pastes the selected text from the Clipboard.
Backspace	Deletes the character to the left of the cursor or deletes the selected text.
Ctrl + Z, Esc	Restores the current field to the value saved to disk.
Delete	Deletes the character to the right of the cursor or deletes the selected text.
Shift + —	Selects/deselects one character to the right.
Shift + ←	Selects/deselects one character to the left.
Shift + ↑	In a multiline field, selects/deselects the line of text from the cursor position to the same position in the line above it.
Shift + ↓	In a multiline field, selects/deselects the line of text from the cursor position to the same position in the line below it.
Shift + PgUp	Selects/deselects all text to the top of the field/window.
Shift + PgDn	Selects/deselects all text to the bottom of the field/window.
Shift + Home	Selects/deselects text to the start of the line.
Shift + End	Selects/deselects text to the end of the line.
Ctrl + Shift + —	Selects/deselects the next word.
Ctrl + Shift + ←	Selects/deselects the previous word.
Ctrl + Shift + Home	Selects/deselects text to the beginning of the field.
Ctrl + Shift + End	Selects/deselects text to the end of the field.



## Using a Custom Tab Order

See **DESIGNER GUIDE Chapter 4** for more information on designing a Custom Tab Order.

When you press Tab during record entry, the cursor moves to the next field, button, or graphic image. By default, the cursor starts at the upper left corner of the form and then moves from left to right and top to bottom towards the lower right corner. The default tab order is the same in Form View and Table View. Press Shift + Tab to move in reverse order.

The screenshot displays the 'RESERVATION DETAIL' form for Club ParaDEASE. The form is organized into several sections, with a custom tab order indicated by numbered callouts (1-15) over the fields and buttons. The sections and their fields are:

- RESERVATION DETAIL** (Header): Includes 'Previous' and 'Next' buttons.
- Member Information**: Fields for Member Name (2: MEMBER FNAME, 3: MEMBER LNAME) and Member ID (4: ID).
- CUSTOMER INFORMATION**: Fields for Family Member Name (5: FIRST NAME, 6: LAST NAME), Individual ID (7: ID), and Age Status (8: STATUS).
- CLUB INFORMATION**: Fields for Destination Club Name (9: CLUB NAME) and Club ID (10: ID).
- DEPARTURE INFORMATION**: Fields for Departure City (11: DEPARTURE CITY) and Departure Date (12: DEPARTURE DATE).
- PRICE**: Fields for Adult Price (13: PRICE), Child Price (14: PRICE), and Price for this Reservation (15: PRICE).

On the left side, there is a sidebar with the Club ParaDEASE logo and the tagline 'The Antidote to Documentation'. Below the logo is a 'Reservation ID' field (1: ID) and a list of buttons: New, Save, Delete, Close, Clubs, and Reservations.






To make record entry easier, the application designer may assign a **Custom Tab Order** to a form. The Custom Tab Order also determines the default order of columns in Table View. One advantage of a Custom Tab Order is that it can let you create a more natural flow to entering records when the default tab order does not.

The Custom Tab Order is ignored when you use a mouse. Click the field, button, or image you want to make active.

## Viewing Records

The table below summarizes the Toolbar buttons, menu options, and function keys you can use to browse through records in a form.

### Tools for Viewing Records

Function	Icon(s)	In Form View...	In Table View...
View First Record		Choose <b>Goto&gt;&gt;First Record</b> .	Choose <b>Goto&gt;&gt;First Record</b> or press Ctrl + Home.
View Next Record		Choose <b>Goto&gt;&gt;Next Record</b> or press F3 NEXT RECORD.	Press ↓
View Previous Record		Choose <b>Goto&gt;&gt;Previous Record</b> or press Shift + F3 PREVIOUS RECORD.	Press ↑
View Last Record		Choose <b>Goto&gt;&gt;Last Record</b> .	Choose <b>Goto&gt;&gt;Last Record</b> or press Ctrl + End.
Toggle Between Table/Form View		Choose <b>View&gt;&gt;Table</b> .	Choose <b>View&gt;&gt;Form</b> .

### Viewing Records in a Report

When a report is displayed for QBF or Browsing, you can navigate through the report using the keys, menu options, and Toolbar buttons that you use to navigate through records in a form.

When a report is displayed for Browsing, you can choose **Goto>>Related Form** to display forms related to the current report.



When a report is printed to a window, you can also use the Previous Data Page button to display the previous page of records.



When a report is printed to a window, you can also use the Next Data Page button to display the next page of records.

## Searching for Records

DataEase supports two different ways to search for records: **Query By Form (QBF)**, which is available whenever a form or report document is displayed in User View, and **Query By Model (QBM)**, which is available in both User View and Designer View.

Query By Form locates all the records that contain the sample value(s) you enter in one or more fields on the document. The table on the next page summarizes the basic techniques you can use to find specific records, view all the records found by DataEase in response to the search criteria you enter, open a related form, and retrieve data from a related record.

**Note:** Fields that are frequently used to find a particular record should be indexed, since indexing significantly improves the speed of the search.

### Searching for Records

To...	Do the Following...
Access QBF	Choose <b>Query&gt;&gt;Select Records</b> , press Alt + F5, or click on the QBF Toolbar button and enter search criteria directly on the form.
Enter Search Criteria	Choose <b>Query&gt;&gt;Selection Criteria</b> and enter a value that defines the record(s) you want to see.
Perform a Wild Card Search	Use wild card characters to find records when you are not sure of the exact value. ? finds a single unknown character. * finds any number of unknown characters. ~ finds values that sound like the value you are searching for. For example, enter CT in the STATE field to see all records with STATE = CT. Use wild card characters to find records when you are not sure of the exact value. For example, enter C* in the STATE field to see all records with a state that begins with C (CA, CO, etc.).
Perform a Soundex Search	Enter the Soundex character ~ followed by the value that sounds like the value in the record(s) you are searching for. For example, to find a value that sounds like Bob, type ~BB. DataEase displays matching values (e.g., bab, beb, Bob, bib).
Display Table View of Matching Records	Choose <b>Query&gt;&gt;Select Records</b> . Enter the selection criteria. Use * and ? to broaden the search if desired. Choose <b>View&gt;&gt;Table</b> .
View First Matching Record	Choose <b>Query&gt;&gt;Select Records</b> . Enter the selection criteria. Use * and ? to broaden the search if desired. Choose <b>Goto&gt;&gt;Next Record</b> or press F3.
View Next Matching Record	Press F3 to display more matching records.
Display a Related Form	Press F10 and select the relationship to view. Perform the desired record entry functions. Press Shift + F10 to return to the original form.
Look up Related Fields	Press Ctrl + F10 when the cursor is in the relationship Match field. DataEase displays a table view of related field values. Highlight the value you want to return to the Primary form and press Enter.

## Time-Saving Tips for Entering a New Record

The table below summarizes several shortcuts to help speed up record entry.

### Record Entry Quick Reference

Operation	How to Perform Operation
<b>Entering Records</b>	
Enter a New Record	Fill in the form and press F2 SAVE AS NEW RECORD or choose <b>Edit&gt;&gt;Save As New Record</b> .
Use an Existing Record to Create a New Record	After you enter a record, don't clear the screen. Simply type over the values that need to be changed and press F2 SAVE AS NEW RECORD or choose <b>Edit&gt;&gt;Save As New Record</b> .
Modify a Record	Make changes to the record on the screen and press F8 SAVE or choose <b>Edit&gt;&gt;Save</b> .
Delete a Record	Press F7 DELETE or choose <b>Edit&gt;&gt;Delete Record</b> . Click OK to verify.
<b>Entering Data into a Field</b>	
Fill in a Field	Type data in the field. Press Tab if the data does not completely fill the field or if Automatic Tab is turned off in Document Properties.
Edit the Value in a Field	Use Backspace, Ins, Del, and <b>Edit&gt;&gt;Clear Field</b> (or highlight the field value and press Del).
Clear a Single Field	Highlight the field and press F6 or Del or choose <b>Edit&gt;&gt;Clear Field</b> .
Clear the Screen	Press F5 FORM CLEAR or click on the Form Clear button on the Toolbar.
Enter a Number Value	Type the digits. If the number is negative, type a minus sign before the number.
Enter an Integer Value	Type the digits.
Enter a Fixed Point/Dollar Value	Type the digits to the left of the decimal. If necessary, type the digits to the right.
Enter a Floating Point Value	Type the digits to the left of the decimal. If necessary, type the decimal point and the digits to the right.
Enter a Numeric String Value	Type the digits only. DataEase automatically enters leading zeros.
Enter a Date/Time Value	Type the digits only (do not type slashes, colons, or other formatting characters).
Enter a Choice Value	Click on the drop-down arrow icon to open the list of choices. Click on the choice value you want to enter in the field.

Enter a Derived Value      Press Enter when the cursor is in the derived field. A derived field value is automatically entered.

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**Note:** When you enter, modify, or delete records in a form based on an SQL database table, DataEase transparently inserts, updates, or deletes data in the SQL table.

## Using Function Keys in Record Entry

While entering records in User View, many users prefer to press a function key to perform a command rather than select a menu option using the mouse. The function keys used during record entry are summarized in the table below.

### Function Keys in Record Entry

Keystroke	Key Name	Form View	Table View
F1	HELP	Display the DataEase Help System.	
Shift + F1	CONTEXT-SENSITIVE HELP	Display a pointer used to access a context-sensitive Help topic from the DataEase Help System. (Press Esc to abort.)	
Alt + F1	USER HELP	Display the document- and field-level Help that the application designer defined.	
F2	SAVE AS NEW RECORD	Save the record on the screen.	Save changes/additions to table.
F3	VIEW NEXT RECORD	Display next consecutive record or view queried records when using QBF.	Display next consecutive record.
Shift + F3	VIEW PREVIOUS RECORD	Display previous consecutive record or view queried records when using QBF.	Display previous consecutive record.
F4	DESIGNER VIEW	Change to Designer View.	Same.
Ctrl + Z, Esc	UNDO	Undo typing in current field (before saving to disk).	
F5	CLEAR FORM	Clear the form on the screen.	N/A
Alt + F5	SELECT RECORDS	Accept search criteria (turn off derivations and Prevent Data-entry attributes).	
F7	DELETE	Delete current record.	Same.
F8	SAVE	Modify current record.	Save changes made to the table.
F9	QBM	Access Query By Model (QBM) to create a report.	
Ctrl + P	PRINT	Access the Print dialog to print the current data.	

F10	RELATED FORM	Display related form.	Same.
Ctrl + F10	LOOKUP	Lookup related value.	Same.
Ctrl + D	RETURN DATA	Return Match field data to the Primary form.	

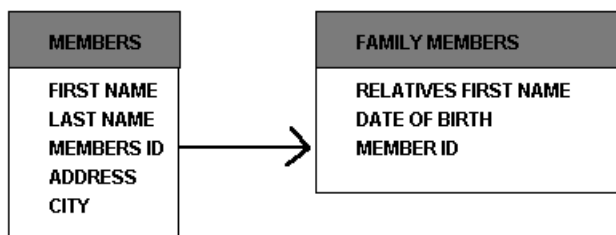
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## Using Relationships in Record Entry

See **DESIGNER GUIDE Chapters 2, 7 and 8** for information on defining a relationship.

When the application designer creates the record entry forms in your application, the designer can also define relationships between the underlying database tables. To create a relationship between two database tables, at least one column must be duplicated in each table. These key columns (called Match fields) hold exact matching values in both tables.

For example, the relationship between MEMBERS and FAMILY MEMBERS is based on the existence of the MEMBER ID column in both of the associated database tables.



### Viewing Related Forms

Once a relationship is defined between two tables, you can access the data in both tables from a record entry form based on either table. For example, when you are viewing the Buccaneer's Creek record in the CLUBS form, pressing F10 RELATED FORM lets you view all the related PRICES records. These records show the different prices charged for a vacation at Buccaneer's Creek based on the departure zone and season.

When you press F10 to view a related form DataEase displays a dialog that lets you choose the document you want to view.

### Entering Data from Related Forms

In addition to providing a quick way to view the records in a related form, DataEase can quickly **retrieve** the data in each Match field and automatically copy the data into the record you are currently filling in. The automatic data-entry features explained below can greatly speed up record entry operations.

### Ctrl + F10 LOOKUP

See **DESIGNER GUIDE Chapters 2 and 8** for information about defining and using relationships.



When you are entering data in a record, if you place the cursor in a Match field and press Ctrl + F10, DataEase displays a pop-up table of the records in a related form. For example, if you place the cursor in the CLUB NAME field in the RESERVATIONS form and press Ctrl + F10, DataEase displays a pop-up table of the records in the CLUBS form.

The screenshot shows the DataEase interface for the 'RESERVATIONS' form. The form includes fields for Member ID, Date (09/10/01), Last Name, First Name, Street, City, State, and Zip Code. A 'Reservation ID' of 00202 is displayed. On the left, there are buttons for 'New', 'Save', 'Delete', 'Close', 'Members', and 'Clubs'. A 'Reservation Data' table is visible at the bottom. A 'Related Records' pop-up window is open over the 'Club Name' field, displaying a list of clubs: Playa Blanca, Caravelle, Buccaneer's Creek, Cancun, Coba, Magic Isle, Punta Cana, and Chichen Itza. The 'CLUBS' table is highlighted in the pop-up window. Text annotations explain that the pop-up is triggered by Ctrl + F10 and that it displays the CLUBS table.

You can use the Scroll Bars to browse through the related records. When you double-click on a record in the list, DataEase retrieves all the Match field data from that record and automatically enters it into the record you are currently filling in. In the above example, if you click on the Buccaneer's Creek record in the CLUBS form, DataEase automatically copies the CLUB NAME and the CLUB ID values into the current record in the RESERVATIONS form.

If the form you are looking up has many records, you can reduce the number of related records that appear by entering search criteria in the Match field and then pressing Ctrl + F10.

### Ctrl + D RETURN DATA

When you are entering data in a record, if you press F10 to display a related form, you can enter search criteria in one or more fields to find a specific related record. The related form can be: (1) the form that defines a table, or (2) a form that uses a table and pre-filters that data.

When you find the correct record, press Ctrl + D RETURN DATA to return to the original form and insert all Match field values into the current record.

FORM : RESERVATIONS

**RESERVATIONS** Previous Next

Club ParaDEASE  
The Antidote to Documentation

Member ID: 00012 Date: 11/06/94

Last Name: Bennington First Name: William

Street: 569 South Colorado Avenue

City: Littleton State: CO Zip Code: 80161-0000

Reservation ID 00002

New Save Delete Close Members Clubs

FORM : MEMBERS

**MEMBERS** Previous Next

Club ParaDEASE  
The Antidote to Documentation

Member ID: 00012

New Save Delete Close Clubs Reservations

Last Name: Bennington First Name: William Initial: L

Street: 569 South Colorado Avenue

City: Littleton CO Zip Code: 80161-0000

Expiration Date: 04/10/95 Telephone: (303)699-2734

Favorite Activity: GOLFING Method of Payment: AMERICAN EXPRE

Card No. 8923-872346-88852

**Family Members**

First Name	Last Name	Date of Birth
William	Bennington	11/18/34
JoBeth	Bennington	07/19/58
Sarah	Bennington	03/14/89
Kristin	Bennington	05/18/91
Mary Anne	Bennington	09/23/37

**Membership Fees**

Adult Annual Fee \$35.00  
Child Annual Fee \$15.00

Adult Fees: 105  
Child Fees: 30  
Total Due: 135.00

Press Ctrl + D to enter the data from the FIRST NAME, LAST NAME, and ADDRESS fields in the MEMBERS form into the RESERVATIONS form.

For example, if you are filling in a RESERVATIONS record, press F10 to open the MEMBERS form. Use QBF to find the record for the member making the reservation. When you find the member's record, press Ctrl+D to return to the RESERVATIONS form and automatically enter the member's name and address in the current record.

## Using Forms That Include Custom Buttons

See **DESIGNER GUIDE Chapter 6** for information on assigning actions to buttons and images.

A form can contain one or more custom buttons. A button is a rectangular object that performs a predefined action when you click on it. The figure below shows a form that has several buttons.

These buttons let you save, delete, or clear the record on screen.

These buttons let you display the next and previous records.

The screenshot shows a web application interface for 'Club ParaDEASE'. The main content area displays a record for 'Playa Blanca' with the following details:

- Club Name: Playa Blanca
- Telephone: (52) 333-20440
- Street: 497 Costa de Chamela
- City: Jalisco
- Country: Mexico
- Description: Playa Blanca, located 120 miles south of Puerto Vallarta on Mexico's sunny Pacific coast, is our hottest winter holiday vacation spot. Enjoy snorkeling, deep-sea fishing, and peppery cuisine.
- Map: A map of Mexico with a red pin indicating the location of Playa Blanca.
- Activities: A list of activities with icons: Baseball, Waterski, Biking, Hangliding, Snorkel, and Theater.

On the left side, there is a sidebar with the following buttons:

- New
- Save
- Delete
- Close
- Activities
- Reservations

At the top right, there are 'Previous' and 'Next' navigation buttons. The form also includes a 'Club ID' field with the value '00001' and a 'Rooms' field with the value '196'.

These buttons let you access related forms (EVENTS and RESERVATIONS)

You can also assign graphics an action.

## Button and Image Actions

See **DESIGNER GUIDE Chapter 6** for a complete list of button actions.

When creating a button or image, the application designer can assign it an action. Some actions that DataEase allows are summarized in the table below.

## Button Actions

<b>Button Action</b>	<b>Equivalent Option/ Keystroke</b>	<b>When You Click on the Button, DataEase...</b>
New Record	<b>File&gt;&gt;New Record</b> F5 CLEAR FORM	Displays a blank record.
Save Record	<b>Edit&gt;&gt;Save As New Record</b> F2 SAVE AS NEW RECORD	Saves the current record.
Delete Record	<b>Edit&gt;&gt;Delete Record</b> F7 DELETE	Deletes the current record.
First Record	<b>Goto&gt;&gt;First Record</b>	Displays the first record.
Next Record	<b>Goto&gt;&gt;Next Record</b> F3 NEXT RECORD	Displays the next record.
Previous Record	<b>Goto&gt;&gt;Previous Record</b> Shift + F3 PREVIOUS RECORD	Displays the previous record.
Last Record	<b>Goto&gt;&gt;Last Record</b>	Displays the last record.
Selection Filter	<b>Query&gt;&gt;Select Records</b> Alt + F5	Lets you enter selection criteria.
Clear Selection Filter	<b>Query&gt;&gt;Select Records</b> Alt + F5 and F5 CLEAR FORM	Clears selection criteria.
Open Document	<b>File&gt;&gt;Open</b> Ctrl + O	Displays the Open Document dialog.
Form Open Related	<b>Goto&gt;&gt;Related Form</b> F10 RELATED FORM	Display a list of related forms.

## Saving a Record

When you finish entering data in all the fields on a record, choose **Edit>>Save As New Record** or press F2 SAVE AS NEW RECORD to save the information to disk. DataEase saves the entered data as a new record if all of the following conditions are met:

- A value has been entered in each Required field.
- The Unique field values are not duplicated in any other record on the same form.
- Your security level is equal to or higher than the minimum security level required to enter records in the document.

The keystrokes used to save records and their effects in various DataEase formats are summarized in the table at the end of this chapter.

Note: To save a new record in an SQL table, you must have INSERT permission on the SQL engine as well as the minimum security level required by DataEase.

## Modifying a Record

To change the data in an existing record, move the cursor into each field and type the new information over the existing value. When you finish modifying the record, choose **Edit>>Save**, press F8 SAVE, or click on the Save button on the Toolbar to save the new information to disk. DataEase saves the modified data as the **same** record (DataEase does not create a new record) providing the following conditions are met:

- A value has been entered in each Required field.
- The Unique field values are not duplicated in any other record on the same form.
- Your security level is higher than the minimum security level required to modify records in the document.

The keystrokes used to modify records and their effects in various DataEase formats are summarized in the table at the end of this chapter.

**Note:** To modify a record in an SQL table, you must have UPDATE permission on the SQL engine as well as the minimum security level required by DataEase.

**Note:** When you modify records in Table View, DataEase inserts an asterisk in the first column to denote the change. When you press F8 SAVE, DataEase writes the change to disk and removes the asterisk.

If you press F8 SAVE while you are viewing a new record, DataEase saves it as if you chose F2 SAVE AS NEW RECORD.

## Deleting a Record

To permanently delete a record from a form, choose **Edit>>Delete Record** or press F7 DELETE. DataEase displays a dialog and asks you to confirm the deletion. Click OK or press Enter to delete the record. Click Cancel or press Esc to abandon the deletion.

When you click OK to confirm the deletion, DataEase deletes the record providing your security level is equal to or higher than the minimum security level required to delete records in the document.

The keystrokes used to delete records and their effects in various DataEase formats are summarized in the table at the end of this chapter.

**Note:** To delete a record from an SQL table, you must have DELETE permission on the SQL engine as well as the minimum security level required by DataEase.

**Note:** When you delete a record in Table View by pressing F7 DELETE, DataEase inserts a D in the first column to denote the deletion. When you press F8 SAVE, DataEase writes the change to disk and removes the D.

## Restoring Deleted Records

To recover a record in a DataEase Native table that has been marked deleted but has not yet been erased from disk, move the cursor into any field in the record and choose **Edit>>Restore Record** or press Ctrl+F5 RESTORE RECORD.

## Saving, Modifying, and Deleting Records

In...	Press F2 SAVE AS NEW RECORD to...	Press F8 SAVE to...	Press F7 DELETE to...
<b>Form View</b>	Save the record that is currently visible on the screen.	Update the record that is currently visible on the screen with the data changes you have entered.	Delete the record that is currently visible on the screen.
<b>Table View</b>	Save all the records that you have entered since you last saved to disk.	Save all the records that you have modified since you last saved to disk.	Erase all the records that you have deleted since you last saved to disk.
<b>A Multiform</b>	Save the current Main form record and each Subform record entered since you last saved to disk.	Save all the changes made to the Main form and Subform records since you last saved to disk.	Display a dialog that asks you to specify exactly what you want to delete (Main form record only, Subform record only, or both). The choices DataEase displays in this dialog vary depending on which referential integrity option the application developer assigned to the document.
<b>A Native Table</b>	Add the record at the end of the table.	Modify a record in a DataEase Native table. The record is maintained in the same position in the table.	Remove the record from the screen. The record is not actually erased from the disk file until you reorganize the form.
<b>An SQL Table</b>	Insert the record into a position in the table based on the value of its Unique key. The previously existing records are automatically arranged to accommodate the new entry.	Modify a record in an SQL table. The record is maintained in the same position unless the modification changes the value of the record's Unique key.	Erase the record from an SQL table. Records deleted from an SQL table cannot be restored.



## Chapter 3 : The File Menu

### Managing Documents and Importing and Exporting Data

See the **User Guide Introduction** for information on the File menu that is displayed when you first start DataEase.

The options on the File menu are used to create, open, close, and print documents, and import and export data. Options toward the bottom of the menu let you switch to Designer View, close the current application, and end the session.

Each menu option is summarized in the table below and explained in detail on the following pages.

### Summary of File Menu Options

Menu Option	Keyboard Equivalent	Menu Option Is Used to...
<b>New</b>	Alt + F, N Ctrl + N	Create a new document. DataEase automatically switches to Designer View.
<b>Open</b>	Alt + F, O Ctrl + O	Open an existing document.
<b>Close</b>	Alt + F, C Ctrl + F4	Close the active document.
<b>Delete</b>	Alt + F, D	Delete a document and database table from the current application.
<b>Print</b>	Alt + F, P Ctrl + P	Print data. This option is enabled only if a document is open.
<b>Print Setup</b>	Alt + F, R	Select and configure the default printer. This option is enabled only if a document is open.
<b>Import</b>	Alt + F, I	Import data into any database table.
<b>Export</b>	Alt + F, E	Export data from a DataEase application to another DataEase (DOS or Windows) application or another software program.
<b>Designer View</b>	Alt + F, V F4	Display the active document in Designer View.
<b>Close Application</b>	Alt + F, L	Close the current application.
<b>Exit</b>	Alt + F, X Alt + F4	End the DataEase session.

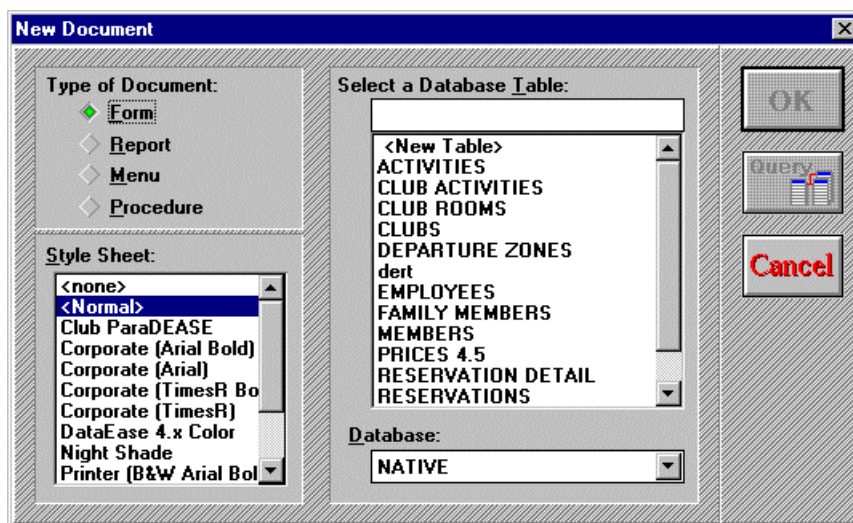
## Creating a New Document

See **DESIGNER GUIDE Chapter 1** for information on document types.

See **DESIGNER GUIDE Chapter 6** for information on creating Document objects.

<b>File</b>	
<b>New</b>	<b>Form</b>
Open...	Report
Close...	Menu
Delete...	Procedure
Print...	
Print Setup...	
Import...	
Export...	
Designer View	
Close Application	
Exit	

When you choose **File>>New**, DataEase displays a cascade menu that lets you choose the type of document you want to create: a form, report, menu, or procedure.



Use this dialog to define new documents and database tables.

After you choose the document type on the menu, DataEase displays your choice in the New Document dialog. This dialog lets you choose a Database Table and a Style Sheet for the document.

After you choose the document type, DataEase switches to Designer View. See the **Designer's Guide** for more information on creating new documents.

**Note:** You must have the minimum security level required to create a new document.

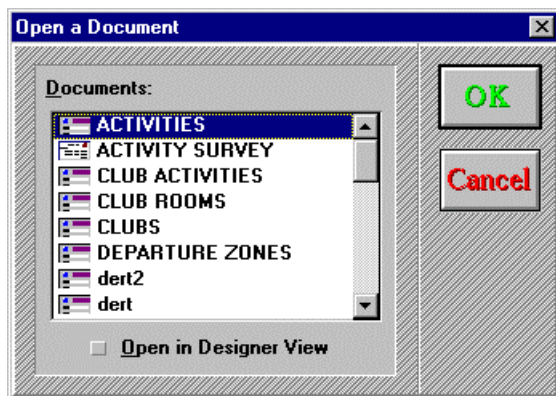
## Storing DataEase Documents

Whenever you save a new document, DataEase creates at least one DOS file. DataEase stores the files it creates in the directory of the current application. For example, all the files associated with Club ParaDEASE are located in the `C:\DFW\CLUB` directory.

## Opening a Document

See **USER GUIDE Chapter 7** for information on Document Properties.

When you choose **File>>Open**, DataEase displays the Open a Document dialog shown below. This dialog is used to open a document in the current application.



### Open a Document Dialog Options

**Documents** displays all the documents in the current application.

**Open in Designer View** tells DataEase to immediately display the document in Designer View. Click on a document to select it.

By default, all documents open in User View. You can have up to ten documents open at once, including document icons. When you try to open an eleventh document, DataEase displays an error message. Click OK and close any documents you aren't using.

**Note:** The initial size, location, and action (e.g., display a New Record) for a document window can be set with **Document>>Properties**.

When you close a document, it is cleared from your system's memory. If you are running out of memory, close any documents you aren't using.

To open a document, you must have a DataEase security level equal to or greater than the minimum security level defined to view that document. The minimum security level is defined on the Document Security dialog in Designer View.

**Note:** To open a document that accesses an SQL table, your identity must also be recognized by the SQL engine. If you are not recognized by DataEase and the SQL engine, DataEase displays an error dialog box. The dialog box will list the SQL engine type, and the name of the database server and the specific database relating to the error.

The error dialog asks you to supply two parameters – **Name** and **Password**.

## Login Failure Dialog Options

**Name** lets you enter a User Name that is recognized by DataEase and that is a valid Login Name for the SQL engine being accessed.

**Password** lets you enter a Password, if one is required, that is recognized by the database server being accessed.

If you receive this dialog, ask your system administrator for a valid User Name and Password combination.

## How a Report Appears in User View

See **USER GUIDE Chapter 7** for information on entering QBF selection criteria.

When you open a report in User View, its appearance may vary depending on how the application designer assigns its default Document Properties. A report can be assigned to open in one of three ways:

- **QBF** lets you enter selection criteria to filter the data displayed in the report.
- **Live (Browse)** displays the report data in an outline-like format that includes space for four records from each group, along with group totals.
- **Print** sends all the data to a window on the screen, a printer, or a disk file, depending on the default Print Destination. Each group level in the report dynamically expands to accommodate all the requested data.

**Note:** To switch a report from Live to QBF, choose **Query>>Select Records**.

Once you view the report output Live or in QBF, you can choose **File>>Print** to send the report to a window, printer, or disk file.

When you print a report to a window on screen, a printer, or a disk file, each group level in the document dynamically expands to accommodate all the requested data, as shown in the figure below.

<b>Destination Club:</b> Coba		<b>Reservation Date:</b> 12/26/95	
<b>Arriving at:</b> Coba		<b>from</b> Atlanta	
<b>Last Name</b>		<b>First Name</b>	
Hanlon		Thomas	
Hanlon		Cynthia	
Hanlon		Christopher	
Jones		Anita	
Jones		Gregory	
Jones		Sabra	
Jones		Jerome	
Jones		Karla	
		<b>Guests arriving from this city:</b> 8	
<b>Arriving at:</b> Coba		<b>from</b> Dallas	
<b>Last Name</b>		<b>First Name</b>	
Davis		Samuel	
		<b>Guests arriving from this city:</b> 1	
		<b>Guests arriving from all cities:</b> 9	

When the GUEST LIST report is printed, DataEase displays the data for all members arriving at Club Cobra on December 26, 1995.

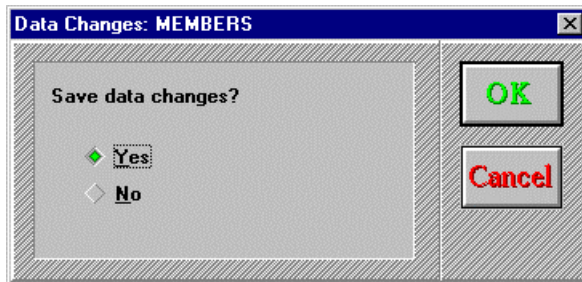
This Summary field shows a count of guests arriving at Club Cobra from Atlanta.

At the end of Club Cobra's listing, a Summary field shows the total count of guests arriving at that club from all cities.

## Closing a Document

When you choose **File>>Close**, DataEase closes the active document.

If you try to close a form before saving changes to a record, you receive the following message:



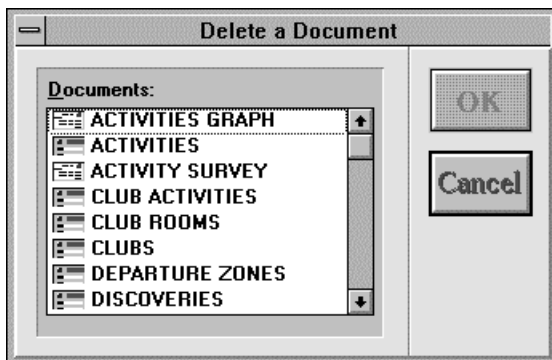
The Data Changes alert message lets you quickly save your work. Choose:

- Yes to save the changes and close the form. DataEase updates the record on screen.
- No to abandon the changes and close the form.
- Cancel to return to the form.

**Note:** To save your changes as a new record, click Cancel and choose **Edit>>Save As New Record**.

## Deleting a Document

When you choose **File>>Delete**, DataEase displays the Delete a Document dialog. This dialog is used to delete a document (and optionally, the corresponding table) from the current application.



### Delete a Document Dialog Options

**Documents** displays all the documents in the current application. Click on a document to select it.

Before DataEase deletes a document, DataEase displays a Delete Document alert message, which lets you confirm or cancel the deletion of your document. To confirm the deletion, click OK. To cancel the deletion, click Cancel.

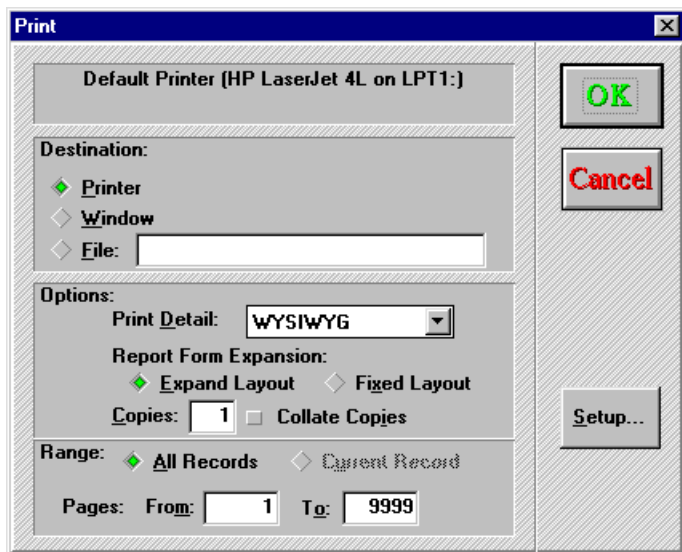
You must have a High Security Level to delete a document. See the **Designer's Guide** for more information on document security.



## Printing a Document

When you choose **File>>Print**, DataEase displays the Print dialog shown below. The Print dialog is used to print the records in the active form or report.

You can also choose to print a document with its display attributes if your printer supports multiple-size fonts and graphics.



### Print Dialog Options

You must have a printer connected to print a document.

**Destination** defines the print destination. Choose:

- **Printer** to send the document to the selected printer.
- **File** to copy the document to the disk file you specify in the text box. Enter the full pathname of the file (including disk drive and directory). If you do not specify a pathname when you print to a file, DataEase uses the directory of the current application.
- **Window** to print the document to the screen. When you print to a Window, DataEase changes the Print button on the Toolbar to the Print Done button. To switch back to the document in User View, select the Print Done button or press Esc.

**Options** is used to set the following:

- **Print Detail**, which specifies print quality. Choose:
  - **Text** for quick printing with letter quality output that includes only data and document text.
  - **Draft** for quick letter quality output that includes image frames (outlines) and lines, rectangles, and ellipses printed in a uniform shade.
  - **WYSIWYG** (What You See Is What You Get) to print a representation of your document that includes multiple typefaces, images, and other graphical elements.

See **Designer Guide Chapter 6** for information on setting Display Print Options for an object.

See the **Microsoft Windows User's Guide** for information on installing a printer.

- **Report Form Expansion**, which specifies the number of Subform or grouped records that print on a page. You can use this option to override the report layout originally specified in Designer View.
- **Expand Layout** to print all the Subform or grouped records.
- **Fixed Layout** to limit the number of Subform or grouped records that print on a page.
- **Copies**, which indicates the number of copies printed. The value must be 1 or greater. The default is 1.
- **Collate copies**, which turns on or off the feature that prints pages in proper numerical order when you print multiple copies of a document. Your printer must support collated copies to use this feature. The default is off.

**Note:** Print options for each document can be set with **Document>>Print Options**. Default options for new documents can be set in **Application>>Preferences**.

If the document designer has chosen to bypass the Print Document dialog, the document prints immediately using the default options.

To print images, you must have a printer that supports graphics. You can specify that an object does not print by choosing the Don't Print option in Designer View.

**Range** tells DataEase which set of records to include in the printout. Choose:

- **All Records** to print the records in a document that match the specified QBF or QBM selection criteria, if any. If no selection criteria are specified, DataEase prints all the records. This is the default option.
- **Current Record** to print the record currently displayed on your screen.

**Pages** tells DataEase which range of pages to send to the printer. Choose:

- **From** to specify the first page you want printed.
- **To** to specify the last page you want printed.

See **User Guide Chapter 1** for information on setting Display Print Options for an object.

DataEase uses **From = 1** and **To = 9999** as the default Range.

**Pages** indicates the total number of pages, not the page numbers of a document. For example, to print the first two records in a two-page form, specify 1 to 4 in the Pages text boxes.

**Setup** displays the Print Setup dialog shown later in this section.

See **USER GUIDE Chapter 1** for information on setting Display Print options for an object.

## Sending the Print Job

When you complete the Print dialog and click OK, DataEase reduces the active document to an icon, creates a print job in your system's memory, and sends it to Windows Print Manager. DataEase then displays a printing status window.

### Example: Printing the Current Record in a Form

In this example, the current record in the CLUBS form is printed using the WYSIWYG Print Detail.

**CLUBS** Previous Next

Club Name: Playa Blanca Telephone: (52) 333-20440

Street: 497 Costa de Chamela

City: Jalisco Country: Mexico

Club ID: 00001 Rooms: 196

Description: Playa Blanca, located 120 miles south of Puerto Vallarta on Mexico's sunny Pacific coast, is our hottest winter holiday vacation spot. Enjoy snorkeling, deep-sea fishing, and peppery cuisine.

Activities: Baseball, Waterski, Biking, Hangliding, Snorkel, Theater

Printout with Current Record selected in Form View.

Row#	CLUB NAME	STREET	CITY	COUNTRY
1	Playa Blanca	497 Costa de Chamela	Jalisco	Mexico

Printout showing Table View

### Example: Printing All Records in a Form

When you print records in a Multiform, DataEase prints all the Subform records associated with each Main form record (you cannot limit the number of Subform records).

In this example, all records in the CLUBS form are printed using the WYSIWYG Print Detail, and with Table View selected, rather than Form View.

Row#	CLUB NAME	STREET	CITY	COUNTRY
1	Playa Blanca	497 Costa de Chamela	Jalisco	Mexico
2	Caravelle	1900 Bel Aire	Guadeloupe	Fr. West Indies
3	Buccaneer's Creek	8608 Ste. Anne	Martinique	Fr. West Indies
4	Cancun	Quintana-Roo	Yucatan	Mexico
5	Coba	15 Bahia de Sacbes	Coba	Mexico
6	Magic Isle	1572 Montrouis	La Pointe aux Sables	Haiti
7	Punta Cana	824 Santo Domingo Boulevard	Alta Gracia	Dominican Republic
8	Chichen Itza	Playa de Verde	Chichen Itza	Mexico

### **How to Print the Records in a Form**

- 1 Open the form that contains the records you want to print.
- 2 Choose **File>>Print**. DataEase displays the Print dialog.
- 3 Choose the desired print options.
- 4 Click OK. DataEase displays the printing status window.

### **How to Print Selected Pages of a Document**

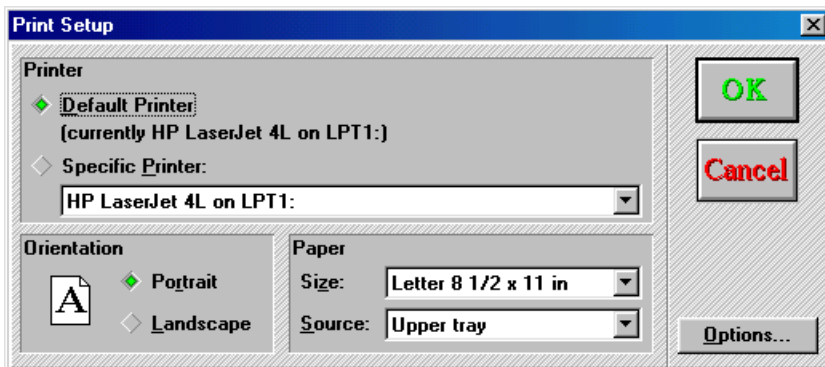
- 1 Open the document you want to print.
- 2 Choose **File>>Print**. DataEase displays the Print dialog.
- 3 Choose Pages. Enter the number of the first page in the From text box and the number of the last page in the To text box.
- 4 Click OK. DataEase prints only the pages in the range you specify.

### **How to Print the Graphic Objects in a Document**

- 1 Open the document you want to print.
- 2 Choose **File>>Print**. DataEase displays the Print dialog.
- 3 Choose the WYSIWYG Print Detail.
- 4 Click OK. DataEase displays the printing status window.

## Selecting and Configuring a Printer

When you choose **File>>Print Setup**, DataEase displays the Print Setup dialog shown below. This dialog is used to select the printer used each time you print from DataEase and to change the settings used with a printer.



### Print Setup Dialog Options

**Printer** tells DataEase which of the active printers to use. DataEase lists only the printers you have installed and specified as active in Windows. Choose:

- **Default Printer** to select the current printer. DataEase automatically uses the Windows default printer as the Default Printer.
- **Specific Printer** to change the Default Printer.

**Orientation** tells DataEase which orientation to use when a document is printed. Choose:

- **Portrait** to print using the vertical orientation.
- **Landscape** to print using the horizontal orientation.

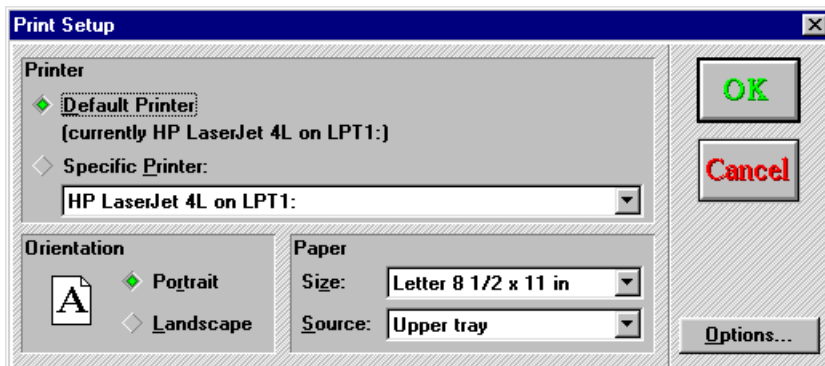
**Paper** tells DataEase which paper size and sheet feeding mechanism to use when printing a document. Choose:

- **Size** to choose a nonstandard paper size (e.g., 11 by 14 inches) that is supported by your printer.
- **Source** to choose how paper feeds into your printer from the available sheet feeding mechanisms (upper tray, lower tray, tractor, or manual).

**Options** opens the Print Options dialog. This dialog is used to specify additional options for the selected printer.

**Note:** The appearance of the Print Setup dialog varies with the specified default printer. You can choose only from the features supported by your printer.

Use the Windows Control Panel to install and activate other printers.



See **DESIGNER GUIDE Chapter 7** for information on the Print Options dialog.

### How to Select the Default Printer

- 1 Choose **File>>Print Setup**.
- 2 Click on the Specific Printer drop-down arrow.
- 3 Click on the name of the printer.
- 4 Click OK. DataEase displays the Print dialog with the new printer listed as the default.

### How to Configure a Printer

- 1 Choose **File>>Print Setup**. DataEase displays the Print Setup dialog.
- 2 Choose the default Print Orientation (Portrait or Landscape).
- 3 Click on the Size drop-down arrow. Choose the default paper size.
- 4 Click on the Source drop-down arrow. Choose the default paper tray or paper feed method.
- 5 If your version of Windows supports the Print Options dialog, click Options. DataEase displays the Print Options dialog. Choose the options and values you want and click OK. DataEase displays the Print Setup dialog.
- 6 Click OK.

## Importing and Exporting Data

In addition to the Windows Clipboard and the DDE and OLE features for exchanging data, DataEase includes two File menu options (Import and Export) that let you quickly import large amounts of data from other DOS and Windows programs into a DataEase table or export data from DataEase to database, spreadsheet, word processor, and other popular software programs.

### When to Use Import and Export

In addition to speeding up data exchange, DataEase Import and Export commands let you:

- Upgrade from another product, using the Import command to convert your existing data into the DataEase format.
- Use special capabilities of other software products which are not available in DataEase, such as the spell checker found in many current word processors or the business presentation features of contemporary spreadsheet and graphics programs.
- Take advantage of disk-based mailing lists, catalogs, and other data packages available from independent vendors.

## Importing Data into a DataEase Table

See **DESIGNER GUIDE Chapters 3 and 6** for information on creating a form and table.  
See **DESIGNER GUIDE Chapter 7** for information on setting Document security levels.

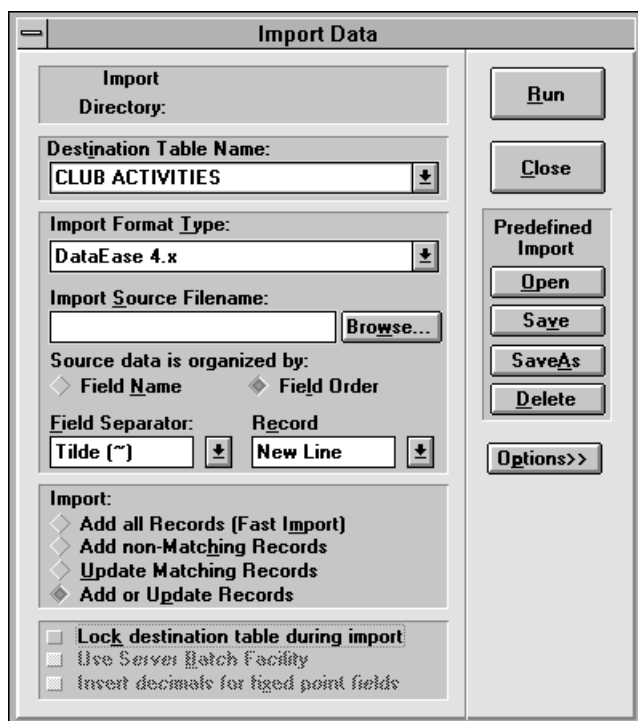
DataEase lets you import data into any database table with columns defined to match the size and Data Type of the incoming data. You can use the Import option to add data to an existing table, or you can design a new form and table with fields that match the incoming data.

DataEase lets you create and save a predefined import, which lets you import data using the same basic instructions repeatedly without having to define the import each time.

To import data, you must have a security level that lets you enter records in the form that defines the destination table.

To begin an import, choose **File>>Import** from anywhere in DataEase.

DataEase displays the Import Data dialog, which lets you specify the data format, source file, field sequence, and other information that defines how DataEase imports data from another program.



### Import Data Dialog Options

**Import** displays the name of the predefined import you have open.

**Directory** displays the name of the directory containing the predefined import you have open.

**Destination Table Name** lets you choose the destination table, the table you want to import data into. DataEase fills in this value if you have a table open when you choose **File>>Import** or if you open a predefined import.

**Import Format Type** lets you choose any one of the ten import file formats summarized in the table below.



## Summary of Import File Formats

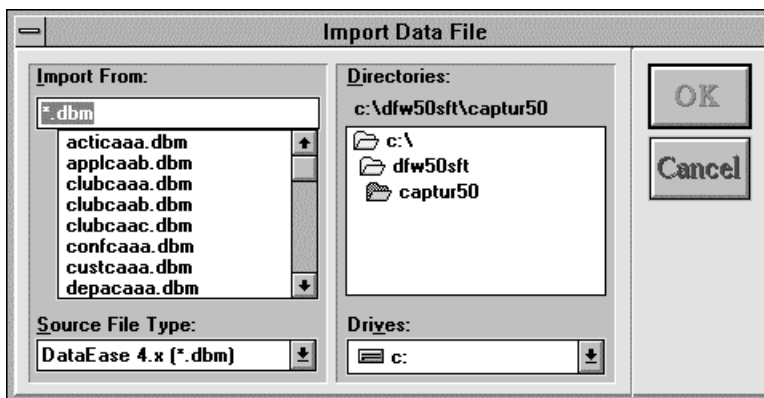
Import Format Type	Use to Import from...	Default File Extension
Variable Length Text (Windows ANSI)	Windows Applications	.DAT, .TXT
Variable Length Text (IBM PC OEM)	DOS or OS/2 Programs	.DAT, .TXT
Fixed Length Text (Windows ANSI)	Windows Applications	.DAT, .TXT
Fixed Length Text (IBM PC OEM)	DOS or OS/2 Programs	.DAT, .TXT
Lotus 1-2-3	Lotus 1-2-3, Lotus Symphony	.WKS, .WK1
DataEase	Another DataEase Application	.DBM
DataEase 4.x	DataEase Character-based Database	.DBM
dBASE	dBASE II, III, III+, IV	.DBF
DIF	VisiCalc, Spreadsheets	.DIF
Mail Merge	WordStar	.MRG

**Note:** Choose Windows ANSI to use the American National Standards Institute character set. Choose IBM PC OEM to use the IBM Personal Computer character set.

See the sections, **Importing Data from a Variable Length Text File** and **Importing Data From a Fixed Length Text File**, later in this chapter, for more information on how to determine the format characteristics of a text file.

**Import Source Filename** tells DataEase the name and location of the source data file. If the source file is in the same directory as the current application, simply enter its filename. If the file is stored in a different directory, specify the DOS path in addition to the filename.

**Browse** displays the Import Data File dialog, which lets you search your disk for the source file.



**Source data is organized by:** tells DataEase whether to import data into destination fields based on Field Name or Field Order. Choose:

- **Field Name** if the Import source file contains the name of each field in the first record. If you select this option, DataEase transfers data from a source field into a destination field only if the source and destination fields have the same Field Name. Data in a source field that does not have a matching destination field is not imported. When comparing field names for this transfer, DataEase treats upper and lower case as identical (i.e., it is case-insensitive).
- **Field Order** if the Import source file does not include Field Names. If you select this option, DataEase imports the first field in each source record into the first field in the destination table, the second source field into the second destination field, etc. If the source file has fewer fields per record than the destination table, the excess destination fields receive a blank (null) value.

**Note:** When DataEase imports data organized by Field Order, the field sequence in the source file must exactly match the field sequence in the destination table. To view the field sequence in a table, display the table by double-clicking on its name under the Tables heading (or Database Links heading for an SQL table) in the Application Catalog or use the Data Model Manager.

**Field Separator** tells DataEase what delimiter character distinguishes one field value from the next in a Variable Length Text source file. For example, many software programs use a comma or tilde (the DataEase default) to separate fields. To select a character not included in the drop-down list, choose Other and type the desired character in the text box.

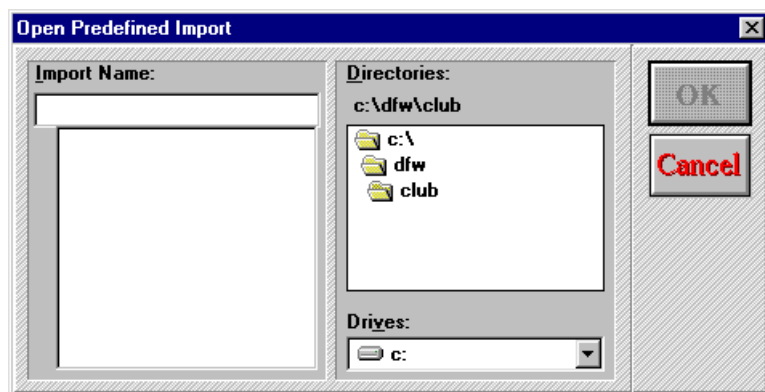
**Record** tells DataEase what delimiter character distinguishes one record from the next in a Variable Length Text source file. For example, many software programs use a new line character (the DataEase default) to separate records. To select a character not included in the drop-down list, choose Other and type the desired character in the text box.

**Note:** To determine what character is used to separate records and fields in a Variable Length Text file, view it in Windows Notepad or another product that edits ASCII text.

**Run** executes the import specified in the Import Data dialog. While running the import, DataEase checks the import specification for errors. If an error is detected, DataEase displays an error message box.

**Close** closes the Import Data dialog. If you create a predefined import or make changes to an existing predefined import, DataEase displays a message box asking you if you want to save the changes to the import. Click Yes to save the changes, No to delete the changes.

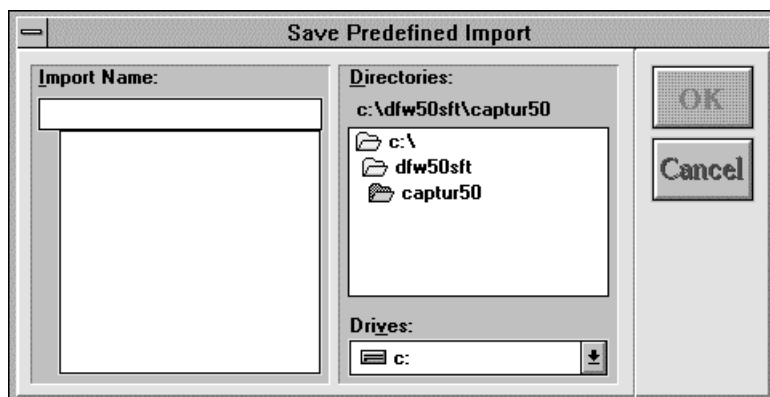
**Open** displays the Open Predefined Import dialog, which lets you select a predefined import. When you open a predefined import, DataEase displays the values chosen for the import in the Import Data dialog.



**Note:** In the Open Predefined Import dialog, DataEase displays the application's directory as the default directory.

**Save** opens the Save Predefined Import dialog, which lets you name an import and save it to disk. You can give the predefined import a filename of up to eight characters. The Save button also lets you save any modifications you make to an existing predefined import.

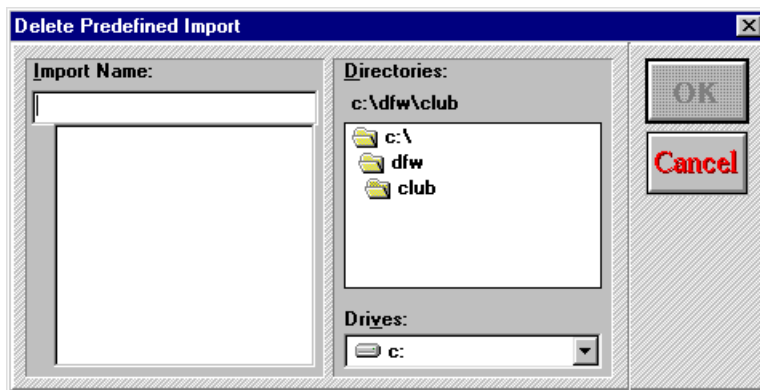
The Save Predefined Import dialog is similar to the Open Predefined Import dialog.



**Save As** opens the Save As Predefined Import dialog, which lets you save a copy of an existing predefined import with a new name.

The Save As Predefined Import dialog is similar to the Save Predefined Import dialog.

**Delete** opens the Delete Predefined Import dialog, which lets you select a predefined import name to delete.



**Options** displays the lower part of the Import Data dialog.

**Import Checking** displays the destination table name and lets you specify what DataEase should do when the values in the Unique fields in an Import record match those of an existing record in the destination table. Records match when the values in all the Unique fields are identical. Choose:

- **Add all records (Fast Import)** to import all records in the source file. This is the default option. DataEase adds the imported records to the existing records in the destination table without checking Unique field values for matching records. This option is the quickest way to import a large number of records into a table.
- To save time when performing an import, we recommend you choose Add all Records under the following conditions: (1) the destination table is empty, (2) the destination table does not contain matching records, or (3) the existence of matching records in the destination table does not matter.
- **Add non-Matching Records** to import only source file records that do not match a record in the destination table. DataEase adds the non-matching records to the destination table. Matching records are not imported but are listed in the Import Exception file.
- **Update Matching Records** to import only records that match a record in the destination table. DataEase updates (overwrites) each matching record in the destination table with the imported record. Non-matching records are not imported but are listed in the Import Exception file.
- **Add or Update Records** to import all the source file records, add non-matching records, and overwrite matching records in the destination table, but check for Unique fields.

**Lock destination table during import** prevents other users from accessing the destination table until the import is complete. This is the default option. Although DataEase imports data more rapidly when the table is locked, you can disable this option if other users must have access to the table during an extended import.

{bml Ug\_\_0002.BMP}When you import data into a form that defines or uses an SQL table, DataEase replaces the Lock destination table during import option with the Use server batch facility option (explained later in this chapter).

**Insert decimals for fixed point fields** tells DataEase to insert a decimal point when importing data from a source file into a Fixed Point Number field. This option is deactivated by default.

When this option is selected, DataEase inserts a decimal point at the location specified by the target field definition. For example, if you import the value **25000** into a Fixed Point field that requires two digits to the right of the decimal point, DataEase stores the value as **250.00**.

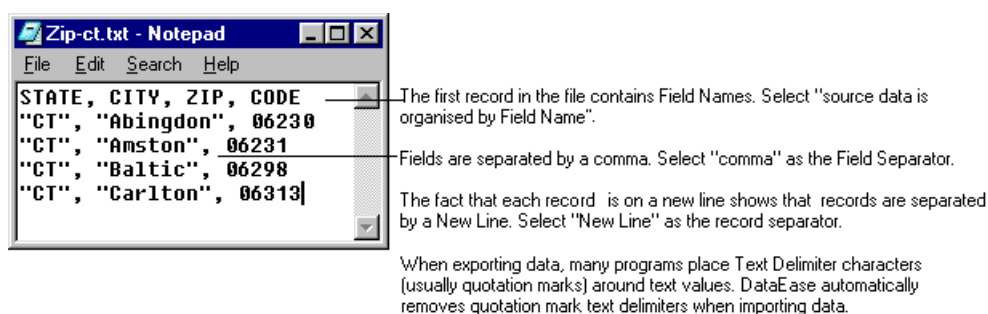
If you do not check this option, DataEase does not insert a decimal point. However, DataEase does import decimal points that exist in the source file. For example, when importing data into a Fixed Point field that requires two digits to the right of the decimal point, DataEase stores the value **25000** as **25000.00** and stores **17.5** as **17.50**.

DataEase disables this option if the destination table contains no Fixed Point Number fields.

## Importing Data from a Variable Length Text File

Because the format of Variable Length Text files can vary, we recommend that you use Windows Notepad or another text editor to view a file and determine its format characteristics before importing its data. To choose the correct settings in the Import Data dialog, you must determine whether the file's first record contains field names and what characters are used to separate fields and records.

The figure below shows a sample Variable Length Text file and explains the settings you select in the Import Data dialog to import it. Each record in the file contains three fields, STATE, CITY, and ZIP CODE.



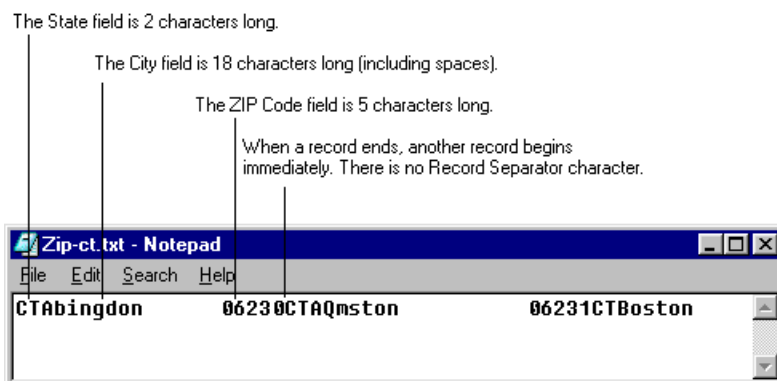
**Note:** To import data organized by Field Name from a Variable Length Text file that does not contain Field Names, use a text editor to insert a new first record containing the Field Names.

DataEase does not remove Text Delimiter characters other than quotation marks. If a source file uses a different Text Delimiter, use the search-and-replace feature of your text editor or word processor to replace the characters with quotation marks before the data is imported.

## Importing Data from a Fixed Length Text File

In a Fixed Length Text file, each field has a predefined, non-variable length. Because the length of each field (and therefore, each record) is fixed, it is not necessary to use delimiter characters to mark the beginning of field values and records.

The figure below shows a sample Fixed Length Text file displayed in Windows Notepad. Each record in the file contains three fields, STATE, CITY, and ZIP CODE.



To import data from a Fixed Length Text file, the field values in each source record must appear in the same order as the corresponding fields in the destination table. In addition, each source field value must contain exactly the same number of characters (including spaces) as its destination field. Otherwise, DataEase cannot accurately distinguish where each field begins, and data errors will occur.

**Note:** If you import data from an ASCII text file into a Fixed or Floating Point Number field, and the source data contains decimal points, **do not** count the decimal point when you determine the length of the ASCII source field.

ASCII data imported into a Number field must not include commas.

### Determining Field Sequence and Field Length

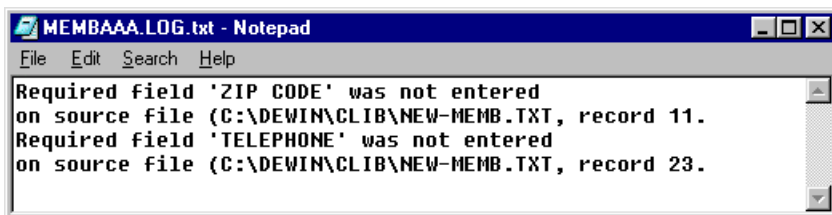
To display a DataEase table and view its field sequence, double-click on the Tables icon in the Application Catalog, then double-click on the desired table name.

To confirm the size of a destination field, open the target form in Designer View, then display the Field Definition dialog for that field.

### Exception Files

DataEase automatically performs all required field validation checks on the data imported from a source file. If a source file field value does not satisfy the requirements of the target field, the entire record is discarded.

When a record does not fully conform to the target form definition, DataEase lists that record in an Exception file. The Exception file contains the source file record number of each discarded record, as illustrated in the figure below.



If errors occur, DataEase displays a dialog that specifies the full pathname of the Exception file when the import is completed. If you want to view the Exception file immediately, click Yes. If you choose No, you can view the Exception file at any later time using Windows Notepad or another text editor.

## Import Summary

During an import, DataEase displays an import summary in the Status Bar at the bottom of the screen. The figure below illustrates a typical import summary.

If the unique field values in a source file record do not match those of any record in the destination table, DataEase ADDS that record to the table.

If a source file record matches an existing record in the destination table, DataEase UPDATES the existing record with the new data.

If a record can not be correctly imported, DataEase DISCARDS the record and lists it in an exception file.

Import: 1, added: 1, updated: 0, discarded: 0.

## How to Import Data into a DataEase Table

1. Choose **File>>Import**. DataEase displays the Import Data dialog.
2. Choose the Import file format.
3. Specify the path and filename of the source file.

If the source file is stored in the application directory, you don't need to specify a path. You can click Browse to search for the source file.

4. Specify whether the source data is organized by Field Name or Field Order.

If the source file includes field names in the first record, accept Field Name (the default). If the first record contains data values, select Field Order. When you import records organized by Field Order, fields in the source file must appear in the same sequence as in the destination table.

Specify which characters are used as field and record separators (for Variable Length Text format only).

To specify the character used to separate fields or records, choose the appropriate character from the Field Separator or Record Separator drop-down list in the Import Data dialog. If the appropriate character does not appear on the list, select Other, then type the character in the entry box.

- Click Run. DataEase closes the Import Data dialog, imports the records, and displays the progress of the import in the Status Bar. Once you click Run, you cannot cancel or abort an import.

## How to Create and Run a Predefined Import

- Choose **File>>Import**. DataEase displays the Import Data dialog.
- Choose the Import file format.
- Specify the path and filename of the source file.

If the source file is stored in the application directory, you don't need to specify a path. You can click Browse to search for the source file.

- Specify whether the source data is organized by Field Name or Field Order.
- If the source file includes field names in the first record, accept Field Name (the default). If the first record contains data values, select Field Order. When you import records organized by Field Order, fields in the source file must appear in the same sequence as in the destination table.
- Specify which characters are used as field and record separators (for Variable Length Text format only).

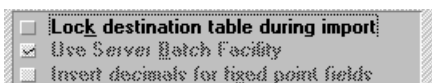
To specify the character used to separate fields or records, choose the appropriate character from the Field Separator or Record Separator drop-down list in the Import Data dialog. If the appropriate character does not appear on the list, select Other, then type the character in the entry box.

- Click Save. DataEase displays the Save Predefined Import dialog.
- In the Import File box, enter a name of up to eight characters and click OK. DataEase names the predefined import and returns you to the Import Data dialog.
- Click Run. DataEase imports the records and displays the progress of the import in the Status Bar.

## Using the Server Batch Facility

The server batch facility is an SQL engine feature that is used to insert a group of records into a table in a single step rather than one at a time, greatly reducing the time it takes to perform an import.

If you are importing data into a form that defines or uses an SQL table, DataEase replaces the Lock Destination Table During Import option in the Import Data dialog with the Use server batch facility option, as shown in the figure below.



If your server supports the DataEase server batch facility and you import records with this option selected, DataEase copies a batch of records into memory. If no invalid data is discovered, the entire batch is entered as a unit. If any records in the batch are invalid, DataEase retrieves the entire batch and inserts the records into the destination table one at a time, discarding the invalid records in the process. Discarded records are noted in the Exception file.

When all records for the first batch have been inserted, DataEase processes the next batch of records.



**Note:** When DataEase inserts records one at a time, each INSERT statement is treated as a separate transaction.

## Customizing the Batch Size

The default batch size depends on your database engine type. You can customize the batch size by modifying the database engine .INI file (e.g., DESYBASE.INI, DEDB2.INI, etc.) in your DataEase System directory.

For example, the DESYBASE.INI file contains the lines:

```
ADD_BATCH_SIZE=50
UPDATE_BATCH_SIZE=25
```

....where 50 records is the default batch size if you choose the Import New (Unique) Records option and 25 records is the default batch size if you choose the All Records option.

## How Changes in the Batch Size Affect Performance

If you change the value of ADD\_BATCH\_SIZE in the database engine .INI file, the modification also affects the batch size used by restore, data transfer, and form modification operations in all your applications that use that SQL engine.

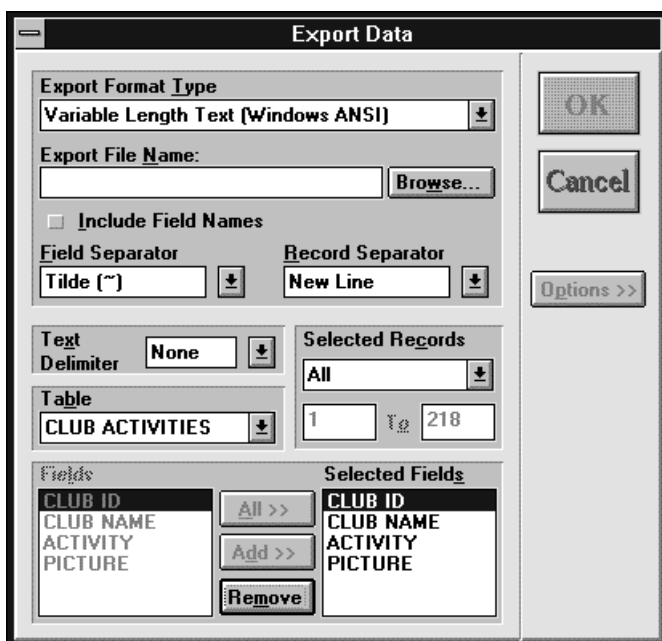
If you import a large amount of data, you can increase the batch size to speed up the import. However, if one record in the batch fails, DataEase retrieves the entire batch and inserts each record individually. If this happens, you may notice a drop in performance.

**Note:** Because each batch of records is stored in memory, increasing the batch size may cause an out of memory error.

## Exporting DataEase Data

The DataEase export utility lets you export data from a DataEase application to another DataEase (DOS or Windows) application or another software program. The export utility is especially useful if you want to use DataEase data in a non-Windows application. For example, you can use the export utility to merge a DataEase data file with a DOS-based word processing document, such as a form letter, or to export numerical data from DataEase for use in a DOS-based spreadsheet or business graphics program.

To export data from DataEase, open the table that contains the records you want to export by double-clicking on its name in the Application catalog, then choose **File>>Export**. DataEase opens the Export Data dialog, which lets you select which records and fields to export, and specify the format, filename, and other information about how the export file should be structured.



To export data, you must have a security level that lets you view records in the form that defines the source table.

You can filter the records you want to export using QBF or QBM to specify your selection criteria before you open the Export Data dialog. When you open the Export Data dialog, DataEase selects the records that match your selection criteria. If you have entered selection criteria and choose Range to select a subset of the records, DataEase exports a series of sequential records that match your criteria.

## Export Data Dialog Options

See **USER GUIDE Chapter 7** for information on how to enter QBF selection criteria.

**Export Format Type** lets you choose one of five file formats for the exported data. The formats are summarized in the table below.

### Export File Formats

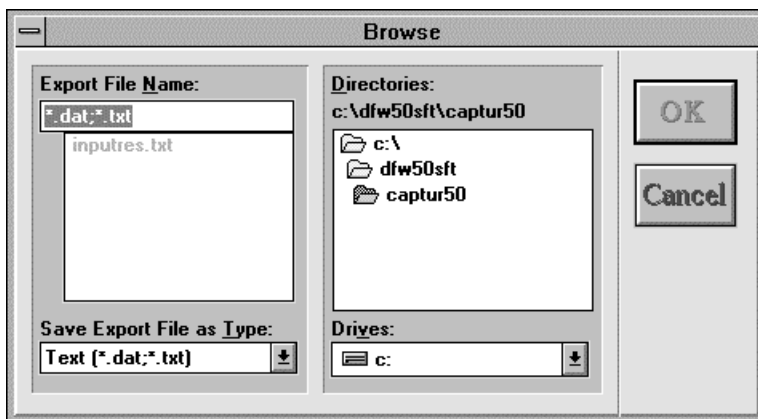
Export Format Type	Use to Export from...	Default File Extension
Variable Length Text (Windows ANSI)	Windows Applications	.DAT, .TXT
Variable Length Text (IBM PC OEM)	DOS or OS/2 Programs	.DAT, .TXT
Fixed Length Text (Windows ANSI)	Windows Applications	.DAT, .TXT
Fixed Length Text (IBM PC OEM)	DOS or OS/2 Programs	.DAT, .TXT
Lotus 1-2-3	Lotus 1-2-3, Lotus Symphony	.WKS, .WK1

**Note:** Choose Windows ANSI to use the American National Standards Institute extended character set.

Choose IBM PC OEM to use the IBM Personal Computer extended character set.

**Export File Name** lets you enter the full pathname for the export file DataEase creates.

**Browse** opens the Browse dialog. If you want to overwrite an existing export file with more current data, the Browse dialog lets you search your directory structure to find the target file. For example, if you export data on a regular basis for use in a mail merge with your word processor, you can overwrite the same file with new information each time you export data.



**Include Field Names** tells DataEase to include the Field Name of each selected field in the first record in the export file. This option is not available if you choose the Fixed Length Text export format.

**Field Separator** lets you select a delimiter character to be placed between each of the fields in the export file. This character allows the program importing the data to distinguish one field value from the next. To select a character not included in the drop-down list, choose Other and type the desired character in the text box. A Field Separator is available only for the Variable Length Text format.

**Record Separator** lets you select a delimiter character to be placed between each record. To select a character not included in the drop-down list, choose Other and type the desired character in the text box. This option is available only for the Variable Length Text format.

**Note:** If the target program requires specific record and field separator characters, enter these in the Field Separator and Record Separator boxes. If the target program does not impose any restriction on the characters used as Field and Record separators, consider using a new line to separate records and any character that does not appear in the data (e.g., tilde ~, or pipe |) to separate fields.

Be sure to select field and record separator characters that do not appear in the data. Otherwise, data import errors may occur in the target program.

**Options** displays the lower part of the Export Data dialog.

**Text Delimiter** lets you specify a special text delimiter required by some import formats. Many software programs require that data stored in a text field be delimited by a specific character, frequently double quotation marks ("). This character allows the target program to distinguish field values that include embedded spaces from adjacent field values. DataEase does not specify a special text delimiter by default; if the target program requires one, select one from the drop-down list, or choose Other and type the desired character in the entry box. The Text Delimiter option is available only for a Variable Length Text export format.

**Table** lets you select the name of the table from which you want to export data. If you are exporting data from a Multiform, you can choose the table associated with the Main form or any one of its Subforms.

If you choose a table associated with one of the Subforms, DataEase will export only those Subform records that are related to the currently displayed Main form record. If you wish to

export all the Subform records, open that table directly from the Application Catalog before specifying your export.

**Selected Records** lets you select which records you want to export. Choose:

- Current to export data from only the record that is currently displayed on the screen.
- All to export data from all the records in the table you select (e.g., if the source form is a Multiform, the selected table can be associated with the Main form or any of the Subforms). This is the default option.
- Range to select a series of sequential records.

**Selection Boxes** let you enter the first and last row numbers that define the range of records you want to export.

**Fields** displays a list of all the fields in the table associated with the form you select from the Table drop-down box. As each field is selected, it is added to the Selected Fields box. If All fields are selected, the list in the Fields box is grayed.

**Selected Fields** lists all the fields to be included in the export file. DataEase selects all fields by default. To select only specific fields, you must first delete unwanted fields using the Remove button.

**All** places all fields from the Fields list box into the Selected Fields list box.

**Add** places the field that is currently highlighted in the Fields list box into the Selected Fields list box. To add several fields at once, drag the mouse to highlight the appropriate fields, then click Add.

**Remove** deletes the currently highlighted field(s) from the Selected Fields list box. To remove several fields at once, drag the mouse to highlight the appropriate fields, then click Remove.

**Note:** If you want to arrange the fields in the export file in a specific order (e.g., to match the field order in the target program), you must first remove all the fields from the Selected Fields box and then add them back in the desired order.

## Sample Export File

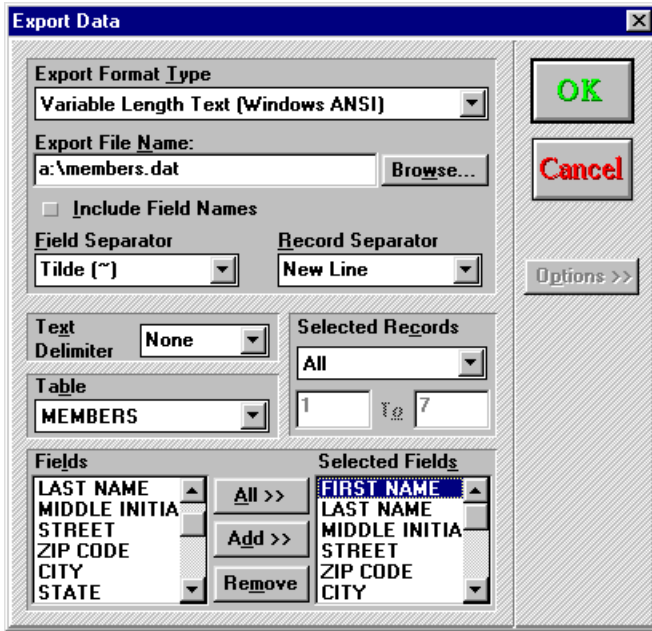
The export file output that DataEase generates depends on the Export Format Type you select. For example, suppose you want to use your word processor to send a form letter to all the Club ParaDEASE members who live in the state of Connecticut. First, open the MEMBERS form in User View. Then, using QBF or QBM, enter the appropriate selection criteria (e.g., STATE = "CT") in the Record Selection Filter box.

LAST NAME	FIRST NAME	STAT	STREET	CITY
Perrault	George	CT	38 Whitney Avenue	Essex
Ride	Sheryl	CT	89 Barnes Road	Waterbury
Steponaitis	Louis	CT	11 Tremont Avenue	Bethel
Marshe	Darryl	CT	28 Field Point Road	Greenwich
Quinlan	Lynn	CT	1540 Newfield Ave.	Stamford
Price	Peter	CT	160 E. Middle Patent Rd.	Greenwich
Cromwell	Thomas	CT	290 Greens Farms Rd.	Westport

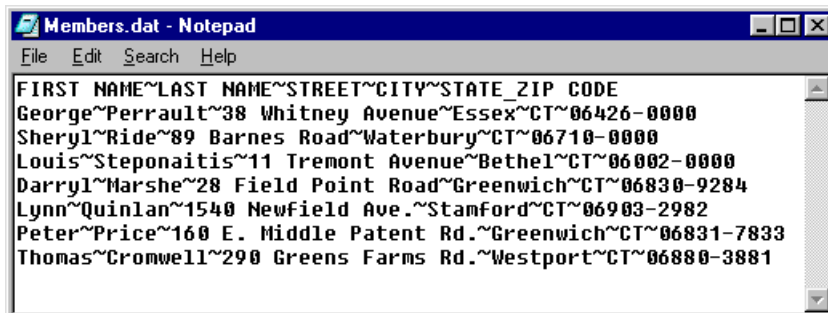
DataEase selects only the records with a STATE field that stores the text value CT

The export file DataEase creates is a Variable Length Text file which uses a Tilde as the Field Separator character, a New Line as the Record Separator character, and no Text Delimiter.

When you open the Export Data Dialog and click the Options button, notice that DataEase displays only seven records in the Selection Boxes, since only seven members live in the state of Connecticut.



Using the settings shown above, DataEase generates a Variable Length text file that looks like the following sample:



## How to Export Data

1. Open the form or table that contains the records you want to export in User View. Use QBF or QBM to enter selection criteria to filter the records to be exported.
2. Choose **File>>Export**. DataEase displays the Export Data dialog.
3. Select an Export Format Type (Variable Length Text, Fixed Length Text, or Lotus 1-2-3).
4. Type an Export File Name, including the drive letter and directory path. Optionally, you can click Browse and search your directory structure for a previously defined export file.  
The remaining steps are optional.
1. Check Include Field Names if you want to include the name of each selected field as the first record in the export file.
2. Choose a Field Separator character from the drop-down list, or choose Other and type the desired character in the entry box. Be sure to select a character that does not appear in the data. This option is only available if you choose the Variable Length Text export format.
3. Choose a Record Separator character, or choose Other and enter a character that does not appear on the list. Be sure to select a character that does not appear in the data. This option is only available if you choose the Variable Length Text export format.
4. Click the Options button, then choose the name of the Table that contains the records you want to export.
5. If the target program requires a special Text Delimiter in addition to the Record Separator, choose one from the drop-down list or choose Other and enter another character.
6. Choose which records (Selected Records) to include in the export file: Current, All, or Range. If you choose Range, enter the first and last record numbers in the text boxes.
7. Remove any Selected Fields that are not required for the export. Click OK. After you close the Export Data dialog, DataEase immediately begins creating the export file. While this process is taking place, DataEase displays a message box that tracks the progress of the export. Click Cancel or press Esc to abort the export process.

## Switching from User to Designer View

See **USER GUIDE Chapter 1** for information on the menus available in each view.

There are two views in DataEase.

- **User View** is the data-oriented environment. When a DataEase form is open in User View, you can use it to view the form, and to enter and modify data records. User View also lets you use Query by Example techniques to find and analyze data stored on one or more computers.
- **Designer View** is the application design environment where you create the data-entry forms, reports, and custom menus used in your application.



When you choose **File>>Designer View**, DataEase displays the active document in Designer View.

DataEase lets you switch views with one mouse click. Once a document is displayed in Designer View, you can modify its layout.

While you design a document, you can move repeatedly between views to test field characteristics and to see how the layout and styles you create appear in User View.

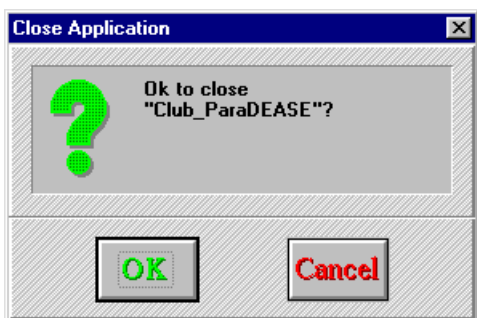


## Closing an Application and Exiting DataEase

See **USER GUIDE Chapter 1** for information on the menus DataEase displays when you close an application.

When you choose **File>>Close Application**, DataEase closes the current application, including all the open documents and the Application Catalog Window. When you choose this option, DataEase displays the Close Application alert message shown below.

When you choose **File>>Exit**, DataEase exits DataEase and returns you to the Windows Program Manager. When you choose this option, DataEase displays the Close Application alert message shown below.



The Close Application alert message lets you return to the application. Click:

- **OK** to close the application.
- **Cancel** to return to the application.

## Chapter 4 : The Edit Menu

### Entering and Modifying Records and Controlling Record Access

The Edit menu options are used to modify, save, delete, and restore records, modify Object Linking and Embedding (OLE) links and objects, and control record access and display in a multi-user environment.

Each menu option is summarized in the table below and explained in detail on the following pages.

### Summary of Edit Menu Options

Menu Option	Keyboard Equivalent	Menu Option Is Used to...
Undo Typing	Alt + E, U Ctrl + Z	Restore the value in the current field to the version stored in memory.
Cut	Alt + E, T Ctrl + X	Remove the selected data or object(s) and place it in the Clipboard.
Copy	Alt + E, C Ctrl + C	Copy the selected data or object(s) to the Clipboard.
Copy Record	Alt + E, R Ctrl + R	Copy the selected data or object(s) to the Clipboard.
Copy Special	Alt + E, I	Copy data in selected fields from one or more records to the Clipboard.
Paste	Alt + E, P Ctrl + V	Paste the contents of the Clipboard in the current field or record.
Clear Field	Alt + E, L F6	Erase all the data in the current field without placing it in the Clipboard.
Clear Form	Alt + E, F F5	Display a blank record.
Save	Alt + E, S F8	Modify an existing record using the data currently displayed on screen. If you enter data in a blank record, Save creates a new record.
Save As New Record	Alt + E, A F2	Create a new record in the database table using the data currently displayed on screen.
Delete Record	Alt + E, D F7	Remove the current record from the form (and any Subform records specified by referential integrity) and mark it deleted.
Restore Record	Alt + E, E Ctrl + F5	Return a record that is marked deleted to the form. If a record has not been saved,, Restore Record restores the last saved version.
Links	Alt + E, K	Display and modify Object Linking and Embedding (OLE) links to other applications.

Object	Alt + E, O	Modify an OLE object.
Multi-User Options	Alt + E, M	Control record access and display in a multi-user environment.

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## Selecting Text

Before you Cut or Copy, you must first select the specific text you want to work with. Using a mouse or the keyboard, you can select one, many, or all characters in one field, but the characters you select must be continuous.

### How to Select Text

1. Place the cursor before the first character you want to cut or copy. Hold down the left mouse button, drag the mouse until the cursor is placed after the last character to be cut or copied, and then release the mouse button.
2. Alternatively, hold down the Shift key, place the cursor after the last character to be cut or copied, and then release the Shift key.
3. DataEase highlights the selected text in reverse. Note that Playa Blanca is highlighted in the picture below.

**Club ParaDEASE**  
The Antidote to Documentation

**CLUBS** Previous Next

Club Name: **Playa Blanca** Telephone: (52) 333-20440

Street: 497 Costa de Chamela

City: Jalisco Country: Mexico

Club ID: 00001  
Rooms: 196

New  
Save  
Delete  
Close  
Activities  
Reservations

Description:  
Playa Blanca, located 120 miles south of Puerto Vallarta on Mexico's sunny Pacific coast, is our hottest winter holiday vacation spot. Enjoy snorkeling, deep-sea fishing, and peppery cuisine.

Activities

Playa Blanca

Baseball Waterski Biking Hangliding Snorkel Theater

## Canceling Your Last Action

When you choose **Edit>>Undo Typing**, DataEase restores the previous value in the current field. You cannot undo a value that has been saved to the database.

**Note:** You can also abandon a field modification by pressing Esc.

While intending to modify Roger Birnbaum's Telephone Number, the operator accidentally overtypes the Street address instead.

The screenshot shows a software interface for 'Club ParaDEASE'. The main title is 'MEMBERS'. On the left, there is a logo with two palm trees and the text 'Club ParaDEASE The Antidote to Documentation'. Below the logo is a 'Member ID: 00001' field and a 'New' button. The main form area contains several input fields: 'Last Name: Birnbaum', 'First Name: Roger', 'Initial: I', 'Street: 0045 23', 'City: West Roxbury', 'MA', 'Zip Code: 02132-0000', 'Expiration Date: 11/26/94', and 'Telephone: (617)832-8843'. At the top right of the form are 'Previous' and 'Next' buttons. A vertical cursor is positioned over the 'Street' field, which contains the incorrect value '0045 23'.

Spotting the error, the clerk corrects it by simply selecting EDIT-UNDO

This screenshot shows the same software interface as the previous one, but the 'Street' field now contains the correct value '87 Grant Street'. The rest of the form, including the logo, member ID, and other fields, remains the same. The vertical cursor is still positioned over the 'Street' field.

## Editing Data and Objects

When you choose **Edit>>Cut**, DataEase deletes the selected data or object(s) and places it in the Clipboard. DataEase overwrites any data or object(s) previously stored in the Clipboard.

When you choose **Edit>>Copy**, DataEase duplicates the selected data or object(s) and places it in the Clipboard.

When you choose **Edit>>Paste**, DataEase inserts the Clipboard's contents into the current record. If the Clipboard contains:

- **One field value**, DataEase inserts the value in the current field.
- **Multiple field values**, DataEase can insert copied values in another record in the same form or in another form that has the same field names as the original record.

### How to Paste a Field Value(s) from One Document to Another

1. With one or more values saved to the Clipboard, go to the new document.

If only one value is stored in the Clipboard, make sure the field definition of the target field is compatible with the value. For example, DataEase will not accept the value Sam in a field defined as a Number field.

If more than one value is stored in the Clipboard, make sure that the new document contains the same fields as the original document. For example, you can copy the NAME, ADDRESS, and PHONE values from one form to another only if both forms contain identically named fields.


1. Choose **Edit>>Paste**. DataEase inserts each value in the field that has the same Field Name (e.g., the CITY value in the original form is inserted in the CITY field on the new form). DataEase retains these values in the Clipboard until you cut or copy another value.
2. To insert these field values in another record, repeat steps 1 and 2.

## How to Copy a Field Value to Another Record

1. Select the text to be copied. DataEase highlights the selected text in reverse.
2. Choose **Edit>>Copy**. DataEase places the highlighted text in the Clipboard.
3. Position the cursor where you want to insert the value in the field.
4. Choose **Edit>>Paste**. DataEase inserts the value from the Clipboard in the specified field. DataEase stores the value in memory until you cut or copy another value to the Clipboard.

The selected text is highlighted. You can EDIT-COPY and EDIT-PASTE the selected text from one field to another - especially useful if the text in question is lengthy, and tricky to spell.

The screenshot shows the DataEase interface for the 'EMPLOYEES' form. The 'Last Name' field contains 'Longfellow' and is highlighted in reverse. The 'First Name' field contains 'Heather'. The 'Department' is 'Public Relations', 'Hire Date' is '02/14/89', 'Title' is 'Public Relations Rep', 'Gender' is 'Female', and 'Salary' is '25,000.00'. The interface includes a sidebar with 'Employee ID' (000001) and buttons for 'New', 'Save', 'Delete', and 'Close'. The top right has 'Previous' and 'Next' buttons.

 <b>EMPLOYEES</b> <span>Previous</span> <span>Next</span>	
Employee ID 000001 New Save Delete Close	Last Name: <b>Longfellow</b> First Name: Heather Department: Public Relations Hire Date: 02/14/89 Title: Public Relations Rep Gender: <input checked="" type="radio"/> Female <input type="radio"/> Male Salary: 25,000.00

## Copying All Record Data

When you choose **Edit>>Copy Record**, DataEase copies all values from the current record into the Clipboard. In a Multiform, the Copy Record option duplicates either the Main form record or the current Subform record, depending on the cursor's location.

The Copy Record option lets you keep a default record in memory and quickly insert these values in a new record. This operation allows you to save time when you enter records that have many values in common.

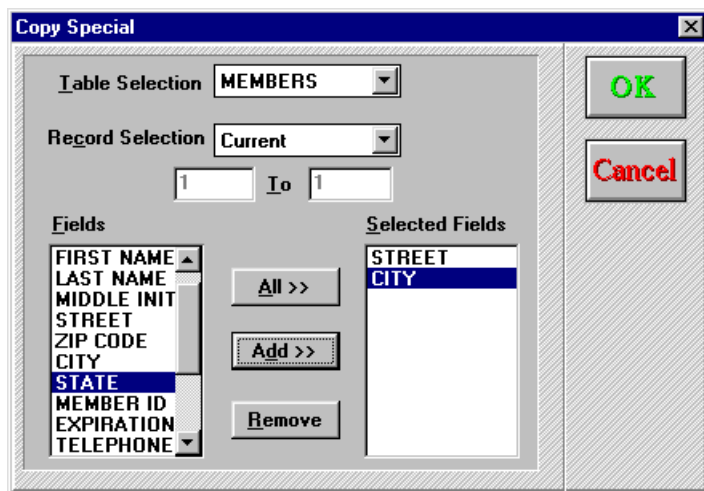
## How to Copy All Data from One Record to Another

1. Choose **Edit>>Copy Record**. DataEase copies the data in each field in the current record to the Clipboard.
2. Choose **Edit>>Clear Form**. DataEase displays a blank record.
3. Choose **Edit>>Paste**. DataEase copies the data in each field to the identically named field in the new record. DataEase stores these values in the Clipboard until you cut or copy another value.



## Copying Selected Field Data

When you choose **Edit>>Copy Special**, DataEase displays the Copy Special dialog, which lets you copy data from selected fields in one or more records to the Clipboard.



### Copy Special Dialog Options

**Table Selection List** lists the fields in the form. If the form is a Multiform, select the form that contains the fields you want to copy. Otherwise, do not change this value.

**Record Selection** lets you select the records to copy. Choose:

- **Current** to copy values from the current record.
- **All** to copy values from all the records in the selected table.
- **Range** to copy values in a subset of records specified in the boxes below this option. Enter the first and last records' positions in the form in these boxes (e.g., to copy values in the second through fifth records, enter 2 and 5).

**Fields** lists all fields in the selected table.

**Selected Fields** lists the fields in the selected table that DataEase will copy. Use the All, Add, and Remove buttons to control the fields that appear in this box.

**All** places all fields in the Fields box in the Selected Fields box.

**Add** places the highlighted field(s) in the Fields box in the Selected Fields box.

**Remove** deletes the highlighted field(s) from the Selected Fields box.

## Clipboard Formats

When you choose **Edit>>Copy Record** or **Edit>>Copy Special**, DataEase copies text to the Clipboard in three formats:

- **DataEase Data Format** is used to transfer data to other DataEase documents.
- **Text Format (CF\_TEXT)** is used to transfer data into other Windows applications such as Microsoft Excel or WordPerfect for Windows.
- **Link Format** is used transfer data into another Windows application as a linked object.

When you choose **Edit>>Copy**, DataEase copies the text in two formats: Text Format and Link Format.

### How to Copy the Data in Multiple Records

1. Choose **Edit>>Copy Special**. DataEase displays the Copy Special dialog.
2. If the form is a Multiform, select the form that contains the fields you want to copy. The default form is the one in which the cursor is positioned.
3. Select which records in the form you want to copy: the current record, a range of records, or all records. If you want to copy a range of records, enter the number of the first and last records you want to copy.

If the cursor is in a **Main** form, the default is the current record.

If the cursor is in a **Subform**, the default is all Subform records.

### How to Copy the Data in Multiple Fields

1. Highlight the field you want to copy in the Fields Box and click on the Add button. DataEase places the Field Name in the Selected Fields Box.
2. Repeat step 1 until all the fields you want to copy are in the Selected Fields Box.
3. If you are copying most of the fields, click on the All Button. Delete any field you do not want to copy by highlighting the field in the Selected Fields Box and clicking on the Remove Button.
4. Click OK. DataEase copies the data in all the selected fields to the Clipboard.

**Note:** You can use Copy Special to copy data in queried records. First select and/or sort the records and then choose **Edit>>Copy Special**. DataEase copies the information from the queried records based on the information you enter in the Copy Special dialog.

If you paste multiple records (copied using **Edit>>Copy Special**) in another DataEase document, the data you paste overwrites the data stored in the corresponding number of consecutive records. If you do this by mistake, close the form without saving changes.

## Clearing a Field

See **USER GUIDE Chapter 7** for information on Query By Form.

When you choose **Edit>>Clear Field**, DataEase deletes any data, selection criteria, or sort order information in the current field.

### How to Delete a Field Value

1. With the cursor in the field you want to clear, choose **Edit>>Clear Field**.
2. DataEase deletes the data in the field. Any value(s) stored in the Clipboard before you choose Clear Field remains intact.

### How to Clear QBF Criteria from a Field

1. Choose **Query>>Select Records** or **Query>>Sort Records**. DataEase displays the current QBF selection criteria or sort order.
2. Position the cursor in the field you want to clear.
3. Choose **Edit>>Clear Field**. DataEase erases the QBF selection criteria or sort order in the specified field from memory and displays a blank field.

## Clearing a Record

See **DESIGNER GUIDE Chapter 7** for information on Query By Form.



When you choose **Edit>>Clear Form**, DataEase erases all the data, selection criteria, or sort order information in the current record.

### How to Clear a New Record

1. At any time before you save the record, choose **Edit>>Clear Form**. DataEase displays a dialog that asks if you want to discard the entered data.
2. Click OK. DataEase permanently erases all the data in the record. Any data stored in the Clipboard before you choose **Edit>>Clear Form** remains intact.

### How to Display a Blank Record

1. Choose **Edit>>Clear Form**. DataEase displays a blank record. Any data stored in the Clipboard before you choose **Edit>>Clear Form** remains intact.

**Note:** You only need to use this option if the Document Properties setting Clear form after save is turned off.

### How to Clear QBF Criteria

1. Choose **Query>>Select Records** or **Query>>Sort Records**. DataEase displays the current QBF selection criteria or sort order.
2. Choose **Edit>>Clear Form**. DataEase erases all the selection criteria or sort order information and displays a blank form.

## Saving a Modified Record



When you choose **Edit>>Save**, DataEase overwrites the values in an existing record with the values that are currently displayed (and saves any previously blank values as new).

**Note:** **Edit>>Save** can also be used to save a new record (it functions exactly like **Edit>>Save As New Record** when used to save a record for the first time).

## How Referential Integrity Works When You Modify Multiform Records

See **DESIGNER GUIDE Chapter 8** for information on DataEase relationships and referential integrity.

Referential integrity is a special relationship option that affects how records in a Multiform are treated during record entry. In User View, when you modify a Match field value in the Main form of a Multiform, the change may or may not be duplicated in related Subform records, depending on which referential integrity option the designer asked DataEase to enforce.

The table below summarizes how DataEase enforces each of the three referential integrity options.

## Referential Integrity When Multiforms Are Modified

Referential Integrity Option	Effect on Match Field in Subform	Effect on Relationship
Cascade (Update)	Updated	Maintained
Null (Blank)	Made Null	Severed
Restrict (Don't Update)	Not Updated	Severed

DataEase automatically enforces referential integrity in Form View. In Table View, DataEase automatically applies the Restrict option.

In this example we change Ken Edward's MEMBER ID.

The screenshot shows a software interface for 'Club ParaDEASE'. The main title is 'MEMBERS'. On the left, there is a logo with two palm trees and the text 'Club ParaDEASE The Antidote to Documentation'. Below the logo is a 'Member ID: 00901' field and a 'New' button. The main form area contains several input fields: 'Last Name: Edwards', 'First Name: Kenneth', 'Initial: J', 'Street: 429 Wilmot Road', 'City: Deerfield', 'IL' (state dropdown), 'Zip Code: 60015-0000', 'Expiration Date: 03/21/95', and 'Telephone: (708)940-2884'. At the top right of the form are 'Previous' and 'Next' buttons.

**Relationships**

CHOOSE THE TABLES TO RELATE...

Records in  are related to records in

based on the following fields being equal: (define at least one set of fields)

=

=

=

---

OPTIONS..

Unique Relationship Names - records in each Table can be referenced as:

(Note: if these tables are used in another relationship, Unique Names are required.)

Referential Integrity - the effect a change to Main Form key field has on SubForm key

(use Toolbar for other record actions)

When you change the Match field MEMBER ID in the MEMBERS form, the FAMILY MEMBERS form reflects the changes, because the referential integrity option is set to Cascade

The change in MEMBERSHIP ID has been automatically reflected in the the matching family records in FAMILY MEMBERS.

**FORM : FAMILY MEMBERS**

**FAMILY MEMBERS**

Member ID:  Individual ID:

Last Name:  First Name:

Street:

City/State:   Zip Code:

## How to Modify an Existing Record

1. Display the record you want to change as the current record.
2. Change one or more field values by typing the new value(s) over the existing value(s). If you prefer, you can choose **Edit>>Clear Field** to clear a field and then enter the new value. DataEase displays the record status as modified.
3. Choose **Edit>>Save**. DataEase saves the record as it is now displayed (overwriting the previous version of the record).

## How to Modify Records in Table View

1. With a form displayed in Table View, modify any value(s) in any displayed record(s).
2. DataEase displays each changed record's status as modified.
3. Choose **Edit>>Save**, DataEase overwrites the previously saved data with the new values.
4. To modify additional records, repeat steps 1 through 3.

## How to Modify Records in a Multiform

1. Display the Main form record that contains the data you want to change.
2. Modify the Main form record and/or any Subform record(s).
3. Choose **Edit>>Save**. DataEase overwrites the previously saved data with the new values in the Main form record and all Subform records simultaneously.

## Saving a New Record

When you choose **Edit>>Save As New Record**, DataEase adds a new record to the associated database table. DataEase will not create a new record if any Required Field is left blank or the values in the Unique fields match those in an existing record.

### How to Enter New Records

1. If DataEase displays a blank record, start with step 3. If DataEase displays an existing record, choose **Edit>>Save**.
2. Choose **Edit>>Clear Form**. DataEase deletes all the data.
3. Enter the data in the record.
4. Choose **Edit>>Save As New Record**. DataEase saves the data you entered and leaves this record displayed.

### How to Enter a New Record Using Previously Entered Data

1. Choose **Edit>>Save** to make sure the record is saved.
2. Modify the record.
3. Choose **Edit>>Save As New Record**. DataEase creates a new record using the currently displayed data.

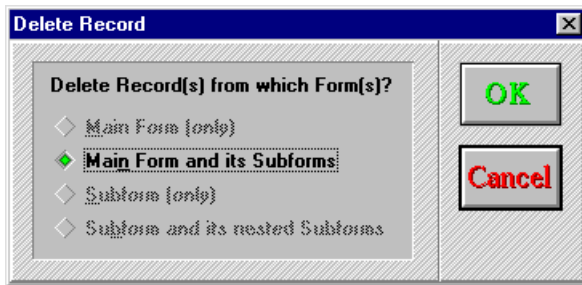


## Deleting a Record

When you choose **Edit>>Delete Record**, DataEase marks a record to be deleted. When a record is marked deleted, DataEase excludes the record from reports and does not display it when you page through the records or use Query By Form. When DataEase reorganizes the form, the record is permanently deleted (erased from disk).

If you delete a record in a form that defines or uses an SQL table, the foreign database engine permanently deletes the record when you choose **Edit>>Delete Record** (you cannot recover the record using **Edit>>Restore Record**).

If you delete a record in a Multiform, DataEase displays the Delete Record dialog, which asks you to specify records to delete.



### Delete Record Dialog Options

**Main form (only)** deletes the current Main form record. The related Subform records continue to exist but are orphaned (i.e., they are no longer related to any Main form record).

**Main form and its Subforms** deletes the current Main form record and all Subform records.

**Subform only** deletes the current Subform record and leaves any other Subform records and the Main form record intact. DataEase offers this option only when the cursor is in a Subform record.

**Subform and its Nested Subforms** deletes the current Subform record and all Subform records nested within it.

### How Referential Integrity Works When You Delete Multiform Records

See **DESIGNER GUIDE Chapter 8** for information on DataEase relationships and referential integrity in a Client-server environment.

Referential integrity is a special relationship option that affects how records in a Multiform are treated during record entry. In User View, when you delete a Main form record in a Multiform, the related Subform records may or may not be deleted, depending on which referential integrity option the designer asked DataEase to enforce.

The table below summarizes how DataEase enforces each of the three referential integrity options available.

## Referential Integrity When Multiforms Are Deleted

Referential Integrity Option	Effect on Subform Records
Cascade (Update)	Deleted
Null (Blank)	Deleted
Restrict (Don't Update)	DataEase lets you specify which record(s) to delete (as explained on the previous page).

DataEase automatically enforces the specified referential integrity option in Form View. In Table View, DataEase automatically applies the Restrict option.

### How to Delete a Record in Form View

1. Display the record you want to delete as the current record. Choose **Edit>>Delete Record**. DataEase removes the record from the form and marks it deleted.
2. When you save changes or close the form, DataEase permanently deletes the record.

### How to Delete a Record in Table View

1. Click on the record you want to delete. Choose **Edit>>Delete Record**. DataEase displays the record status as deleted and shows the record in reverse colors.
2. When you choose **Edit>>Save** or **Edit>>Save As New Record**, DataEase removes the record from the display.
3. To delete additional records, repeat steps 1 and 2.
4. When you save changes or close the form, DataEase permanently deletes the record.

**Note:** You can delete many records simultaneously by marking each one to be deleted and then choosing **Edit>>Delete Record**.

### How to Delete a Record in a Multiform

1. Display as the current record the Main form record that contains the data you want to delete. Choose **Edit>>Delete Record**. DataEase displays the Delete Record dialog, which asks you to specify exactly what you want to delete.
2. Select the correct option from the dialog. DataEase removes the specified record(s) from the form and marks it deleted.
3. When you save changes or close the form, DataEase permanently deletes the record.

## Restoring a Deleted Record

When you choose **Edit>>Restore Record**, DataEase reverses the effect of the Delete Record command in three situations:

- Abandons all unsaved changes made to an existing record.
- Recovers a Main form record that has been marked deleted and restores it in its original (record order) position in the form.
- Recovers a deleted Subform record.

Note: You cannot restore a record deleted from a form that defines or uses an SQL table.

### How to Abandon Changes Made to an Existing Record

1. At any time before you save the record, choose **Edit>>Restore Record**.
2. DataEase restores the record to the previously saved version.

### How to Recover a Deleted Record in Form View

1. With the record you just deleted still displayed, choose **Edit>>Restore Record**.
2. DataEase restores the record to its original position in the form as an active record.

### How to Recover a Deleted Record in Table View

1. Before a record marked as deleted has scrolled off the display or you erase it from disk by choosing **Edit>>Save Changes**, choose **Edit>>Restore Record**.
2. DataEase restores the record to its original position in the form as an active record.

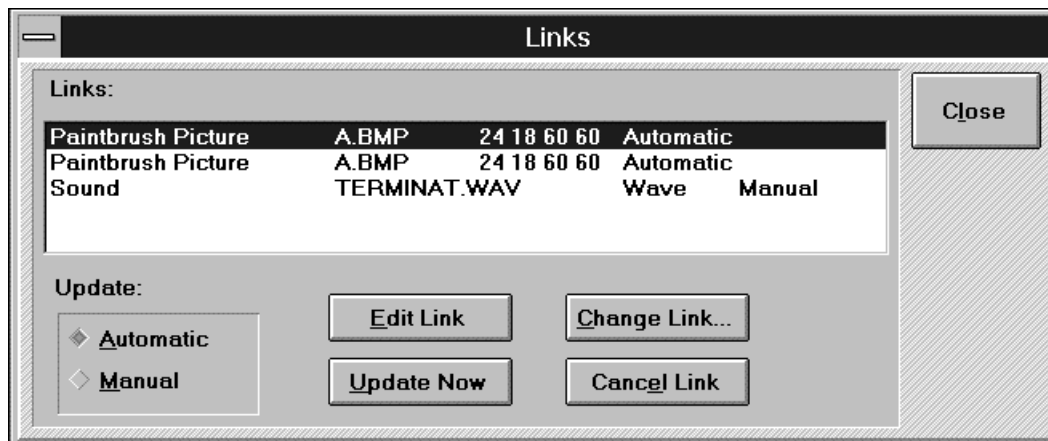
### How to Recover a Deleted Subform Record

1. At any time before you save the Main form record, place the cursor in the Subform record marked as deleted and choose **Edit>>Restore Record**.
2. DataEase restores the Subform record to its original position in the Subform.

## Editing OLE Links

See **DESIGNER GUIDE Chapter 6** for information on creating an OLE object.

When you choose **Edit>>Links**, DataEase opens the Links dialog, which lets you view and change the method of updating a link (automatic or manual), update a linked object, cancel a link, or repair an active link.



### Links Dialog Options

**Links** lists OLE connections to the active document. Each row indicates one link's server application (e.g., Paint), filename (e.g., VOLLYBLL.PCX), and link update method (Manual or Automatic).

**Update** tells DataEase which method to use when updating links. When you choose an option, the update method changes for each link that is highlighted. Choose:

- **Automatic** to update the link information displayed in DataEase whenever a change is made to the source file.
- **Manual** to update the information only when you click the **Update Now** button.

**Tip:** You can change, update, or cancel multiple links at the same time by selecting multiple items in the Links list box.

**Update Now** updates information for highlighted links with current data from the source application. This option is used with the Manual Link Update method.

**Cancel Link** permanently breaks the connection currently highlighted in the Links list box. The link itself is removed from the Links list box and the linked object is changed to a static picture that has no update capability.

**Edit Link** opens the Windows application that was used to create the object (e.g., Microsoft Excel), so you can edit the original document. Clicking the Edit Link button is the same as double-clicking an OLE object.

**Change Link** opens the Change Link dialog, which lets you repair a broken link when DataEase cannot find the source file (e.g., if you move the source file or you change its name).

To change multiple links at the same time, all selected links must point to the same source file in the Windows application DataEase is linked to (e.g., an Excel chart). Otherwise, the Change Link button is grayed.

## Change Link Dialog Options

**File Name** lets you assign a new filename for the link.

**List Files of Type** lets you choose the program that created the linked file.

**Directories** tells DataEase which directory stores the linked object. To select a directory, double-click on the name of the directory.

**Drives** tells DataEase which disk drive stores your application. To select a drive, click on the drop-down arrow and then on the drive letter.

### How to Change the Update Method for a Link

1. Choose **Edit>>Links**. DataEase displays the Links dialog.
2. Click on the link in the Links list box that you want to change. DataEase highlights the selected link.

Click on one of the following:

- **Automatic** to update the link information displayed in DataEase whenever a change is made to the source file.
  - **Manual** to update the information only when you click the **Update Now** button.
3. Click Close to close the dialog.

### How to Update a Manual Link

1. Choose **Edit>>Links**. DataEase displays the Links dialog.
2. Click on the link in the Links list box that you want to update. DataEase highlights the selected link.
3. Click on the **Update Now** button. DataEase updates information for the highlighted link with the current data from the source application.
4. Click Close to close the dialog.

### How to Break a Link

1. Choose **Edit>>Links**. DataEase displays the Links dialog.
2. Click on the link in the Links list box that you want to delete. DataEase highlights the selected link.
3. Click on the Cancel Link button. DataEase removes the selected link from the Links list box, permanently breaks the connection from the original file, and changes the linked object in the DataEase document to a static image (i.e., it cannot be modified).
4. Click Close to close the dialog.

## How to Repair a Broken Link

1. Choose **Edit>>Links**. DataEase displays the Links dialog.
2. Click on the link in the Links list box that you want to restore. DataEase highlights the selected link.
3. Click on the Change Link button. DataEase displays the Change Link dialog.
4. Choose the drive, directory, type of file, and filename of the file that now contains the linked information.
5. Click Close to close the dialog.

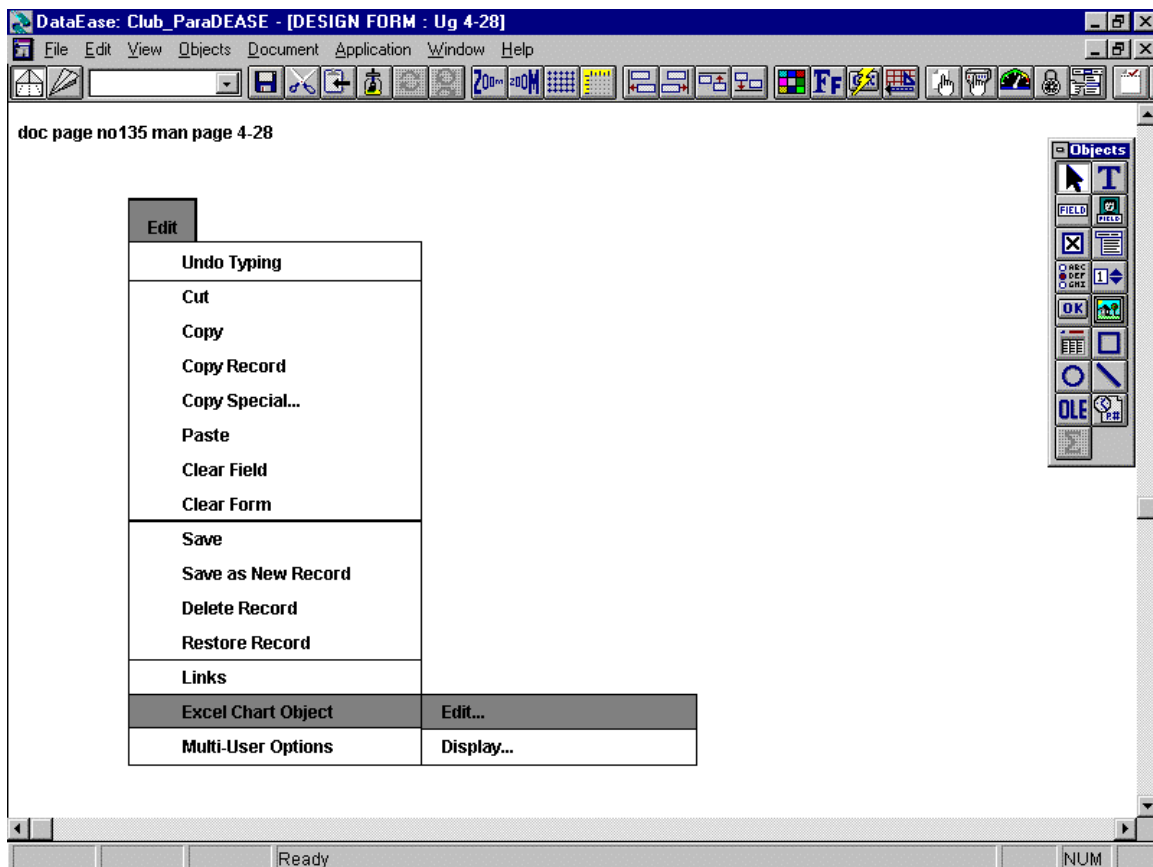
## Modifying OLE Objects

See **DESIGNER GUIDE Chapter 6** for information on defining and modifying an OLE object's attributes.

When you choose **Edit>>Object**, DataEase opens a cascade menu similar to the one shown below.

When you select an OLE object in a document, DataEase inserts its name before Object in the menu option name (e.g., Excel Chart Object, Excel Worksheet Object, Package Object, etc.).

The Object cascade menu displays a dialog that lets you modify the key attributes of an OLE object if the Windows application you are copying the object from has this capability. The options that the cascade menu displays vary according to the object. In most cases, Edit and Display are the only choices. DataEase supplies the Display option for all OLE objects. Some applications, such as Windows Object Packager, also support Play.



## Controlling Record Entry in a Multi-User Environment

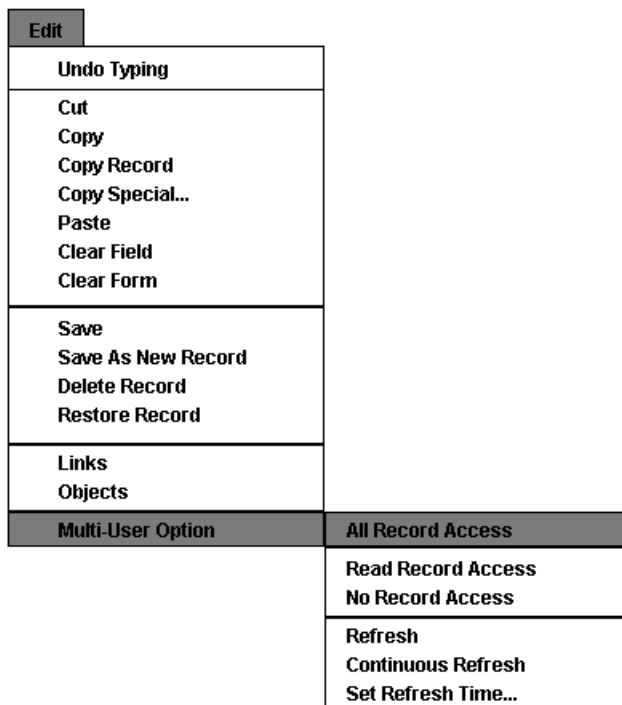
See **DESIGNER GUIDE Chapter 8** for information about System Administration.

See **USER GUIDE Chapter 8** and **DESIGNER GUIDE Appendix A** for information on running DataEase in a Client-server environment.

When you use DataEase in a network environment, multiple users can access the same data. As you view data, other users may be modifying or deleting the same data. To preserve data integrity and prevent multiple users from viewing or modifying the same records, the system administrator defines default locking rules for the application in the Application Preferences dialog.

These locking rules control how many users can simultaneously access a record or table. In most cases, the default locking rules the system administrator chooses are sufficient for the database. You should not try to override the default locking rules unless you are thoroughly familiar with network environments.

When you choose **Edit>>Multi-User Options**, DataEase lets you override the default record entry locking rules and refresh the screen for the document currently in use. DataEase displays the Multi-User Options cascade menu shown below.



### Multi-User Options Cascade Menu Options

**All Record Access** removes any record entry locks on a document. This option lets other users view, modify, enter, or delete a record you are viewing. However, if you modify a record, DataEase locks that record to prevent other users from modifying the same record. Other users can view that record but cannot modify or delete the record until you release it.

**Read Record Access** places a shared lock on the records in a document. Other users can view the record you are viewing but cannot modify the record until you release it.



If a user tries to modify the record you are viewing, DataEase displays a Resource Conflict message. When you release the record, DataEase updates the record with your changes and displays a message that tells the user that they are not viewing the most current record. Likewise, if you try to modify a record someone else is viewing, DataEase displays a Resource Conflict message and does not let you modify the record until the other user releases it.

**No Record Access** places an exclusive lock on the records in a document. Other users cannot access the record you are viewing. If a user tries to access the record you are viewing, DataEase displays a Resource Conflict message. You cannot select this option while another user is viewing the same record.

**Note:** To release a record press **Edit>>Clear Form, Goto>>Next Record, or File>>Close.**

The record access option you select applies only to your workstation.

Once you select a record access option, it stays in effect until you choose another option or close the document.

When you view a Multiform, the locking rule only applies to the main table.

You can select Multi-User Options in Table View as well as in Form View. In Table View, the record access options on the Multi-User Options cascade menu change from record access restrictions to table access restrictions (see below).

<b>All Table Access</b>
<b>Read Table Access</b>
<b>No Table Access</b>
<b>Refresh</b>
<b>Continuous Refresh</b>
<b>Set Refresh Time...</b>

**All Table Access** removes any record entry lock on the table. Other users can view, modify, enter, or delete a record you are viewing. Multiple users can view the same records, but only one user can modify a record at a time.

**Read Table Access** places a shared lock on the table. Other users can view the records you are viewing but they cannot modify them. DataEase displays a Resource Conflict message if another user tries to modify or delete a record you are viewing.

You cannot access a record in a table someone else is viewing. If you try to modify a record in a table that someone else is viewing, DataEase displays a Resource Conflict message. You can access the record when the other user closes the document.

You cannot select this option while another user is modifying a record in the table.

**No Table Access** places an exclusive lock on the table. While you are viewing the table, other users cannot view, modify, or delete records in that table. Once you select this option, DataEase displays a Resource Conflict message when any other user tries to access the table. You cannot select this option while another user is viewing the table you are trying to lock.

**Refresh** reads the current record from disk and displays it on screen. Because other users can modify the record you are viewing, you may not be viewing the most current data. Use this option to display the most current data on the screen. Refresh overwrites changes you made to the record but have not saved to disk.

**Continuous Refresh** automatically refreshes the current record at the rate set in the Set Refresh Time dialog (see below).

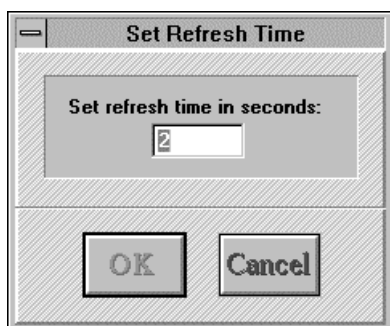
If you choose **Edit>>Multi-User Options>>Continuous Refresh** while viewing records in Table View, DataEase automatically refreshes all the records on screen at the interval you specify in the Set Refresh Time dialog. If you switch to Form View, DataEase suspends continuous refresh.

**Note:** If you choose **Edit>>Multi-User Options>>Continuous Refresh** while viewing records in Table View, DataEase automatically refreshes all the records on screen at the interval you specify in the Set Refresh Time dialog. If you switch to Form View, DataEase suspends continuous refresh.

**Note:** When you enter or modify a record, DataEase locks the record and suspends continuous refresh until you choose **Edit>>Save As New Record** or **Edit>>Save**.

DataEase also suspends continuous refresh when you choose **Goto>>Related Form**. Continuous refresh is not turned back on when you return to the original document.

**Set Refresh Time** opens the Set Refresh Time dialog shown below.



### Set Refresh Time Dialog Options

See **DESIGNER GUIDE Chapter 8** for information on setting the default refresh interval.

**Set Refresh Time in Seconds** lets you change the time interval, in seconds, for continuous refresh. You can increase the refresh interval to place less demand on the network. The default interval is two seconds. DataEase does not let you enter a zero as the refresh interval.

**Note:** When you view a Multiform, the refresh option applies to the Subforms as well as the Main form.

### How to Regulate Record Access in a Multi-User Environment

1. Choose **Edit>>Multi-User Options>>All Record Access** to remove any record entry locks on the document. Other users can view, modify, or delete the record(s) you are viewing.
2. Choose **Edit>>Multi-User Options>>Read Record Access** to place a shared lock on the records in the document. Other users can view the record(s) you are viewing but cannot modify or delete these records until you release them.
3. Choose **Edit>>Multi-User Options>>No Record Access** to place an exclusive lock on the records in the document. Other users cannot view, modify, or delete any record you are viewing.

If you follow the above steps in Table View, DataEase applies the locking rule to all records in the table, not just the records you are viewing.

## How to Refresh the Current Record

1. Choose **Edit>>Multi-User Options>>Refresh** to update the record(s) on the screen with the latest changes saved to disk.
2. Choose **Edit>>Multi-User Options>>Continuous Refresh** to automatically refresh the record(s) on the screen every two seconds.
3. Choose **Edit>>Multi-User Options>>Set Refresh Time** to change the refresh interval. Enter a number in the Set Refresh Time in Seconds box. DataEase refreshes the screen at the interval you specify.

## Chapter 5 : The View Menu

### Viewing Records

The options on the View menu are used to change how DataEase displays records, display or hide the Toolbar and Status Bar, and display the SQL commands that DataEase sends to a foreign database engine in a Client-server environment.

Each menu option is summarized on the next page and explained in detail on the following pages.

### Summary of View Menu Options

Menu Option	Keyboard Equivalent	Menu Option Is Used to...
<b>Form</b>	Alt + V, F	Display the document so that one record appears on the screen at a time.
<b>Table</b>	Alt + V, T	Display the document in columnar format so that multiple records appear on the screen simultaneously.
<b>All Records</b>	Alt + V, A	Display all records in the document, ignoring any Query By Form (QBF) selection criteria.
<b>Queried Records</b>	Alt + V, Q	Display only records that meet QBF selection criteria.
<b>Zoom</b>	Alt + V, Z	Open the Zoom cascade menu,, which lets you choose options for enlarging or reducing your view of a document.
<b>Toolbar</b>	Alt + V, B	Display or hide the Toolbar.
<b>Status Bar</b>	Alt + V, S	Display or hide the Status Bar at the bottom of the active window.
<b>Catalog</b>	Alt + V, C	Display or hide the Application Catalog,, which lists all the foreign databases,, tables,, and documents in an application.
<b>Generated SQL</b>	Alt + V, G	Display DataEase-generated SQL statements in a Client-server environment.

## Viewing Single versus Multiple Records

The options in the first group on the View menu let you view either one record at a time (Form View) or multiple records simultaneously (Table View).



When you choose **View>>Form**, DataEase displays only one record on screen at a time.



When you choose **View>>Table**, DataEase displays multiple records at once in a table. Each row is one record and each column is a field on the form.

The screenshot shows the DataEase MEMBERS interface. On the left is a navigation menu with buttons for New, Save, Delete, Close, Clubs, and Reservations. The main area is split into two sections. The top section is Form View, showing details for member Ken Edwards (ID: 00901). The bottom section is Table View, displaying a list of members.

**Form View Details:**

- Last Name: Edwards, First Name: Kenneth, Initial: J
- Street: 429 Wilmot Road
- City: Deerfield, IL, Zip Code: 60015-0000
- Expiration Date: 03/21/95, Telephone: (708)940-2884
- Favorite Activity: BASKETBALL
- Method of Payment: AMERICAN EXPRE

**Table View Data:**

Row#	MEMBER	LAST NAME	FIRST NAME	MID
15	00901	Edwards	Kenneth	J
16	00016	Young	John	R
17	00017	Adams	Will	P
18	00018	Forrest	Bob	J
19	00019	Anders	Jenna	T
20	00020	Reede	Shannon	R
21	00021	Larson	Barry	L
22	00022	Morelli	Vincent	J
23	00023	Anderson	Eric	S
24	00024	Connelly	John	A

By default, DataEase displays Ken Edward's record in Form View.

When you choose View>>Table, Ken Edward's record is just one of several records displayed in tabular format.

### How to Switch between Form and Table View

1. Choose **View>>Form** to display records one at a time.
2. Choose **View>>Table** to display multiple records in a tabular format.

## Viewing Selected Records

See **USER GUIDE Chapter 7** for information on Query By Form (QBF).

The options in the second group on the View menu let you view different sets of records. The viewed set can include all records or queried records.

When you choose **View>>All Records**, DataEase displays all the records in the document.

When you choose **View>>Queried Records**, DataEase displays only the records that match the specified QBF selection criteria.

In the example below, assume the QBF criterion is set to STATE = CA.

By default, DataEase displays All Records. You can view any MEMBERS record, regardless of any specified QBF criteria.

Row#	MEMBER	TELEPHONE	LAST NAME	STAT
15	00915	(708)940-2884	Edwards	IL
16	00016	(510)937-8221	Young	CA
17	00017	(405)329-7756	Adams	OK
18	00018	(803)233-9775	Forrest	SC
19	00019	(419)893-8824	Anders	OH
20	00020	(512)458-9926	Reede	TX
21	00021	(608)233-1885	Larson	WI
22	00022	(215)337-2984	Morelli	PA
23	00023	(612)544-9784	Anderson	MN

Choose **View>>Queried** Records. DataEase now displays only the members who live in California, matching the previously entered QBF criteria.

Row#	MEMBER	TELEPHONE	LAST NAME	STAT
1	00013	(510)283-3882	Sullivan	CA
2	00016	(510)937-8221	Young	CA
3	00037	(510)873-4525	Kowalski	CA
4	00058	(510)964-2118	Steinberg	CA
5	00074	(415)434-2587	Gauthier	CA
6	00078	(213)475-9834	Schwartz	CA
7	00086	(619)232-1274	Goetz	CA
8	00129	(619)297-7318	Manzi	CA

### How to View Selected Records

1. Choose **View>>All Records** to display all the records in a document, ignoring any specified QBF criteria.
2. Choose **View>>Queried Records** to display only records that meet the specified QBF criteria (e.g., STATE = CA).

### How to Clear QBF Criteria

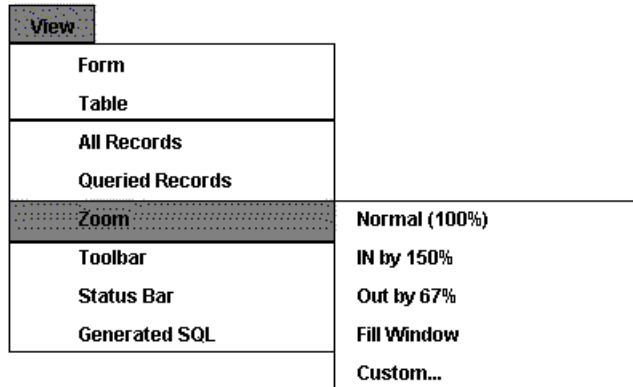
1. Choose **Query>>Select Records**. DataEase displays the current selection criteria.
2. Choose **Edit>>Clear Form**. DataEase displays a blank form.
3. Choose **View>>All Records** to display all the records in a document.

**Note:** When you choose **View>>All Records**, DataEase maintains any specified QBF criteria in memory.

## Enlarging or Reducing the Window View

See **USER GUIDE Chapter 3** for information about printing an enlarged or reduced view of a document.

When you choose **View>>Zoom**, DataEase displays a cascade menu that lets you magnify or reduce your view of the document in the active window.



The Zoom option lets you control the appearance of the document on the screen. To get a closer look at one particular area in a document, you can zoom in (enlarge) your view of the document on the screen. To get an overview of a document, you can zoom out (reduce) your view of the document on the screen. Use Zoom options to:

- View or edit small text.
- Print an enlarged or reduced area of a document.
- View a multiscreen document on one screen.



## Zoom Cascade Menu Options

**Normal (100%)** displays a document in its original size. Use this option to return a document to normal size after it has been magnified or reduced.

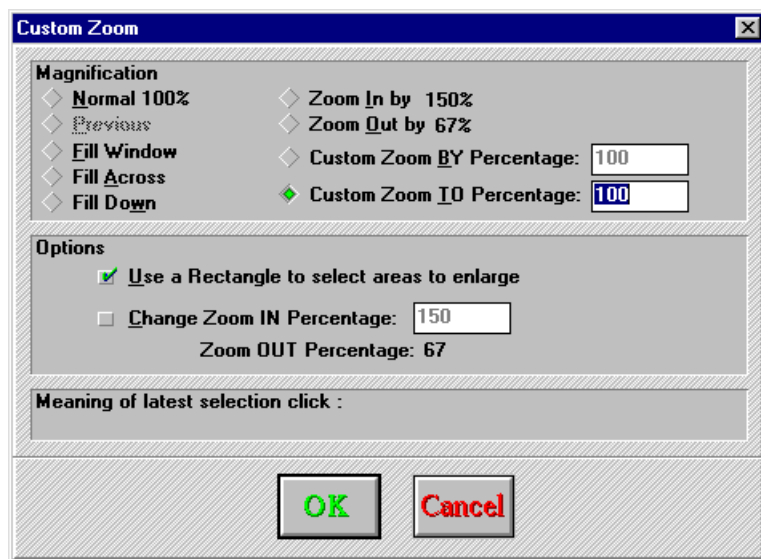
**In by 150%** magnifies a document to 1 times its current size.

**Out by 67%** reduces a document to of its current size.

DataEase displays the current Zoom Percentage in the Title Bar of the active window. If you maximize a document, the Title Bar is not visible.

**Fill Window** resizes the document to fill the entire window.

**Custom** opens the Custom Zoom dialog shown below.



## Custom Zoom Dialog Options

**Magnification Options** let you customize the magnification setting for the document. (See the next page for examples of different settings.)

- **Normal 100%** displays the document in its original size.
- **Previous** displays the document in the previous zoom size. DataEase displays the previous size next to this option. For example, if you view a document at 150 percent, then zoom in by 200 percent, DataEase resizes the document to the 150 percent size when you select this option.
- **Fill Window** resizes the document to fill the entire window.
- **Fill Across** resizes the document to fill the width of the window.
- **Fill Down** resizes the document to fill the height of the window.
- **Zoom In by 150%** magnifies a document to 1 times its current size. This option also appears on the Zoom cascade menu.
- **Zoom Out by 67%** reduces a document to of its current size. This option also appears on the Zoom cascade menu.
- **Custom Zoom By Percentage** lets you resize the document to a percentage of its current size. For example, if you enter 10, DataEase displays the document so that it is ten percent of its current size.

- **Custom Zoom To Percentage** lets you resize the document to a percentage of its original size. Enter a percentage between 1 and 2000.

**Zoom Default Options** let you select a specific area to enlarge and change the default Zoom percentages.

**Use a Rectangle to select areas to enlarge:** lets you select an area of the document to enlarge. When you turn this feature on and choose Zoom In, DataEase displays a movable black rectangle. Position the rectangle over the area of the document you want to enlarge and click. The area you select appears in the active document window.

**Change Zoom In Percentage:** lets you enter a new default value for the Zoom In percentage that appears on the Zoom cascade menu. The default is 150 percent.

**Change Zoom Out Percentage:** is automatically calculated as the inverse of the percentage you enter in the Zoom In Percentage box. The value appears on the Zoom cascade menu as the Zoom Out percentage. For example, if you enter 200 in the Change Zoom In Percentage text box, DataEase changes the Change Zoom Out Percentage to 50.

**Meaning of the latest selection click** displays a Help message for each Custom Zoom dialog control. When you click on an option, DataEase displays a description of the option.

**Note:** DataEase accurately displays documents in their original size (100 percent). If you reduce your view to a small percentage or magnify your view to a large percentage, DataEase may distort your view of the document.

When you use the Fill Window, Fill Across, or Fill Down options, DataEase proportionally resizes the width and height of the document. For this reason, a short form may not fill the entire window when you choose the Fill Window option.

If you use non-scaleable fonts in your documents, you may be unable to read the letters when you reduce the document to a small percentage of its original size.

## Filling the Document Window

See **DESIGNER GUIDE Chapter 7** for information about the Zoom to Fit Window option.

To have DataEase automatically fill the document window when you change the size of the window, check the Zoom to Fit Window option on the Document Properties dialog. When this option is active, DataEase automatically resizes the document to fill the document window each time you resize the window in User View.

### How to Enlarge Your View of a Document

1. Choose **View>>Zoom>>Zoom In by 150 percent**. DataEase displays the document at 1 times its original size.
2. Choose **View>>Zoom>>Normal** to return the document to its original size.

### How to Reduce Your View of a Document

1. Choose **View>>Zoom>> Zoom Out by 67 percent**. DataEase displays the document at of its original size.
2. Choose **View>> Zoom>> Normal** to return the document to its original size.

The MEMBERS form, displayed at normal size.

The MEMBERS form, displayed at normal size.

**Club ParaDEASE**  
The Antidote to Documentation

**MEMBERS** Previous Next

Last Name:  First Name:  Initial:   
 Street:   
 City:   Zip Code:   
 Expiration Date:  Telephone:

Member ID:

New  
Save  
Delete  
Close  
Clubs  
Reservations

Favorite Activity:  Method of Payment:   
 Card No.

**Family Members**

First Name	Last Name	Date of Birth
George	Perrault	10/19/50
Patricia	Perrault	07/22/75
Daniel	Axelrod	02/27/78
Joseph	Perrault	03/14/82
Carol	Perrault	07/03/84

**Membership Fees**

Adult Annual Fee \$35.00  
 Child Annual Fee \$15.00

Adult Fees:   
 Child Fees:   
 Total Due:

The MEMBERS form, ZOOMED out.

**MEMBERS**      **Prev**      **Ne**

Club ParaDEASE  
The Antidote to Documentation

Member ID: 0000

**Ne**  
**Save**  
**Delete**  
**Close**  
**Print**  
**Refresh**

Last Name: **Perrault**      First Name: **George**      Initial: **R**  
 Street: **38 Whitnev Avenue**  
 City: **Fssex**      State: **CT**      Zip Code: **06426-0001**  
 Expiration Date: **09/18/21**      Telephone: **(203)448-5821**

Favorite Activity: **SNORKEL**      Method of Payment: **AMERICAN EX**  
 Card No.: **2424-888440-8824**

**Family Members**

First Name	Last Name	Date of Birth
George	Perrault	10/19/19
Patricia	Perrault	07/22/22
Daniel	Avelrod	02/27/27
Joseph	Perrault	03/14/14
Carol	Perrault	07/03/03

**Membership**

Adult Annual Fee \$35.00  
 Child Annual Fee \$15.00  
 Adult Fees: **140**  
 Child Fees: **75**  
 Total Due: **15.00**

## How to Select an Area to View Using Zoom

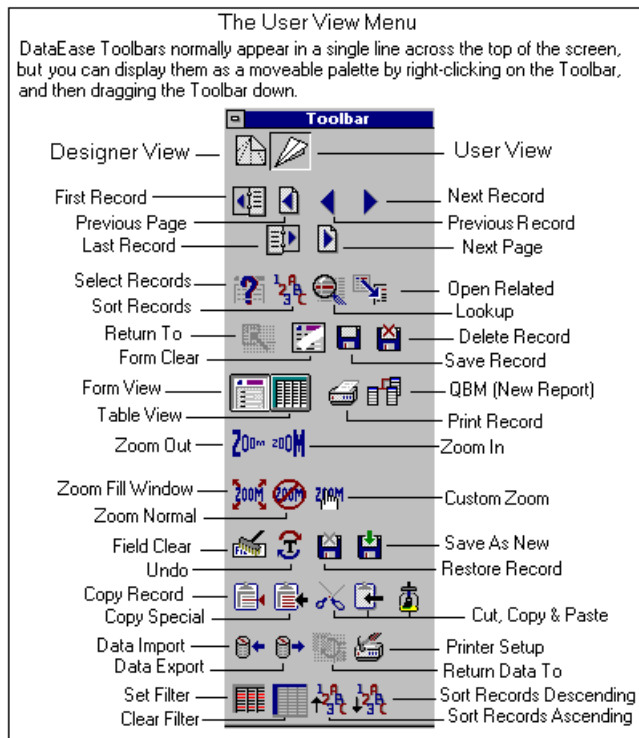
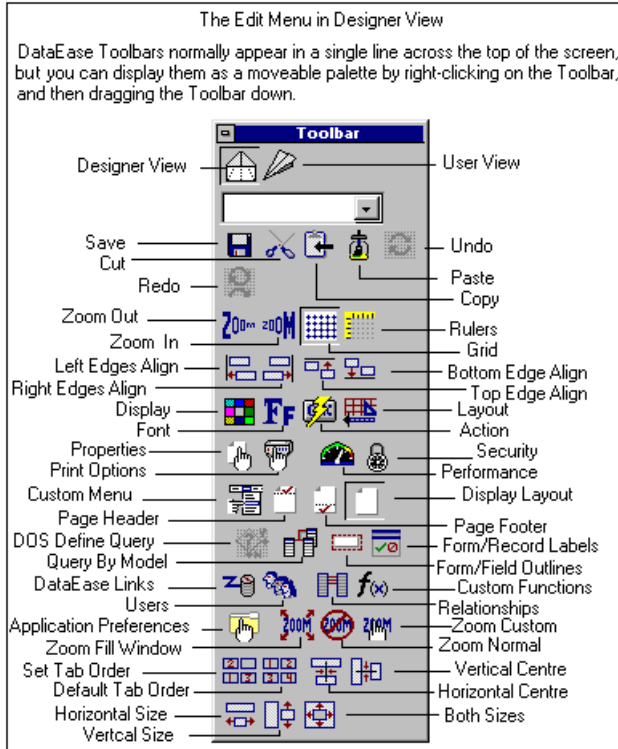
1. Choose **View>>Zoom>>Custom**. DataEase displays the Custom Zoom dialog.
2. Check the Use Rectangle option.
3. Click OK to close the dialog.
4. Position the rectangle over the area in the document you want to enlarge and click. The area you select appears in the top left corner of the window.

## How to Change the Magnification Options on the Zoom Menu

1. Choose **View>>Zoom>>Custom**. DataEase opens the Custom Zoom dialog.
2. Under Options, enter a percentage in the Change Zoom In Percentage box.
3. Click OK to close the dialog. DataEase displays this value in the cascade menu and automatically calculates a new percentage to display as the Zoom Out percentage.

## Displaying the Toolbar

When you choose **View>>Toolbar**, DataEase displays the Toolbar below the Menu Bar. The Toolbar is the row of buttons that give you quick access to frequently used commands.



## Displaying the Status Bar

When you choose **View>>Status Bar**, DataEase displays the Status Bar at the bottom of the Application window. The Status Bar provides information about the system (such as whether the Insert, Num Lock, and Caps Lock keys are active) or about the currently selected object (such as its length, width, and location).

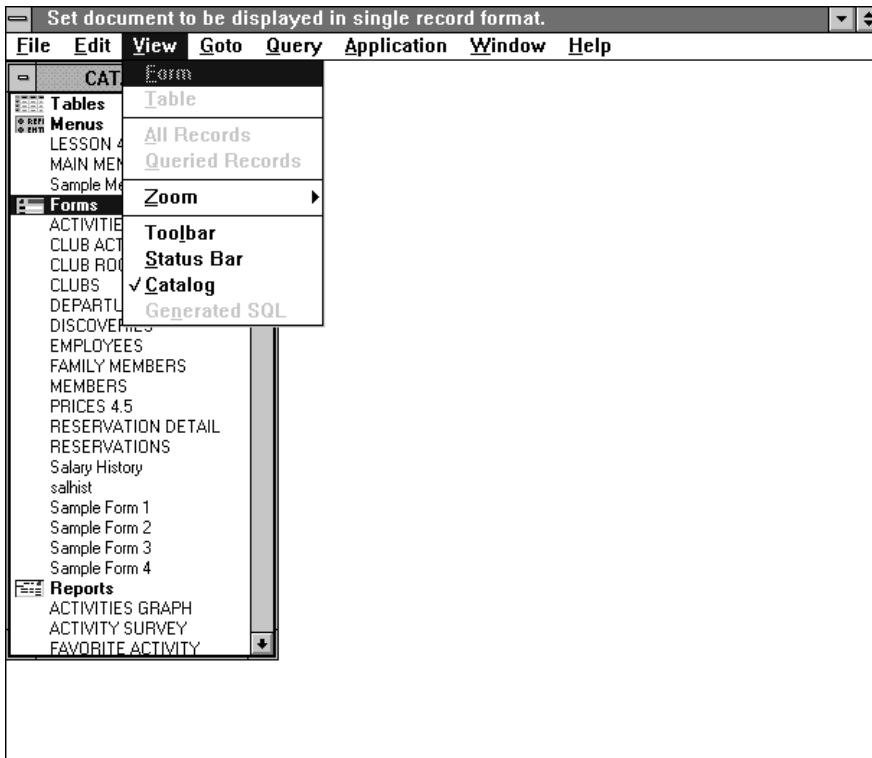


The Status Bar (Bottom of your DFW screen),  
here displaying record 3 from 8 related records.

## Displaying the Application Catalog

When you choose **View>>Catalog**, DataEase turns the Application Catalog Window on or off. DataEase reduces any open document window to its default size and displays the Application Catalog Window at the left of the screen.

The Application Catalog Window lists all the foreign databases, tables, and documents in an application. DataEase automatically updates the Application Catalog when you add, rename, or delete documents and database links.



### Viewing a Catalog List

By default, DataEase displays the table icon but not the list of tables in the application. To view the list of tables, double-click on the table icon.

By default, DataEase displays lists of the documents (i.e., menus, forms, reports, and procedures) in the application. To collapse a list, double-click on the document type icon.

### Opening a Document or Table

DataEase lets you open a document or table directly from the Application Catalog. To open a document or table, simply double-click on its name, or highlight its name and then click the Designer or User View button on the Toolbar. DataEase displays the document or table in User View by default.

**Note:** In the Application Catalog, DataEase lists the Link Name for a foreign database instead of the name used on the server. DataEase displays the foreign database names without showing the associated list of tables. To view a list of the tables, double-click on the database name.

**Note:** The Application Designer can use **Application>>Preferences** to set the Catalog lists to appear collapsed when you open an application.

## Viewing Status Information

See **USER GUIDE Chapter 8** for information on linking an application to a foreign database on a server.

The Application Catalog contains detailed status information you can view by enlarging the window.

For each document, DataEase displays the:

- Name of the primary table (for a form or report only).
- Date when the document was last modified.
- User Name of the user who last modified the document.

**Note:** For each linked database, DataEase displays the:

- Server name or directory (with the name used to refer to the foreign database on the server in quotes).
- Database engine type.



## Displaying SQL Statements

See **DESIGNER GUIDE Chapter 8** for information on the Application Preferences option that toggles this feature on and off.

When you choose **View>>Generated SQL**, DataEase displays the automatically generated SQL statements that correspond to the current operation. For example, DataEase automatically generates SQL statements when you insert, update, or delete a record, or create or modify a table.

DataEase only displays the Generated SQL option when the program is running in a Client-server environment.

### How to Display SQL Statements

1. Choose **View>>Generated SQL**. Each time you perform an action, DataEase displays the corresponding SQL statement in an SQL Syntax dialog in the middle of the active window. Click OK to close the SQL Syntax dialog.

## Chapter 6 : The Goto Menu

### Browsing through Records and Navigating Relationships

The options on the Goto menu are used to browse through records in the current form or report, display the records in a related form, and retrieve data stored in a related form.

Each menu option is summarized on the next page and explained in detail on the following pages.

Two buttons on the User Toolbar, **Previous Data Page** and **Next Data Page**, are used to browse through records but do not have a corresponding option on the Goto menu. In Table View, the Previous Data Page button scrolls the records one full screen up, while the Next Data Page button scrolls the records one full screen down. In Form View, the Previous Data Page button displays the previous record, while the Next Data Page button displays the next record.





### Summary of Goto Menu Options

Menu Option	Keyboard Equivalent	Menu Option Is Used to...
<b>First Record</b>	Alt + G, F	Display the first record in the document.
<b>Previous Record</b>	Alt + G, P Shift + F3	Display the previous record in the document.
<b>Next Record</b>	Alt + G, N F3	Display the next record in the document.
<b>Last Record</b>	Alt + G, L	Display the last record in the document.
<b>Related Form</b>	Alt + G, R F10	Access a form that is related to the active form.
<b>Return to</b>	Alt + G, T Shift + F10	Close the current form and return to the form displayed immediately before the current (related) form.
<b>Lookup</b>	Alt + G, K Ctrl + F10	Look up one value from a related form and insert all Match field values in the current form.
<b>Return Data to</b>	Alt + G, D Ctrl + D	Go to a related form, find a record, and return all Match field values to the original record.

## Viewing Records in Sequence

See **DESIGNER GUIDE Appendix B** for information on DataEase (Native) and SQL forms.

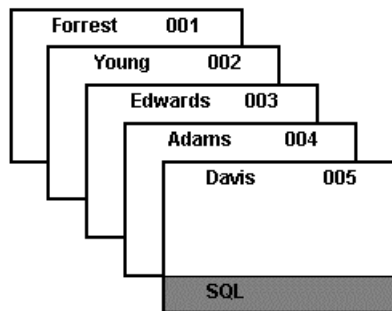
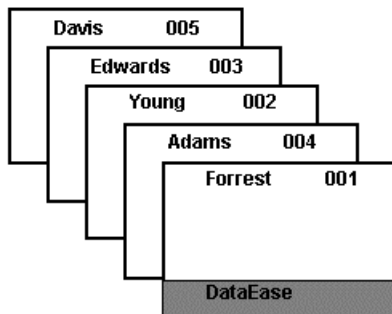
The first group of options on the Goto menu lets you move from one record to another in Form View.

	When you choose <b>Goto&gt;&gt;First Record</b> DataEase displays the first record in the document.
	When you choose <b>Goto&gt;&gt;Previous Record</b> DataEase displays the record preceding the one you are currently viewing.
	When you choose <b>Goto&gt;&gt;Next Record</b> DataEase displays the record following the one you are currently viewing.
	When you choose <b>Goto&gt;&gt;Last Record</b> DataEase displays the last record in the document.

## Record Order

By default, records in a DataEase (Native) form are displayed in the order they are entered. Records in an SQL form are displayed in order by Unique key (e.g., MEMBER ID).

Notice in the example illustration below that the DATAEASE records are displayed in an apparently random order - in actual fact, the order they were entered into the computer. The SQL records, however, are displayed sequentially in order of MEMBER ID number



## Viewing Records in a Related Form

When you choose **Goto>>Related Form**, DataEase displays the Related Form dialog, which lets you open a form related to the currently active form. This option is available when you are viewing a form or a live report.



Choose Goto-Related Form to display the Related Form dialog. Select the form you want, then click OK. DFW now displays the selected form.



When you choose **Goto>>Return to**, DataEase closes the current form and returns to the form DataEase displayed immediately before displaying the current (related) form. When you display a related form, DataEase places the name of the original form next to this option on the menu (e.g., Return to MEMBERS).

If you use **Goto>>Related Form** to navigate from MEMBERS to FAMILY MEMBERS, you can quickly return to the MEMBERS form using the **Goto>>Return to** option.

### How to Open a Related Form

1. Choose **Goto>>Related Form**. DataEase opens the Related Form dialog.
2. Choose a related form from the list in the center of the dialog.
3. Click OK. DataEase opens the selected form and displays the first record related to the record you were viewing in step 1.

### How to Return to the Previous Form

1. Choose **Goto>>Return to**.
2. DataEase automatically closes the current form and returns to the previously active form (the form you were viewing immediately before the current one).

## Retrieving Data from a Related Form



When you choose **Goto>>Lookup**, DataEase lets you look up one value from a related form and insert all Match field values in the current form. DataEase also fills any field that contains the word lookup in its Derivation Formula.

The example below shows how to enter related data from the FAMILY MEMBERS form in the RESERVATIONS form when Ken Edwards calls to make a reservation at Playa Blanca.

**RESERVATIONS** Previous Next

Member ID:  Date:

Last Name:  First Name:

Street:

City:  State:  Zip Code:

Club ID:  Departure City:

Club Name:  Departure Zone:

Club Location:  Departure Date:

Rooms Required:

**Reservation Detail**

First Name	Last Name	Age	Price
			0
Linda	Edwards	ADULT	1,300
Gary	Edwards	CHILD	520
			0
			0

**Reservation Price**

Total Adult Price:

Total Child Price:

Total Due:

**Related Records**

**FAMILY MEMBERS**

Member ID	First Name	Last Name
00015	Gary	Edwards
00015	Linda	Edwards

OK

Cancel

To add Ken's wife to the reservation, place the cursor in the RESERVATION DETAIL Subform and choose Goto-Lookup.

When you select FAMILY MEMBERS from the Related Forms dialog, the related records are displayed in Table View.

When you select Linda's record and press OK, DFW enters her name automatically in the RESERVATIONS form.

## How to Perform a Lookup

1. Place the cursor in the field you want to look up. To limit the number of related records DataEase retrieves, you can enter a partial value and a wild card character. For example, to limit the records retrieved to last names that begin with S, type S\* in the LAST NAME field.
2. Choose **Goto>>Lookup** and then choose the form you want to retrieve data from in the list displayed in the Related Forms dialog. DataEase opens a window that displays a Table View of the related records.
3. Double-click on the record that contains the value you want or highlight it and click OK. DataEase fills in the lookup value from the related record as well as any values derived from that value.

## Returning Data after Viewing a Related Form

When you choose **Goto>>Return Data to**, DataEase fills in all Match fields in the current record with the values from a selected record in a related form. This option lets you display a related form in Form View or Table View, search for related records using selection criteria and wild cards in one or more fields, and return values for all the Match fields in the original record.

### How to Return Data after Viewing a Related Form

1. Choose **Goto>>Related Form**. Choose the form you want from the Related Form dialog.
2. Find the record you need in Form View or Table View by entering QBF criteria, using wild card characters, or by paging through the records.
3. Choose **Goto>>Return Data to**. DataEase displays your original form, automatically fills in all Match field values, and calculates all derived values based on the returned data.

## Chapter 7 : The Query Menu




### Selecting, Searching, and Sorting Records

The Query menu options are used to select sets of records, search for specific records, and/or display records in an order other than the order in which they are stored in the current document.

The easiest way to search for records is to use DataEase's Query By Form (QBF) facility. QBF lets you find a record by simply entering sample data (called selection criteria) into a record entry form. DataEase then compares the selection criteria with the values stored in each record and retrieves only those that contain field values that match your sample data (e.g., if you enter CA in the STATE field on the MEMBERS form, DataEase retrieves only members who live in California).

Each menu option is summarized on the next page and explained in detail on the following pages.

### Summary of Query Menu Options

Menu Option	Toolbar Icon	Keyboard Equivalent	Menu Option Is Used to...
<b>Select Records</b>		Alt + Q, S Alt + F5	Enter sample data in one or more fields indicating to DataEase which records to retrieve.
<b>Sort Records</b>		Alt + Q, R	Enter a number in one or more fields indicating to DataEase in what order the retrieved records should be displayed. DataEase sorts records in ascending or descending order based on the value in each Sort field.
<b>Ascending</b>		Alt + Q, A	Order the records in the form from lowest to highest value (AZ, 09) based on the value in the selected Sort field
<b>Descending</b>		Alt + Q, D	Order the records in the form from highest to lowest value (ZA, 90) based on the value in the selected Sort field
<b>Selection Filter</b>		Alt + Q, F	Display the selection criteria as a DQL expression. If you're familiar with DQL, you can freely edit this expression. Otherwise, use the Expression Builder to build your DQL expression
<b>QBM New Report</b>		Alt + Q, Q F9	Create a report using the Query By Model dialog.



## What's a Query?

See **DESIGNER GUIDE Chapter 7** for information on using QBM and the Query By Model dialog to select records.

See **DQL Guide** for information on using the DataEase Query Language.

See **USER GUIDE Chapter 5** for more information on viewing selected records.

A query is an expression that tells DataEase to retrieve a specific set of records based on the values in one or more fields. DataEase provides three different ways to define a query: Query By Form (QBF), Query By Model (QBM), and the DataEase Query Language (DQL).

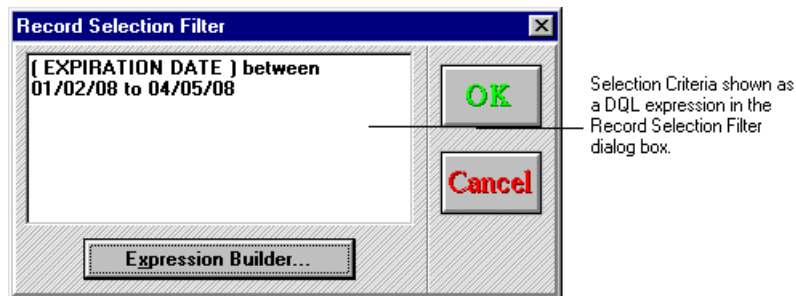
See the section, **DQL Expressions as Selection Criteria: Examples**, later in this chapter for examples of DQL expressions that you can enter as selection criteria in a record entry field or in the Record Selection Filter dialog.

**Note:** After DataEase retrieves the records requested by a query, you can print the output as a report.

**QBF** lets you enter selection criteria directly in a record entry form to select, sort, and view records in that form.

**QBM** lets you specify selection criteria graphically, using the Query By Model dialog to select rows and columns from multiple database tables, group and sort the data, compute statistics, create virtual fields, and create a report layout for the output.

**DQL expressions** let you enter sophisticated selection criteria syntactically in the DataEase Query Language.



A typical Record Entry form, into which you can type selection criteria.

The Query by Model dialog box, from which you can select required data from one (or several) database tables.

## Selecting Records



When you choose **Query>>Select Records**, DataEase displays a blank record in which you can enter selection criteria.

The example below shows how to use Query By Form to select records from the MEMBERS form and view the records DataEase finds as a result of the query.

In this example, the Sales Manager at Club ParaDEASE wants to view the members who live in California.

Choose Query-Select Records. DataEase displays a blank form. To enter California as the selection criteria, type CA in the state field.

Go into Table View, and note that only the Californian records are displayed.

MEMBER	LAST NAME	FIRST NAME	STAT	CITY
00013	Sullivan	Hope	CA	Lafayette
00016	Young	John	CA	Walnut Creek
00037	Kowalski	Ross	CA	Clayton
00058	Steinberg	Julia	CA	Mountain View
00074	Gauthier	Mitchell	CA	San Francisco
00078	Schwartz	Steven	CA	Los Angeles
00086	Goetz	Gerald	CA	San Diego
00129	Manzi	Anthony	CA	San Diego

**Note:** DataEase is case-insensitive (it does not differentiate between upper and lower case) when performing a search. For example, DataEase finds all the members who live in California regardless of whether you enter **CA**, **ca**, or **Ca**, as the selection criteria.

## How to Select Records

1. Choose **Query>>Select Records**. DataEase displays a blank form.
2. Enter your selection criteria in one or more fields. The criteria indicate which records to retrieve.
3. To view the first matching record, choose **Goto>>First Record**.

### Using Multiple Values in Selection Criteria

DataEase can also find records that contain a value within a range of values specified in the selection criteria. For example, if you enter **between 90020 to 90189** in the ZIP CODE field, DataEase finds all the MEMBERS records that have a zip code from 90020 to 90189.

### Using Multiple Criteria in One Field

You can insert two or more values as selection criteria in a field using the **or** DQL operator to link the values. The **or** operator retrieves records that satisfy any of the selection criteria. For example, if the criteria in the MEMBERS FIRST NAME field are **"Andrew" or First Name="John"**, DataEase finds all the members whose first name is Andrew or John.

Although, the syntax would be correct if the **and** operator was substituted for **or**, DataEase would retrieve no records because no member has two first names. You can use the **and** operator to find all the members whose first name is Andrew or John and whose last name is Smith. For example, if the criteria in the MEMBERS FIRSTNAME field are, **"Andrew" or First Name="John" and LastName="Smith"**, DataEase finds all the members whose first name is Andrew or John and whose last name is Smith.

When you use two or more values in your selection criteria, you must enclose the value in quotation marks, as shown in the above examples.

### Using Wild Card Characters in Selection Criteria

DataEase lets you search for a record using three special characters, called **wild cards**. If you are not sure of the value in the record(s) you are searching for, you can enter any combination of wild card characters (\*, ?, and ~) as part of the selection criteria. The results of various wild card searches are shown in the table on the next page.

\* **Wild Card** replaces none, one, or a string of unknown characters. You can use the \* wild card twice in a field.

? **Wild Card** replaces one unknown character in a specific position.

~**Wild Card (Soundex Search)** finds records based on what a field sounds like, not on how it is spelled. A Soundex Search finds patterns of consonants; it ignores the vowels in the word. For example, if you enter ~**Read** as selection criteria in the MEMBERS LAST NAME field, DataEase finds members such as **Reed, Rhode, Rada, and Ride**.

When you enter N\* in the CITY field...

....DFW displays members who live in a city with a name that begins with N.

Row#	MEMBER	LAST NAME	FIRST NAME	CITY
1	00010	Cohen	Samuel	New Rochelle
2	00017	Adams	Will	Norman
3	00050	Bickford	Virginia	Nashua
4	00082	Hanlon	Thomas	Norcross
5	00089	Greene	David	North Kingstown
6	00112	Ryan	Michelle	Norman
7	00163	Moore	Gerard	Norman

The table below lists examples of wild card searches.

**MEMBERS Records Retrieved when various Wild Card Characters are used in Search Criteria**

Value Entered in the CITY Field	DataEase Retrieves Records with the Following Values in the CITY Field
N*	New York, Newark, Nanuet, New Haven
*K	New York, Newark, York
*York	New York, York
new*	New York, Newark, New Haven
*nu*	Nanuet
*N	New Haven, Avon
*N*	New York, Newark, Nanuet, New Haven, Avon
New??k	Newark
?ew*	New York, Newark, New Haven
~VN	Avon
*~VN	New Haven, Avon
?ew ~VN	New Haven

## How to Find a Record When You Don't Know the Exact Value You're Looking for

1. Choose **Query>>Select Records**. DataEase displays a blank form.
2. Enter the selection criteria in the fields. Use an asterisk (\*) to replace any part of the text that you are unsure of. Use a question mark (?) to replace a single character you are unsure of. You can use the \* or ? wild card characters anywhere in a field value.
3. To view the selected records, choose **View>>Table**. To view just the first selected record, choose **Goto>>First Record**.

Type Anders\* in the MEMBERS "last name" field, and DataEase will retrieve every member whose name starts with Anders - Anderson, Andersun, Anderssil, etc.

## How to Find a Record When You Only Know What the Data Sounds Like

1. Choose **Query>>Select Records**. DataEase displays a blank form.
2. Enter the selection criteria in the fields. If you search with multiple words in a field, do not skip words. Enter the Soundex character (~) followed by the word(s) that sound like the data in the record you are trying to find (e.g., to find Jon Smyth's record enter ~jn smth in the NAME field). If you don't know where the word you are searching for occurs in the field, start the search with the asterisk wild card character (e.g., if you are not sure where Smyth appears in the field, enter \* ~smth).
3. To view the selected records, choose **View>>Table**. To view just the first selected record, choose **Goto>>First Record**.

To find a member whose last name sounds like "Reed", type ~Reed in the Last Name field.

When you choose View-Table, DataEase displays all the members whose last name sounds like Reed.

Row#	MEMBER	LAST NAME	FIRST NAME	MIDI
1	00020	Reede	Shannon	R
2	00026	Rhode	Gertrude	P
3	00031	Rhodes	Gisela	H
4	00034	Rada	Amanda	M
5	00045	Ride	Sheryl	T
6	00067	Redzepi	Zudi	

## Searching for a Record in a Multiform

DataEase QBF can also be used to search for records in a Multiform.

If you enter selection criteria in one or more fields in the Main form or the Subform, DataEase finds all the Main form records that match the criteria.

To search for a specific Subform record, you must enter the selection criteria using the fifth option on the Query menu, **Query>>Selection Filter**.

### How to Find a Main Form Record in a Multiform by Specifying Criteria in the Main Form

1. Choose **Query>>Select Records**.
2. Enter your selection criteria in one or more fields in the Main form.
3. To view the selected records, choose **View>>Table**. To view just the first selected record, choose **Goto>>First Record**. To view additional records, choose **Goto>>Next Record**.

To find all members that have a family member whose First Name sounds like Dan, choose Query-Select Records and then type ~Dan into the First Name field of the FAMILY MEMBERS Subform.

DataEase retrieves all the MEMBERS records that have a family member whose First Name sounds like Dan. (All the members shown below DO have a family member whose First Name sounds like Dan - trust us!).

Row#	MEMBER	LAST NAME	FIRST NAME	MIDI	S
1	00001	Io	Roger	I	
2	00002	Perrault	George	R	
3	00008	LaCoste	Fred	M	
4	00915	Edwards	Kenneth	J	
5	00018	Forrest	Bob	J	
6	00022	Morelli	Vincent	J	
7	00032	Donovan	Alexander	B	
8	00050	Bickford	Virginia		
9	00051	Urbano	Joseph	D	
10	00059	Dowling	Nina	D	
11	00060	Stafford	Paul	J	



## Displaying Sorted Records



When you choose **Query>>Sort Records**, DataEase displays records in a sequence based on the value stored in one or more Sort fields. To specify a Sort field, click on a field with the mouse.

DataEase inserts a number that indicates the sort level (1 = first Sort field, 2 = second Sort field, etc.). DataEase lets you sort records on any number of levels (e.g., you can sort the MEMBERS records first by STATE, then by ZIP CODE, and finally, by LAST NAME).

To sort MEMBERS records by State, Zip and Last Name, choose Query-Sort Records and then order by State, Zip Code and Last Name.

After you choose Query-Ascending or Query-Descending, DataEase orders the records first by State, then by Zip, and finally by Last Name.

MEMBER	STAT	ZIP CODE	LAST NAME
00145	AL	35802-3847	Gould
00104	AL	36101-2882	Townsend
00060	AZ	85251-0000	Stafford
00129	CA	92103-3829	Manzi
00161	CO	80215-9898	Kearney
00002	CT	06426-0000	Perrault
00198	CT	06880-3881	Cromwell
00059	DC	20036-0000	Dowling
00082	GA	30092-9847	Hanlon
00008	GA	30326-0000	LaCoste
00119	IA	52805-9669	Graham

If you do not specify sort criteria when you perform a query, DataEase displays the records in the order they were entered.

**Note:** If you do not specify sort criteria when you perform a query, DataEase displays the records in the order of the Unique key.

## Specifying Sort Criteria

When you choose **Query>>Ascending**, DataEase displays the selected records in sequence from lowest to highest value in the specified Sort field (e.g., A-Z, 0-9).

MEMBER	LAST NAME	FIRST NAME	MIDI
00110	Zimmerman	Wendy	A
00160	Ziegler	Mary Jean	
00016	Young	John	R
00124	Young	Lee	
00041	Xagas	Randy	L
00100	Wyshner	Jason	P
00185	Wyatt	Rodney	S
00042	Witt	Dale	
00004	Williams	Laura	R

When you choose **Query>>Descending**, DataEase displays the selected records in sequence from highest to lowest value in the specified Sort field (e.g., Z-A, 9-0).

MEMBER	LAST NAME	FIRST NAME	MIDI
00110	Zimmerman	Wendy	A
00160	Ziegler	Mary Jean	
00016	Young	John	R
00124	Young	Lee	
00041	Xagas	Randy	L
00100	Wyshner	Jason	P
00185	Wyatt	Rodney	S
00042	Witt	Dale	
00004	Williams	Laura	R
00150	Wilcox	Gretchen	S
00143	West	Thomas	S

### How to Specify Sort Criteria

1. Choose **Query>>Sort Records**. DataEase displays a blank form.
2. Choose a sort order:  
 Choose **Query>>Ascending** to display records from the lowest to highest value in the specified Sort field.  
 Choose **Query>>Descending** to display records from the highest to lowest value in the specified Sort field.
3. To choose a Sort field, click on the field or press the Spacebar when the cursor is in the field (e.g., when sorting by LAST NAME, DataEase displays a 1 in the LAST NAME field to show it is the first sort level).
4. To sort records by additional fields, repeat steps 2 and 3 (e.g., when you sort records by LAST NAME and then by FIRST NAME, DataEase displays a 2 in the FIRST NAME field to show it is the second sort level).

5. To modify the sort specifications, select a field, type a new sort level number, and insert (or delete) a minus sign (-) to specify descending or ascending order.
6. To view the selected records, choose **View>>Table**. To view just the first record, choose **Goto>>First Record**.

## How DataEase Sorts Each Field Type

DataEase sorts each Field Type in a different manner. The table below summarizes the effect of choosing **Query>>Ascending** or **Query>>Descending** for each Field Type.

Field Type	Ascending Order	Descending Order
<b>Text</b>	A ,B ,C, ... , X, Y, Z	Z, Y, X, ... , C,, B,, A
<b>Numeric String</b>	0, 1, 2, 3, 4, 5, ...	... , 5, 4, 3, 2, 1, 0,
<b>Number</b>	0, 1, 2, 3, 4, 5, ...	... , 5, 4, 3, 2, 1, 0,
<b>Currency</b>	..., \$1.00, \$1.01, \$1.02, ...	... , \$1.02, \$1.01, \$1.00,
<b>Date</b>	..., 1/1/92, 1/2/92, 1/3/92, ...	... , 1/3/92, 1/2/92, 1/1/92, ...
<b>Time</b>	00:00:01, 00:00:02, ...	... , 24:59:59, 24:59:58,
<b>Sequenced ID</b>	0000, 0001, 0002, 0003, ...	... , 0003, 0002, 0001, 0000
<b>Yes/No</b>	Yes, No	No, Yes
<b>Choice</b>	Bowling, Snorkeling, Tennis (order of the choices as they appear in the list box or radio buttons)	Tennis, Snorkeling, Bowling (reverse order of the choices as they appear in the list box or radio buttons)
<b>Image</b>	biker.pcx, golfer.pcx, skier.pcx (alphabetic order of the image filenames)	skier.pcx, golfer.pcx, biker.pcx (reverse alphabetic order of the image filenames)

## Combining Selection and Sort Criteria

DataEase can find records based on criteria entered in one or more fields and then sort the records in the order you want.

For example, Club ParaDEASE sends a letter each quarter offering a special renewal rate to each member whose membership expires in the next 90 days. To find these records, do the following.

Choose **Query>>Select Records** and enter between 01/01/93 to 03/31/93 as the selection criteria in the EXPIRATION DATE field.

### Choose Query>>Sort Records. Sort Results for Each Field Type

Choose **Query>>Descending** as the sort order and click on the CITY field. DataEase displays a -1 in the field.

Choose **Query>>Ascending** as the sort order and click on the LAST NAME field. DataEase displays a 2 in the field.

Choose **Query>>Ascending** as the sort order and click on the FIRST NAME field. DataEase displays a 3 in the field.

The resulting selection: DataEase displays the records of those members whose membership is due to expire within the selected date range. The primary (first) sort is by CITY, in reverse alphabetical order. Secondary and tertiary sorts would be on LAST NAME and FIRST NAME.

MEMBER	LAST NAME	FIRST NAME	CITY
00017	Adams	Will	Norman
00082	Hanlon	Thomas	Norcross
00058	Steinberg	Julia	Mountain View
00080	Kolek	Karl	Gulph Mills
00037	Kowalski	Ross	Clayton



## Selection Expression Builder Dialog Options

**Functions** lists all the DQL commands, including predefined and Custom Defined Functions and the relational statistical operators. Use the scroll bar to browse through the list of available functions.

**Relationships** displays all the relationships for the active form, including the current relationship, which provides access to system-defined variables such as current time, current date, current user name, current computername, and current user level. This list box also contains an option that lets you create a new relationship. Use the scroll bar to view all the relationships.

**Columns** displays all the field names on the active form. If you select a relationship from the Relationships list, the Columns list displays the names of the fields in the related form. Use the scroll bar to view all the column names.

**Operators** lists comparison operators, relational statistical operators, punctuation marks, and wild card characters. Use the scroll bar to view all the operators.

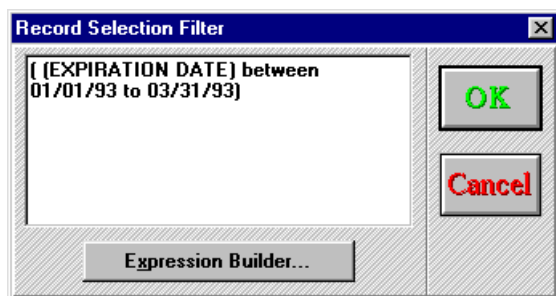
**Numeric Keypad**, located next to the list box of operators, lets you enter numbers and mathematical symbols into a DQL expression.

**Build a Table Selection Filter** displays the current DQL expression. You can type selection criteria or modify the expression directly in this box.

### How to Enter Selection Criteria Using DQL

1. With the form displayed in the active window, choose **Query>>Selection Filter**. DataEase displays a dialog that contains any previously entered selection criteria.
2. Delete the criteria and then enter the new criteria directly in the Record Selection Filter Box using any valid DQL expression. Click OK to close the Record Selection Filter dialog.

To use the Expression Builder, click on the Expression Builder button. DataEase displays the Selection Expression Builder dialog, which also contains any previously entered selection criteria. Delete the criteria and then build the DQL expression using the list boxes. Click OK to close the Selection Expression Builder dialog. DataEase uses the new criteria to select records.



### How to View or Modify Selection Criteria

1. Choose **Query>>Selection Filter**, DataEase displays a dialog that contains any previously entered selection criteria.
2. If the query is correct, click OK. If you want to change the selection criteria, enter the new criteria directly in the box using any valid DQL expression. When you click OK, DataEase uses the new criteria to find records.

## How to Print Selected Records

See **USER GUIDE Chapter 3** for more information on printing records.

1. Select the records to print by choosing **Query>>Select Records** and/or **Query>>Selection Filter**.
2. Choose **File>>Print**. DataEase displays the Print dialog.
3. Choose **All Records** as the Print Range and a destination for the print job: Printer, File, or Window.
4. Click OK to close the dialog.

## DQL Expressions as Selection Criteria: Examples

See the **DataEase Query Language Guide** for detailed information about the DataEase Query Language.

The table below lists some examples illustrating how to use DQL expressions in a query. The first column shows the DQL term or symbol. The second column shows how to enter the operator or symbol in a QBF. The third column shows how to enter the equivalent DQL expression in the Record Selection Filter dialog. The query results are shown in the last column.

## Using DQL to Select PRICES and MEMBERS Records

DQL Term	Selection Criteria in Field	Query Definition	Records DataEase Selects
<b>Select records with field value that matches specified character pattern</b>			
*	Cara*	CLUB = "Cara*"	PRICES records for Club Caravelle
?	Carav?lle	CLUB = "Carav?lle"	PRICES records for Club Caravelle
~	~Carval	CLUB = "~Carval"	PRICES records for Club Caravelle
<b>Select records with a field value that falls within a specified numeric range</b>			
=	= 1	DEPARTURE ZONE = 1	PRICES records for DEPARTURE ZONE 1
>	> 3	DEPARTURE ZONE > 3	PRICES records for DEPARTURE ZONES 4 and 5
<	< 3	DEPARTURE ZONE < 3	PRICES records for DEPARTURE ZONES 1 and 2
>=	>= 3	DEPARTURE ZONE >= 3	PRICES records for DEPARTURE ZONES 3, 4, and 5
<=	<= 3	DEPARTURE ZONE <= 3	PRICES records for DEPARTURE ZONES 1, 2, and 3
not=	not = 3	DEPARTURE ZONE not = 3	PRICES records for DEPARTURE ZONES 1, 2, 4, and 5

between ... to ...	between 2 to 4	DEPARTURE ZONE between 2 to 4	PRICES records for DEPARTURE ZONES 2, 3, and 4
--------------------	----------------	-------------------------------------	---------------------------------------------------

#### Select records with a field value that matches the value returned by a DQL expression

max		max(ADULT PRICE)	PRICES record with the highest adult price
min		min(ADULT PRICE)	PRICES record with the lowest adult price
firstw		firstw(CLUBNAM E) = Playa	PRICES records for Club Playa Blanca
count of		count of FAMILY MEMBERS > 0	MEMBERS records with at least one family member
year		year(DATE OF BIRTH) > 70	FAMILY MEMBERS records with a birthdate after 1970
*		ADULT PRICE * .40 > 500	PRICES records with a child's price less than \$500.00 (40% of the adult price)

#### Select records based on multiple conditions

or	1 or Departure Zone = 2	DEPARTURE ZONE = 1 or Departure Zone = 2	PRICES records for DEPARTURE ZONE 1 as well as all PRICES records for DEPARTURE ZONE 2
and	Caravelle in CLUB NAME field and 1 or Departure Zone= 2 in the ZONE field.	(CLUB NAME = "Caravelle") AND (DEPARTURE ZONE = 1 or Departure Zone = 2)	PRICES records for Club Caravelle when guest is traveling from either DEPARTURE ZONE 1 or DEPARTURE ZONE 2

When parentheses are present, math operations are performed from the inside out.

The use of parentheses is especially important when combining selection criteria using the **and** and **or** operators or when clarifying the order of evaluation of otherwise ambiguous expressions and operations.

Without parentheses, the last example above is ambiguous. DataEase could interpret it as PRICES records for Club Caravelle when a guest is traveling from DEPARTURE ZONE 1 and all records for guests departing from DEPARTURE ZONE 2.


In the absence of parentheses, the default order of evaluation is: multiplication and division operations, addition and subtraction operations, comparison operators (e.g., <, >=), and, finally, **and** and **or** operators.

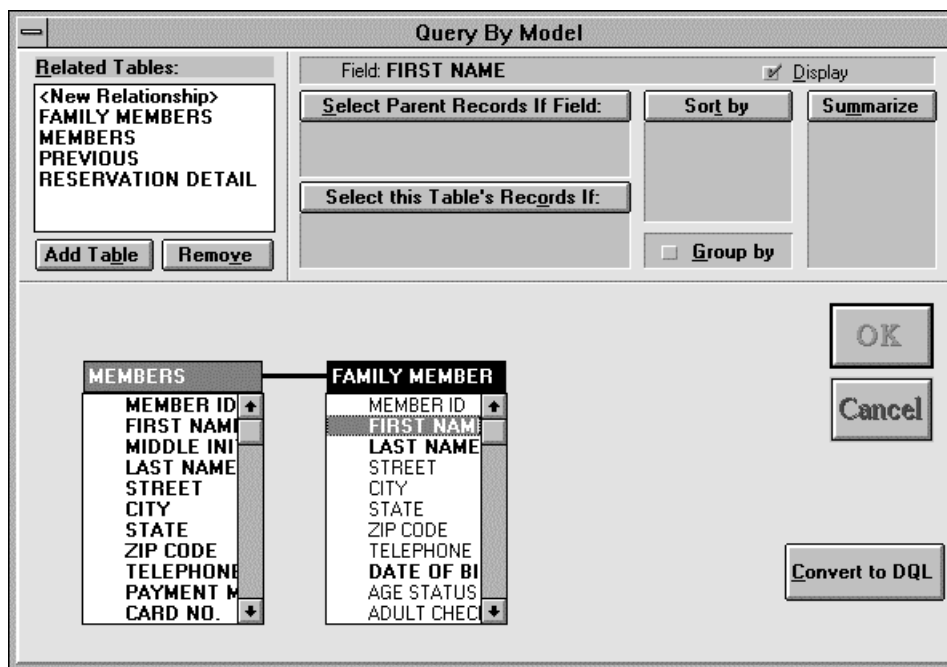
When operations of equal priority are involved, the expression is evaluated from left to right.



## Using a Query as the Basis for a Report

See **DESIGNER GUIDE Chapter 3** for information on using Query By Model.

 When you choose **Query>>QBM New Report**, DataEase passes any QBF selection criteria to the Query By Model dialog. Choosing QBM lets you use the current form and selection criteria as the basis for creating a new report with Query By Model.



Choosing **Query>>QBM - New Report** lets you:

- Use QBF to select data as the basis for the report.
- Omit one or more fields from the report.
- Add data from other related database tables.
- Create a custom layout for the report (QBF restricts you to the layout of the original form).
- Incorporate statistics (e.g., group totals and grand totals) into the report.
- Save the query for future use.

### How to Create a QBM Report

1. Enter selection and sort criteria using any combination of Query menu options.
2. Choose **Query>>QBM - New Report**. DataEase displays the Query By Model dialog. Use QBM to refine or expand the report definition.
3. Click OK. DataEase displays the Layout Options dialog, which lets you create a custom layout for the document.
4. Click OK. DataEase displays the Print dialog.
5. Choose a Print Range and a destination for the print job: Printer, Window, or File.

See **USER GUIDE Chapter 3** for information on printing a report.

## Chapter 8 : The Application Menu

### Application Administration and Utilities

See **DESIGNER GUIDE Chapter 8** for detailed information each option on the Application menu.

The options on the Application menu are used to control access to the data and objects managed by an application by defining each user's name, password, and security level, defining relationships between database tables, registering Custom-Defined Functions (CDFs), and linking external databases to the application.

**Note:** Many of the options on the Application menu are generally reserved for use by the application designer or the system administrator. You must have a High Security Level to use these options. For this reason, this chapter briefly summarizes the Application menu options. See the **Designer's Guide** for complete information on these options.

### Summary of Application Menu Options

Menu Option	Keyboard Equivalent	Menu Option Is Used to...
Users	Alt + A, U	Give a new user access to the application by assigning him or her a Name and Password.
Relationships	Alt + A, R	Define a relationship between database tables and maintain existing relationships.
Custom Functions	Alt + A, F	Register a Custom-Defined Function with the application.
Database Links	Alt + A, D	Link an external database to an application.
Utilities	Alt + A, T	Reorganize the data in a table, backup an application, restore an application, install documents in an application, lock an application.
Status	Alt + A, S	View reports that list the status of records, servers, documents, and imports in the current application.
Preferences	Alt + A, P	Set up the application environment according to your preferences. For example, you can set the Application Catalog to open automatically when you sign on to the application.

## DataEase System Forms

When the application designer creates an application, DataEase automatically creates three record entry forms that store the information DataEase needs to manage the data and objects in the application.

The information that defines users, relationships, and custom functions is entered into System forms the same way you enter data in a form you create with DataEase. Usually, the application designer or an appointed system administrator performs this task.

**Users Form**

**USER INFORMATION**

Name:

Password:

Security Level:  ▾

Start-up Document:

(use Toolbar for other record actions)

System Form: The User Form.

**Relationships**

**CHOOSE THE TABLES TO RELATE...**

Records in  are related to records in

based on the following fields being equal: (define at least one set of fields)

=

=

=

**OPTIONS..**

Unique Relationship Names - records in each Table can be referenced as:

(Note: if these tables are used in another relationship, Unique Names are required.)

Referential Integrity - the effect a change to Main Form key field has on SubForm key

▾  ▾

(use Toolbar for other record actions)

System Form: The Relationships Form.



## Chapter 9 : The Window Menu

### Arranging Windows, Documents, and Icons

The Window menu options let you arrange document windows and icons on your screen and close all currently open documents in one step.

The term **document window** refers to any window that contains a DataEase document, such as a form or report.

Each menu option is summarized on the next page and explained in detail on the following pages.

With the default settings in effect, DataEase arranges windows in a cascade pattern as they are opened.



### Summary of Window Menu Options

Menu Option	Keyboard Equivalent	Menu Option is Used to...
<b>Tile Across</b>	Alt + W, A	Arrange document windows one next to the other.
<b>Tile Down</b>	Alt + W, D	Arrange document windows one above the other.
<b>Cascade</b>	Alt + W, C	Arrange document windows one in front of another with all the Title Bars visible like the tabs on a group of file folders.
<b>Arrange Icons</b>	Alt + W, I	Align minimized windows in a row on the bottom of the DataEase window.
<b>Close All</b>	Alt + W, L	Close all windows (except the Application Catalog) without exiting the application.
<b>1...9 Form Name</b>	Alt + W, 1...9	Display the selected table or document in the active window.

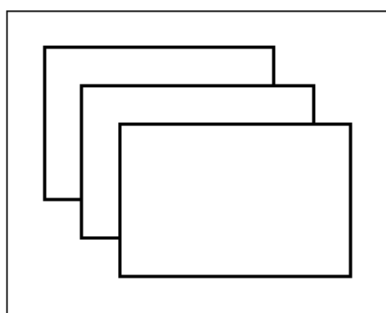
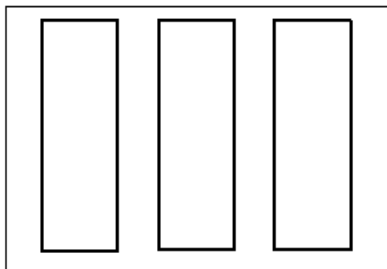
## Arranging Windows and Icons

When you choose **Window>>Tile Across**, DataEase arranges the document windows one adjacent to another.

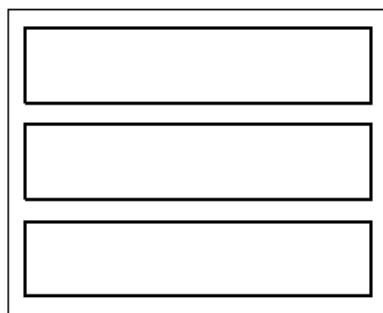
When you choose **Window>>Tile Down**, DataEase arranges the document windows one under the other.

When you choose **Window>>Cascade**, DataEase overlaps the document windows one in front of another with each Title Bar visible and the active window displayed in front of all the other windows.

**Window > Tile Across**



**Window > Cascade**



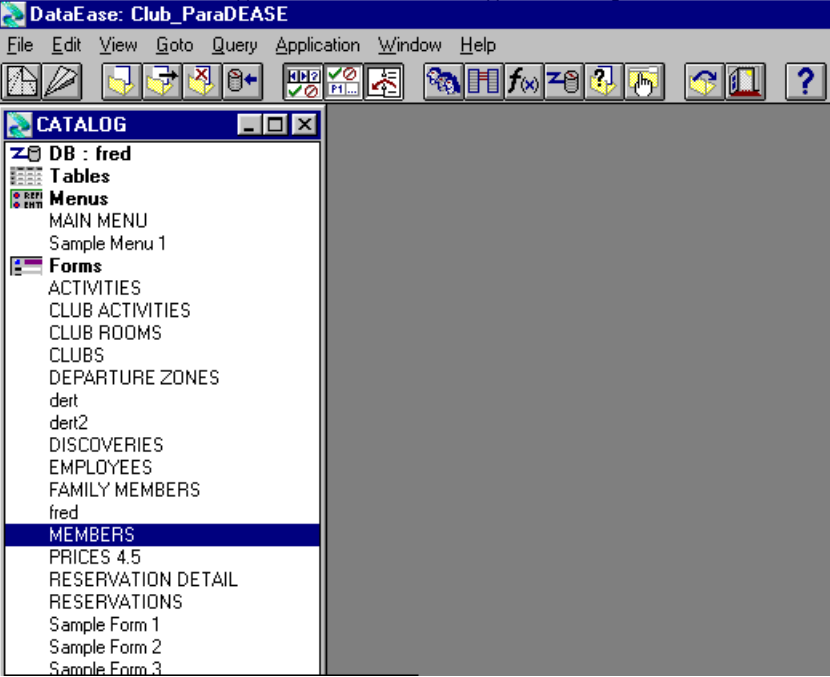
**Window > Tile Down**

When you choose **Window>>Arrange Icons**, DataEase aligns all the DataEase document icons in a straight row at the bottom of the DataEase desktop.

When you click on a window's minimize button, it becomes an icon until you restore the window by double-clicking on the icon.

When you choose **Window>>Close All**, DataEase closes all document windows (except the Application Catalog) without closing your current application.

The Window-Close All command closes all document windows - forms, reports, etc - but does not shut down the application, nor does it close the Application Catalogue.



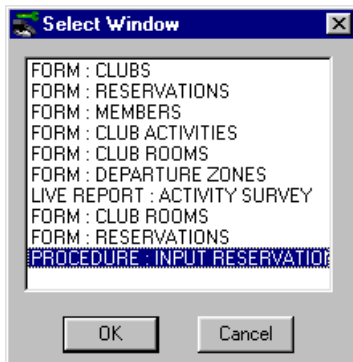
## Changing the Active Window

Document and Table Names appear at the bottom of the Window menu, one for each window open in the DataEase desktop.

When you open a new document, DataEase automatically adds the name of the document to the list at the bottom of the Window menu. Click on one of these names to activate the corresponding window and bring it to the foreground. DataEase displays a checkmark next to the name of the active document.

DataEase can list as many as nine open documents on the Window menu. If you open more than nine windows, DataEase displays the first nine on the menu and an additional option, More Windows, at the bottom of the Window menu.

When you choose **Window>>More Windows**, DataEase displays the Select Window dialog, which lists all the open windows.



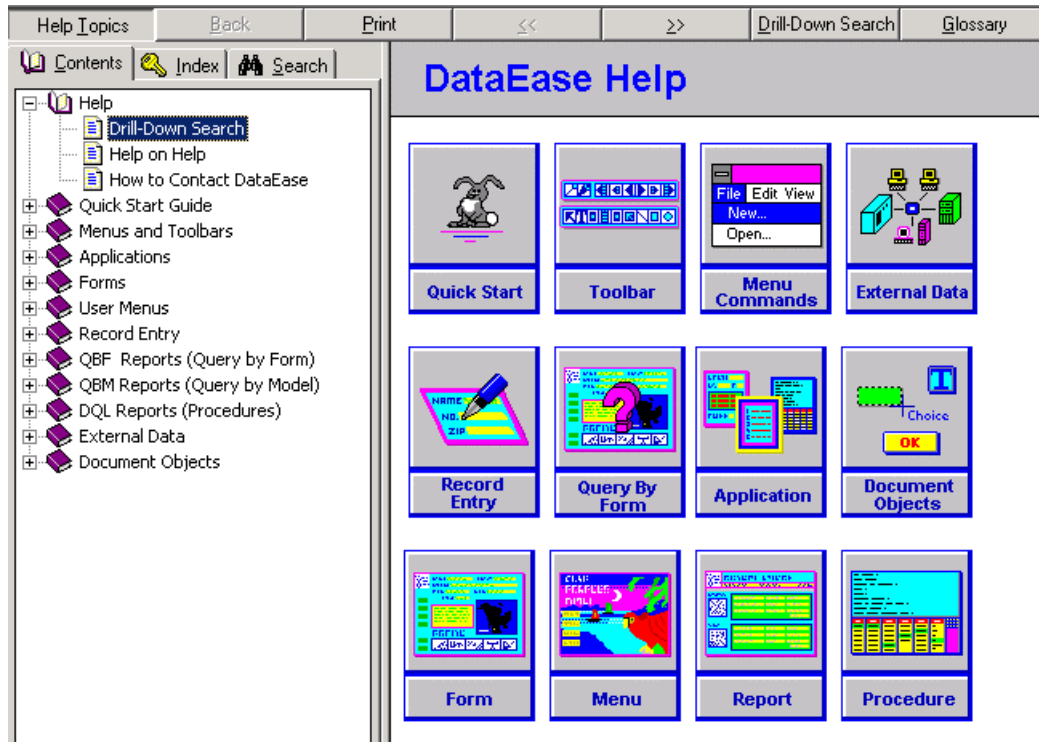


## Chapter 10 : The Help Menu

### Accessing Online Help

The Help menu is the last menu on the Menu Bar. Whenever DataEase is running in the active window and you select an option from the Help menu, Microsoft Windows activates the DataEase Help system.

The DataEase Help system is a separate hypertext program that runs concurrently with DataEase. The hypertext program runs in its own moveable, resizable window and uses many of the standard navigation tools the Microsoft Windows Help system provides.



This chapter explains how to use the Help menu options as well as the Microsoft Windows Help system.

Each menu option is summarized on the next page and explained in detail on the following pages.

## Summary of Help Menu Options

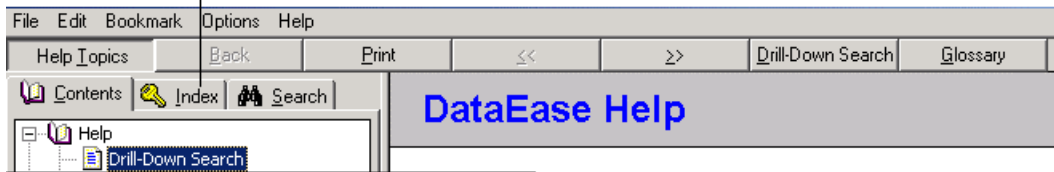
<b>Menu Option</b>	<b>Keyboard Equivalent</b>	<b>Menu Option Is Used to...</b>
<b>Contents</b>	Alt + H, C	Display DataEase Help topics in a navigation pane. Each topic is a jump term that moves you to more specific information. Also provides basic instructions on how to navigate through the Microsoft Windows Help system.
<b>Search</b>	Alt + H, S	Display the Search Criteria dialog. Type a word or phrase in the text box or select from the topic list. DataEase displays Help on the topic.
<b>Desktop</b>	Alt + H, D	Display accelerator keys for menu commands and mouse functions.
<b>Menus</b>	Alt + H, M	Display Help for each menu option.
<b>Toolbar</b>	Alt + H, T	Display Help for each Toolbar icon.
<b>How to</b>	Alt + H, H	Display an alphabetical list of common procedures.
<b>Glossary</b>	Alt + H, G	Display a pop-up definition when a term is selected.
<b>User Help</b>	Alt + H, U	Display the custom Help messages that the application designer creates for documents and individual fields.
<b>About DataEase</b>	Alt + H, A	Display the program version and copyright information.

## Accessing the Help Index

When you choose **Help>>Contents**, DataEase tells you how to use the Help system and lists the major topics explained in on-line Help. Each topic on the list is a Jump term. To get help on a specific topic, simply click on it.

To get more detailed instructions on using on-line Help once you are inside the Help system, choose **Help>>How to Use Help** from the Menu Bar. DataEase displays detailed instructions on how to navigate through Microsoft Windows Help systems.

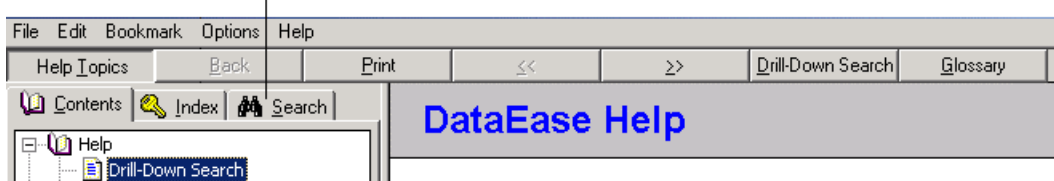
Click the Index Tab to search through the Help File by entries in the Help Index



## Searching by Using a Keyword

When you click the **Search** tab, DataEase displays the Search Criteria dialog. Type a word or phrase in the text box or select from the topic list. When you click Show Topics, DataEase lists the topics found. When you select one and click Go To, DataEase displays Help on the topic.

Click the SearchTab and you can enter any word you like, and search on that word.



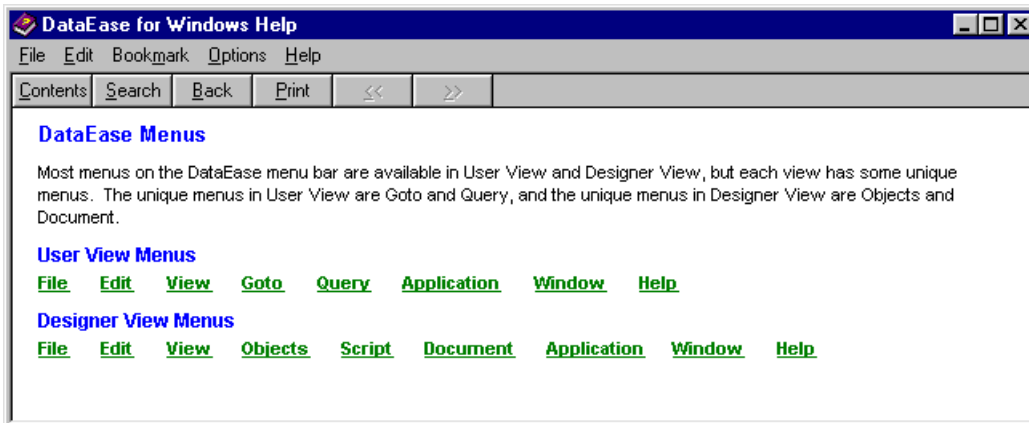
## Accessing Online Help Topics

The options in the second group on the Help menu let you directly access major topics in on-line Help.

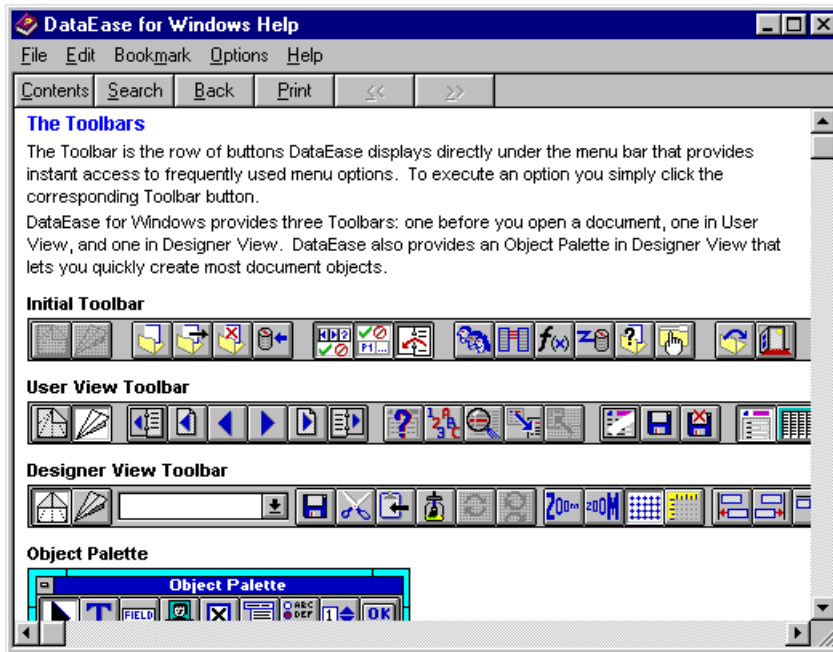
When you choose **Help>>Desktop**, DataEase provides information on each DataEase function, accelerator, and navigation key.



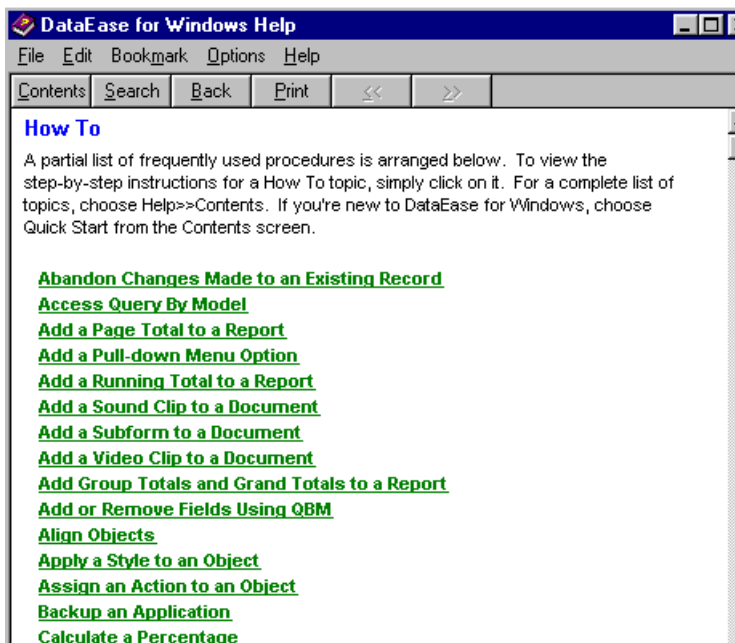
When you choose **Help>>Menus**, DataEase provides information on each DataEase menu option in User View and Designer View.



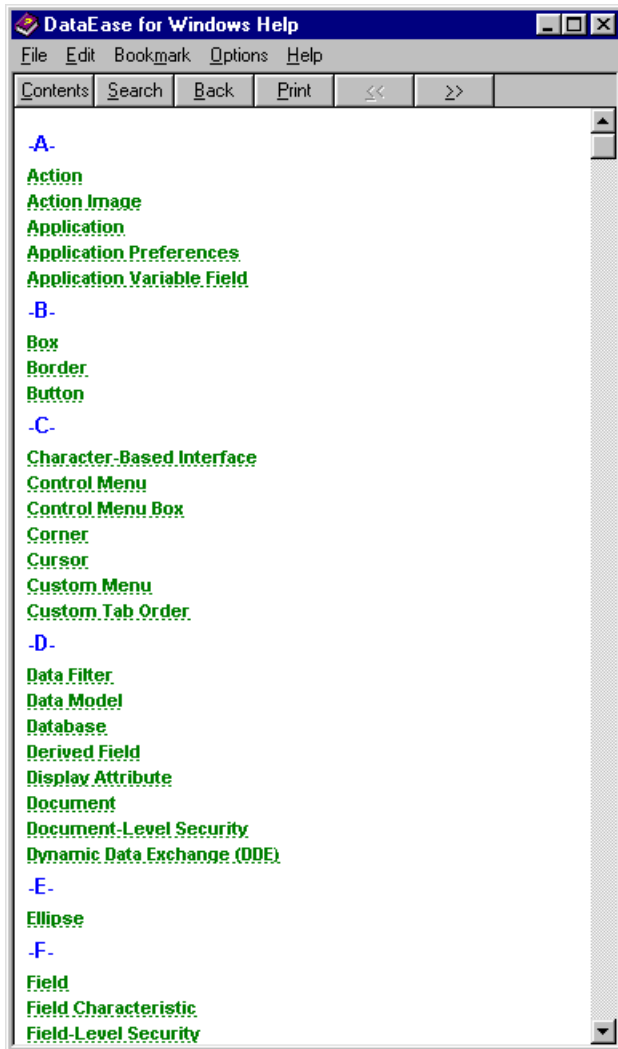
When you choose **Help>>Toolbar**, DataEase explains the purpose of each button on the Toolbar. Toolbar buttons typically allow quick access to the most commonly used functions.



When you choose **Help>>How to**, DataEase displays an alphabetical list of frequently used procedures (such as How to Save a Form, How to Run a Report, etc.). To view the step-by-step instructions for a How to topic, simply click on it.



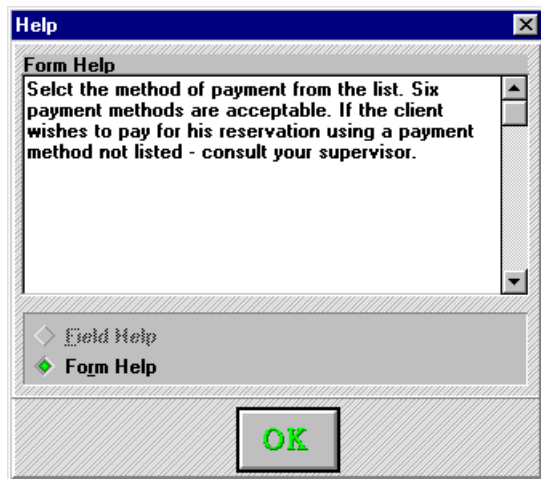
When you choose **Help>>Glossary**, DataEase lists all important DataEase terms in alphabetical order. To view the pop-up definition of a Glossary term, click on the term. When you are finished, click the mouse button again to close the pop-up definition.



## Displaying Custom Help Messages

See **DESIGNER GUIDE Chapters 6 and 7** for information on defining Field- and Document-level Help.

When you choose **Help>>User Help**, DataEase displays the User Help dialog. This dialog lets you display custom Help messages created by the application designer.



### User Help Dialog Options

**Help Window** displays a custom Help message for the current field or the entire document. If no Help is defined for the document or field, DataEase displays <No Help>.

**Help Display Options** switch the message in the Help window between Field- and Document-level Help.

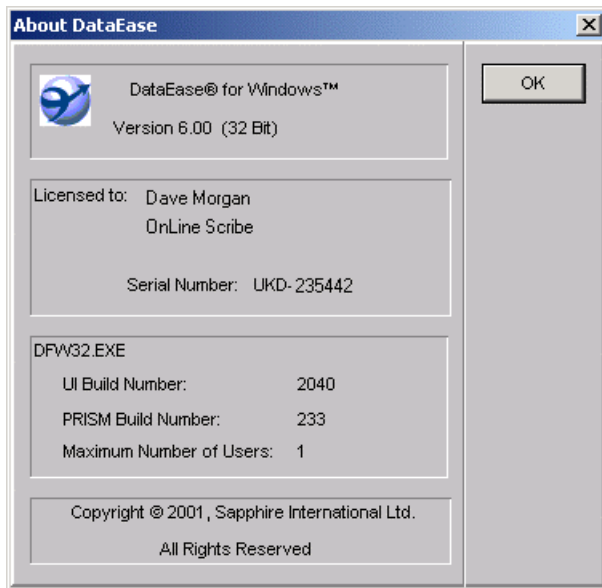
- **Field Help** displays the Field-level Help the application designer defined in the Field Definition dialog. If Field-level Help is defined, DataEase initially displays it in the Help Window when you open this dialog.
- **Form Help** displays the Document-level Help the application designer defined in the Document Properties dialog.

### How to Display Field or Document Level Help

1. Choose **Help>>User Help**. DataEase displays the User Help dialog.
2. Click Field Help to display Field-level Help or click Form Help to display Document-level Help.
3. Click OK to close the dialog.

## Finding Your Version Number

When you choose **Help>>About DataEase**, DataEase displays the DataEase version number, copyright information, your serial number, and the number of users licensed to access DataEase.





## Navigating Online Help

This section explains how to use several important Windows Help features. For more information on Windows Help controls, refer to your Microsoft Windows documentation.

### Jump Term

Jump term is a cross-reference that connects the current topic to other Help topics. When you click on an underlined Jump term, DataEase jumps to a related topic without returning to the Index. Jump terms move you from general to more specific help (see below).

#### How To

A partial list of frequently used procedures is arranged below.

To view the step-by-step instructions for a How To topic, simply click on it. For a complete list of topics, choose Help>>Contents.

If you're new to DataEase, choose Quick Start from the Contents screen.

[Abandon Changes Made to an Existing Record](#)

[Access Query By Model](#)

[Add a Page Total to a Report](#)

[Add a Pull-down Menu Option](#)

[Add a Running Total to a Report](#)

[Add a Sound Clip to a Document](#)

[Add a Subform to a Document](#)

[Add a Video Clip to a Document](#)

[Add Group Totals and Grand Totals to a Report](#)

[Add or Remove Fields Using QBM](#)

[Align Objects](#)

[Apply a Style to an Object](#)

[Assign an Action to an Object](#)

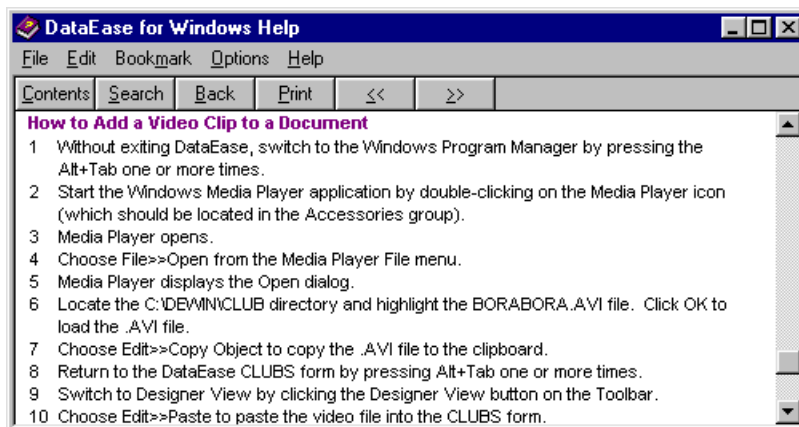
#### How to Add a Page Total to a Report

##### Question

How can I display a total for just the current page at the bottom of each page?

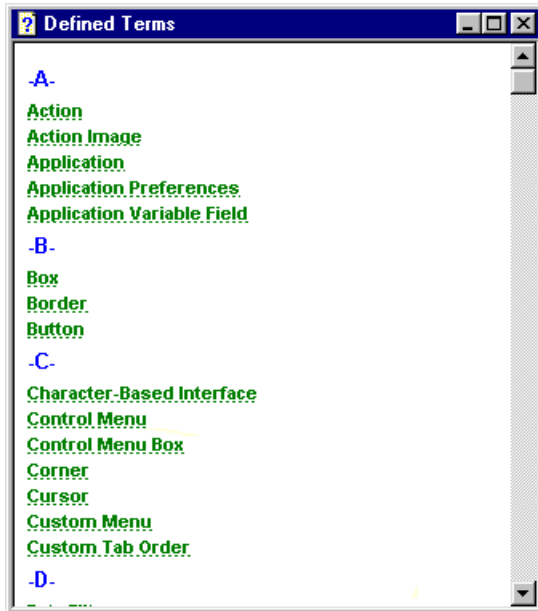
##### Solution

- 1 Define a temporary variable to accumulate the total for the current page. This variable must be created as a number since it stores a numeric value.
- 2 Define a second temporary variable to track when the current page number system-defined variable changes.
- 3 Use a for command to open the primary table for the report. Remember to terminate the for command with an end command.



## Glossary Term

Glossary term is a dotted underlined word or phrase that displays a pop-up definition when you click on it (see below). Click the mouse button again to close the pop-up definition.



## Help Function Buttons

Whenever DataEase displays the Main Index or a specific Help topic, Windows activates the five special Help navigation buttons to help you navigate from one topic to another. The use of each of these buttons is explained below.



**Contents** lists all DataEase Help topics in alphabetical order. To display the list of Help topics, simply click on the Contents button. Each topic on this list is a Jump term. To get help on a specific topic, simply click on it.

**Search** lists the words and phrases you can use to search for topics in the DataEase Help system. When you enter or select one of these words or phrases, you can go to a specific Help topic.

**Back** displays the previous Help screen. This button lets you trace your steps backwards through your Help session. Each time you select Back, DataEase displays the Help screen accessed just prior to the one you are now viewing.

**Browse Forward** displays the next Help topic in a series of related topics. To look at the next topic in a series of related topics, simply click Browse Forward.

**Browse Back** displays the previous topic in a series of related topics. To look at the topic you viewed just prior to the one on screen, simply click Browse Back.

## On-line Help Menus

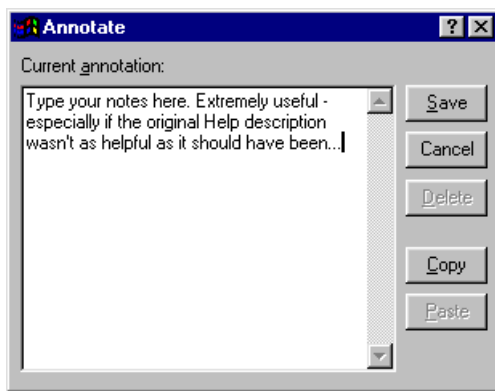
The menus inside the DataEase Help window let you print, add notes to, and place bookmarks on Help topics. Specific menu options are briefly explained below.

When you choose **File>>Print** Topic, DataEase prints a copy of the topic and displays a dialog that lets you cancel the print job.

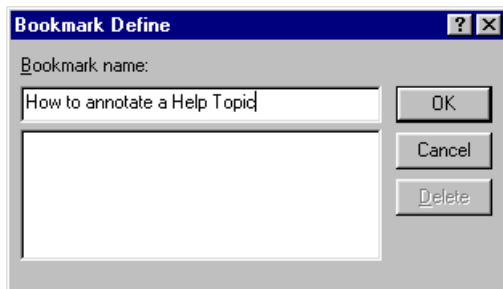
To print a topic, you must first define your printer using Printer Setup on the File menu.

When you choose **Edit>>Annotate**, DataEase displays a small empty window with the cursor blinking in the upper left corner. This option lets you add your own notes to a topic for future reference. Simply type your note and click OK.

When you select the topic again, DataEase displays a paper clip to the left of the topic title. To display your note, click on the paper clip. You can edit or delete the note.



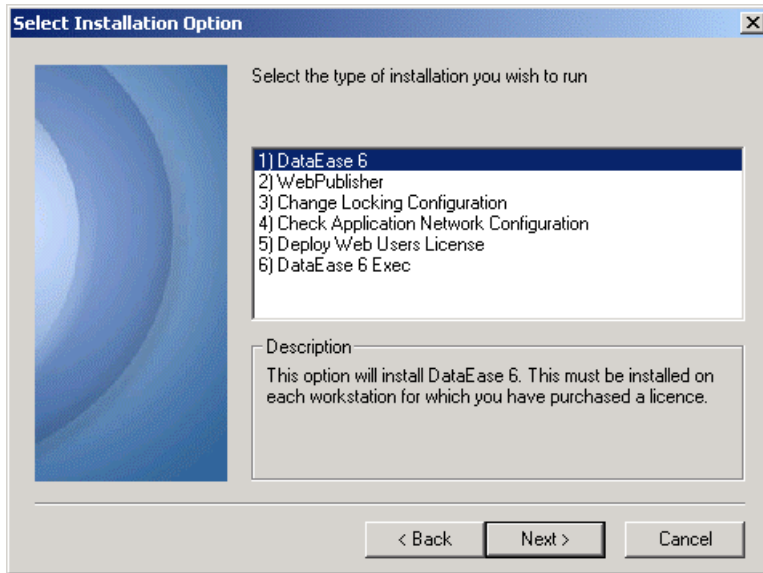
When you choose **Bookmark>>Define**, DataEase displays the Bookmark Define dialog, which lets you mark a topic for quick future reference. Accept the default topic name or type a new one and click OK. DataEase adds the topic to the end of the Bookmark menu.



## Appendic A : Setup

### Installing DataEase

The DataEase 6 Installation dialog, shown below, allows you to Install DataEase and WebPublisher. It also allows you to Check or Change your Network Locking system.



### Multi-User Applications

In earlier versions of DataEase, there were two ways in which a networked DataEase application could be accessed.

1. By individual copies of DataEase held on individual workstations
2. By a single multi-user copy of DataEase held on a Server. (The 'user count' of the multi-user copy of DataEase was incremented by the purchase of additional Server Access Packs).

In DataEase 6, option 2 has been dropped. Option 1 - individual copies of DataEase held on each workstation - is the **only** way to access shared applications.

### File Paths

Previous versions of DataEase have allowed users to simply copy DataEase system files from one directory to another. However, this is not a safe or satisfactory way of moving program files, since it ignores the Operating System's Registry settings and Environment Variables.

In DataEase 6, you should use the Install program if you need to change your DataEase program directory. The Install program will take care of such things as Environment Variables automatically.

## Operating Systems

Before the release of version 5.5 and 6.0, DataEase was sold in two variants - one for NT, and another for Windows 3.x/ 95 and 98.

DataEase 5.5 was supplied in a single variant, which supported Windows 95, 98, NT and 2000. The old Windows 3 operating system was not supported.

DataEase 6 is sold in a single variant, which supports Windows 98, NT, XP and 2000. Windows 3 and Windows 95 are **NOT** supported.

Whereas DataEase 5.5 (and earlier versions) were 16 Bit products, DataEase 6.0 is a full 32 Bit product.

## Multiple Sessions

DataEase will run in multiple sessions under NT. To enable this, the "Run in Separate Memory Space" Windows NT property must be set in each session. Additionally, a separate DENAME is required for each session. (NT and Windows 2000 allow multiple Users per machine, and each user is allowed his own set of Environment Variables. Hence it is simple to assign a separate DENAME to each user. In Windows 98, you can achieve the same result by using Batch files to change the DENAME name).

## Shared Applications

If you intend to share a local application (i.e. an application held on your local workstation, rather than a network server), then you must set the SHAREDLOCALDATABASE=YES in the PRISM.INI file. DataEase must be configured as Networked (not standalone) and you must specify both DENAME and DEPATH parameters.

The screenshot pictured below shows you how to make the SHAREDLOCALDATABASE=YES entry in PRISM.INI.

```
[Locking]
RecordBufferSize=2048
LockingScheme=Record
SharedLocalDataBase=Yes

[SQL]
Reporting=Window

[Sorting]
MemSortBuffers=30

[SQL]
Reporting=Window

[Sorting]
MemSortBuffers=30
```

PRISM.INI is a simple text file. You can edit it with NotePad or WordPad. Before you start editing the file - make a copy of it. Just in case you want to revert to the original.

## Interoperability

DataEase 6 introduces a completely new 32 Bit Network Locking scheme. This scheme is **NOT** interoperable with earlier 16 Bit copies of DataEase. You must **NOT** attempt to interoperate DataEase 6 and earlier versions of DataEase against the same application. If you do so, your network locking, and hence your data integrity, will be at risk.

## Locking Configuration

Earlier versions of DataEase used a Network Locking scheme which contained Assembler Language routines making direct DOS calls. This system - powerful and flexible in its time - is now obsolete. Modern 32 Bit operating Systems are rigorous in their control of the PC, and emphatically disapprove of programs attempting to bypass them by making direct calls.

DataEase 6 replaces the old Network Options - Novell/ MS-DOS/LAN Manager, etc - with three new Locking Configuration Types, all of which are fully 32 Bit compliant.

### Basic

A basic implementation of locking, which works with both Advisory and Non-Advisory networks. It provides replication in data-entry, and allows configurable locking for Record Entry, Reporting, and Procedures. Both Shared and Exclusive locks are supported. This option should be suitable for all networks.

### Full

This option requires an Advisory Network, such as Novell Netware or Windows NT Server. It provides all the facilities listed under "Basic", with the bonus of improved performance. This offers superior performance to the 'basic' option. Your network must support **Advisory Locking** if you wish to use this option. Novell and NT Server are two examples of such networks.

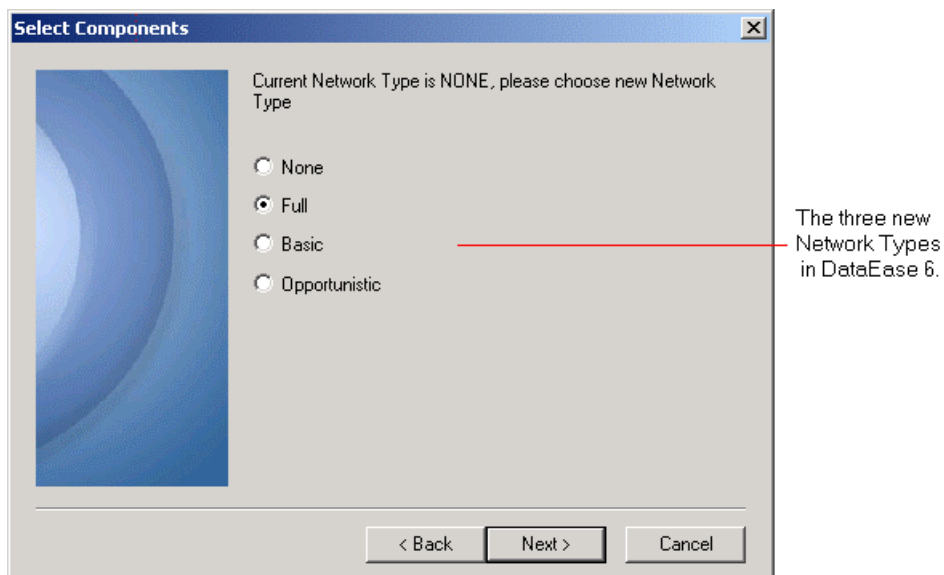
### Opportunistic

A non-locking approach, similar to that of Microsoft Access. Data replication during data entry is provided, but there is no locking. This option will work on any network, and actually provides very fast performance on some applications - for example, those with lots of 'new' data entry work, with little data modification. It works badly on applications where records are subject to frequent modification, since roll-backs are time consuming and annoying to the operator.

**Important:** If this option is used, then it is **ESSENTIAL** that only one user runs data-modifying procedures at any one time. This can be achieved in various ways - menu/user security restrictions, locking the database, and so on.

## Selecting your Locking Configuration

The new Locking Configuration dialog is pictured below. To reach this dialog, run the DataEase Setup Program, and select the option "Change Network Type".



## Stand-alone Application Locking

In previous versions of DataEase it has only been possible to **Lock** a networked copy of DataEase. This facility has now been extended to include stand-alone copies of DataEase - in other words, copies of DataEase where the Network Locking type has been set to **None**.

This enables a user to lock an application before starting some sensitive task - such as a lengthy update procedure - and thus eliminate the possibility of either;

1. The application being accessed by another session on the same machine, or;
2. The application being accessed by another PC, via a shared drive.

To lock the application, select **Application>>Utilities>>Lock**.

## Appendix B : Client-Server Applications

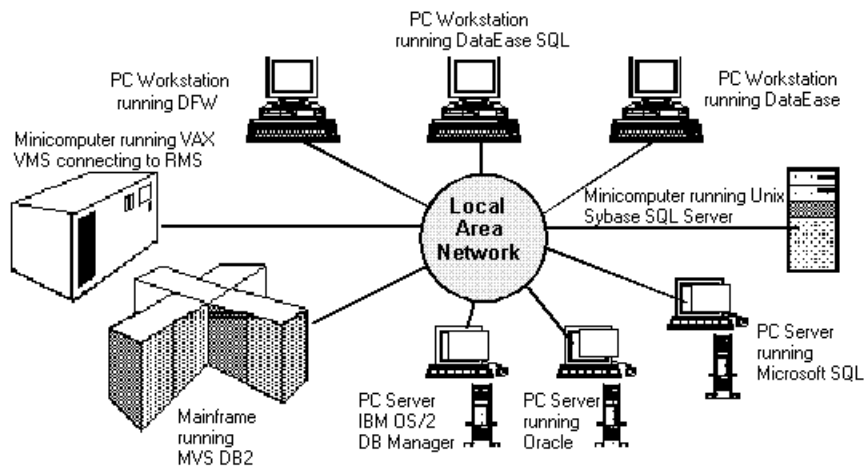
### Accessing Foreign Databases

See **DESIGNER GUIDE Appendix A** for information on creating tables in a foreign database.

This appendix provides an overview of using DataEase in a Client-server environment. Detailed information about each topic mentioned in this appendix can be found either in the User's Guide or Designer's Guide provided with your software or in the specific Database Engine Information Guide.

DataEase makes it easy to access data stored in SQL tables and other popular data formats such as Microsoft/Sybase SQL Server, Oracle Server, IBM DB2, or Access.

In User View, you can interact with foreign data in easy-to-use DataEase forms and reports at a PC while the database engine stores and processes the data. The database table(s) and application references may reside on multiple database servers, even servers of different database engine types. Using ODBC links, DataEase transparently accesses information in various tables on multiple servers-you don't need to know the actual location of the tables.





## Client-Server Terms

The table below summarizes some special terms used in the documentation related to running DataEase in a Client-server environment.

### DataEase ClientServer Terms

SQL Term	Definition
<b>Application</b>	A collection of forms, reports, menus, and data that solves a particular business problem.
<b>Column</b>	The vertical component of a table. A column is equivalent to a field on a DataEase form.
<b>Database</b>	A collection of related tables containing data and the definitions of database objects.
<b>Database Engine</b>	A multi-user relational database system employing Client-server architecture and used for data storage, retrieval, and transaction processing. Also called a foreign engine.
<b>Database Server</b>	A host computer with a multi-tasking operating system, connected to other computers through a network, running database engine software.
<b>Native DataEase Engine</b>	DataEase's built-in multi-user relational database system. It is used for data storage, retrieval, and transaction processing employing Native tables located on a local drive or network file server.
<b>Native Table</b>	A collection of data records stored and maintained by the Native DataEase engine.
<b>Permission</b>	A server security measure that controls record entry functions on an SQL table.
<b>Privilege</b>	A server security measure that controls Form and Table definition functions in an SQL database.
<b>Row</b>	The horizontal component of a table. A row is also referred to as a record in a DataEase form.
<b>SQL</b>	Structured Query Language. A language used for defining, querying, modifying, and controlling the data in a relational database.
<b>SQL Database</b>	A fixed amount of disk space on a database engine reserved for the exclusive use of one or more applications.
<b>SQL Table</b>	A rectangular array of data values consisting of a specific number of columns (fields) and any number of rows (records) in a database.
<b>View</b>	A subset or superset of one or more tables.

## User Privileges and Permissions

To perform record entry functions on a form that defines or uses a foreign table, you must have the necessary access rights on the server. The two levels of server access rights are explained in the table below.

### User Privileges and Permissions

Security Feature	SQL Commands	Used to...
User Privileges	CREATE TABLE DROP TABLE UPDATE TABLE	Control table definition functions. Privileges are usually reserved for the system administrator.
User Permissions	SELECT INSERT UPDATE DELETE	Control record entry functions on SQL tables. User permissions can only be granted by the system administrator or the user who originally created the table (the table owner). DataEase automatically translates its user security levels into the appropriate SQL User Permissions.

User privileges **and** permissions can be granted or revoked through an SQL program or utility outside of DataEase, or through an **exec SQL** statement within the DataEase Query Language. However, DataEase security levels can only be specified within DataEase. Therefore, the SQL system administrator can revoke user permissions on the server without changing a user's DataEase security level.

For example, if your UPDATE permission in a specific SQL table is revoked through SAF (Server Administration Facility), you might not be aware of the change until you try to modify a record in DataEase. Even though your DataEase security level may appear high enough to modify records, the server will display an error message informing you that you are unable to perform the requested action.

## Opening an Application

See **USER GUIDE Chapter 1** for information on how to open an application.

The sign on process for DataEase is the same whether or not your application provides access to a foreign engine. The first time you access the foreign engine, DataEase automatically tries to log you on, using the same User Name and Password you enter to sign on to the application. If your User Name and Password are not valid on the server, DataEase displays a Foreign Engine Login Failure dialog:

If DataEase displays this dialog when you try to open a document, simply enter a valid User Name and Password and click OK. If you haven't been assigned a valid User Name and Password that lets you log on to the foreign database you need to access, see your system administrator.

## Record Entry in a Client-Server Environment

See **USER GUIDE Chapters 2 and 4** for information on entering, modifying, and deleting a record.

Except as detailed in this appendix, you perform record entry functions in the same way as in DataEase.

### Types of Record Entry Forms

Because DataEase documents can access data stored in either a network or local directory or in a foreign database, these documents are divided into two types:

- **Native DataEase form**, which stores data on a local hard drive or a network file server.
- **A form that defines or uses a foreign table**, which stores data on a foreign database engine.

Several record entry functions (e.g., viewing, modifying, and deleting records) behave differently, depending on the type of form you are using. The remainder of this chapter explains the differences in record entry when you access a foreign database.

**Note:** DataEase reports can use Native and/or foreign data tables, but a report can never define a table.

### Record Entry Transactions

A **transaction** is any number of actions that maybe treated as an indivisible unit of work performed on the data in an application. For example, a transaction might consist of the procedures used to ensure that DataEase reserves lodging for every person entered in the same record in the RESERVATIONS form.

When you perform record entry operations on a form that defines or uses a foreign table, DataEase defines record entry transactions as explained below:

- If the form is not a Multiform, each record that is saved, modified, or deleted is treated as a separate transaction.
- If the form is a Multiform, DataEase treats saving, modifying, or deleting a Main form record **and all its related Subform records** as a single transaction.

Most SQL engines support a more advanced concept of transaction processing that guarantees that the entire transaction is completed before it is **committed**. If any portion of the transaction fails, the entire transaction is **rolled back** so that no data is changed.

## How DataEase Security Levels Affect Record Entry

See **DESIGNER GUIDE Chapter 8** for more information on DataEase security levels.

To perform record entry operations on a form that defines or uses a foreign table, you must have the required user permissions on the SQL table in addition to the appropriate DataEase security level (see the table below).

### SQL User Permissions Necessary to Perform Record Entry Functions

Record Entry Function Permitted by DataEase	SQL User Permission Required
<b>View a Record</b>	SELECT
<b>Modify a Record</b>	UPDATE
<b>Enter a Record</b>	INSERT
<b>Delete a Record</b>	DELETE
<b>Use QBF or QBM</b>	SELECT on all tables referenced by the query or report. You must also have a valid User Name in all foreign databases where the tables used by the report are stored.
<b>Use DQL</b>	SELECT, INSERT, UPDATE, and DELETE as required by the procedure on all referenced tables. You must also have a valid User Name in all foreign databases where the tables used by the procedure are stored.

**Note:** If you try to perform a record entry function (e.g., view, save, modify, or delete a record) without the appropriate DataEase security level or SQL user permission, DataEase displays an error message.

To run a procedure that installs an application, you must have CREATE TABLE privileges on the server.

See your system administrator to obtain the required user permissions.

## How Field Characteristics Affect Record Entry

The table below summarizes how the field characteristics assigned to a field affect record entry in a foreign table.

### Record Entry and Field Characteristics

Field Type/ Characteristic	Effect When Data Are Stored in a Native Table	Effect When Data Are Stored in a Foreign Table
<b>Text</b>	Wild card (*,?, and ~) characters should never be entered as data.	Wild card characters (*,?, and ~) are acceptable data values in an SQL table.
<b>Required</b>	Data must be entered in all Required fields to save a record	Data must be entered in all the NOT NULL (Required) fields to save a record. When you create a form over an existing table, all NOT NULL columns in the database table must be included in the form. See <b>Appendix A in the Designer's Guide.</b>
<b>Unique</b>	The combined data in all Unique fields cannot be duplicated in an existing record. If DataEase finds a duplicate record, the new record cannot be saved.	In an SQL table, records are stored in order by the clustered index, which is comprised of all the Unique fields.
<b>Validation Formula</b>	When you choose Edit>>Save or Edit>>Save As New Record on a record with invalid values, DataEase displays an error message. The value(s) must be corrected before you can save or modify the record.	A DataEase Validation Formula, which restricts the values that you can enter into a field to a specific range, is not enforced by the server. If the data is modified by another product, you may see values displayed that violate the range limit.

**Note:** When you enter (or modify) a record in a form that defines or uses a foreign table, and no Unique fields are defined on the form, the foreign engine is solely responsible for the way in which records are ordered.

## Viewing Records

See **DESIGNER GUIDE Chapter 7** for more information on Document Security.  
See **USER GUIDE Chapter 7** for information on selective searches.

If your View security level is too low or you do not have SELECT permission in the foreign table, you can select a form from the Application Catalog. However, when you choose **View>>Next Record** or **View>>Table** to view records, DataEase displays an error message, and no records are displayed.

Should this occur, you must see your system administrator to obtain the necessary permissions.

## Searching for a Record

The time DataEase takes to find a record depends on the number of records and the number of Indexed fields in the form. If you are using a form that defines or uses a foreign table, the foreign engine performs the search. Because each database engine has its own searching algorithms, the time required to find a record varies from engine to engine.

## Modifying a Record

See **USER GUIDE Chapter 4** for more information on modifying records.

To modify a record in a form that defines or uses a foreign table, you must have UPDATE permission in the table. You can only modify records in a form if the minimum DataEase security level required to modify records on the Document Security dialog is set to your level or lower.

When you choose **Edit>>Save** to modify a record in a form that defines or uses a foreign table, DataEase updates the table row with the data saved in the record currently displayed on the screen.

When you choose **Edit>>Save** to modify a record in a form that defines or uses a foreign table and no Unique fields are defined on the form, DataEase displays an informational dialog box if at least one record in the form is identical to the record on the screen.

### Modifying a Record in Table View

When you modify records in Table View in a form that defines or uses a foreign table, DataEase treats each record as a separate transaction, that is, each record is saved individually. If DataEase cannot commit a record (e.g., the attempted action violates a server-specified rule or you do not have the necessary server permission), no more records are saved and DataEase displays an error message. All the records are saved up to, but not including, the record that cannot be committed. You must return to the uncommitted record and choose **Edit>>Restore Record**. Then choose **Edit>>Save As New Record** or **Edit>>Save** to save the remaining records.

### Modifying a Record in a Multiform

See **DESIGNER GUIDE Chapter 8** for more information on referential integrity in Multiforms.

DataEase provides two special referential integrity options in the Relationships form: Server C (Cascade) and Server SN (Set to Null). The options let you transfer the responsibility of enforcing referential integrity to a foreign database engine.

By transferring responsibility for referential integrity to the server, referential integrity can be ensured regardless of which client application is used to modify data. However, the integrity rule must be recreated on the server or it will not be enforced. See your Database Engine Guide for information on how to create rules and triggers.



To transfer responsibility for enforcing referential integrity to the server, open up the Relationships Form and choose Server-Cascade or Server-Null

When you modify a Match field value in the Main form of a Multiform, the Match field in the related Subform records may or may not be modified depending on the referential integrity option defined in the Relationships form (see table below).

## Server-Enforced Referential Integrity When a Record Is Modified in a Multiform

Option	When You Modify a Record, DataEase...
Server C	Only modifies the record in the Main form and leaves the Subform records unmodified. The foreign database engine is responsible for cascading changes.
Server SN	Modifies the record in the Main form and blanks Subform records. The foreign database engine is responsible for setting the Match field value(s) to null.

## Deleting a Record

See **USER GUIDE Chapter 4** for more information on deleting records.

To delete a record in a form that defines or uses a foreign table, you must have DELETE permission on the corresponding table.

When you choose **Edit>>Delete** to delete a record in a form that defines or uses a foreign table, the record is permanently removed from the disk.

When you choose **Edit>>Delete** to delete a record in a form that defines or uses a foreign table and no Unique fields are defined on the form, DataEase displays an informational dialog box if at least one record in the form is identical to the record on the screen. When you click OK, all the records that match the one on the screen are deleted.

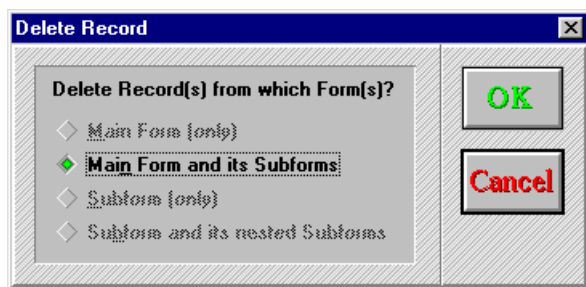
You cannot recover a deleted record in a form that defines or uses a foreign table. If you inadvertently delete a record in a foreign table, it must be re-entered.

**Note:** There should always be at least one Unique field on each form to prevent duplication of data. If you encounter the dialog displayed above, notify your system administrator.

### Deleting a Record in a Multiform

When you try to delete a record in a Multiform, DataEase asks you to specify exactly what you want to delete by selecting one of several choices. The choices DataEase displays depend on: (1) which referential integrity option is specified on the Relationships System form and (2) whether the cursor is in the Main form or a Subform when you choose **Edit>>Delete Record**.

If the referential integrity option specified on the Relationships form is Server C or Server SN and the cursor is in the Main form when you choose **Edit>>Delete Record**, DataEase displays the Delete Record dialog shown below.

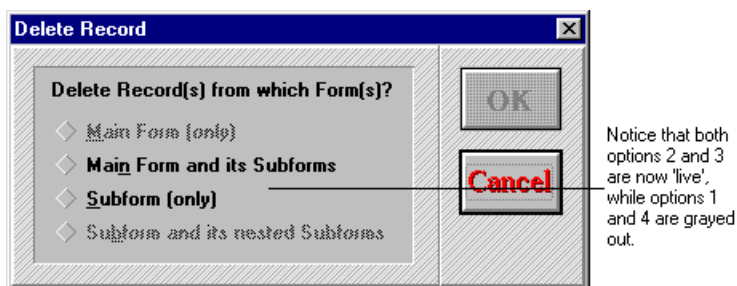


If you choose Cancel, no records are deleted. If you select OK, DataEase deletes the Main form record. The referential integrity option specified on the server regulates whether the Subform records are deleted or blanked (see the table below).

## Server-Enforced Referential Integrity When a Record Is Deleted from a Multiform

Option	When You Delete a Main Form Record, DataEase...
Server C	Only deletes the record in the Main form and leaves the Subform records intact. The foreign database engine is responsible for deleting Subform records.
Server SN	Deletes the record in the Main form and blanks Subform records. The foreign database engine is responsible for setting the Match field value(s) to null.

If the referential integrity option specified on the Relationships System form is Server C or Server SN and the cursor is in the Subform when you choose **Edit>>Delete Record**, DataEase displays the Delete Record dialog shown below.



If you select Cancel, no records are deleted. If you choose Main Form (only), DataEase deletes the Main form record and the effect on Subform records is regulated by the referential integrity option specified on the server. If you choose Subform (only), DataEase deletes the current Subform record (only) and leaves the record in the Main form intact.

**Note:** If the referential integrity option specified on the Relationships form is Server C or Server SN, the foreign engine, not DataEase, is responsible for enforcing referential integrity.

### How Referential Integrity Affects Record Deletion

Referential Integrity Option	Delete Records Options			
	Main Form (only)	Main Form and Its Subforms	Subform (only)	Subform and Its Nested Subforms
<b>Record(s) DataEase Deletes When the Cursor Is in the Main Form</b>				
Restrict	Main form record. The related Subform records continue to exist but are orphaned.	Main form record and all Subform records.	N/A	N/A
Cascade/	N/A	Main form record	N/A	N/A

Server C		and all Subform records.		
Set Null/ Server SN	N/A	Main form record and all Subform records	N/A	N/A

**Record(s) DataEase Deletes When the Cursor Is in a Subform**

Restrict	Main form record. The related Subform records continue to exist but are orphaned.	Main form record and all Subform records.	Current Subform record. Leaves any other Subform records intact.	Current Subform record and all Subform records nested within it.
Cascade/ Server C	N/A	Main form record and all Subform records.	Current Subform record. Any other Subform records are left intact.	Current Subform record and all Subform records nested within it.
Set Null/ Server SN	N/A	Main form record and all Subform records.	Current Subform record. Any other Subform records are left intact.	Current Subform record and all Subform records nested within it.

**Note:** When the data is accessed on a foreign database engine, the foreign engine is responsible for maintaining referential integrity.

## Restoring a Deleted Record

See **DESIGNER GUIDE Chapter 8** for information on reorganizing a form to recover deleted records.

When you delete a record in a form that defines or uses a foreign table, the record is removed from the disk and cannot be recovered unless the following conditions are met:

- The form is displayed in Table View.
- You have not pressed **Edit>>Save As New Record** or **Edit>>Save**.

To recover a deleted record under these conditions, move the cursor to the deleted record and choose **Edit>>Restore Record**.

You can use the same procedure to recover a record deleted from the Main form in a Multiform.

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