

SEARCHING AND SORTING

Contents

Searching	4.3
The Search Dialogue	4.3
Lists	4.7
The Current Selection of Records	4.7
Viewing/Editing items in a list	4.8
The List Menu Bar	4.9
File Menu	4.9
Export	4.9
Chart	4.9
Label	4.9
Quick Letter	4.9
Memos	4.10
Search Menu	4.10
Show Subset	4.10
Omit Subset	4.10
Show All Records	4.10
Search Table	4.10
Search Selection	4.10
Show Products	4.10
Search & Replace	4.11
Modify Menu	4.16
New Record	4.16
Delete Selection	4.16
Deletion Control	4.17
Un-Delete	4.18
Duplicate Records	4.18
The Search Editor	4.19
How the Search Editor Works	4.19
Saving and re-using a Search	4.23
Compound Searches	4.24
Sorting	4.26
The Sort Editor	4.26
Saving a Sort	4.27
Sorting Tips	4.28
Indexed fields	4.28
What gets sorted	4.28

SEARCHING AND SORTING

SEARCHING AND SORTING

Two of the most important functions of a database are the ability to search for a specific record or group of records, and sort them into whatever order is needed for reporting or exporting. CatBase provides plenty of tools to make it easy for you to find and sort your data in any way you want.

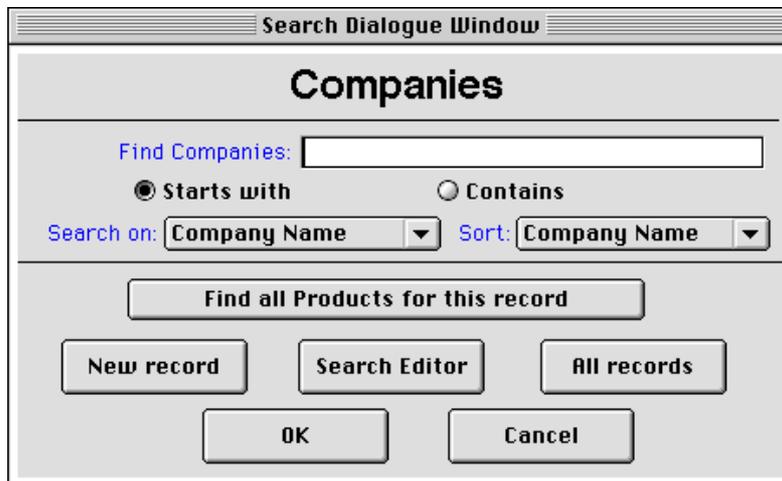
Note: In this chapter we refer to the database tables by their original names (Companies, Contacts, Products, and Product Details). These table names may be different in your database, but you shouldn't have any trouble figuring out which ones we are talking about: the Companies table is the one that has information such as phone numbers and addresses; the Contacts table is related to Companies; the Products table contains descriptive information; and the Product Details table is related to the Product table.

Searching

Whether you need to find a specific record to edit it, create a list of all records that haven't been updated in six months, or build a list of all records in a given category for your next publication, CatBase provides tools to make your search quick and easy.

The Search Dialogue

You usually initiate a search via the Search Dialogue window:



The Search Dialogue box will be displayed when you choose any item from the Data menu or click on a button in the CatBase Options palette, and when you choose certain items from the other menus. The Search Dialogue provides four avenues to your data:

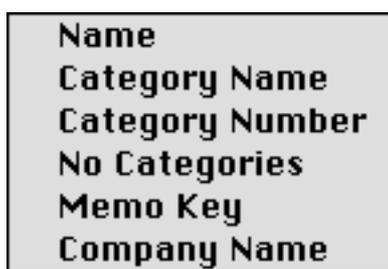
Find a specific record, or a group of records that begin with or contain certain text or other information (such as a particular date):



SEARCHING AND SORTING

This is a field into which you enter some text for CatBase to use as search criteria. The label for this field changes depending upon the item you selected from the menu bar; in the example shown here, the **Products ...** item under the **Data** menu was selected. We are going to search the Products table.

In most cases, you have a choice of which field you want CatBase to search, and you make your choice by clicking on the pop-up **Search on:** menu in the centre of the dialogue box. The choices in the menu vary according to which table it is that you are searching. When you are searching the Products table, the choices are:



(Some of the field names may be different in your database.)

If you choose **Name**, CatBase will use the text that you enter to search for products with names that begin with or contain (depending on which radio button is selected) that text. (Note that a “begins with” search will always be faster than a “contains” search.)

If you choose **Category Name**, CatBase will search for products for which a Category containing your entered text has been assigned. (Categories are explained in detail in Chapter Two, *Setting Up Your Database*.)

If you choose **Category Number**, the search will be as for **Category Name** except that you must enter a number instead of text, and CatBase will search for the Category by number instead of by name.

Choosing **No Categories** will find all Products which have not been assigned to any Categories.

If you choose **Memo Key**, CatBase will search for Product records for which Memos have been created in which the Key field contains the text you entered. The search will be restricted to Memos that belong to you or are Public. Memos are described in Chapter Three.

If you choose **Company Name**, CatBase will search for Product records that belong to a company having a name matching the text you entered.

Suppose, for example, that you want to find all products whose names begin with “Chocolate.” Here’s how to do it:

- At the main CatBase screen, choose **Products ...** from the **Data** menu, or click on the **Product** button in the CatBase Options palette.
- When the Search Dialogue appears, type in “chocolate” (without the quotes). You do not need to worry about capitalisation. Make sure you don’t get any extra spaces in the text you enter!

Do you want to search for records that *start with* the text that you entered, or that have that text anywhere within the field being searched? That’s what the two radio buttons are for:

SEARCHING AND SORTING

Starts with **Contains**

To initiate the search, you can either:

- Press the Enter key on your keyboard, or
- Click on the OK button.

CatBase then searches the database for records matching the criteria you specified, and either presents you with a list of the records it finds or tells you that it didn't find any matches.

The choices available for Companies are very similar to those available for Products:

Company Name
Contacts Last name
Contacts Title
Category Name
Category Number
No Categories
Memo Key

Company Name of course replaces Product Name, and two additional options, **Contacts Last Name** and **Contacts Title**, have been added.

The choices available when you choose **Export Style Sheets ...** are:

Style Name
Creator
Base Table

Style Name is the name that was given to the Export Style Sheet when it was created.

Creator is the name of the person who designed the Export Style Sheet. To find all the Export Style Sheets that you designed, choose **Creator** and enter your name (as it shown in the Password dialogue box when you launch CatBase).

Base Table is the table on which an Export Style Sheet is based. Export Style Sheets can be based on:

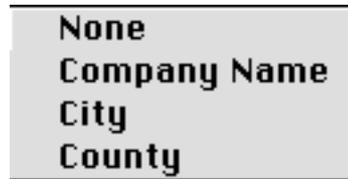
- Companies
- Contacts
- Products
- Company Categories
- Product Categories

Please see Chapter 7 for more information on Export Style Sheets.

SEARCHING AND SORTING

Sort

You can also specify how you want the records that are found through the search to be sorted. You do this by making a selection from the Sort pop-up menu:



The default Sort order is the record name (i.e., Product Name for the Product table, Company Name for the Companies table, etc.)

If you are using CatBase Multi-User, sorting a large number of records can be somewhat time-consuming and can tie up the network. That's why we have included "None" as a sort option. If you do not particularly need to have the records sorted, choose None. This will speed up the time it takes for the records to be displayed on your screen. Note: If you choose not to sort the records in a specific order, this does not necessarily mean that they will appear in the order in which they were entered into the database. This is because when records are deleted from the database, a "hole" is left in the database where the deleted table used to be; these holes are then re-used as new records are added.

[Create a New Record](#)



Click on this button if you want to create a new record for the table. A blank record opens up, into which you can enter your data. See the specific chapters in this manual for the table into which you want to enter data.

[Use the Search Editor](#)



Click on this button to use the full-featured Search Editor, which is described in detail later in this chapter. This lets you search on any field in the table and on multiple criteria.

[All Records](#)

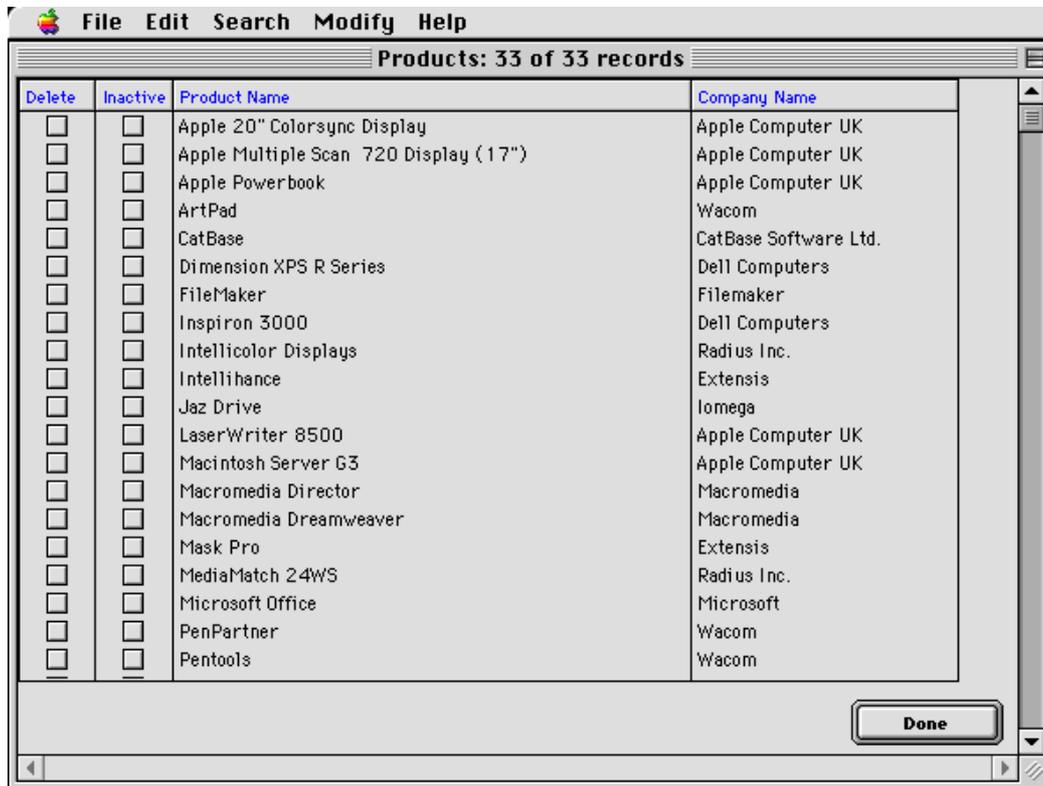


Click on this button if you want to see a list of all the records in the table.

SEARCHING AND SORTING

Lists

When the search is initiated, CatBase searches the appropriate table, and presents a list of the matching records it finds. The list looks something like this:



Of course, the data displayed in the list varies depending upon which table you are searching.

Notice a couple of things about this screen:

- It has its own menu bar.
- The items in the list are sorted in the order you specified in the Search Dialogue. If you want to view the records in a different order, you can easily sort them any way you wish by choosing **Sort Selection** from the Search menu. Sorting is explained in detail later in this chapter.

The Current Selection

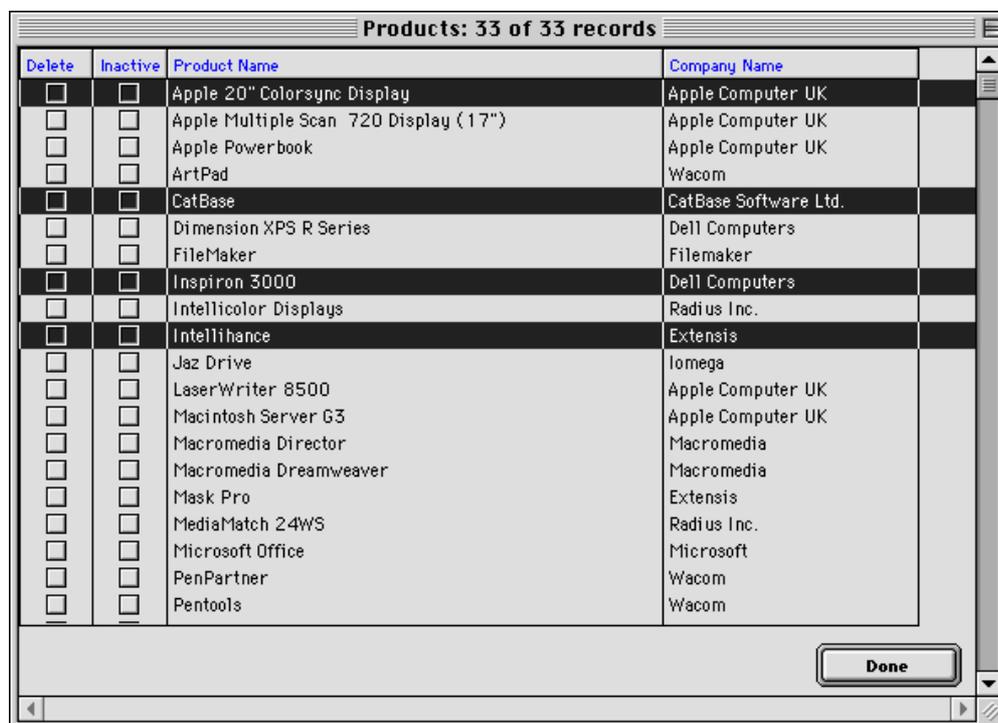
It's important that you understand the concept of the Current Selection before we proceed with this section.

The **Current Selection** is the list of records that you have selected to view, edit, print, or otherwise work with.

When you first create a list of records, the entire list is the current selection. You can refine that list by selecting records within it and choosing either **Show**

SEARCHING AND SORTING

Subset or Omit Subset from the Search menu; the resulting list becomes the new current selection. For example, in the illustration shown below, four records have been selected in the list. By choosing Show Subset from the Search menu, only those four records will be displayed and will become the new current selection.



There are three ways to select records in a list:

1. Press Command (Apple)-A (Mac) or Ctrl-A (Windows) on your keyboard to select all the records in the list.
2. To select a group of records:
Click on the first record in the group. It becomes highlighted.
Hold down the Shift key and click on the last item in the group. All records between the first and second clicks will be selected.
3. To select random items:
Hold down the Command key (Mac) or Ctrl key (Windows) as you click on individual lines.

[Viewing/Editing Items in a List](#)

To view the full record for a line item displayed in a list, double-click anywhere on that line. The complete data entry screen for the record will open up. From the data entry screen, you will be able to navigate among the records in the list without returning to the list by using the Record Navigation buttons that are located at the bottom of every data entry screen. They look like this:



SEARCHING AND SORTING

By clicking on these buttons, you can move directly to the first record in the current selection, or the previous, next, or last record. This can be very useful if you want to update a group of records. You can make the necessary change to the first record, and then click on the Next Record button to move on to the next record instead of saving the current record and then double-clicking on the next one to open it. Any changes you have made to a record will be automatically saved when you use the record navigation buttons. The same page will be displayed for each record; if you need to make a modification on the third page of the product records you have selected, as you move through the list the third page for each record will be displayed as each record is opened.

The List Menu Bar

The list menu bar has three main menu headings: File, Search, and Modify.

The File menu

The File menu offers the following options:



Export ...

You choose this option to export data from CatBase when you are ready to publish it. Please refer to Chapter 7 for information on setting up Style Sheets and Export Style Sheets (which determine how your data will be formatted), and to Chapter 9 for information on how to export the data.

Chart ...

This gives you access to the Chart Wizard, which lets you create charts and graphs in various styles. The Chart Wizard is described in detail in Chapter 5.

Label ...

This option opens up the Label Wizard, which enables you to create mailing labels. This is described in detail in Chapter 5.

Quick Letter ...

Quick Letter is an optional add-on word processing module. With Quick Letter you can easily produce letters and such, with data from the database merged in. Quick Letter is also used for creating emails and sending faxes. You will find a

SEARCHING AND SORTING

demo version of 4DWrite (the required plug-in for Quick Letter) on the CatBase CD; please contact us if you need more information or to order a copy. You will find basic instructions for using Quick Letter in Chapter 5; a complete manual is supplied with the product.

Memos ...

Memos are described in Chapter 3.

The Search Menu

The Search menu offers these options:



Show Subset creates a new list containing only the records you selected. This becomes the current selection. The records are sorted in the order you specified in the Search Dialogue.

Omit Subset creates a new list consisting of the list that was displayed minus the line items that were selected. This becomes the current selection. If you started out with 20 items in the list, selected five of them and chose **Omit Subset**, there would then be 15 items displayed. The records are sorted in the order you specified in the Search Dialogue.

Show All Records creates a list of all the records in the table. The records are sorted in the order you specified in the Search Dialogue.

Search Table presents the Search Editor, which is explained below. The search criteria that you enter will be used to search all records in the table. This is not the same as **Search Selection**, which is explained next.

Search Selection presents the Search Editor, which is explained below. The search criteria that you enter will be used to search only the records in the current selection.

Search & Replace is a very powerful feature that makes it possible for you to make a change in a selection of records all at once. It is available only when a list of Company or Product records is displayed. This function is described below.

Sort Selection presents the Sort Editor, which is explained later in this chapter. This lets you sort the current selection of records.

Show Products appears only when you have a list of Company records displayed. This menu choice lets you instantly see a list of products that belong to a

SEARCHING AND SORTING

particular company. To use this option:

- Create a list of one or more Company records
- Click once on ONE company in the list.
- Choose **Show Products** from the Search menu.

CatBase creates a list of that company's products and displays them in a new window. If no product records have been entered for the company, CatBase will tell you so.

Search & Replace

Search & Replace makes it possible for you to make a change in any number of records all at once. You can:

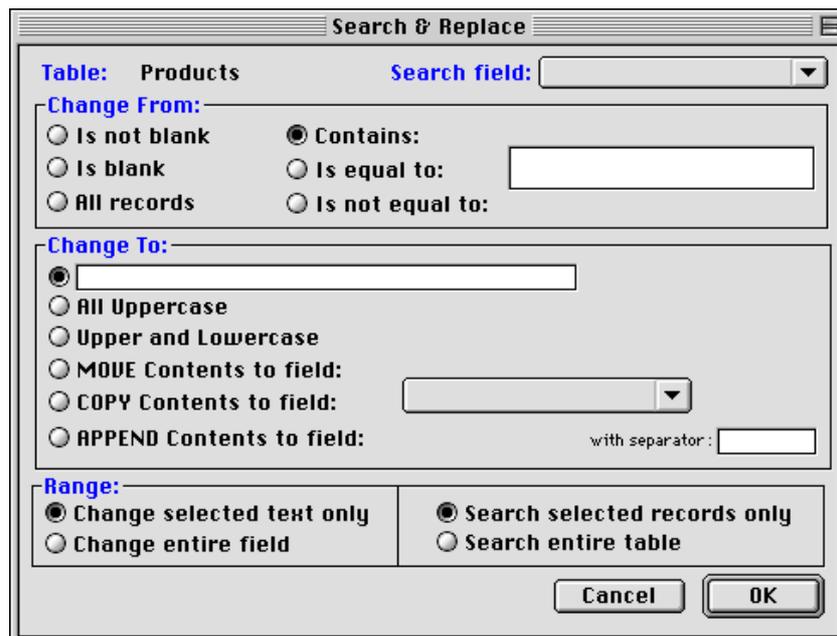
- Change certain text to something else (for example, change all telephone dialling codes of 1234 to 01234)
- Change text from mixed case to all uppercase
- Change text that is all uppercase to mixed case
- Move or copy the contents of one field to another field
- Append the contents of one field to another field

A Word of Warning!

This is a very powerful function. It would be quite possible to do serious damage to your database by using this function carelessly. We urge you to use it with caution, and to always make a backup of your data file beforehand ... just in case...

To use Search & Replace:

- Choose **Search & Replace** (Command- or Alt-R) from the Search menu. The following dialogue box opens up:



SEARCHING AND SORTING

- Click on the pop-up list of fields to choose the field that you want to perform the search & replace on.

If the field you choose is a numeric or Boolean (true/false) field, the **Contains**, **Is not blank**, and **is blank** radio buttons become dimmed, as do the **Change selected text only** and **Change entire field** radio buttons in the **Change To** area.

If the field is Boolean, you must enter True, False, Yes, or No into the text field and the **Change to** area.

If the field is a date field, you must enter your search and replace criteria in the format DD/MM/YYYY (MM/DD/YYYY if you are using the U.S. version).

You cannot perform a search and replace on certain fields, such as *record number*, *enter date*, and *modify date*.

- Enter the value you want to search for into the text field. If you are searching on a numeric field, be sure to enter a number!

If the field you are searching is a text field, you can use any of the radio buttons in the search criteria area.

If the **Is not blank** radio button is selected, CatBase will search for any records in which the selected field contains at least one character. Remember that a space counts as a character!

If the **Is blank** radio button is selected, CatBase will search for all records in which the specified field contains no text at all.

If you enter "apple" as your search value and leave the **Contains** radio button selected, CatBase will look for any occurrence of the word "apple" anywhere within the field you have chosen. If there are multiple occurrences of the word "apple" within the field, each occurrence will be changed.

If the **Is equal to** radio button is selected, CatBase will only change records in which the entire contents of the specified field exactly match the value you have entered.

If the **All records** radio button is selected, every record in the table will be changed, regardless of what is in the specified field. Use extreme caution when using this option!

- Enter the value that you want the found text changed to into the **Change To** area or choose one of the other radio buttons in this area (explained below).
- Leave the **Change Selected Text Only** radio button selected if you want to change only the value that was found to the new value.
- Select the **Change Entire Field** radio button if you want the entire contents of the field replaced by the new text. For example: In the **Companies** table, you want to find all occurrences of "winter catalogue" in the **Notes** field and clear all your comments out of the field. You would set up the dialogue box like this:

SEARCHING AND SORTING

Search & Replace

Table: Companies Search field: Notes

Change From:

Is not blank Contains:

Is blank Is equal to: winter catalogue

All records Is not equal to:

Change To:

[Empty field]

All Uppercase

Upper and Lowercase

MOVE Contents to field: [Dropdown]

COPY Contents to field: [Dropdown]

APPEND Contents to field: with separator: [Text]

Range:

Change selected text only Search selected records only

Change entire field Search entire table

Cancel OK

This will find all records in the current selection of records (or the entire database, if you selected the **Search entire table** radio button) in which the words “winter catalogue” occur in the Notes field and clear the field completely in each record.

However, if you wanted to change the phrase “winter catalogue” to “Spring catalogue”, you would select the **Change selected text only** radio button and enter the text, “Spring catalogue”, into the Change To area.

NOTE that if you select the **All Records** radio button, the search and replace action will be performed on all records in the table regardless of whether the **Search selected records only** or the **Search entire file** radio button is selected, and regardless of the selection of records currently displayed on your screen.

The change to: area is where you tell CatBase what to do with the matches it finds:

Change To:

[Empty field]

All Uppercase

Upper and Lowercase

MOVE Contents to field:

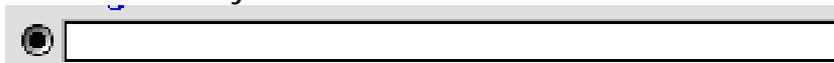
COPY Contents to field: [Dropdown]

APPEND Contents to field: with separator: [Text]

In the text entry area you enter the text that you want to replace that which

SEARCHING AND SORTING

was found to match the text you entered in the search criteria area above:



All Uppercase

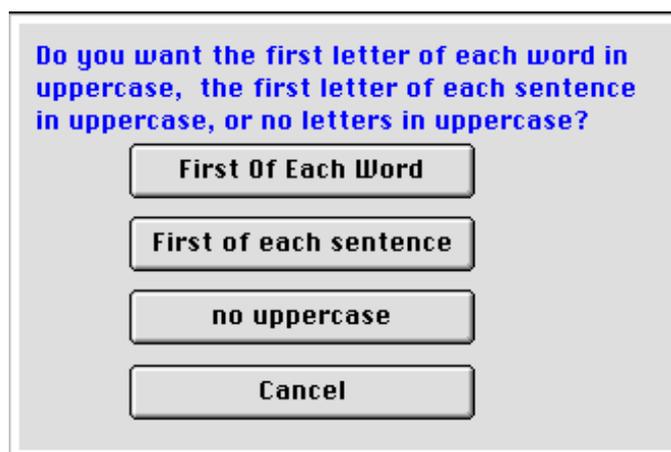
If you want to convert all the text in the field to uppercase, choose the **All Uppercase** radio button

When you choose this option, the **Change entire field** radio button is selected. Make sure that this is really what you want before proceeding!

Mixed Case

If you want the text converted to mixed upper and lower case, choose the **Upper and Lowercase** radio button.

If this option is selected when you click the **OK** button, you will see an additional dialogue box after CatBase informs you how many matching records were found:



First Of Each Word will change the first letter of each word in the field to uppercase, and everything else to lowercase. This can be useful for such data as company or product names.

First of each sentence changes the first letter of the first word of each sentence to uppercase, and everything else to lowercase. The first letter of a sentence is defined as any letter which is preceded by one or more spaces, in turn preceded by a full stop.

No uppercase converts everything in the field to lowercase.

Cancel stops the search and replace operation.

Move Contents to Field:

This option lets you transfer data from one field to another. As an example, perhaps you have been using one of the short text fields to maintain certain information. But then you realise that the field isn't big enough, and you want to use a long text field instead. Using the **Move** option you could accomplish this very

SEARCHING AND SORTING

easily.

If you select this option, you must select a field to move the data to.

NOTE: If you are moving data from one type of field to another type of field, it will be converted to fit the new field format, and you may get unpredictable results. For example, if you move data from a text field to a numeric field, the program will try to convert your text into numbers. If the text is something like "£50" or "£50 and up", this should be converted to "50" without any trouble. However, if the text is something like "£50; £55 with additional gadget" the converted number will probably be 50.

Copy Contents to field:

This option will make a copy of the contents of the original field in the new field. In other words, the same text will then appear in both of the fields.

Append contents to field:

Using this option you can add the contents of two fields together. The original field will remain intact.

The Range Area

In this area, you specify which part of the field you want to change, and which records to search:

Range:	
<input checked="" type="radio"/> Change selected text only	<input checked="" type="radio"/> Search selected records only
<input type="radio"/> Change entire field	<input type="radio"/> Search entire table

If the **Change selected text only** radio button is selected, CatBase will change only the text that exactly matches that which was entered in the search criteria area.

If the **Change entire field** radio button is selected, all text in the field will be changed in the manner you have specified if the text that was entered in the search criteria area was found anywhere within the field.

Search selected records only

If this option is selected, only the records in the current selection will be searched.

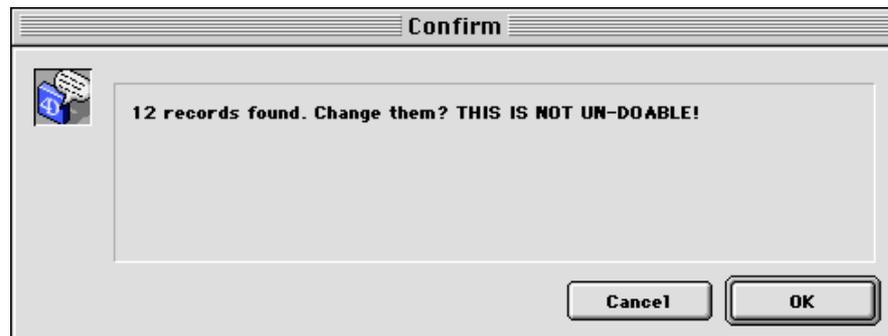
Search entire table

If this option is selected, the entire table will be searched, regardless of what records are in the current selection.

- When you have set up your Search & Replace criteria, and checked them carefully to make sure you have done it correctly, click on the OK button.

CatBase performs the search and lets you know how many matching records it found:

SEARCHING AND SORTING



- You can chicken out at this point by clicking on the Cancel button. If you are brave and want to go ahead:
 - Click on the OK button.
- CatBase does the job and lets you know when it is finished.

Sort Selection

This menu option enables you to sort the records in the list. The Sort editor is described in detail later in this chapter.

The Modify Menu

The Modify menu offers choices for adding and deleting records in the current selection:

Modify	Help
New Record	⌘N
Delete Selection	⌘H
Un-Delete	
Duplicate Selection	⌘D

New Record creates a new record for the current table.

Delete Selection either marks the selected records for deletion, or actually deletes them, depending upon what the current table is. Company and Product records can only be *marked* for deletion through this menu selection; records from other tables can be directly deleted. This provides a measure of security; if you want to be able to keep track of Company and Product records that are to be deleted, and verify that they really should be deleted, you have that control. Once Company or Product records have been marked for deletion, the Administrator can view the marked records and confirm that they really should be deleted before performing the actual deletion. To mark records for deletion:

- With a list of Company or Product records on the screen, select the records you wish to delete.
- Choose Delete Selection from the Modify menu.

CatBase asks you to confirm that you want to mark the selected records for deletion.

- Click on OK to continue with the process, or Cancel to abort it.

SEARCHING AND SORTING

What happens next depends upon whether Deletion Control is set to On or Off in System Preferences.

If Deletion Control is On, you will be required to supply information regarding why you want to delete the record. The Delete Record screen opens up:

Delete record because:

Reason: [Dropdown]

Table: Companies

Record No.: 142

Record Name: Extensis

Date Marked for Deletion: 27/01/99

Requested by: Administrator

Delete date: 00/00/00

Memo: [Text Area]

[Navigation Buttons]

If Deletion Control is On, you must complete one Delete Record for each record you want to delete.

- Enter a reason for deleting the record, or select one from the pop-up Reason list.

You can enter an additional note into the *Memo* field if you wish.

- Save the record.

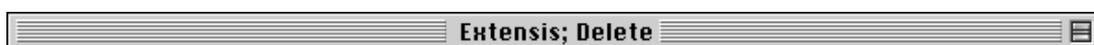
This process will be repeated for each record in the selection.

Please see Chapter 3 for more details on deletion tracking.

Each record that you mark for deletion will have the Delete? check box checked in the list:

Company Name	MailingAddressCity	MailingAddressCounty	Inactive	Delete
Apple Computer UK	Uxbridge	Surrey	<input type="checkbox"/>	<input type="checkbox"/>
CatBase Software Ltd.	Stanstead Abbots	Herts	<input type="checkbox"/>	<input type="checkbox"/>
Connectix	Amsterdam		<input type="checkbox"/>	<input type="checkbox"/>
Dell Computers	Bracknell	Berks.	<input type="checkbox"/>	<input type="checkbox"/>
Extensis	Portland	Oregon	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Filemaker	Watford	Herts	<input type="checkbox"/>	<input type="checkbox"/>

Additionally, when you open a Delete record, its status is indicated in the title bar:



SEARCHING AND SORTING

If you mark Company records for deletion, all Product records belonging to each Company will also be marked for deletion.

If you are the Administrator, you can physically delete the records that have been marked for deletion. This is described at the end of Chapter 3.

Note that if you deleted Company or Product records, the Deletion Information records (if they exist) are not deleted at the same time. They remain in the database as a record of what was deleted, and when. You can purge the Deletion Records by choosing Deletions ... from the Admin menu again and clicking on the Purge Deletion Records radio button.

Un-Delete

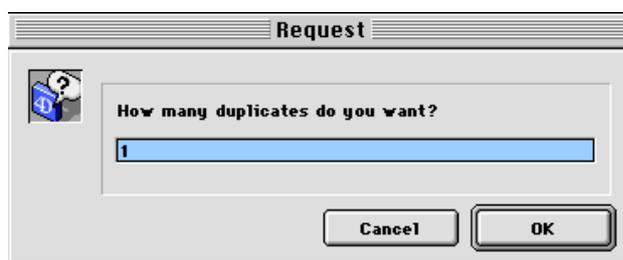
If you have marked a Company or Product record for deletion, but now you want to restore (or “un-delete”) it, select the record or records you want to restore and then choose **Un-Delete** from the **Modify** menu.

Duplicate Records

Do you need to make one or more duplicates of a record? This menu selection makes it quick and easy to do so. To duplicate records:

- With a list of records displayed on the screen, select the record or records you want to duplicate.
- Choose **Duplicate Records** from the **Modify** menu.

CatBase wants to know how many duplicates to make:



You can make up to 99 duplicates. If you enter a number greater than 99, CatBase will make 99 duplicates.

CatBase makes the duplicates and lets you know when it is finished. Each duplicate is exactly the same as the original, except that it has been assigned a new record number. Related records will also be duplicated: these include Company Contacts, Product Details, Memos, and Categories.

SEARCHING AND SORTING

Searching

Searching is one of the most common database operations. It is often the most convenient way to select the records with which you want to work.

The term searching refers to finding a group of records in the database based on the contents of one or more fields. You perform a search by specifying a query. A query is the set of instructions that tells CatBase which records to include in the new current selection, such as "Company Name is equal to ACI".

A query always has three elements: field name, comparison operator, and value. The field name is from the current table. The comparison operator tells CatBase how to compare the contents of the field to the value you specify (equal to, greater than, less than, and so forth). The value specifies the number, string, or other value to which each record is compared.

Suppose you want to see all the records for products with prices greater than £10. The query you would use is "Price is greater than 10." "Price" is the field, "is greater than" is the comparison operator, and "10" is the value.

When you search the database, CatBase compares the contents of the field in the query to the value you specify. The new current selection is made up of records that satisfy the rules stated in the query. The new current selection can be no records, one record, a group of records, or all the records in the table.

Search Editor

The Search Editor provides a way for you to search any field or fields in the database.

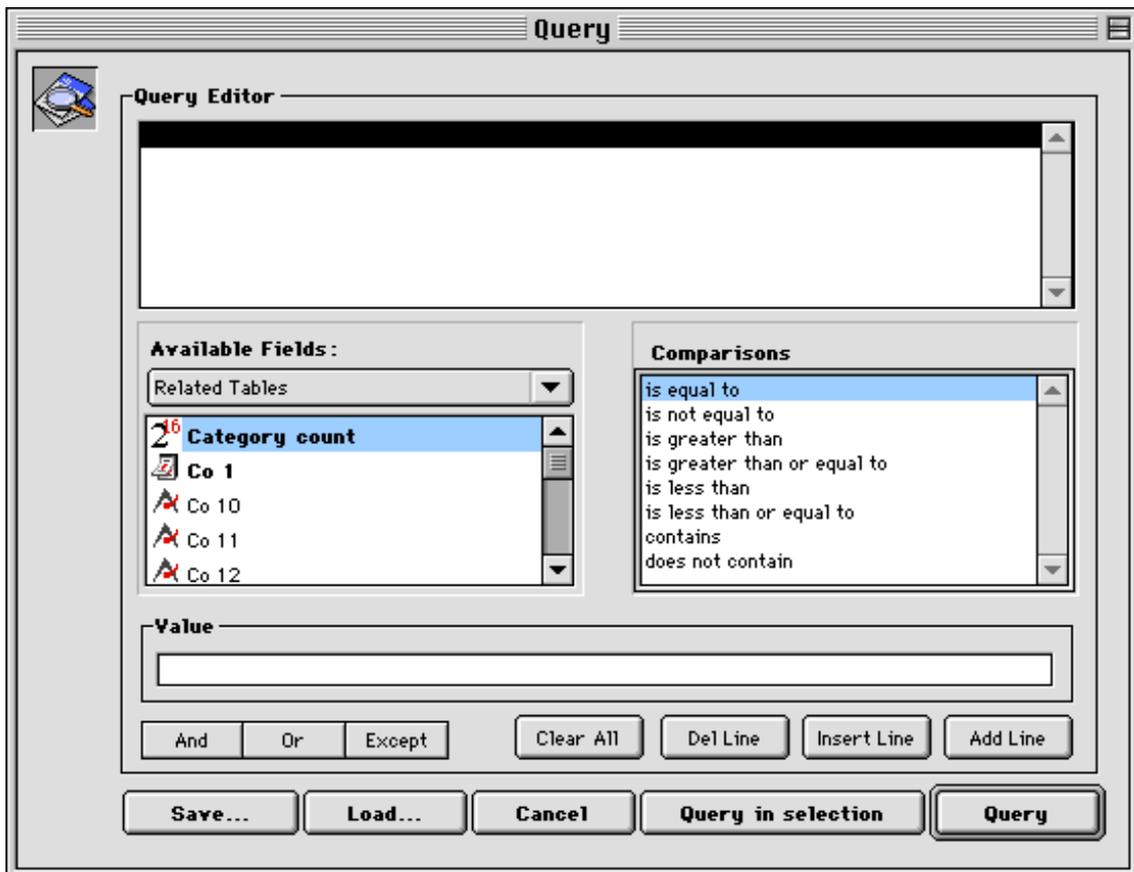
You can reach the Search Editor either of two ways:

1. By clicking on the Search Editor button in the Search Dialogue;
2. By choosing Search Table or Search Selection from the Search menu when a list is displayed on the screen.

How the Search Editor works

When you choose the Search Editor, you'll see a window like this:

SEARCHING AND SORTING



- Searches that you build can be saved for re-use by clicking the Save ... button.
- To clear the search conditions displayed in the search Editor, choose Clear from the Edit menu.

This dialogue box is divided into five areas, each of which is described below.

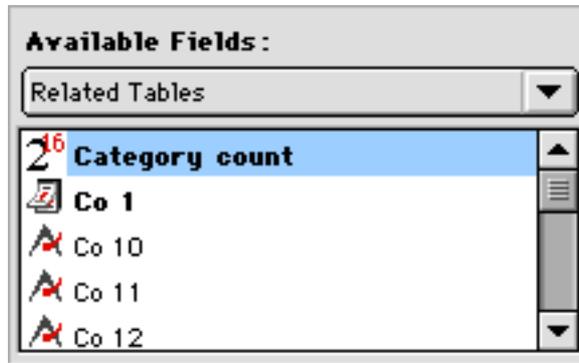
Criteria Area



You do not enter anything directly into the Criteria area; it shows you how the search will be performed based upon the selections you make in the other areas on this screen.

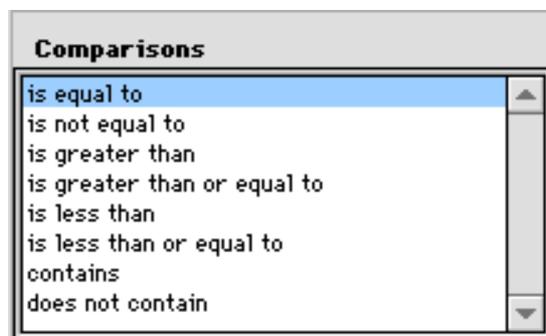
SEARCHING AND SORTING

Field Area



The field area lists all the fields in the table on which you are going to conduct the search. In the example shown here, we are going to search the Companies table. Notice that some field names are shown in bold type: these fields are indexed. Searching on an indexed field will be faster than searching on an unindexed field. The Related tables pop-up at the top of the list should be ignored. It allows you to see other tables than the one on which you will search; however, you cannot search on those tables

Comparisons Area



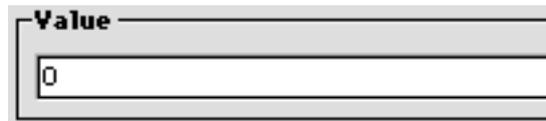
In the Comparisons area are listed the various operations that you can use to evaluate data for the search.

Value Area

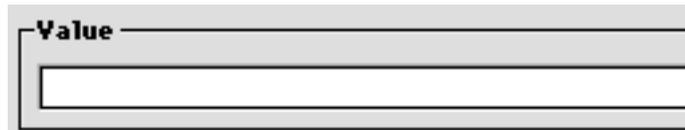
The Value Area is where you enter values for which you want CatBase to search. For example, if you had selected the field "Price Numeric" and the operator "is less than," you would enter a figure, such as "20," into the Value Area.

The format of the Value Area changes according to the data type of the field that you selected. For numeric data types, the Value Area looks like this:

SEARCHING AND SORTING

A screenshot of a software interface showing a rectangular box with a label 'Value' at the top left. Inside the box, the number '0' is entered.

For text data types, the Value area looks like this:

A screenshot of a software interface showing a rectangular box with a label 'Value' at the top left. The box is empty.

You can enter any text string, including the wildcard character (the "@" sign). To make queries easier to specify, CatBase has a wildcard character (@) that can replace one or more characters in a search involving a Text field. For example, if you are looking for all occurrences of the name "Belmondo" in a field, you may specify the search value in several ways:

- Bel@ Finds all values beginning with "Bel"
- @do Finds all values ending with "do"
- Bel@do Finds all values starting with "Bel" and ending with "do"
- @elm@ Finds all values containing "elm"

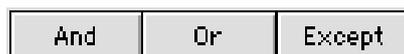
Wildcard queries are not case-sensitive. A search for "@F" is the same as a search for "@f".

For Boolean data types, the Value Area looks like this:

A screenshot of a software interface showing a rectangular box with a label 'Value' at the top left. Below the label are two radio buttons. The first is labeled 'True' and is unselected. The second is labeled 'False' and is selected.

Conjunction Area

When you search on just one field (as in "Product Name='Super Widget' "), that is called a **simple search** . However, you can search on more than one criterion; that's called a **compound** search. To create a compound search, you use one or more conjunctions:

A screenshot of a software interface showing three buttons arranged horizontally. The buttons are labeled 'And', 'Or', and 'Except' from left to right.

And finds all records that meet the two conditions simultaneously. For example, if you build a search condition like this:

SEARCHING AND SORTING

	Company Name	is equal to	a@
And	Country	is equal to	USA

CatBase will find the records of all companies having names that begin with the letter "A" and that are in the USA.

Or finds all records that meet either of the two conditions. For example, the search condition "City is equal to London or City is equal to Manchester" will find all companies in London or Manchester.

Except is the equivalent of "and not." The search condition "Product name contains chocolate except Price Numeric is less than 10" will find all chocolate having a price greater than or equal to £10.

Building up a compound search

To build a compound search, you select the first criterion, then click on the Add Line button to add an additional line (or lines).

Doing the search

When you have set up the search criteria, click on either the **Query in Selection** or **Query** button to initiate the search.

Query in Selection

Sometimes you will want to search all the records in the table, and sometimes you'll want to search only the records in the current selection (the current selection is explained earlier in this chapter). The Query in Selection button facilitates this.

In some cases, this option will be meaningless. If you have arrived at the Search Editor by clicking on the Search Editor button in the Search Dialogue, the current selection of records will be empty because you haven't yet created a selection. So Query in Selection would tell that there are no matching records.

If you have arrived at the Search Editor by choosing Search Table from the Search menu in a list of records, clicking the Search in Selection button will cause the search to be performed on only the records in the current selection (i.e., the records displayed on the screen). This has the same effect as choosing Search Selection from the Search menu.

Saving and Re-using a Search Format

Sometimes you'll want to save a search format so that you can use it again without having to re-create it. That's what the Save ... button is for. To save a search format:

- Create the search
- Click on the save button.

A file dialogue box opens up.

- Enter a name for the search and save it. We suggest that you create a

SEARCHING AND SORTING

folder within your CatBase program folder for storing search formats.

To restore the search format:

- Open the Search Editor.
- Click on the Load ... button.
- Locate the search format that you saved and open it.

Compound Searches

A compound search is one in which you enter more than one search criteria, using the And, Or, or Except conjunctions. The conjunctions are explained earlier in this section.

How compound searches are handled

It's important to know how a compound search is evaluated by CatBase, as the order in which the search conditions are created can affect the outcome of the search.

The search conditions are evaluated in the order in which they appear in the Search Editor, i.e., from top to bottom. Consider these two examples:

Example One

	Product Name	is equal to	chocolate@
And	Price Numeric	is less than	20
Or	Company Name	is equal to	catbase@

Example Two

	Product Name	is equal to	chocolate@
Or	Company Name	is equal to	catbase@
And	Price Numeric	is less than	20

While both search formats appear to include the same set of criteria, they will produce different results:

Example One will find all products that either:

- have a name beginning with Chocolate AND are priced at less than £20,
- OR
- are made by CatBase

Notice that in this case, since Price Numeric is evaluated before Company Name, CatBase will find products made by CatBase regardless of a product's name or price.

Example Two will find all products that:

- have a name beginning with "chocolate" OR are made by CatBase
- AND
- are priced less than £20

SEARCHING AND SORTING

In other words, a product must be priced less than £20 *in addition to* meeting the first two criteria.

TIP!

If you find this confusing, it might be simpler to break the search down into two or more distinct searches.

For example, first of all search for (for example) all Products having names that contain "chocolate" and are priced at less than £20.

Then, when you have the results of that search, use Search in Selection to refine the selection (e.g., to find all records within that selection that are made by a certain company).

SEARCHING AND SORTING

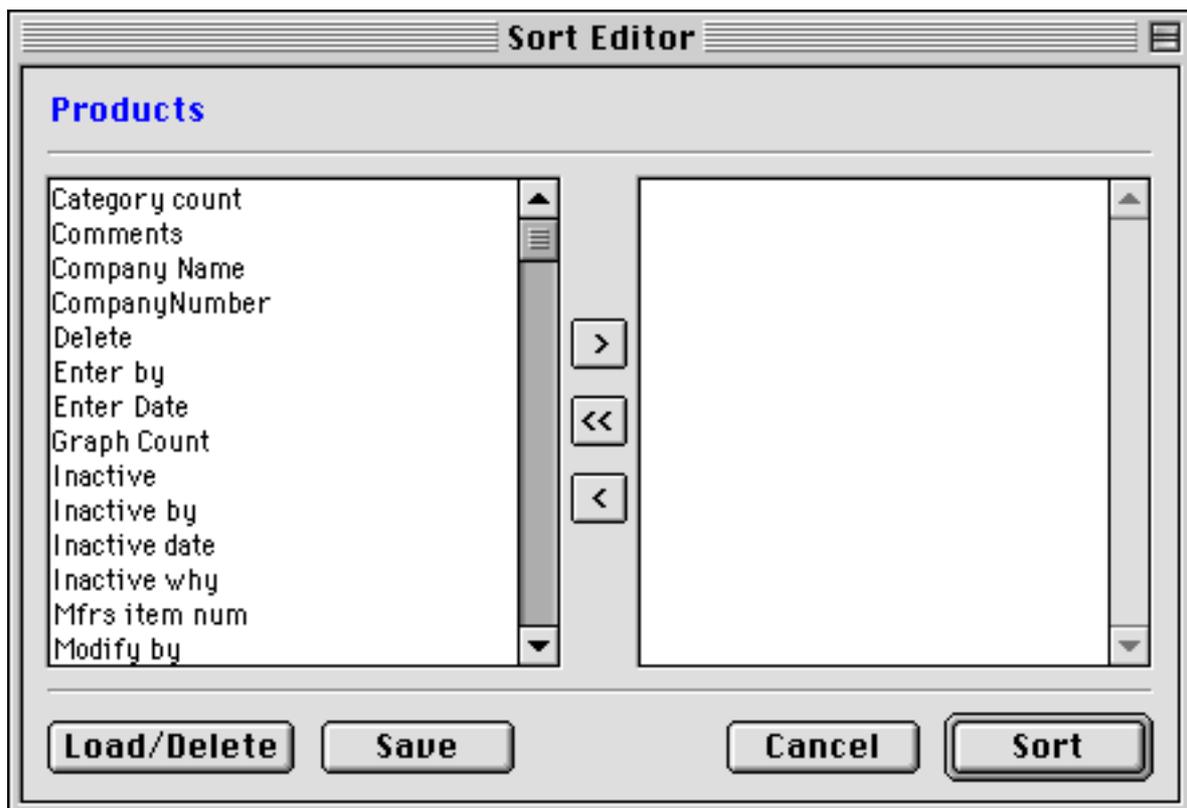
Sorting

At various times as you are using CatBase, you will want to sort records for printing, reporting, exporting, etc. This is accomplished via the Sort Editor, which is shown below. Some actions that you take (such as choosing Quick Label when you are viewing a list of records) will automatically cause the Sort Editor to appear; you can also invoke the Sort Editor whenever you have a list of records on your screen. To do this, choose Sort Selection from the Search menu.

Sorts that you build in the Sort Editor can be saved for re-use. This is most useful when you are exporting data; you specify the desired sort order in your Export Style Sheet, and then you can be sure that the records will always be sorted correctly when you export data using that Export Style Sheet – you won't have to remember how they are supposed to be sorted each time you export them.

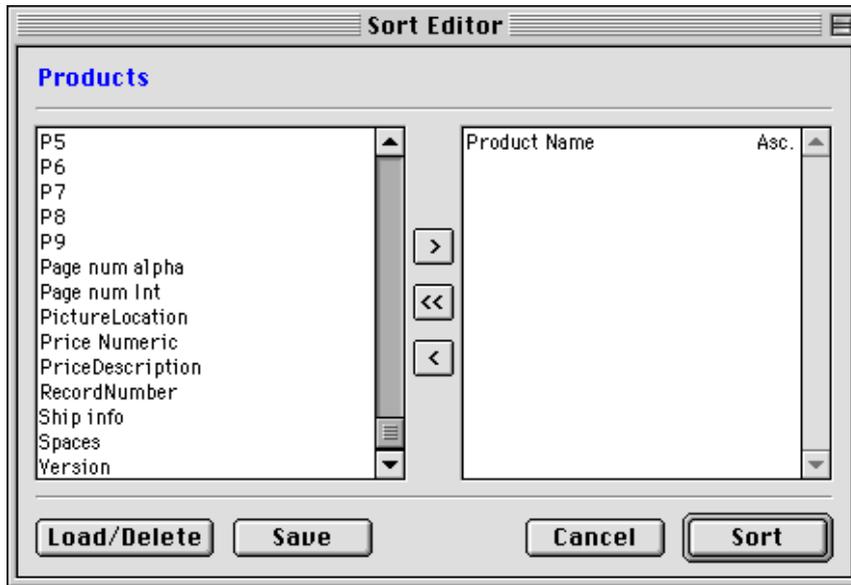
Sort Editor

The Sort Editor looks like this:



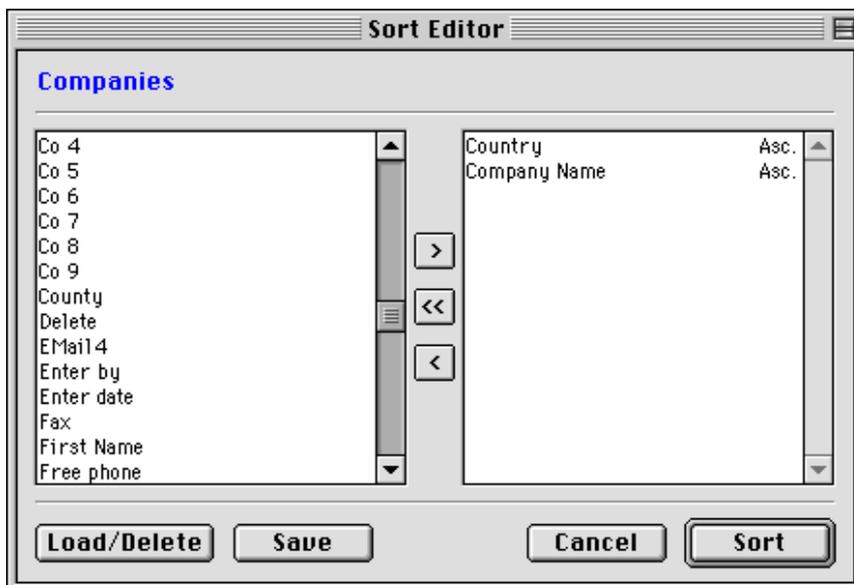
To select a field on which to base the sort, click on the field's name in the list of fields on the left, drag and drop it into the area on the right. The Sort Editor will then look like this:

SEARCHING AND SORTING



Notice the text "Asc." to the right of the field name. This indicates the sort order – ascending in this case. To change the sort order to descending, click on the "Asc." text; it will change to "Dsc.", and the records will be sorted in descending order.

You can sort on any number of fields at once. The order in which the fields are selected determines the hierarchy of how the records will be sorted. In the following example, the records will be sorted first by country and then, within each country, by company name.



Saving a Sort

To save a sort, click on the Save button.

SEARCHING AND SORTING

Doing the Sort

Click on the Sort button to perform the sort.

Sorting Tips

Indexed Fields

Sorting on an indexed field will be much faster than sorting on an unindexed field.

What gets sorted

When you sort a selection of records, only the order in which the records are displayed changes; the order in which they are stored in the database does not change. For example, if you use the Search Editor to select a group of records and sort them into alphabetical order, the order of the records in the physical table has not changed — only the order in which they are currently displayed. If you change that selection of records, either by using the Search Editor again or by using Show Subset or Omit Subset to refine the selection of records, the new selection will be displayed in the order that you specified in the Search Dialogue.