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# Ocean Freight Rate Database Phase 1 Technical Report

Douglas Benson Kimberly Vachal Trent Byberg

**UGPTI Staff Paper No. 142** 

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### Disclaimer

The contents presented in this report do not necessarily reflect the views or policies of the U.S. Department of Agriculture, and are the sole responsibility of the Upper Great Plains Transportation Institute and the authors.

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## INTRODUCTION

A variety of conditions in the current local U.S. agricultural industry result in the need for ag businesses to monitor existing markets and research potential markets for their products. The overabundant supply of many bulk agricultural goods grown in the U.S. forces many businesses to look for growth via foreign markets. Although there may be good potential demand in these markets, there are many market factors that will deter companies from entering these markets.

One of the major factors affecting the existing and potential overseas markets is the transportation cost involved in getting these goods and products to market. The overseas markets must be able to absorb these transportation costs and still remain competitive within that region.

Ocean freight is the main transportation mode used for moving bulk agricultural products overseas. The increasingly competitive nature of this transportation sector requires businesses and governmental agencies to have up-to-date rates charged by the shipping companies. Access to rate quotes for specific commodities, routes, and carriers is available and can be obtained from numerous sources via e-mail, fax, or the Internet. This data is currently scattered and requires some effort to retrieve and compile. It follows that it would prove beneficial to be able to access all the rates from one central source.

The U.S. Department of Agriculture's Ag Export Assistance program began tracking and compiling containership rates for specific commodities being shipped to other countries in 1996. Shipping rate charges for container-loads of commodities such as potatoes, beef primals, and fresh apples were collected and compiled in a monthly report. Requests for reports to be compiled for different commodity rates increased as word got out about this program. The request increase soon became taxing on the resources available for this project. With this trend continuing, the USDA began looking for more efficient methods to get this information to those requesting it.

The previously adopted method started by collecting the required data from various sources on a monthly basis. The data is collected from other agencies, programs, and companies via fax or the Internet and entered into Excel tables. Then companies or individuals interested in

the current rates charged for specific commodities over specified routes would contact the Exporter Assistance Program and place a request for this information. As the calls came in, the Exporter Assistance Program would manually create report(s) based on the requests, and mail or fax them when completed.

# PROJECT DESCRIPTION

Although this process worked, the USDA felt it would be beneficial to reduce the resources and time it took to get this information to the requestors. The Upper Great Plains

Transportation Institute, in conjunction with the USDA's Exporter Assistance Program, agreed to create an Access database that would automate some of the tedious work required to process these requests. The main functionality requested for this automation project were:

- 1. Store present and historical ocean freight rates in one central location.
- 2. Provide a useable interface for entering data into the database.
- Automate the creation of monthly and historical reports by commodity, route, and month.
- Provide output in a format that can be easily placed on the Internet for viewing, printing, and downloading.
- Enter all historical data from the existing Ocean Freight Rate Bulletins into the final database.

#### DATA STORAGE

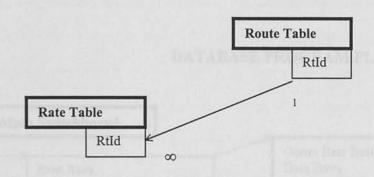
Storage of information in the database consists of several main tables along with some auxiliary tables to assist in the presentation and capture of data. The two main data tables are the Route table and the Rate table. All pertinent route and rate information is stored in these two tables. The Route table consists of information on the route and commodity for a particular month. The Rate table consists of all rate information for a specific carrier providing service over a route from the Route table. Codes for exceptions that may occur for a particular rate -- a rate may have been calculated in a different manner than the normal rate calculation for a commodity -- also stored in the Rate table. Output for these exceptions requires a note to be placed next to this rate in order to differentiate from other rates.

The next type of data to be captured in the database is the information printed on the cover of each monthly bulletin. This information includes: container size used to ship the commodity, definitions for market-share calculation, transit time, ocean rate calculation, container-rate calculation, definitions for abbreviations used in the bulletin, and USDA contact information. This data is dynamic and requires that the application allow the user to change this information for each bulletin printed. The cover page information must also be stored to allow for the printing of historical reports from the database. There are two tables that handle all the cover page data for the reports, CoverPage, and CoverPageDefault.

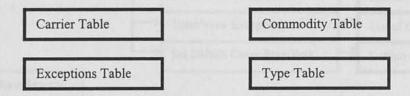
Other tables in the database consist of list-type information. The lists store information used to fill combo-boxes in the interface. Information such as routes, commodities, and carriers need to be captured by the program and updated as the database grows. The interface provides methods for adding and deleting from these lists. The following diagram shows the database tables and how they are related.

## DATABASE TABLE RELATIONSHIPS

The Route and Rate tables are the main database tables holding all ocean rate data records. The Route table contains information about the commodity and the route the commodity is being shipped over. The Rate table contains the rate information for a route, commodity, and month for a specific carrier.



The following database tables hold the domain list-type information used in the combo boxes.



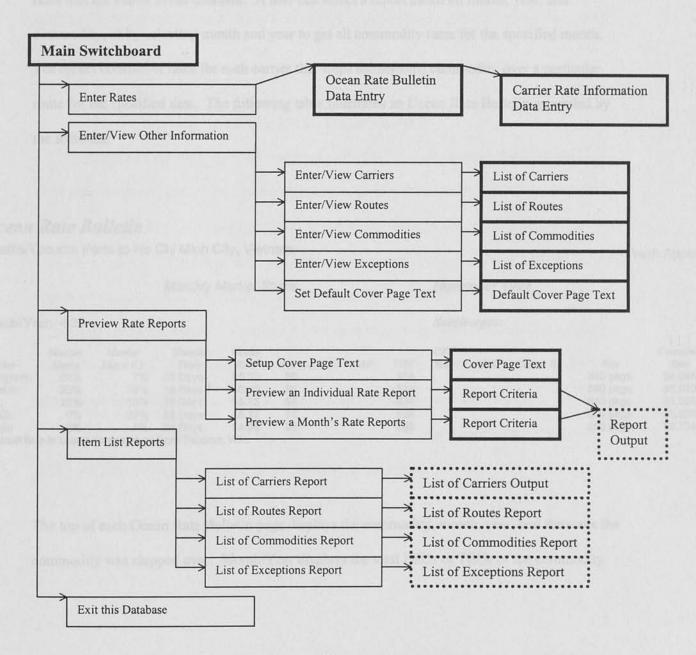
The following database tables store the information used in creating the Ocean Freight Rate Bulletin cover pages.

Cover Page Table Cover Page Default Table

#### DATA INTERFACE

The user data interface consists of both facilities for entering freight rate data and requesting reports from data already in the database. All the information necessary to create an Ocean Freight Rate Bulletin is captured via the user interface. The dynamic lists of carriers and routes also are stored and edited via the data interface. The following diagram illustrates the flow of the user data interface in the database.

## DATABASE PROGRAM FLOW



More detailed information on the user interface may be found in the User's Guide described later in this report.

#### REPORT AUTOMATION

One of the major goals of this project is to relay container rate information to requestors in a fast, efficient manner. Automating the generation of the container rate reports is an integral part in accomplishing this goal. The user interface provides a means of accessing any container rates that are stored in the database. A user can select a report based on month, year, and commodity, or by selecting month and year to get all commodity rates for the specified month. The report consists of rates for each carrier that ships the selected commodity over a particular route for the specified date. The following table illustrates an Ocean Rate Bulletin generated by the software:

# Ocean Rate Bulletin

Seattle/Tacoma Ports to Ho Chi Minh City, Vietnam

Monthly Market Share

Fresh Apples

Monthly Market Chare									74040	,,,,,			
Month\Ye	ar: 4\28								Surci	harges:			
Carrier	Market Share	Market Share CY	Transit Time	Ocean Rate	BAF	CY	CAF	THC	CFS Rec	ARB	Cotton R.	Size	Container Rate
Evergreen	50%	7%	26 Days	\$5.03	\$6			\$34				840 pkgs.	\$4,945
Maersk	25%	39%	18 Days 3	\$5.13	\$6			\$34				840 pkgs.	\$5,029
APL	25%	18%	19 Days	\$5.13	\$6			\$34				840 pkgs.	\$5,029
OOCL	0%	29%	28 Days	\$5.13	\$6			\$34				840 pkgs.	\$5,029
Hanjin	0%	4%	26 Days	\$4.95	\$6			\$26				850 pkgs.	\$4,734
3 Transit tim	a is based	on departure	from Tacoma	AW c									

November 1997

The top of each Ocean Rate Bulletin page displays the commodity, month, year, and the route the commodity was shipped over. Month\Year displays the total FEUs or TEUs of the commodity

shipped over this route during the month and current year listed. The table displays monthly market share, current year market share, transit time, ocean rate, surcharges, amount of commodity shipped in a container, and the rate per container. Each carrier for which rate information was retrieved is represented in the table. Exceptions are numbered and listed at the bottom of each table. The exception in the example states that the transit time was based on departure from a different port than the other transit times listed in the table. Exceptions also may occur with the surcharges and rates. The most common surcharge or rate exception is that the value is given per container rather than per weight or volume. Also, some surcharges are already included in the container rate. If this is the case, the included surcharges are denoted by an "AI", or All Inclusive.

#### DATABASE PROPERTIES

The remaining sections of this report consist of the database user's guide, the database table documentation, and the database query documentation. The user's guide describes the database interface in greater detail, and has pictures of the forms making up the interface.

Instructions on how to access all database functionality can be found in the user's guide. The final section of this report describes each database table in detail including the properties of each field in the database tables. The main database queries used to generate the final ocean freight rate reports are included. These queries combine and group data by commodity, month, year, and route. The other main function of the queries is to merge the exception data with the corresponding record that has that exception. The merge queries are run each time a report is generated, and results of these queries are displayed in the report.

USDA

DATABASE USER'S GUIDE

Shipper & Exporter Architage Program





# DATABASE USER'S GUIDE

Shipper & Exporter Assistance Program

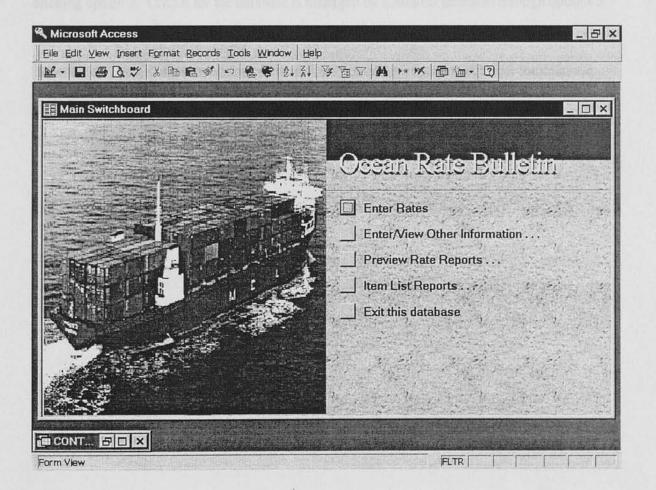
1.	INSTALLING THE DATABASE	11
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	Enter Carrier-Specific Info	
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# 1. Installing The Database

The USDA Ocean Freight Database is an Access database that runs on Access version 7.0. The entire database is contained in the file: Container.mdb. This file currently contains container rate records since 1997. If you have Access 7.0 installed on your computer, all that is required to run the program is to open the Container.mdb file from Access. Copy Container.mdb from the floppy disk to your hard drive. Then open this file from Microsoft Access.

# 2. Running The Database

When the file is opened, you will see the Main Switchboard form:



On this form, there are three options available to you.

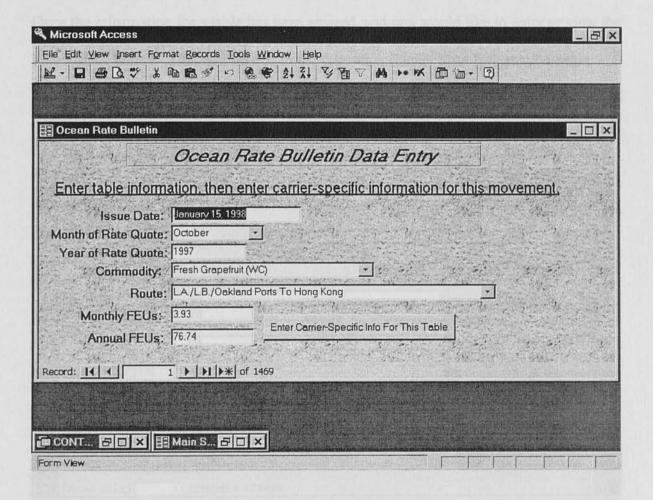
- 1. Enter Rates
- 2. Enter/View Other Information ...
- 3. Preview Reports ...
- 4. Item List Reports ...
- 5. Exit This Database

Option 1 takes the user to screens where new ocean rate information can be entered into the database. From these screens, it is also possible to scroll through and edit/view rate information that already exists in the database. As the database grows, more commodities and routes will need to be kept track of. Functionality for managing the list-type information can be reached by clicking option 2. Output for the database is managed by functions accessed through options 3 and 4. From these options it is possible to preview and print Ocean Rate bulletins and list-type information. When all your database activities are completed, option 5 will exit the database.

Greater details of the functionality available through this screen are described in throughout the rest of this section of the user's guide.

#### Enter Rates

To enter new rates, or view or edit existing rates, click the "Enter Rates" button. When you do this, the following screen will open up:



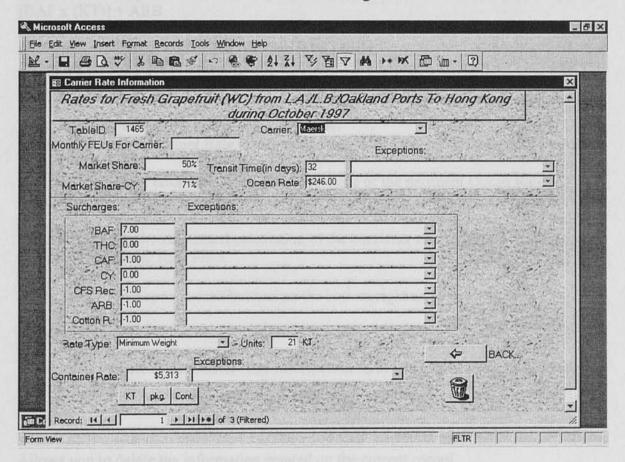
On this screen you will be able to insert/view/edit the information that describes a particular Ocean Freight Rate table. Fields included on this screen are:

Issue Date
Month of Rate Quote
Year of Rate Quote
Commodity
Route
Monthly FEUs
Annual FEUs

You can select the Commodity, and Route fields from a list of possible commodities and routes. You also have the capability to add to these lists. This will be explained in more detail on page 7 of this manual.

## Enter Carrier-Specific Info:

Once the information for a table has been entered, and you would like to enter or view the carrier-specific container rates for this table, click the "Enter Carrier-Specific Info For This Table" button. This will take us to the following Carrier Rate Information Form.



On this form, enter the carrier rates for each carrier associated with the route, commodity, and issue date table you have selected in the previous form. Fill in all the information that pertains to the particular carrier rate you are filling in. Rate fields default to a value of -1.

# **Exceptions:**

Exceptions to fields can be accounted for on this page. Use the combo box to the right of the field you need to apply an exception to. Each field has a combo box that contains a list of possible exceptions for that field. You can add to the list of possible exceptions, and this will be described in more detail on page 11.

#### Container Rate:

The Container Rate can be automatically calculated by selecting one of the three calculation methods – by KT, by package, or by container. Below the Container Rate field there are three command buttons representing each of the types of calculated Container Rates. Each of the method are described below:

Calculation for ocean rate on per weight (KT) basis: Container Rate = [Ocean Rate x (KT)] + [Ocean Rate x (KT) x (CAF)] + [THC x (KT)] + [BAF x (KT)] + ARB

Calculation for ocean rate on per package (pkg.) basis: Container Rate = [Ocean Rate x (pkg)] + [Ocean Rate x (pkg) x (CAF)] + [THC x (KT)] + [BAF x (KT)] + ARB

Calculation for ocean rate on per container basis: Container Rate = Container Rate + [Container Rate x (CAF)] + [THC] + [BAF] + ARB

You will receive an error message if you have some of the pertinent Ocean Rate calculation information missing.

You can override the automated calculation of the container rate by simply entering your rate in the Container Rate Field.

There are three other command buttons on the bottom right side of this form.

#### Back Button:

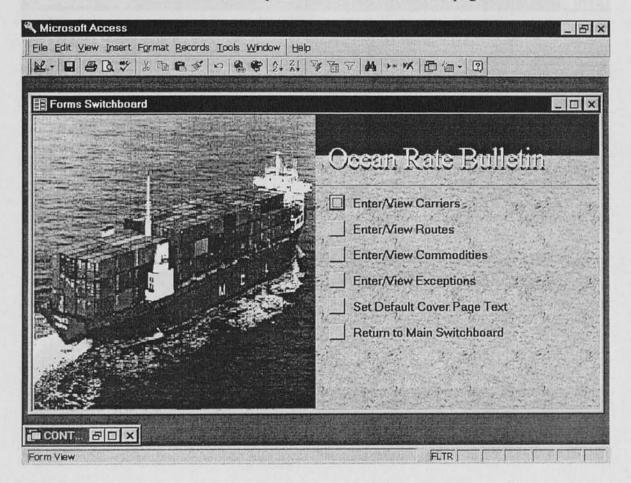
This button will close the Carrier Rate Information form and take you back to the Ocean Rate Bulletin form.

#### Trash Button:

Allows you to delete the information entered on the current record.

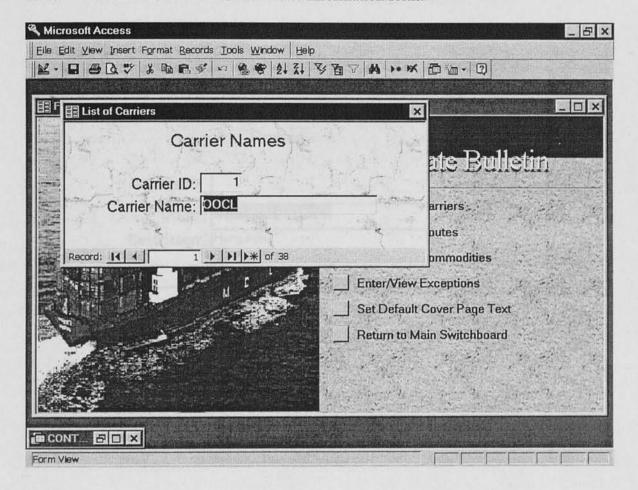
## Enter/View Other Information

Clicking the "Enter/View Other Information" command from the Main Switchboard takes you to the Forms Switchboard. This is the area where you can add to your lists of Carriers, Routes, Commodities, Exceptions, and set default cover page text.



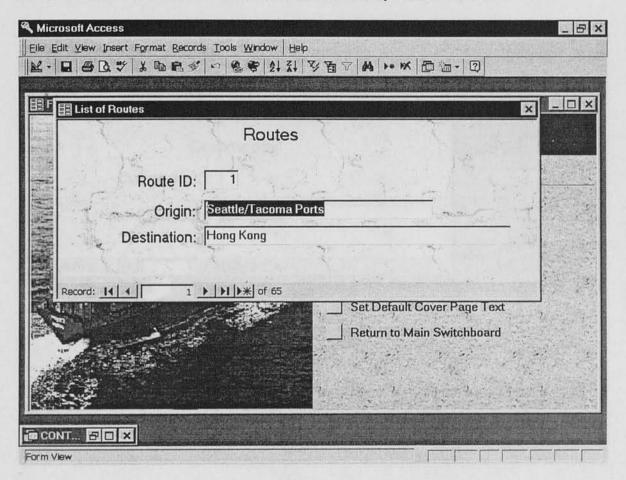
#### Enter/View Carriers:

Opens a form where you can add to the current list of carriers. This list is displayed in the Carrier combo box on the Carrier Rate Information form.



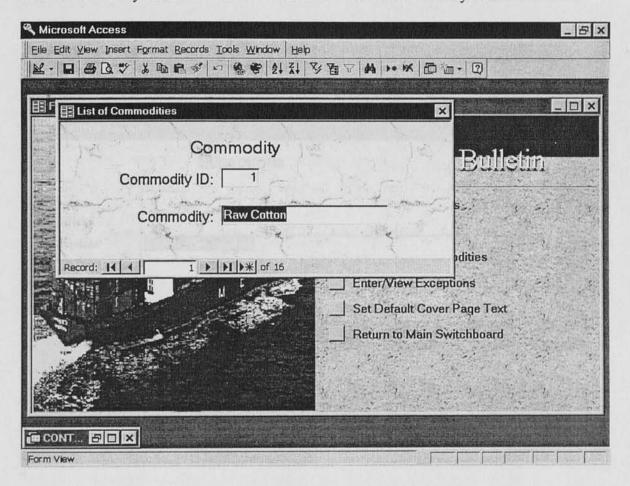
#### Enter/View Routes:

Opens a form where you can add to the current list of routes. This list is displayed in the Routes combo box on the Ocean Rate Bulletin data entry form.



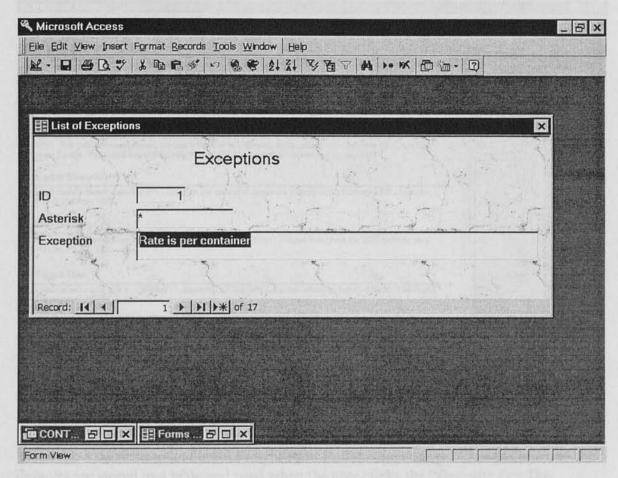
#### **Enter/View Commodities:**

Opens a form where you can add to the current list of commodities. This list is displayed in the Commodity combo box on the Ocean Rate Bulletin data entry form.



## Enter/View Exceptions:

Opens a form where you can add to the current list of exceptions. These exceptions are displayed in the Exception combo boxes found on the Carrier Rate Information form.

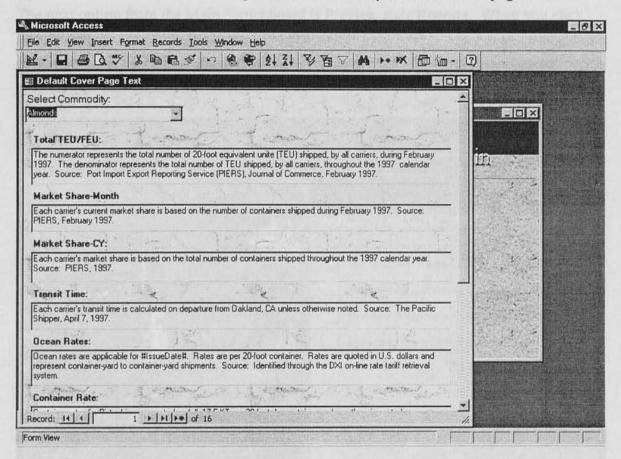


The asterisk field is a special field that you must fill in correctly in order to have that exception appear in the exception combo boxes in the Carrier Rate Information Form. The following are the possible entries into this field:

- \* one asterisk should be entered if the exception pertains to a rate that is used in calculating the final container rate. Fields that this exception will be applied to:
  Ocean Rate, BAF, THC, CAF, CY, CFS Rec., ARB, Cotton R.
- \*\* two asterisks should be entered if the exception pertains to an exception to the final Container Rate.
- \*\*\* three asterisks should be entered if the exception pertains to an exception to the Transit Time.

## Set Default Cover Page Text:

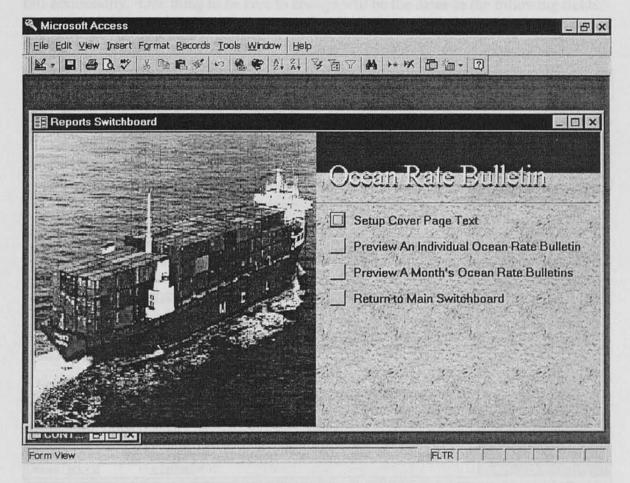
Opens a form where you can set a particular commodity's default cover page text.



There are 8 sections to an Ocean Freight Rate Bulletin cover page. Changes made to the defaults are stored in a table and used when the user clicks the "Defaults For This Commodity" button when setting up a cover page for a particular Issue Date.

# Preview Rate Reports

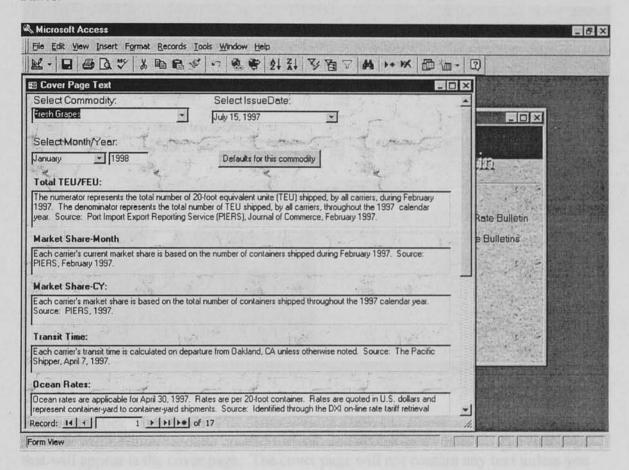
The next option from the Main Switchboard is Preview Rate Reports. When you click this button, the following Reports Switchboard form opens up.



Once you have data entered for a table, this is the place to go to print the Ocean Rate Bulletins. Options here include Setup Cover Page Text, Preview An Individual Ocean Rate Bulletin, Preview A Month's Ocean Rate Bulletins

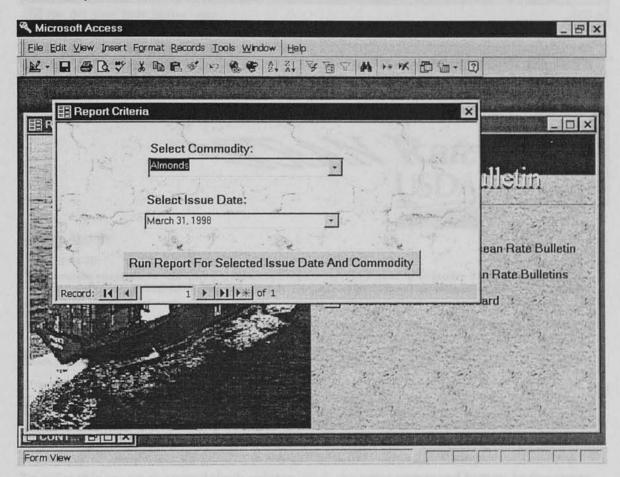
# Setup Cover Page Text:

This option allows you to setup the text printed out on the cover page for the Ocean Freight Rate Bulletin for the selected Commodity, and Issue Date. Initially, you can click the "Defaults for this commodity" button to fill in the text boxes with default values for this commodity. One thing to be sure to change will be the dates in the following fields: Total TEU/FEU, Market Share-Month, Market Share-Year, Transit Time, and Ocean Rates.



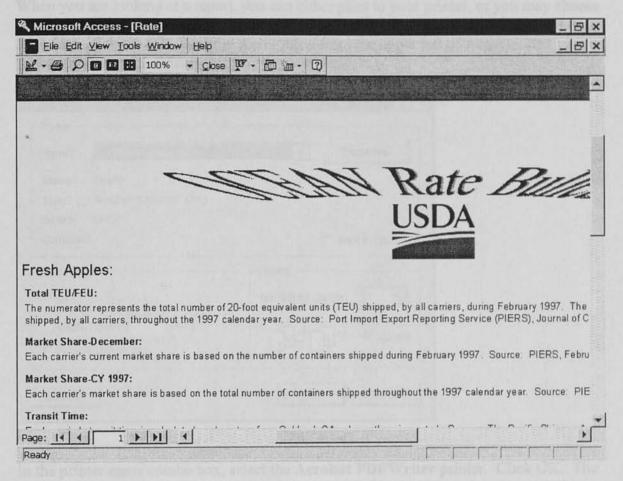
#### Preview An Individual Ocean Rate Bulletin:

This option allows you to print out an individual Ocean Freight Rate Bulletin report for a commodity for a selected Issue Date.



When you click "Run Report For Selected Issue Date And Commodity", the report preview will be automatically created for you, and appear in a window. The first page that will appear is the cover page. The cover page will not contain any text unless you have previously setup the cover page text as described on page 14 of this manual.

The following is a sample of a report preview of a commodity and issue date that already had the cover page text set. No text will appear if it has not been setup properly.



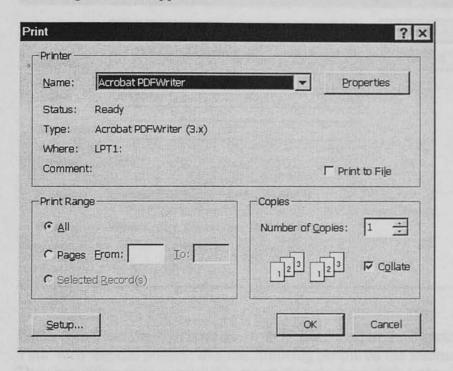
To print this report to your default printer, click the print command button in the upper left corner.

#### Preview a Month's Ocean Rate Bulletins:

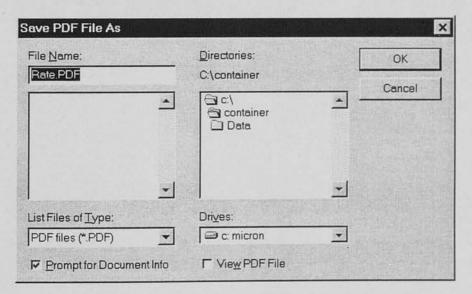
To preview and print all of the Ocean Freight Rate Bulletin's for a particular Issue Date, click the "Preview a Month's Ocean Rate Bulletins" command button. Here you can select an Issue Date and click the "Run Reports For Selected Issue Date" button. This will create a report that contains all the individual reports for that issue date. REMINDER, the cover page for each report will not print any text unless you have previously set it up to do so.

# Printing To PDF Files Or To A Printer:

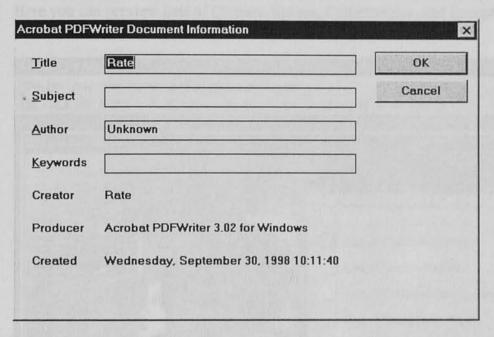
When you are looking at a report, you can either print to your printer, or you may choose to print to Adobe Acrobat Writer. If you would like a report to be able to be placed on a Web Site, click the File, the Print menu items from the upper left of Access. The following form will appear:



In the printer name combo box, select the **Acrobat PDFWriter** printer. Click OK. The following form will appear and let you save the PDF file to a directory of your choice.



Next, this screen will appear. You can enter document information in here that will be stored in the PDF file, or just click OK and leave this information the same.

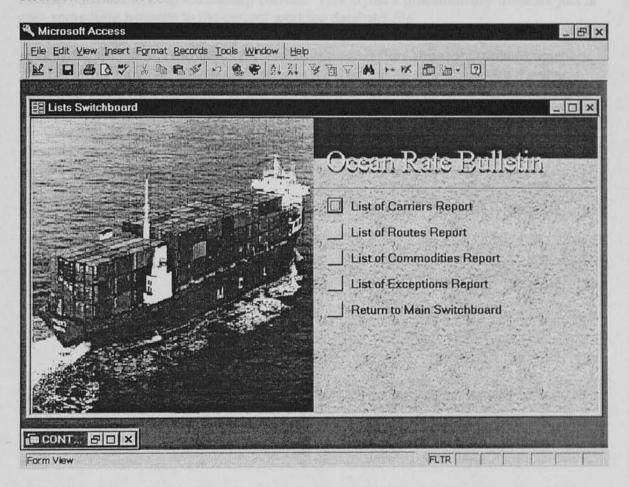


When complete, you will have a new PDF file stored in the directory you selected earlier. Your Web site can point to this file, allowing people on the Internet access to this report. They can either view or print this report directly from their Internet browser.

# Item List Reports:

This section holds several reports on information contained in the database.

Here you can preview lists of Carriers, Routes, Commodities, and Exceptions that are stored in the database.



# 3. Backing up the database:

It is strongly advised keeping at least one extra copy of this database stored in a safe place. Once a week, or once a month you will need to copy the current database over the backup database to keep the backup current. This is just a precautionary measure just in case something happens to the current working database file.

Another feature of Microsoft Access you should use is the Compact Database function. After entering data into an Access database, the data can become fragmented and use more disk space than required. Using the Compact Database function periodically will reduce the size of the database and improve the operating speed of the database. To use the Compact Database method, first open Access and open the container rate database. From the menu click Tools, Database Utilities, Compact Database. This will proceed to compact the database you have opened.

# 4. Troubleshooting

Any problems or concerns with the database, please contact Douglas Benson By phone at:
(701) 231-8388
by fax at:
(701) 231-1945
by e-mail at:
benson@plains.nodak.edu

Douglas Benson
The Upper Great Plains Transportation Institute
NDSU
IACC Bldg. Rm 430
P.O. Box 5074
Fargo, ND 58105

# Ocean Freight Rate Database Tables

38

Table: Carrier

Properties
Date Created: Last Updated: RecordCount:

3/23/98 10:39:18 AM 8/19/98 7:43:45 AM

Def. Updatable: OrderByOn:

False

Columns

Name CarrierID Number (Long)

Text

Size 4

50

CarrierName

Table Indexes

Name

CarrierID

Primary: Required: Unique:

Fields:

CarrierName Primary:

Required: Unique:

Fields:

PrimaryKey Clustered: Distinct Count: Foreign: Ignore Nulls: Name: Primary: Required: Unique:

Fields:

Number of Fields

False False False

CarrierID, Ascending

1 False False True

CarrierName, Ascending

1 False 38 False False PrimaryKey True

True True

CarrierID, Ascending

#### Table: Commodity

Properties
Date Created: Last Updated: RecordCount:

3/23/98 11:32:08 AM 8/19/98 7:43:45 AM

Def. Updatable: OrderByOn:

True False

Columns

Name Type Size CommodID Number (Long) 4

> Text 50

Table Indexes

Number of Fields Name

Commodity

Commodity

Clustered: False Distinct Count: 16 False Foreign: Ignore Nulls: False Name: Commodity Primary: False Required: Unique: False True

Fields: Commodity, Ascending

ID

Clustered: False Distinct Count: 16 False Foreign: Ignore Nulls: False ID Name: Primary: False Required: Unique: False False

Fields: CommodID, Ascending

PrimaryKey Clustered: False 16 Distinct Count: False Foreign: Ignore Nulls: False PrimaryKey Name: Primary: True Required: True Unique: True

CommodID, Ascending Fields:

Table: containerrows

Properties
Date Created:
Last Updated: RecordCount:

4/1/98 5:05:51 PM 8/19/98 7:43:45 AM 20

Def. Updatable: OrderByOn:

True False

Columns

Name

Type Number (Long) Size 4

AllowZeroLength:

False

**Table Indexes** 

Name

PrimaryKey

Clustered: Distinct Count: Foreign: Ignore Nulls: Name: Primary: Required:

Unique: Fields:

Number of Fields

False 20 False False PrimaryKey True True True

ff, Ascending

# Table: CoverPage

Properties
Date Created: Last Updated: RecordCount:

8/12/98 8:26:32 PM 8/23/98 1:47:24 PM Def. Updatable: OrderByOn:

True True

Columns

Name	Туре	Size
PageID	Number (Long)	4
Commodity	Text	100
IssueDate	Text	50
Month	Text	50
Year	Text	50
TotalTEUFEU	Memo	
MktShareMnth	Memo	
MktShareCY	Memo	
TransTime	Memo	,
ORates	Memo	
CRates	Memo	
Definitions	Memo	
Contact	Memo	

### Table: CoverPageDefault

**Properties** 

Date Created:

8/22/98 11:23:13 AM Def. Updatable: ((CoverPageDefault.PageID=16)) Last Updated: Filter: OrderByOn:

RecordCount:

8/23/98 11:28:56 AM

16

# Columns

Name	Туре	Size
PageID	Number (Long)	4
Commodity	Text	100
Month	Text	50
Year	Number (Long)	4
TotalTEUFEU	Memo	-
MktShareMnth	Memo	
MktShareCY	Memo	*
TransTime	Memo	
ORates	Memo	
CRates	Memo	·
Definitions	Memo	
Contact	Memo	

### Table Indexes

Table: CoverPageDefault

Number of Fields Name

cmod

False Clustered: 16 Distinct Count: Foreign: Ignore Nulls: Name: False False cmod True Primary: True Required: Unique: True

Fields:

Commodity, Ascending PageID, Ascending

Table: Exceptions

Properties
Date Created: 4/24/98 9:19:30 AM Last Updated: 8/19/98 7:43:45 AM

RecordCount:

Def. Updatable: OrderByOn:

True False

Columns

Name Type Size ID Number (Long) 4 Note

Text 50

Exception Text 200

Table Indexes

Name Number of Fields

ID2 Clustered: False Distinct Count: 3

Foreign: False Ignore Nulls: False Name: ID2 Primary: False Required: False Unique: False

Fields: Note, Ascending

PrimaryKey 1

Clustered: False Distinct Count: 17 Foreign: False Ignore Nulls: False Name: PrimaryKey Primary: True Required: Unique: True True

Fields: ID, Ascending Table: Month

**Properties** 

Date Created: Last Updated: RecordCount:

3/30/98 3:05:53 PM 8/19/98 7:43:45 AM Def. Updatable: OrderByOn:

True False

Columns

Name

MonthID

Туре Number (Long) Size 4

Month

Text 50

Table Indexes

Name ID

Number of Fields

1

Month

1

PrimaryKey

1 Clustered: False Distinct Count: 12 Foreign: False Ignore Nulls: False Name: PrimaryKey Primary: True Required: True Unique: True

Fields:

MonthID, Ascending

# Table: Rate

Properties
Date Created:
Last Updated:
RecordCount:

3/23/98 10:27:19 AM 9/19/98 10:18:20 AM 8192

Def. Updatable: OrderByOn:

True True

# Columns

115		
Name	Type	Size
ID	Number (Long)	4
RtID	Number (Long)	4
Carrier	Text	50
Monthly FEUs	Number (Long)	4
Market Share	Number (Single)	4
Market Share - CY	Number (Single)	4
Transit Time	Text	50
TransEx	Text	250
Transit Note	Text	50
Ocean Rate	Number (Single)	4
OREx	Text	25
Surcharge Unit	Text	50
BAF	Number (Single)	4
BAFEx	Text	150
CY	Number (Single)	4
CYEx	Text	150
CAF	Number (Single)	4
CAFEx	Text	150
THC	Number (Single)	4
THCEx	Text	150
CFS Rec	Number (Single)	4

# Table: Rate

CFSEx	Text	150
ARB	Number (Single)	4
ARBEX	Text	150
Size	Number (Single)	4
ContainerRate	Number (Double)	8
CREx	Text	150
Cotton Receiving	Number (Single)	4
CottonEx	Text	15
Weight	Number (Double)	8

# Table Indexes

Name		Number of Fields
ID		1
ID1		1
101		
Primary	yKey	1
	Clustered:	False
	Distinct Count:	8192
	Foreign:	False
	Ignore Nulls:	False
	Name:	PrimaryKey
	Primary:	True
	Required:	True
	Unique:	True
	Fields:	ID, Ascending
RtID		1
	Clustered:	False
	Distinct Count:	1469
	Foreign:	False
	Ignore Nulls:	False
	Name:	RtID
	Primary:	False
	Required:	False
	Unique:	False
	Fields:	RtID, Ascending

Table: Route

Properties

Date Created: Last Updated: RecordCount: 3/23/98 10:27:55 AM 8/19/98 7:43:46 AM

/98 7:43:46 AM

65

Def. Updatable: OrderByOn: True False

Columns

Name RouteID

Origin

Destination

Туре

Text

Text

Number (Long)

50

Size

4

50

Table Indexes

Name

Number of Fields

Table: Route

ID

3

PrimaryKey

1

Route

2 Clustered: False Distinct Count: 65 Foreign: False Ignore Nulls: False Name: Route Primary: False Required: False Unique: True

Fields:

Origin, Ascending Destination, Ascending

# Table: RouteTable

**Properties** 

Date Created: Last Updated: RecordCount: 4/16/98 9:19:13 AM 8/23/98 11:57:55 AM

1469

Def. Updatable: OrderByOn:

True True

#### Columns

Name	Туре	Size
RtID	Number (Long)	4
IssueDate	Text	50
Commodity	Text	50
Route	Text	100
Month	Text	50
Year	Text	50
MonthlyFEUs	Text	50
AnnualFEUs	Text	50
NotesText	Memo	
Exception1	Text	100
Exception2	Text	100
Exception3	Text	100
Exception4	Text	100
Exception5	Text	100

#### **Table Indexes**

Name Number of Fields
PrimaryKey 1
Clustered: False

Clustered: False
Distinct Count: 1469
Foreign: False
Ignore Nulls: False
Name: PrimaryKey
Primary: True
Required: True
Unique: True

Fields: RtID, Ascending

TableIndex 5
Clustered: False
Distinct Count: 1469

Foreign: False
Ignore Nulls: False
Name: TableIndex
Primary: False
Required: False
Unique: True

Fields: IssueDate, Ascending
Commodity, Ascending
Route, Ascending
Month, Ascending
Year, Ascending

## Table: Switchboard Items

Properties
Date Created: FilterOn: OrderByOn:

3/23/98 11:00:02 AM

False False

Def. Updatable: Last Updated:

RecordCount:

True

8/19/98 7:43:46 AM

24

# Columns

Name	Туре	Size
SwitchboardID	Number (Long)	4
ItemNumber	Number (Integer)	2
ItemText	Text	255
Command	Number (Integer)	2
Argument	Text	50

### Table Indexes

Name

Number of Fields

PrimaryKey

Clustered: Distinct Count: Foreign: Ignore Nulls: Name: Primary: Required: Unique:

False 24 False False PrimaryKey True True

2

True Fields:

SwitchboardID, Ascending ItemNumber, Ascending

Table: Type

Properties
Date Created: Last Updated: RecordCount:

3/23/98 4:44:06 PM 8/19/98 7:43:46 AM

Def. Updatable: OrderByOn:

True False

. Columns

Name TypeID

Type

Type Number (Long) Size 4

Text

50

Table Indexes

Name ID

PrimaryKey Clustered:

1 False 3 False False

Foreign: Ignore Nulls: Name: Primary: Required:

**Distinct Count:** 

PrimaryKey True True

Unique: Fields:

True TypeID, Ascending

Number of Fields

Type

1

Clustered: False 3 Distinct Count: Foreign: False Ignore Nulls: False Name: Туре Primary: Required: Unique:

False False True

Fields:

Type, Ascending

Table: Year

Properties

Date Created: Last Updated: RecordCount: 4/2/98 9:27:27 AM 8/19/98 7:43:46 AM

25

Def. Updatable: OrderByOn: True False

Columns

Name YearID

Year

Type Number (Long)

Text

Size 4

50

Table Indexes

Name YearID Number of Fields

1

# Main Queries

C:\New\_rate.mdb
Query: AddExceptions

Saturday, January 02, 1999

Page: 1

Properties

Date Created: Last Updated: ODBCTimeout:

Records Affected:

7/19/98 8:27:31 PM 8/23/98 5:42:48 PM

60 0 Select Def. Updatable: MaxRecords: Record Locks:

ReturnsRecords:

True 0 No Locks True

SQL

Type:

SELECT RouteTable.IssueDate, RouteTable.Commodity, RouteTable.Route, RouteTable.Month, RouteTable.Year, RouteTable.MonthlyFEUs, RouteTable.AnnualFEUs, Rate, Carrier, Rate, [Market Share], Rate.[Market Share - CY], Rate.TransEx, Rate.OREx, Rate.BAFEx, Rate.CYEx, Rate.CAFEx, Rate.THCEx, Rate.CFSEx, Rate.ARBEx, Rate.CREx, Rate.CottonEx, Switch(Rate.Transit Time]="-1","",True,Switch(Rate.[Transit Time]="none","none",True,Switch(Rate.TransEx > "2" AND Rate.TransEx < "13",(Rate.[Transit Time] + " Days"), True, Rate.[Transit Time]+ " Days"))) AS TTime, Switch(Rate.[Ocean Rate] = -1, "", True, Switch(Rate.[Ocean Rate] = 0, "Al", True, Switch(Rate.OREx = "1", Cstr(Rate.[Ocean Rate]),True, cstr(Rate.[Ocean Rate])))) AS ORT, Switch(Rate.[Cotton Receiving] = -1, "", True, Switch(Rate.[Cotton Receiving] = 0, "Al", True, Switch(Rate.CottonEx = "1", Cstr(Rate.[Cotton Receiving])))) AS CRT, Switch(Rate.BAF = -1, "", True, Switch(Rate.BAF=0, "Al", True, Switch(Rate.BAFEX = "1", cstr(Rate.BAF), True, CStr(Rate.BAF)))) AS BF, Switch(Rate.CY=-1,"", True, Switch(Rate.CY = 0, "Al", True, Switch(Rate.CYEx="1", Cstr(Rate.CY), True, CStr(Rate.CY)))) AS C, Switch(Rate.CAF = -1, "" True, Switch(Rate.CAF = 0, "Al", True, Switch(Rate.CAFEx="1", Cstr(Rate.CAF), True, CStr(Rate.CAF)))) AS CA, Switch(Rate.THC=-1,"",True,Switch(Rate.THC=0,"AI",True,Switch(Rate.THCEx="1",CStr(Rate.THC), True, CStr(Rate.THC)))) AS T, Switch(Rate.[CFS Rec] = -1,"", True, Switch(Rate.[CFS Rec]=0,"AI",True,Switch(Rate.CFSEx = "1", CStr(Rate.[CFS Rec]),True, CStr(Rate.[CFS Rec])))) AS CS, Switch(Rate.ARB = -1, "", True, Switch(Rate.ARB = 0, "Al", True, Switch(Rate.ARBEx="1", CStr(Rate.ARB), True, CStr(Rate.ARB)))) AS AB, Switch(Rate.Size=-1,"", True, Switch(Rate.Size>100, cstr(Rate.Size) & " pkgs.", True, Switch(Rate. Size < 101, cstr(Rate. Size) & "KT", True, cstr(Rate. Size)))) AS SZ, Switch(Rate.[ContainerRate]= -1, "", True,Switch(Rate.CREx="2",CStr(Rate.ContainerRate),True,

C:\New\_rate.mdb Query: QueryExText

Saturday, January 02, 1999

Page: 2

Properties
Date Created: Last Updated: ODBCTimeout:

Record Locks: RecordsetType:

8/2/98 11:55:53 AM 9/27/98 7:33:53 PM 60

No Locks All Records Select

Def. Updatable: MaxRecords: OrderByOn:

0 False Records Affected: ReturnsRecords: 0 True

True

SQL

Type:

SELECT Exceptions. Exception, QueryEx.Route, QueryEx.Commodity, Exceptions.ID FROM Exceptions INNER JOIN QueryEx ON cstr(Exceptions.ID) = QueryEx.Exception1; C:\New\_rate.mdb Query: QueryExText3 Saturday, January 02, 1999 Page: 3

Properties
Date Created: Last Updated: ODBCTimeout:

Records Affected:

9/23/98 9:52:52 PM 9/23/98 9:52:52 PM

60 0 Select

Def. Updatable: MaxRecords:

Record Locks: ReturnsRecords: True

No Locks True

SQL

Type:

SELECT Exceptions.Exception, QueryEx3.Route, QueryEx3.Commodity, Exceptions.ID
FROM Exceptions INNER JOIN QueryEx3 ON cstr(Exceptions.ID) = QueryEx3.Exception1;

C:\New rate.mdb Query: Selected

Saturday, January 02, 1999 Page: 4

Properties
Date Created: Last Updated: MaxRecords:

Record Locks:

ReturnsRecords:

11/2/98 4:14:48 PM 11/2/98 4:14:48 PM

0 No Locks True

Def. Updatable: MaxRecords:

ODBCTimeout: Records Affected: Type:

Select

SQL

SELECT IssueDate, Commodity, Route, Month, Year, MonthlyFEUs, AnnualFEUs, Carrier, [Market Share], [Market Share - CY], TTIME, ORT, BF, C, CA, T, CS, AB, CRT, SZ, CR, TransEx, OREx, BAFEx, CYEx, CAFEx, THCEx, CFSEx, ARBEx, CottonEx, CREx FROM AddExceptions

WHERE AddExceptions.Commodity = 'Fresh Apples' AND AddExceptions.IssueDate = 'January 15, 1997'

