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Welcome
To
IC Studio - ICSQL

Version 1.0.0

Welcome to **IC Studio** – Ultimate Database Application Development Companion from **IC Soft, Inc.** This suite of products allow database developers to focus more on solving business problems as opposed to becoming expert on the database management.

IC Studio

Overview

IC Studio is a comprehensive tool designed to help application developers be more efficient when working with database as they design, develop, test and support any client/server or web applications.

Its friendly graphical user interface greatly simplifies the complex task of finding, examining and/or maintaining Database objects. Its intuitive and comprehensive visual interface allows developers to get a clear perspective of a complex database. All key server objects such as tables, views, synonyms, stored procedures, triggers, table privileges, functions, and indexes are few clicks away.

IC Studio includes the following components:

- **ICSQL**
- **ICObjects**

ICSQL

ICSQL provides instant access to SQL, for the database backend programmers and DBA. IC-SQL offers a point and click interface for developing complex SQL statements. And the results of queries can be viewed in a spreadsheet style window. This allows you to focus on the data you need without being an expert in SQL.

ICObjects

ICObjects provides easy viewing of any of your database objects such as Tables, Views, Synonyms, Stored Procedures, Sequences, Triggers, Functions, Constraints, etc. It allows maintenance of some of these objects. Its intuitive and comprehensive visual interface allows developers to get a clear perspective of the database.

Company Commitment

IC Soft, Inc. was formed in January 1996, to provide development tools that today's web / client-server application developers need. Our guiding principles are:

- Commitment to customers
- Quality is not available for compromise
- Continuous improvement for our products
- There is no substitute for hard work.

To make this product better

At IC Soft, Inc., we strive to make our products better. We look forward to hearing any feedback regarding IC Studio. You can contact us through any of the communications channels listed below.

E-mail	support@ic-soft.com
Address	IC Soft, Inc. 21C Orinda Way, # 332 Orinda, CA 94563
Fax	1 (925) 253-1574
World Wide Web	www.ic-soft.com
Office Hours	Monday to Friday 8:00 A.M. to 5:00 P.M. Pacific Standard Time.

IC Soft Technical Support

Contacting IC Soft

Before reporting a problem with the IC Soft products, please prepare the following information. It is best to write this information or send us fax or email us this information prior to call.

- Product serial number used for registration
- Product name and version number
- Operating system version (Windows 95, 98, NT, or 2000 etc)
- RDBMS platform and its version number
- Connectivity middle ware software
- What you were doing when the problem occurred
- Exact wording of any messages that appear on your screen
- How to reproduce this problem

Technical Support

In order to access IC Soft products technical support, you must be a registered user.

Corporate headquarters

Address: IC Soft, Inc.
21C Orinda Way, # 332
Orinda, CA 94563
USA

Telephone: 1.925.254-2731

Fax: 1.925.253-1574

World Wide Web: www.ic-soft.com

Support Email: <mailto:Support@ic-soft.com>

Office Hours: Monday to Friday 8:00 A.M. to 5:00 P.M. Pacific Standard Time

Getting Started

Technical Requirements

Both **ICSQL** and **ICObjects** are 32-bit applications that operate on Windows 95 and higher and Windows NT 4.0 or Windows 2000.

System Requirements St

- 16 megabytes of free RAM (32 MB recommended)
- Microsoft Windows 95, 98 or NT (4 and later) or Windows 2000 system
- 15 MB of hard disk storage

Oracle

- 32-bit Oracle SQL*Net or Net8
- Oracle 7.0 or higher
- 32-bit ODBC drivers

Microsoft ODBC Driver for Oracle (preferred driver) can be downloaded from the Microsoft Universal Data Access site at <http://www.microsoft.com/Data> and click on the Microsoft Data Access Components 2.x URL to download.

Microsoft SQL Server

Currently not supported.

To Install IC Studio

If you have installed the IC Studio previously, remove the version using the **Add/Remove** Programs in the **Control Panel** prior to your installation.

1. Close all programs.
2. Insert the IC Soft IC Studio CD-ROM in your CD-ROM drive or simply click on the **icstudio.exe** downloaded from our download site found at <http://www.ic-soft.com>.
3. Open the **Control Panel** window and click on the **Add/Remove** Programs icon to start the setup.
4. Read the information and select **Next** button to move forward to the User Information dialog.
5. Enter your name and company name and click **Next** to proceed.
6. Follow the setup instructions that appear on the screen to complete the installation procedure.
7. Fill out and mail or fax your registration card to IC Soft, Inc.

Setup ODBC Data Sources

After installing IC Studio, you must setup ODBC Data Sources in order to establish connections to your database servers.

To establish the **ODBC Data Sources**, you must do the following:

- Install the appropriate ODBC driver on the computer.
 - To download the Microsoft ODBC driver for Oracle. Visit Microsoft Universal Data site at <http://www.microsoft.com/data> and download the latest version of the MDAC (Microsoft Data Access Component) software.
- Define a data source name (DSN) by using the **ODBC Data Source Administrator** application which is accessible from the **Control Panel** or simply typing **odbcad32.exe** from the **Run** command from Windows **Start** button.
- Select the User DSN or System DSN tab.
- To define a new DSN, click **Add**.
- Select an appropriate ODBC Driver.
- Complete the dialog boxes that are displayed and click on **OK** to establish the DSN.

ICSQL

General

ICSQL offers a point and click interface to develop complex SQL statements. ICSQL eliminates the need for the old command-line tools and allows you to focus on the data you need without being an expert in SQL.

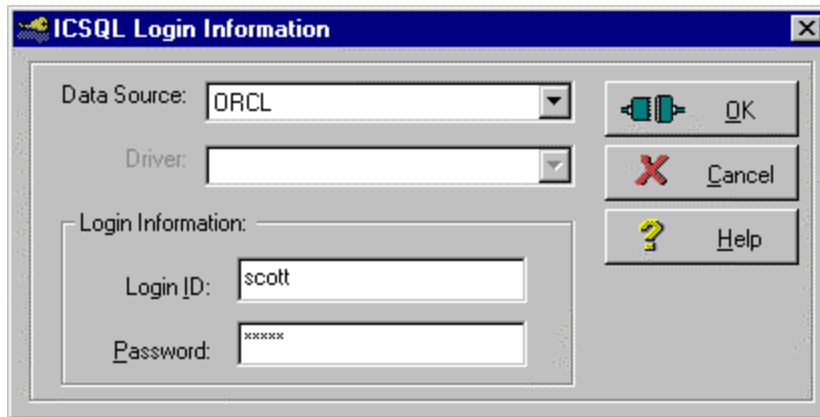
Today's database developers are faced with challenge of maintaining growing amount of data with limited time to develop and deploy **client/server** and **web** applications. With ICSQL, you can safely and efficiently manage your database.

Key features

- Powerful multi-document SQL editor
- Easy-to-use Graphical User Interface (GUI)
- Quick viewing of commonly used database objects
- Easy connection to several types of databases
- Easy viewing of query result
- Easy retrieval of the previously edited SQL files
- Customizable features including the toolbar, colors, fonts, and others.

Connecting to Local Database

Start **ICSQL** by double clicking on the ICSQL icon. The ICSQL Login is displayed.



To connect to a local database

- Select a **Data Source** of your database from the Data Source list box.
- Enter the server user id in the Login ID edit control of Login Information.
- Enter the server password in the Password edit control of the Login Information.
- Click the **OK** button to connect. A Connection in Progress dialog box appears, showing the progress of server connection.

Note that both Data Source name and Login ID information you entered here will be stored in the system registry so that they will be filled the information last entered in this application.

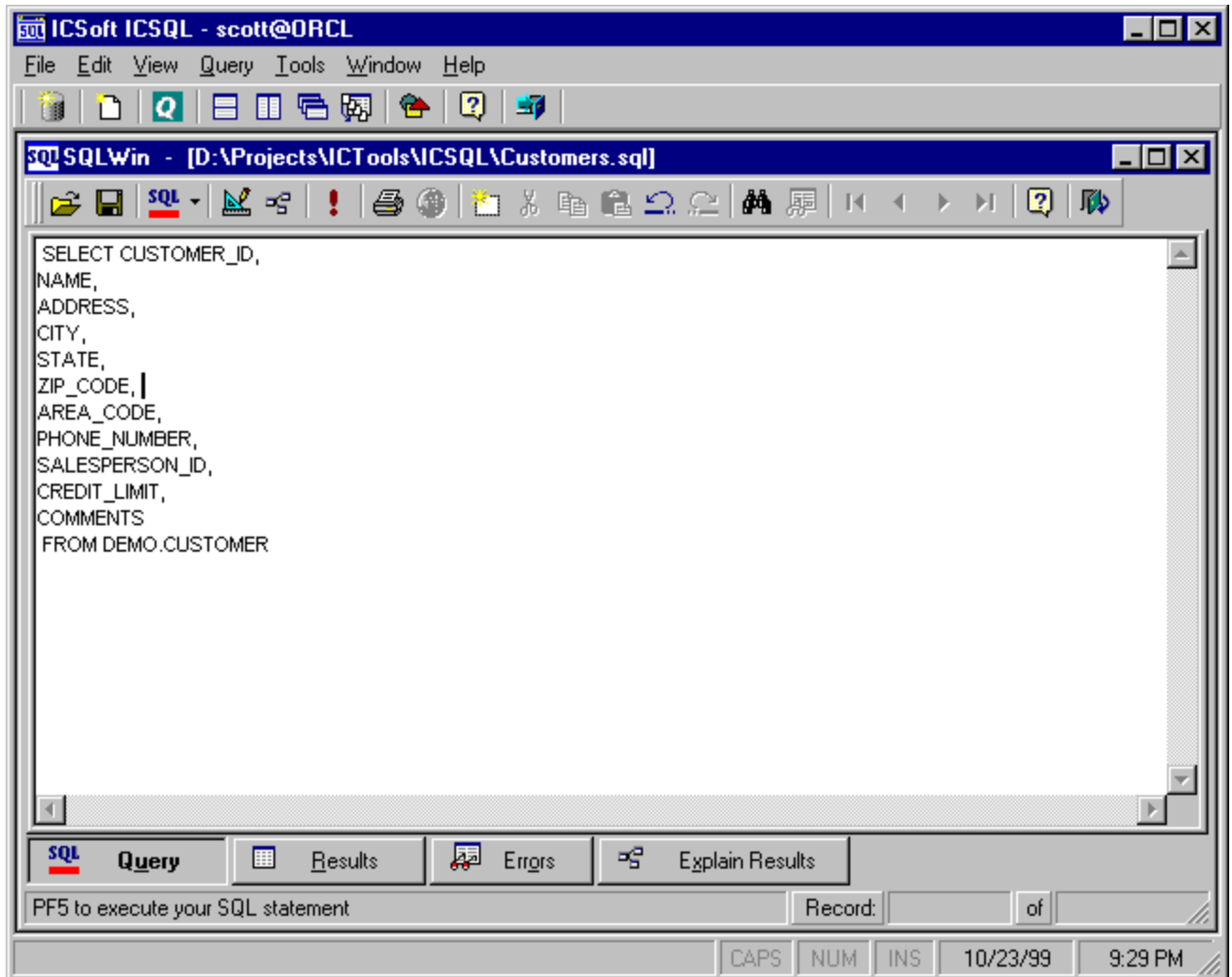
To exit ICSQL

- Click on **Cancel** button on the Login dialog or press **Esc** key to exit ICSQL.

Working with SQL-Windows

ICSQL Environment






















An overview of the **ICSQL** User Interface:



The main focus of the **ICSQL** interface is the **SQLWin** which consists of the SQL Query Editor, Results Window and SQL-Designer. The **SQLWin** and its **SQL-Designer** provide an easy to use SQL Query editor / generator. A mouse is used to control navigation and construction of SQL statements. The tool allows users to issue queries and view the results in a spreadsheet style window against the tables, views and synonyms.

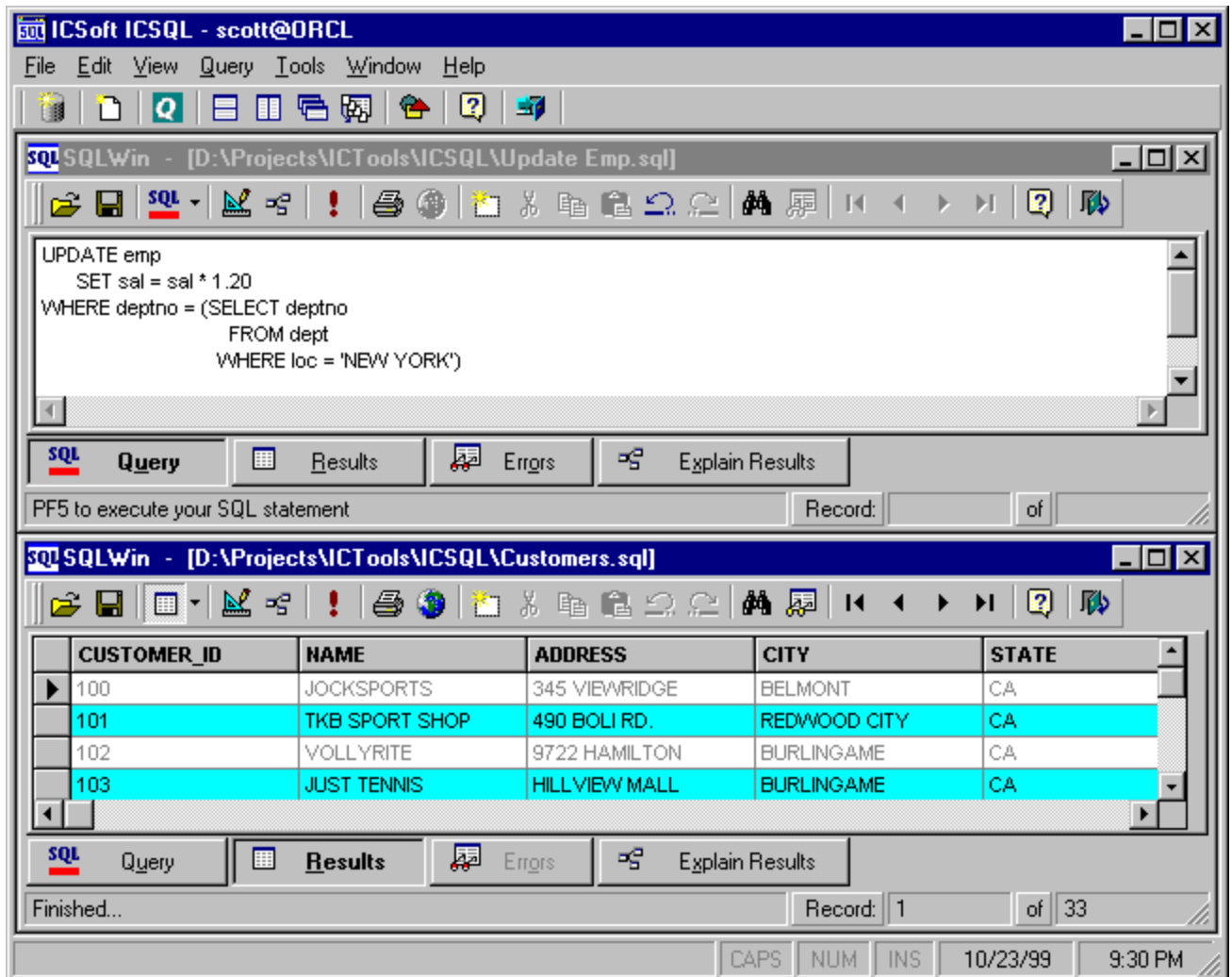
SQLWin is an independent window with its own toolbar and menu. So you can open as many SQLWin as possible and **arrange them**.

The following toolbar options are available in the SQLWin:

Buttons	Description
	Open an existing SQL file. The File Open dialog appears.
	Save the changes. The File Save As dialog appears.
	Display SQL Editor - View Query Results
	Use the SQL-Designer. The SQL-Designer window appears.
	Execute the SQL statement.
	Print SQL statement or Query Results
	Output to HTML file. The Export Result window appears.
	Refresh SQL statement
	Delete the selected data
	Copy the selected data
	Replace the selected data
	Undo previous change
	Redo previous change
	Find a value in SQL Editor or Query Results
	View each row at a time in the Query Results
	View the first row
	View the previous row
	View the next row
	View the last row
	View Help
	Close SQLWin

Arranging Multiple SQLWin Windows

Multiple SQLWin windows can be arranged with the Tile, and Cascade options on the main Window menu. Each SQLWin window can be used to perform SQL operation and view the query results as shown below:




The screenshot displays two instances of the SQLWin application. The top window, titled "SQLWin - [D:\Projects\ICTools\ICSQL\Update Emp.sql]", shows an SQL UPDATE statement:

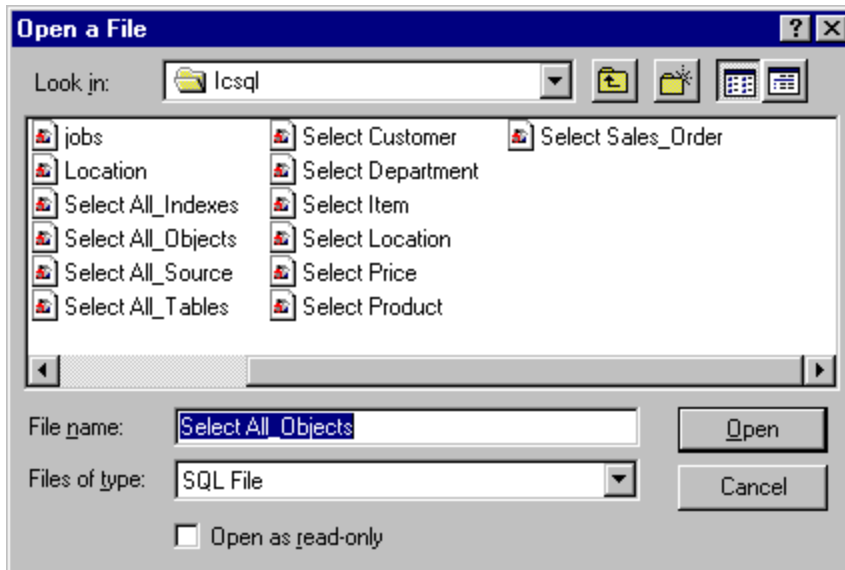
```
UPDATE emp
  SET sal = sal * 1.20
 WHERE deptno = (SELECT deptno
                 FROM dept
                 WHERE loc = 'NEW YORK')
```

The bottom window, titled "SQLWin - [D:\Projects\ICTools\ICSQL\Customers.sql]", shows the results of a query in a table format:

CUSTOMER_ID	NAME	ADDRESS	CITY	STATE
100	JOCKSPORTS	345 VIEWRIDGE	BELMONT	CA
101	TKB SPORT SHOP	490 BOLI RD.	REDWOOD CITY	CA
102	VOLLYRITE	9722 HAMILTON	BURLINGAME	CA
103	JUST TENNIS	HILLVIEW MALL	BURLINGAME	CA

Opening an existing SQL statement


To open any one of the predefined SQL file, choose **Open** from the **File** menu or simply click on **Open**  button on the SQLWin toolbar. ICSQL displays the **Open** dialog box.

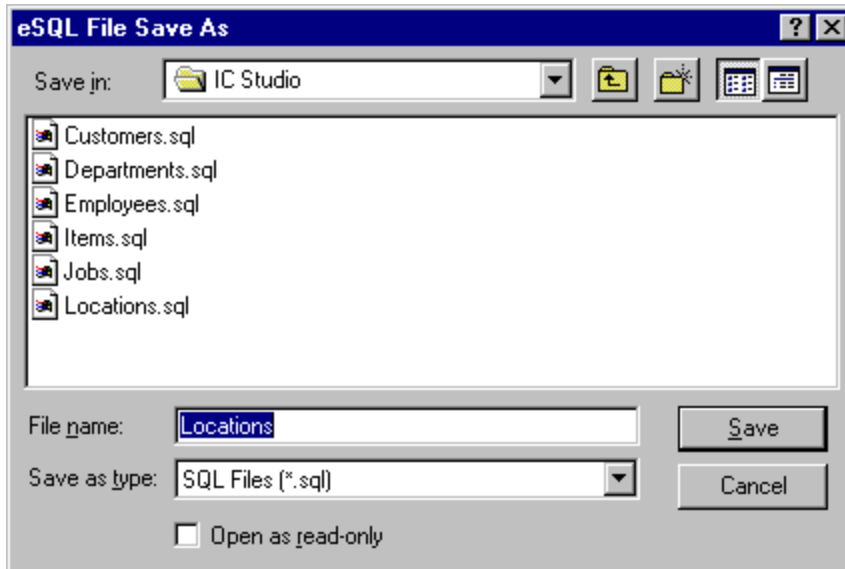


The **Open** dialog box displays the contents of the current SQLWin working directory. To change your working directory, click the Up One Level button or **Look in** the available folders and files. To view how the current folder fits in the hierarchy on your computer, click the down arrow.

ICSQL Recalling previously edited SQL file is possible in the ICSQL.

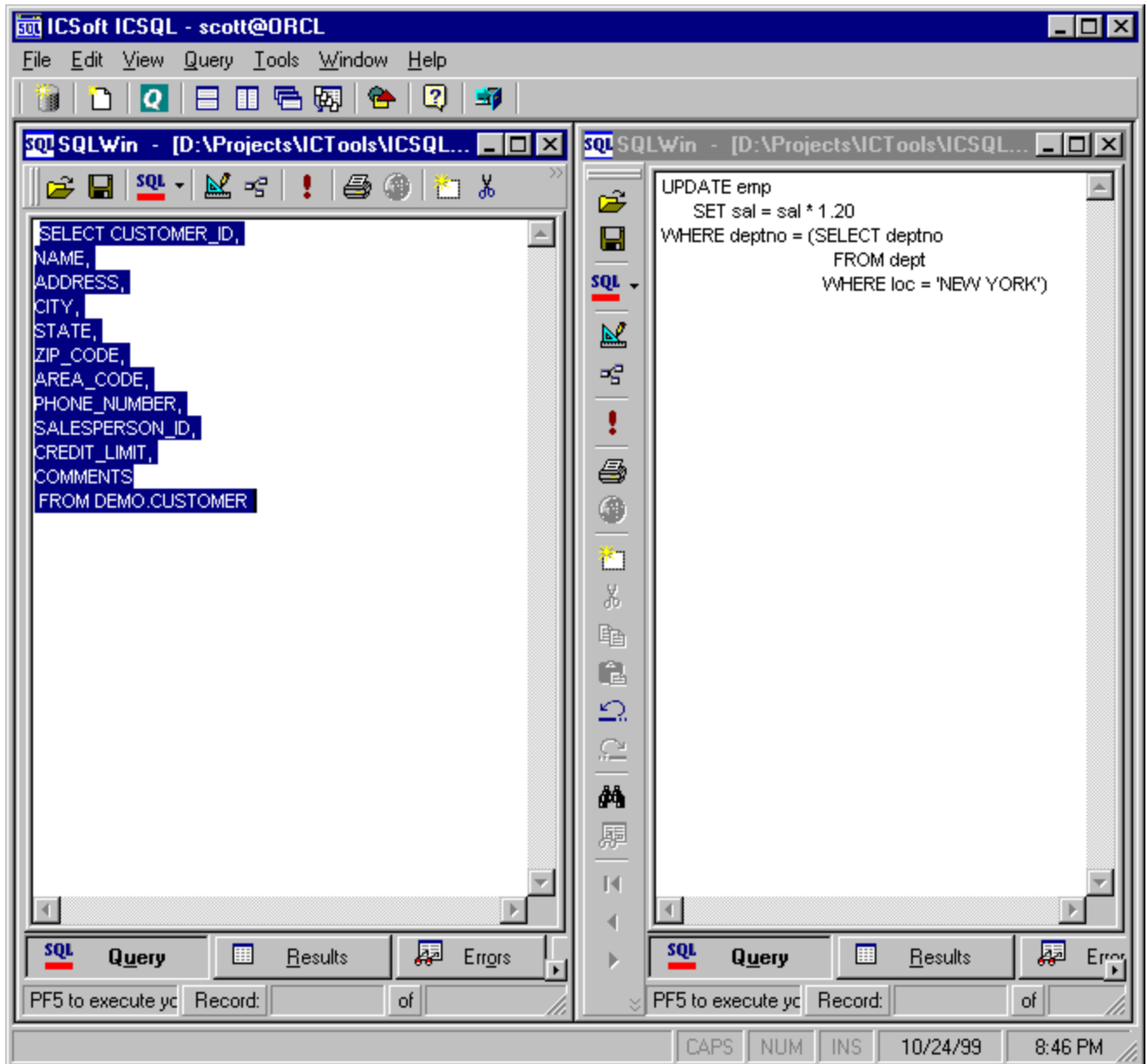
Storing Queries in a Directory






ICSQL editor stores all of your SQL queries in a directory. You can store your SQL query file in any directory you choose. To store your edited SQL statement, from the **File** menu, choose **Save** or click on the Save  toolbar button. The following File Save As dialog appears:





SQL Query Editor

SQL Query Editor displays, creates or modifies a SQL statement using the standard editor.



It includes the standard editing features such as **Cut** , **Copy** , **Paste** , **Undo** , and **Redo** . To use any of the edit functions, from the Edit menu, click on the desired menu item or simply click on the desired toolbar button.

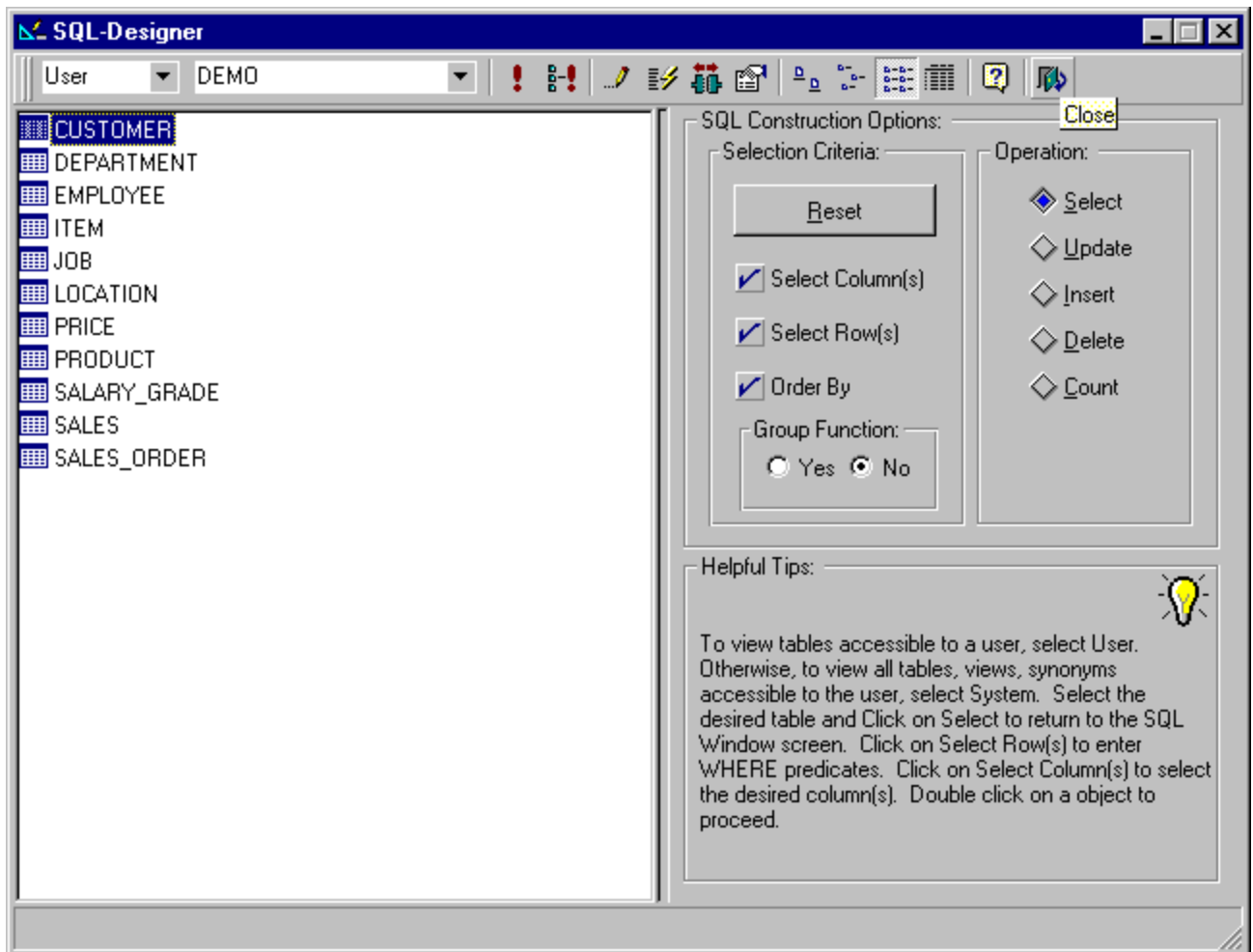
To find each occurrence of a combination of any characters in your Query Editor, from the **Edit** menu, choose **Find** or simply click on **Find**  toolbar button to proceed to **Find Text** dialog window.

To save your SQL statement, from the File menu, click on the Save or Save As menu item or simply click on the **Save**  toolbar button. The **File Save As dialog** appears.


SQL-Designer


To design SQL statement using SQL-Designer;





1. Click on the **SQL-Designer**  button on the SQLWin toolbar or choose **SQL-Designer** from the **Tools** menu. The SQL-Designer window is displayed.



2. SQL-Designer window allows you to select the desired table for the current schema and to select one or more of the SQL construction options.
 - Select a table and choose the SQL Operation - SELECT, UPDATE, INSERT, DELETE, OR COUNT and click on one or more of the selection criteria.

- Click on the **Execute** button  to construct your SQL statement. If any one of the SQL criteria is selected, ICSQL will display the **SQL-Builder** window.

Note that clicking of the **Execute** button  without selecting any SQL selection criteria, ICSQL will return to the SQL Win Query Editor with the SQL statement with all the columns selected.

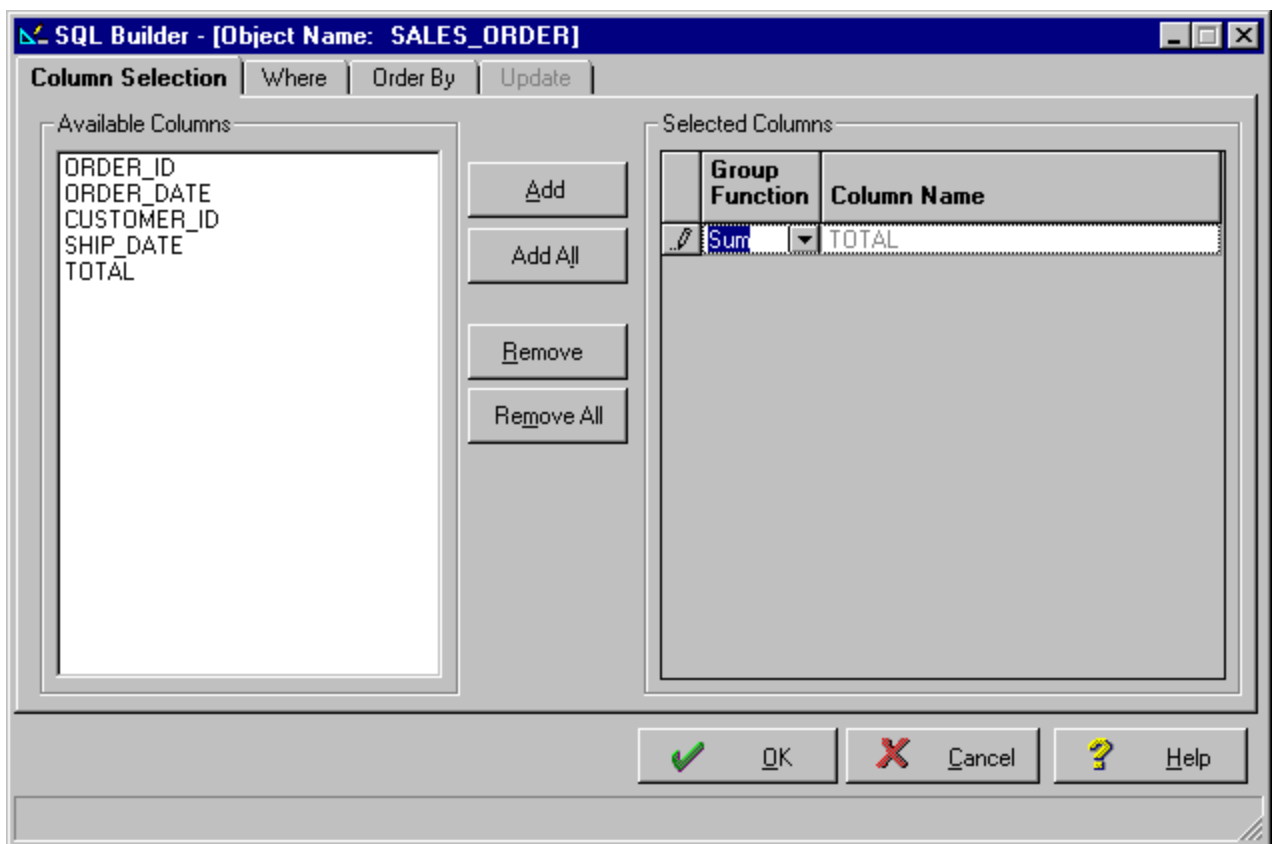
- To select all of the selection criteria and proceed to the SQL-Builder, click on the **Select All and Go**  toolbar button. ICSQL will display the **SQL-Builder** window to allow you further define your SQL statement.
- Select a table and click on the **Describe** button  to view **Describe Object View**.
- Select a table and click on the **Index** button  to view the **Index View**.
- Select an object and click on the **Property** button  to view the **Object Property View**.
- If any of one of the selection criteria options is selected, ICSQL will display the **SQL-Builder** window to allow you to further define your SQL statement. The SQL-Builder allows you to select which columns to be involved in your SQL statement as well as specifying the conditions for data selection.

SQL-Builder

If any one of the selection criteria is selected in the SQL-Designer window, the **SQL-Builder** window is displayed.

Specify a Set of Columns

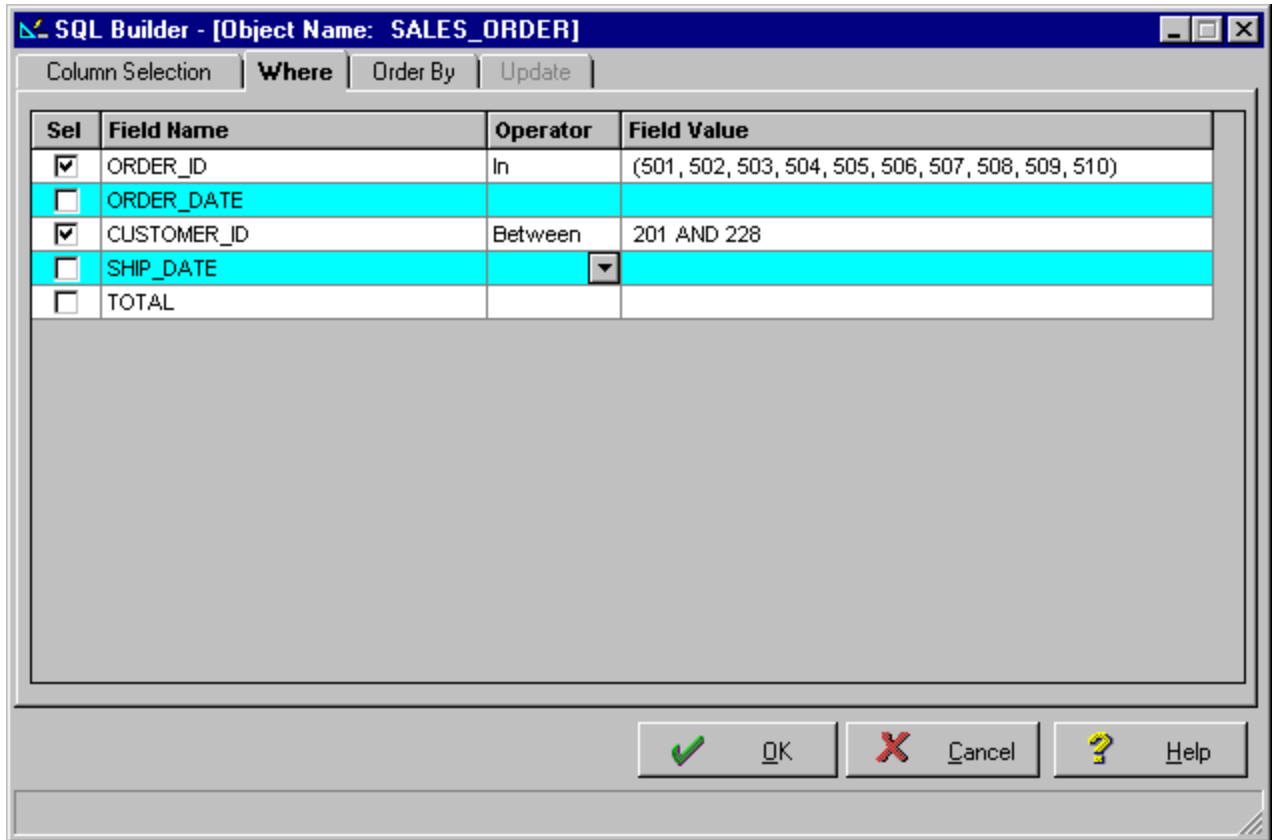
SQL-Builder **Column Selection** tab allows you to select columns to be included in your SQL statement:



Group functions return results based on group of rows. To enter group function, simply select a group function for the column of your choice. Note that the group function such as MIN, MAX, and SUM cannot be mixed with the non-group function (regular column selection).

Specifying Conditions for WHERE Clause

SQL-Builder allows you to construct your WHERE clause with simple mouse click as shown on the SQL-Builder **Where** tab:



Select a column to be included in your **WHERE** Clause. Default Equal comparison operator is pre-selected.

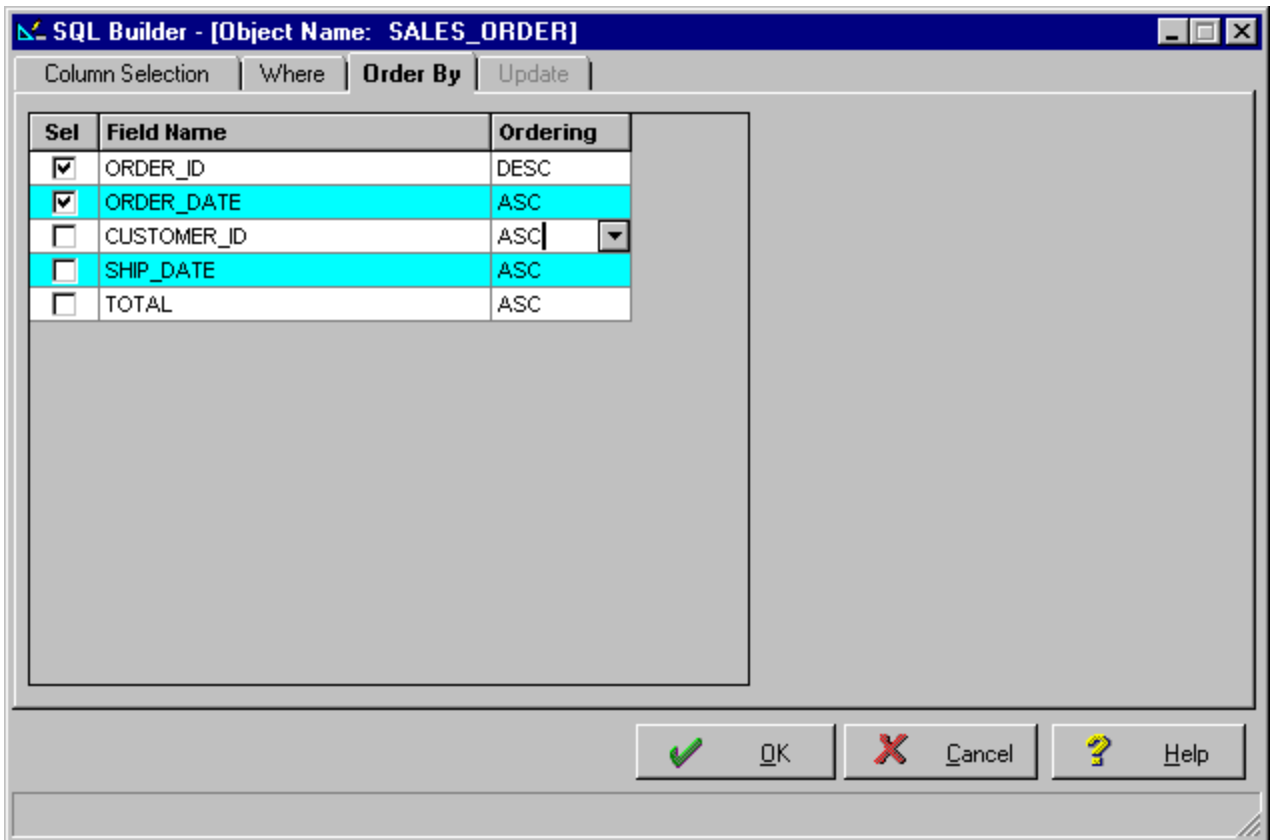
Choose the comparison operator of your choice.

If you select the **BETWEEN** comparison operator, **Between dialog window** is displayed to allow you to enter the beginning and ending values.

If you select the **IN** comparison operator, **IN dialog window** is displayed to allow you to select multiple values.

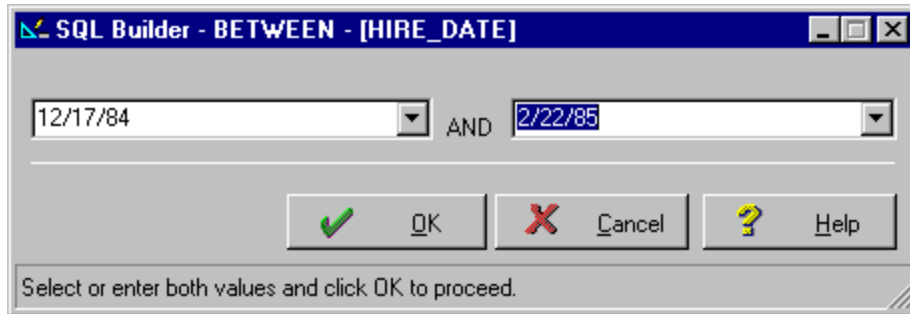
Ordering the Rows

To order rows returned by your SQL statement, select Order By tab to select the column or columns from the columns list box and choose ordering of the selected column, Asc (ascending order) or Desc (descending order).



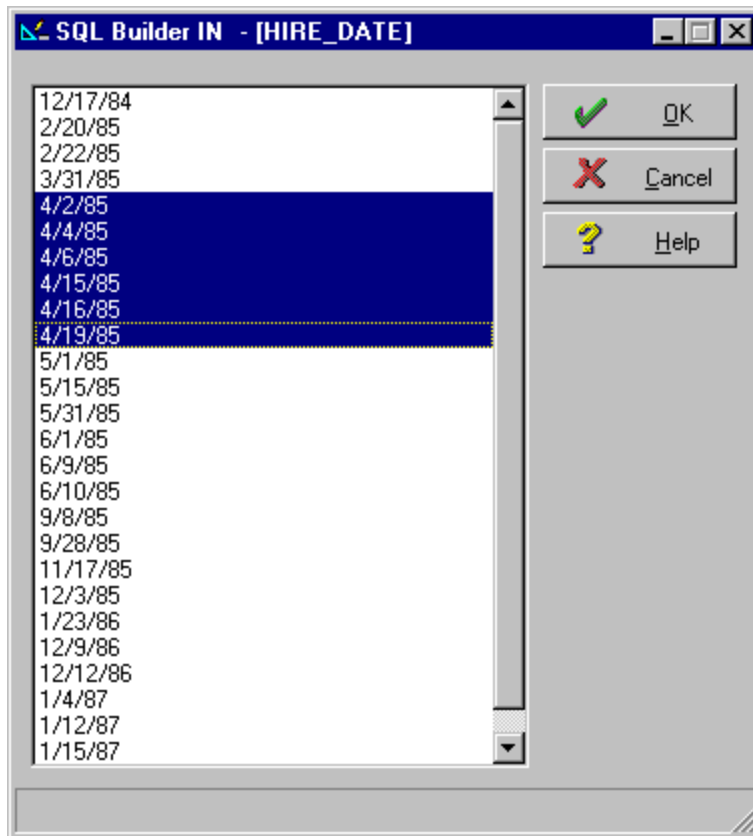
Specifying the Values for BETWEEN Clause

Values for your SQL **BETWEEN** clause can be entered manually on the SQL-Builder **Where** tab or the beginning and ending values for the BETWEEN relational operator can be entered or selected on the SQL-Builder **Between dialog window**:




Specifying the Values for IN Clause

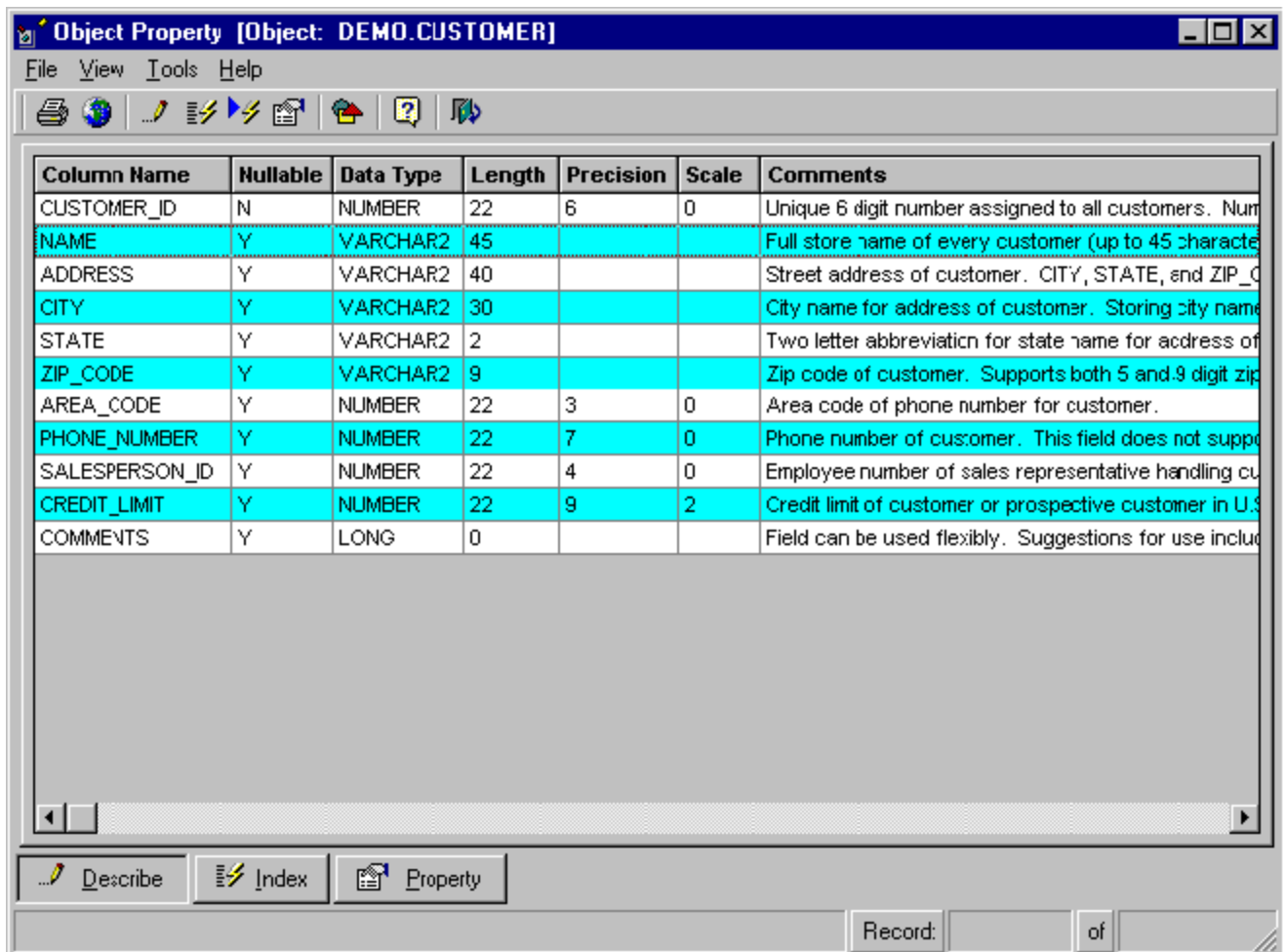
Values for your SQL **IN** clause can be manually entered on the SQL-Builder **Where** tab or one or more column values can be selected on the SQL-Builder **IN dialog window**.



Describe Object View

ICSQL allows you to display the definitions of each column in a given object (table, view, or synonyms) by simply clicking on the **Describe Object** toolbar button  from any of the windows that display it.



ICSQL displays the Object Property window showing Describe tab:




The screenshot shows the 'Object Property' window for the object 'DEMO.CUSTOMER'. The window has a menu bar (File, View, Tools, Help) and a toolbar with icons for Print, Output to HTML, Describe, Index, and Property. The main area displays a table with the following columns: Column Name, Nullable, Data Type, Length, Precision, Scale, and Comments. The table contains the following data:

Column Name	Nullable	Data Type	Length	Precision	Scale	Comments
CUSTOMER_ID	N	NUMBER	22	6	0	Unique 6 digit number assigned to all customers. Num
NAME	Y	VARCHAR2	45			Full store name of every customer (up to 45 characte
ADDRESS	Y	VARCHAR2	40			Street address of customer. CITY, STATE, and ZIP_C
CITY	Y	VARCHAR2	30			City name for address of customer. Storing city name
STATE	Y	VARCHAR2	2			Two letter abbreviation for state name for address of
ZIP_CODE	Y	VARCHAR2	9			Zip code of customer. Supports both 5 and 9 digit zip
AREA_CODE	Y	NUMBER	22	3	0	Area code of phone number for customer.
PHONE_NUMBER	Y	NUMBER	22	7	0	Phone number of customer. This field does not suppo
SALESPERSON_ID	Y	NUMBER	22	4	0	Employee number of sales representative handling cu
CREDIT_LIMIT	Y	NUMBER	22	9	2	Credit limit of customer or prospective customer in U.S
COMMENTS	Y	LONG	0			Field can be used flexibly. Suggestions for use includ

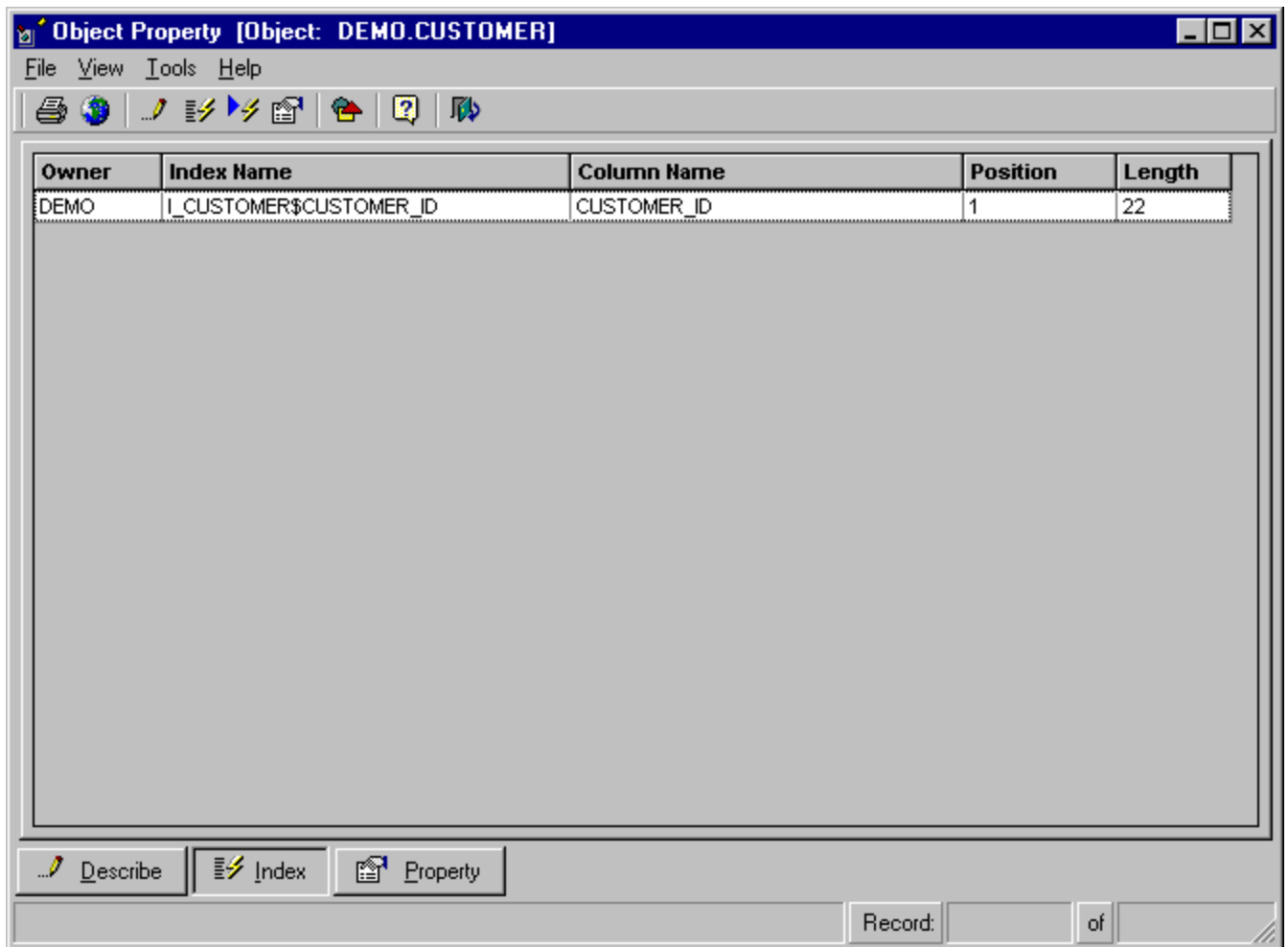
At the bottom of the window, there are buttons for 'Describe', 'Index', and 'Property', and a status bar showing 'Record: ' and 'of '.

- Click **Print**  button to print the object definition.
- Click **Output to HTML**  button to proceed to [Export Result dialog window](#) to export the object definition to HTML file.

Index View

ICSQL allows you to display indexes associated with the table object by simply clicking on the **Indexes**  toolbar button from any of the windows that display it.

The following output results:



Owner	Index Name	Column Name	Position	Length
DEMO	I_CUSTOMER\$CUSTOMER_ID	CUSTOMER_ID	1	22

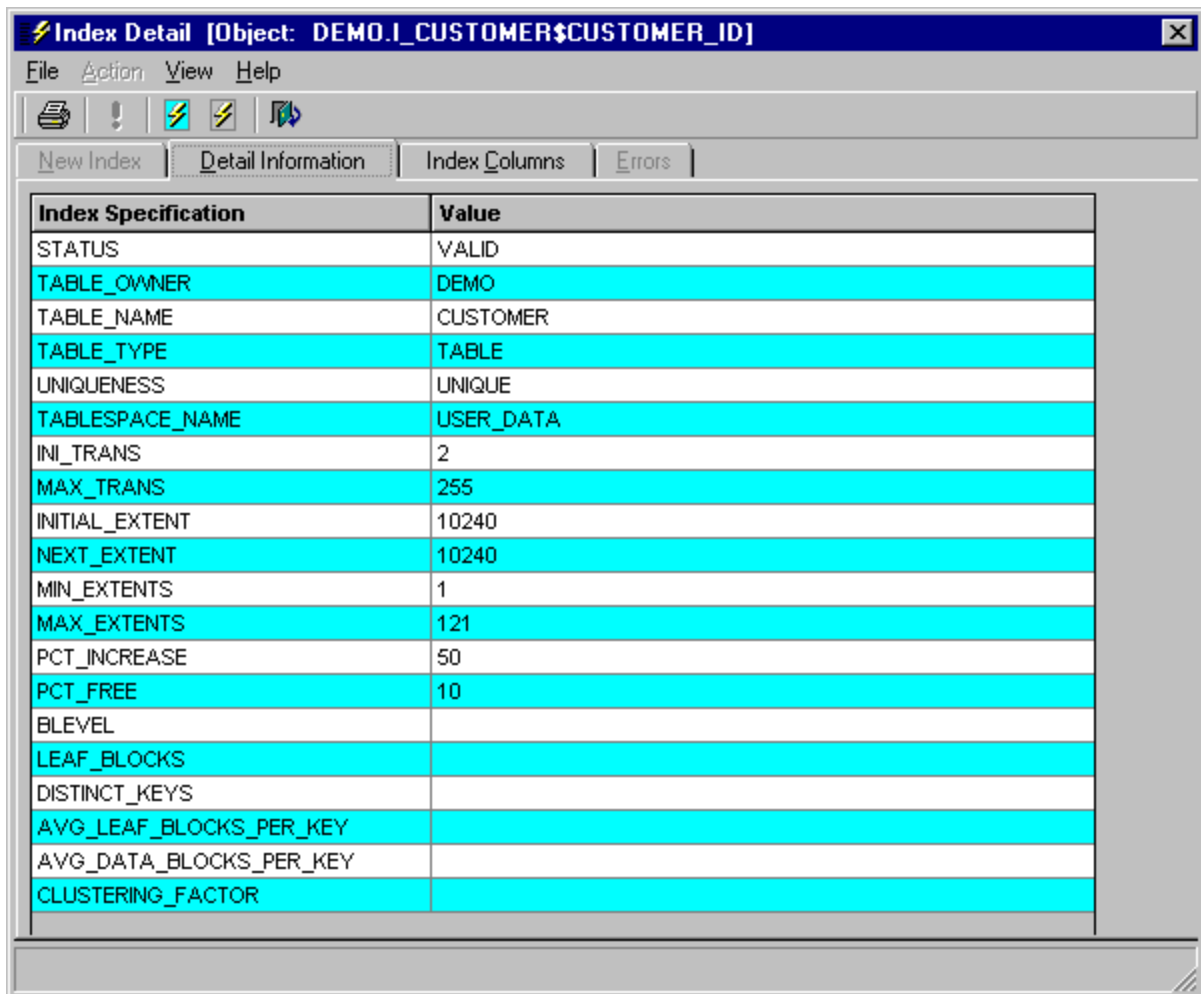
To display detail information on a particular index;

- Select an index.
- From the **View** menu, choose **Index Detail** or click on **Index Detail**  toolbar button to view the **Index Detail information**.

Index Detail View


ICSQL allows you to display the detail information on a particular index by simply clicking on the **Index Detail** ⚡ toolbar button from the Index View window.

The following output results:




Index Specification	Value
STATUS	VALID
TABLE_OWNER	DEMO
TABLE_NAME	CUSTOMER
TABLE_TYPE	TABLE
UNIQUENESS	UNIQUE
TABLESPACE_NAME	USER_DATA
INI_TRANS	2
MAX_TRANS	255
INITIAL_EXTENT	10240
NEXT_EXTENT	10240
MIN_EXTENTS	1
MAX_EXTENTS	121
PCT_INCREASE	50
PCT_FREE	10
BLEVEL	
LEAF_BLOCKS	
DISTINCT_KEYS	
AVG_LEAF_BLOCKS_PER_KEY	
AVG_DATA_BLOCKS_PER_KEY	
CLUSTERING_FACTOR	

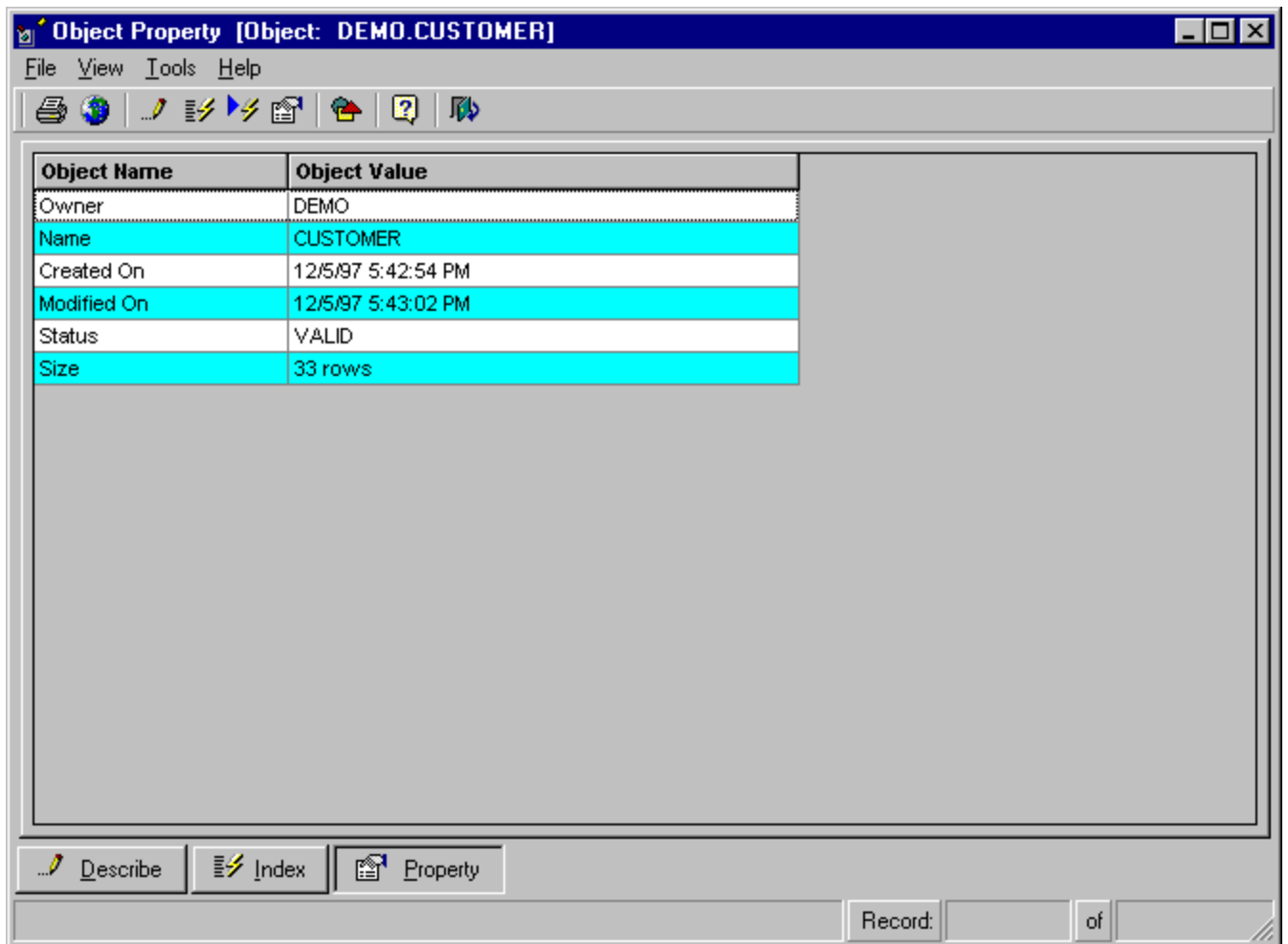
- To display index detail, from the **View** menu, choose **Index Detail** or click on the Index Detail ⚡ toolbar button.
- To display index columns, from the **View** menu, choose **Index Columns** or click on the **Index Columns** ⚡ toolbar button.

- To print index detail information, from the **File** menu, choose **Print** or click on the **Print**  toolbar button.

Object Property View


ICSQL allows you to display the object summary information such as total number of rows for the selected object (table, view, or synonyms) by simply clicking on the **Object Property** toolbar button  from any of the windows that display it.

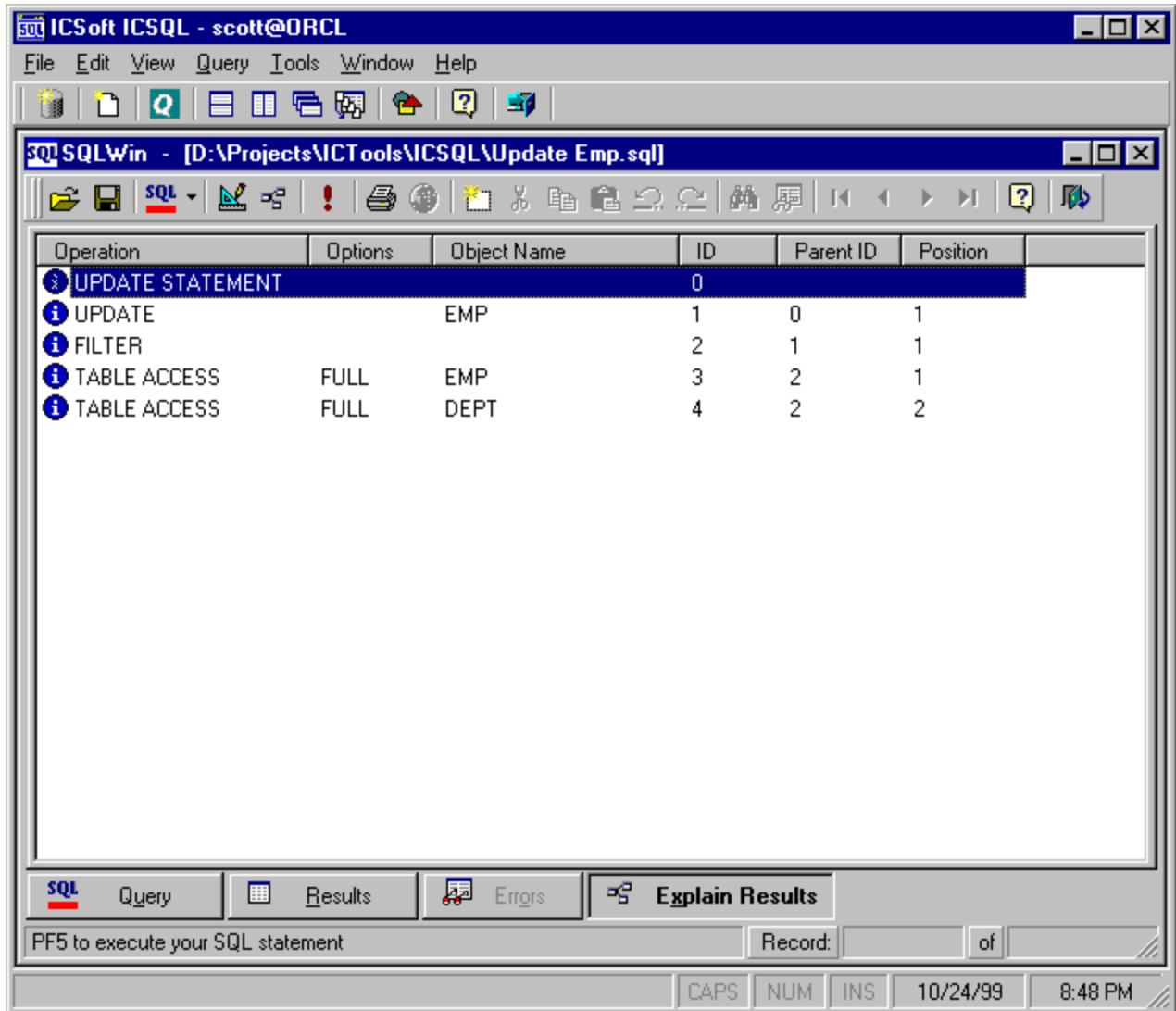
The following output results:



Object Name	Object Value
Owner	DEMO
Name	CUSTOMER
Created On	12/5/97 5:42:54 PM
Modified On	12/5/97 5:43:02 PM
Status	VALID
Size	33 rows

Performing Explain Plan Command

To optimize your SQL Statement, **Explain Plan** feature is available in ICSQL. After your SQL statement is constructed, simply click on the **Explain**  toolbar button to view the results from Explain Plan command against your SQL statement.



The screenshot shows the ICSQL interface with the Explain Plan results for an UPDATE statement. The main window displays a table with the following data:

Operation	Options	Object Name	ID	Parent ID	Position
UPDATE STATEMENT			0		
UPDATE		EMP	1	0	1
FILTER			2	1	1
TABLE ACCESS	FULL	EMP	3	2	1
TABLE ACCESS	FULL	DEPT	4	2	2

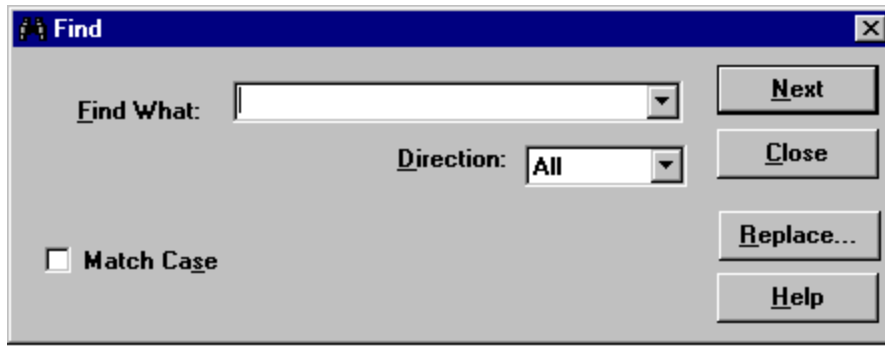
The interface includes a menu bar (File, Edit, View, Query, Tools, Window, Help), a toolbar with various icons, and a status bar at the bottom showing the current record (Record: of) and system time (10/24/99 8:48 PM).

Because Explain Plan statement requires the result table to hold its output, ICSQL will create **Plan_Table** under your schema if such a table does not already exist.

To examine the execution plan produced by an `EXPLAIN PLAN` statement, you must have the privileges necessary to query the output table.

Find Text

To find a text in the SQL text in the Query Editor, from the **Edit** menu, select **Find**, or click on the **Find** toolbar button, the **Find** dialog is displayed.



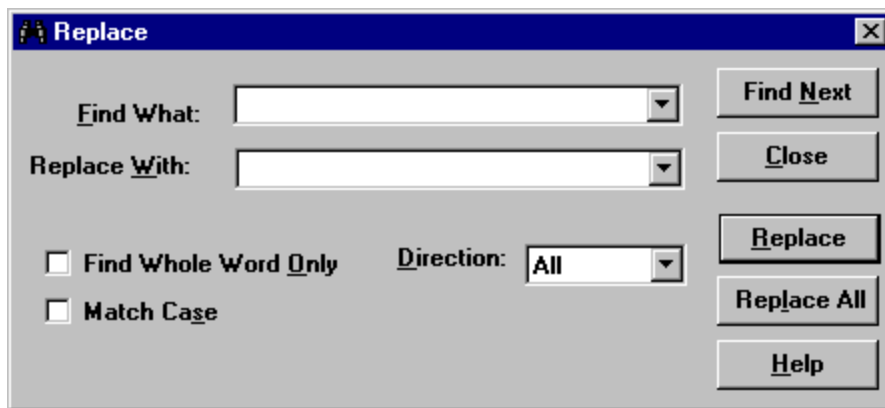
Enter the text you want to search in the **Find What** text box.

Click **Next** button to begin the search.

Click **Replace** to proceed to [Replace Text](#).

Replace Text

To replace a text in the SQL text in the Query Editor, from the **Edit** menu, select **Replace**, the Replace dialog is displayed.



In the **Find What** text box, enter the text that you want to search for.


In the **Replace With** text box, enter the replacement text.

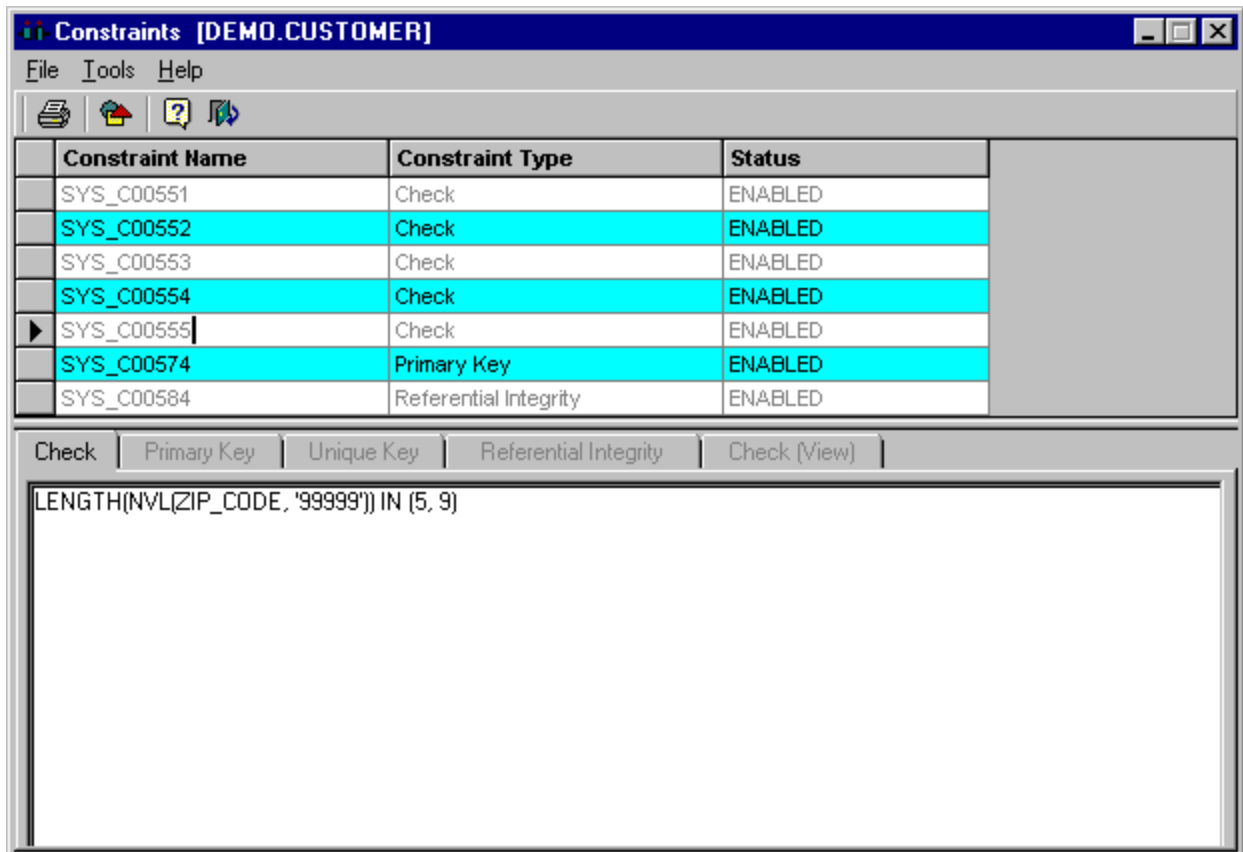
Select the search option of your choice.

Click **Find Next**, **Replace**, or **Replace All**.

Click **Close** to exit.

Display Constraints

ICSQL allows you to display the integrity constraints for a given table by simply clicking on the **Constraints** toolbar button  from any of the windows that display it.



Constraint Name	Constraint Type	Status
SYS_C00551	Check	ENABLED
SYS_C00552	Check	ENABLED
SYS_C00553	Check	ENABLED
SYS_C00554	Check	ENABLED
SYS_C00555	Check	ENABLED
SYS_C00574	Primary Key	ENABLED
SYS_C00584	Referential Integrity	ENABLED

Check | Primary Key | Unique Key | Referential Integrity | Check (View)

```
LENGTH(NVL(ZIP_CODE, '99999')) IN (5, 9)
```

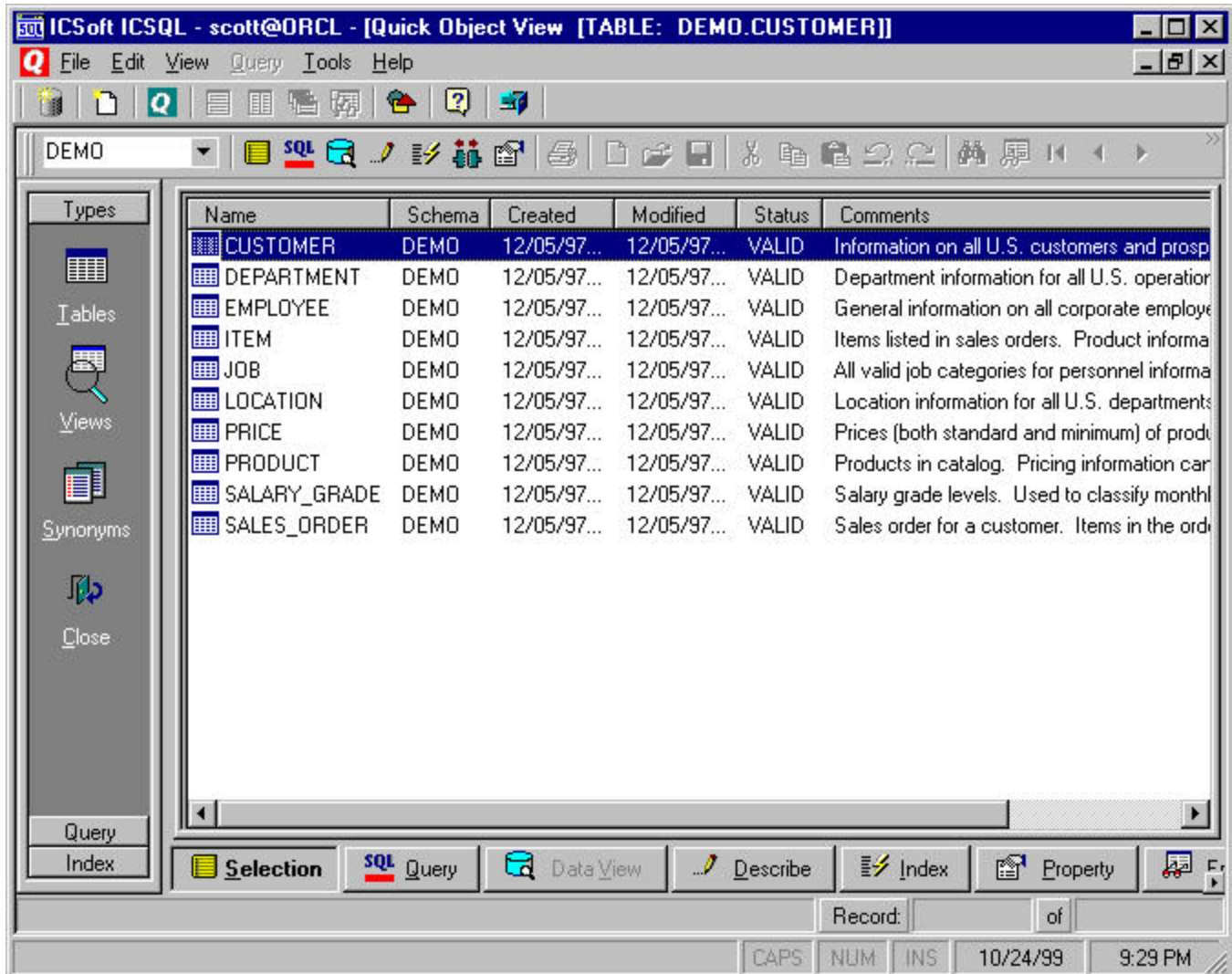
An integrity constraint is a rule that restricts the values for one or more columns in a table.


To view detail information for each constraint, simply click on the constraint name with your mouse or use **Up** and **Down** arrow key.

Working with QuickView

QuickView





QuickView (Short for Quick Object View) of the ICSQL tool provides easy viewing of key database objects such as tables, views, and synonyms.









Click on the **Selection**  toolbar button to view the list of the database objects such as tables, views, or synonyms. Click on an icon on the QuickView List Bar on the left side of the window to select the desired database object.

The following objects are currently supported by the QuickView.

- **Tables**
- **Views**
- **Synonyms**.

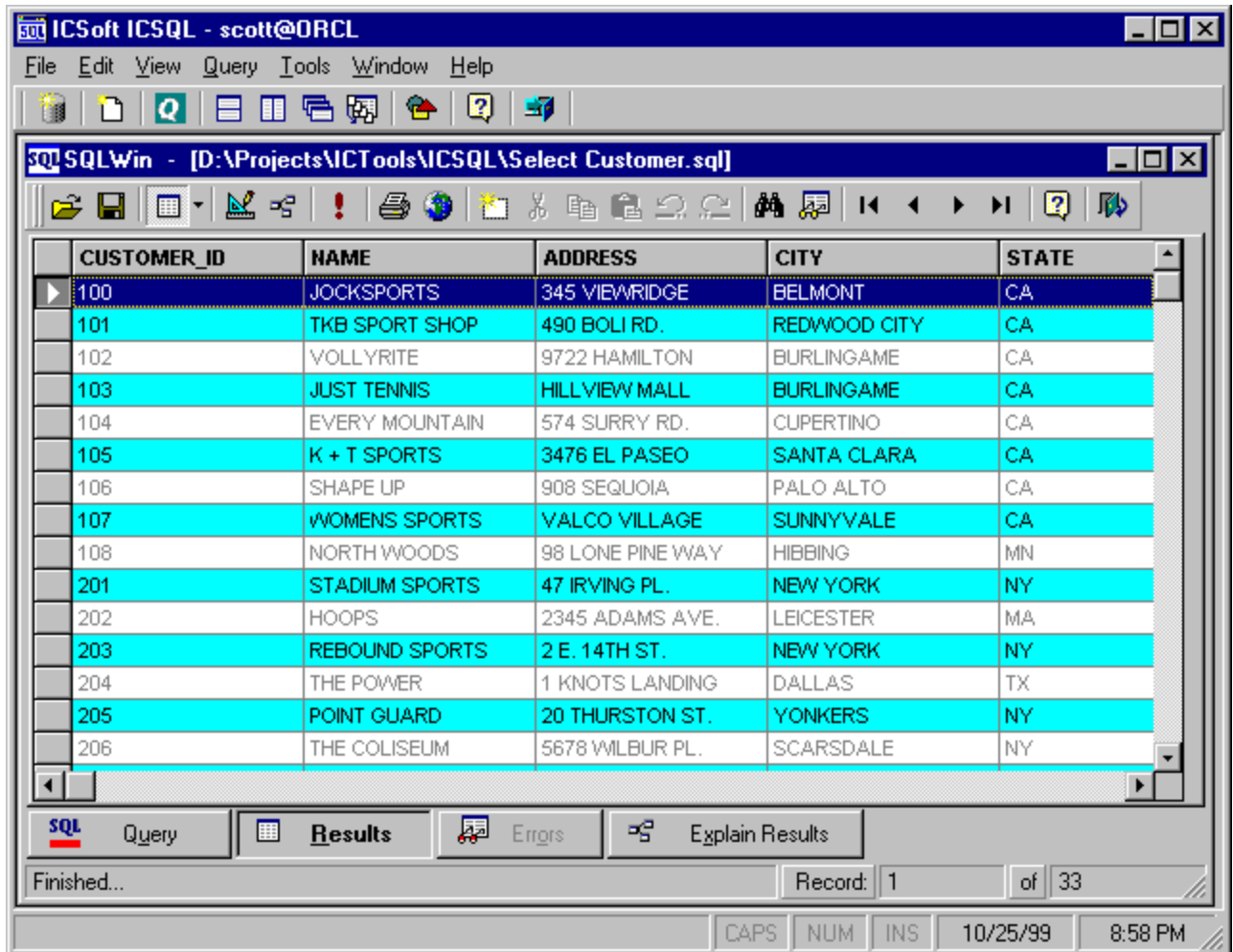
In the QuickView Selection window, click one of the following buttons on the toolbars: **Large icons** , **Small Icons** , **List** , or **Details**  to change the appearance of the selection view.




- To sort the objects by **Name**, **Schema**, **Created**, **Modified**, **Status**, or **Comments**, simply click on the header column.
- Select an object in the selection list and click on the **View Object**  toolbar button to view the object or simply double-click on the object to proceed to **Viewing Results**.
- To see the definitions of each column in an object, select an object and click on **Describe Object**  toolbar button.
- To see the **indexes** for a table object, select a table object and click on **Show Index**  toolbar button.
- To view the constraints for a table object, select a table object and click on **Constraints**  toolbar button.
- To see the object property information such as name, type, creation date, modification date, status, and size (total number of rows), select an object and click on **Property**  toolbar button.
- Double-click on each row or click on the **View Current Row**  toolbar icon to proceed to Row-Browser.




Working with Query Results

Viewing Results


The output from your SQL query can be viewed in the result view shown here.

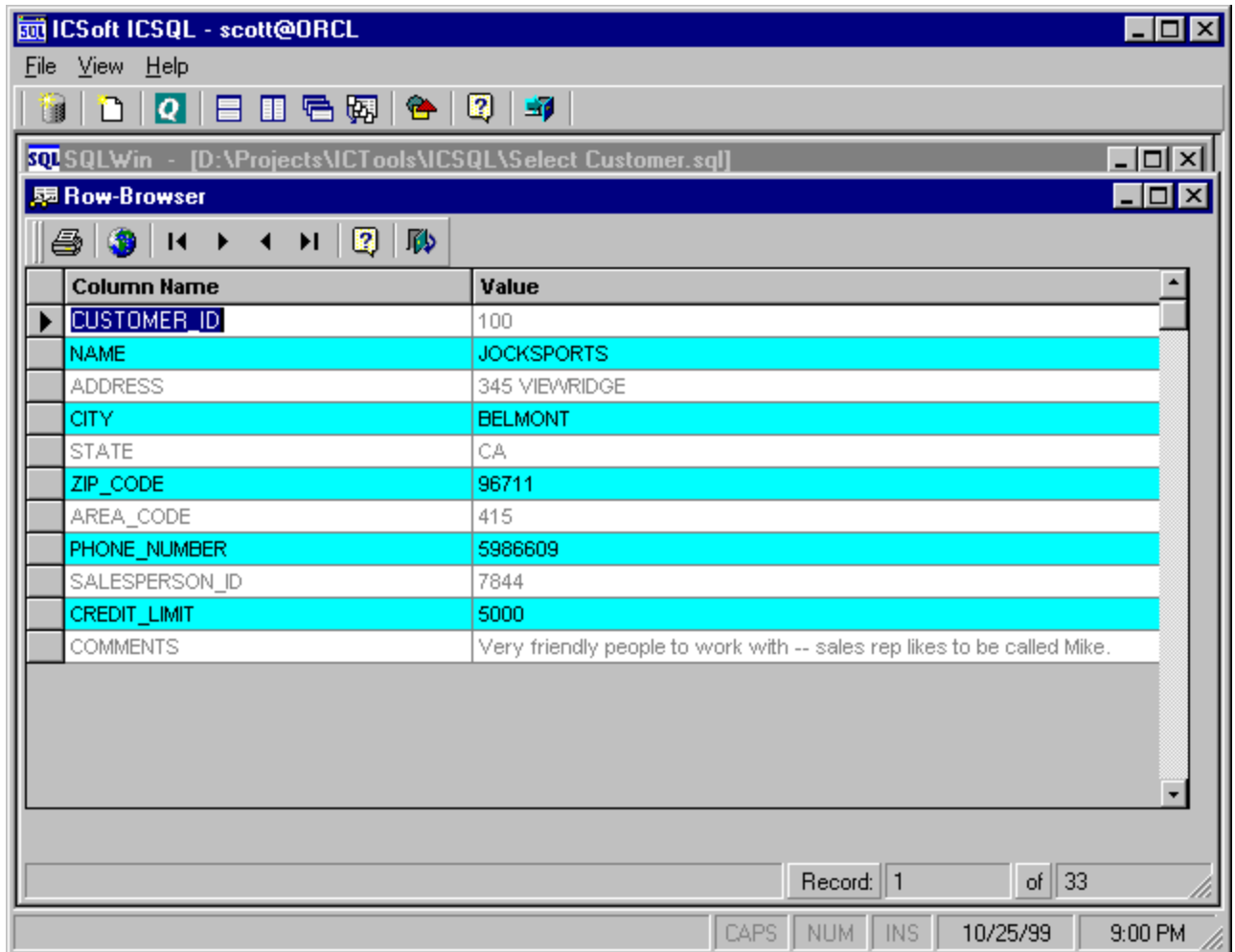




- Double-click on each row or click on the **View Current Row** {bmct viewrow.bmp} toolbar button to proceed to [Row-Browser](#).
- Navigation between records in the result view can be accomplished using the following toolbar buttons:
 - Click on **First Row**  toolbar button to position to the first row.
 - Click on **Previous Row**  toolbar button to position to the previous row.
 - Click on **Next Row**  toolbar button to position to the next row.

- Click on **Last Row**  toolbar button to position to the last row.
 - Click **Print**  button to print the object definition.
 - Click **Output to HTML**  button to proceed to **Export Result dialog window** to export the object definition to HTML file.





Row_Browser

When viewing results in ICSQL tool, you can click on the **View Current Row** toolbar button  to view each row at a time as shown below:




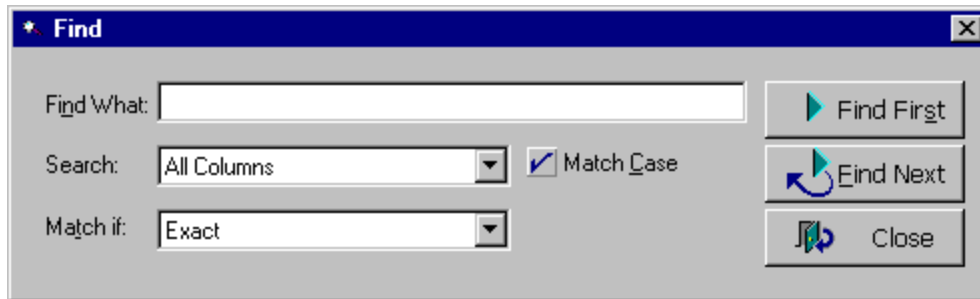
- Click **Print**  button to print the object definition.
- Click **Output to HTML**  button to proceed to **Export Result dialog window** to export the object definition to HTML file.

Navigation between records can be accomplished using the following toolbar buttons:

- Click on **First Row**  toolbar button to position to the first row.
- Click on **Previous Row**  toolbar button to position to the previous row.
- Click on **Next Row**  toolbar button to position to the next row.
- Click on **Last Row**  toolbar button to position to the last row.


How to Find A Value

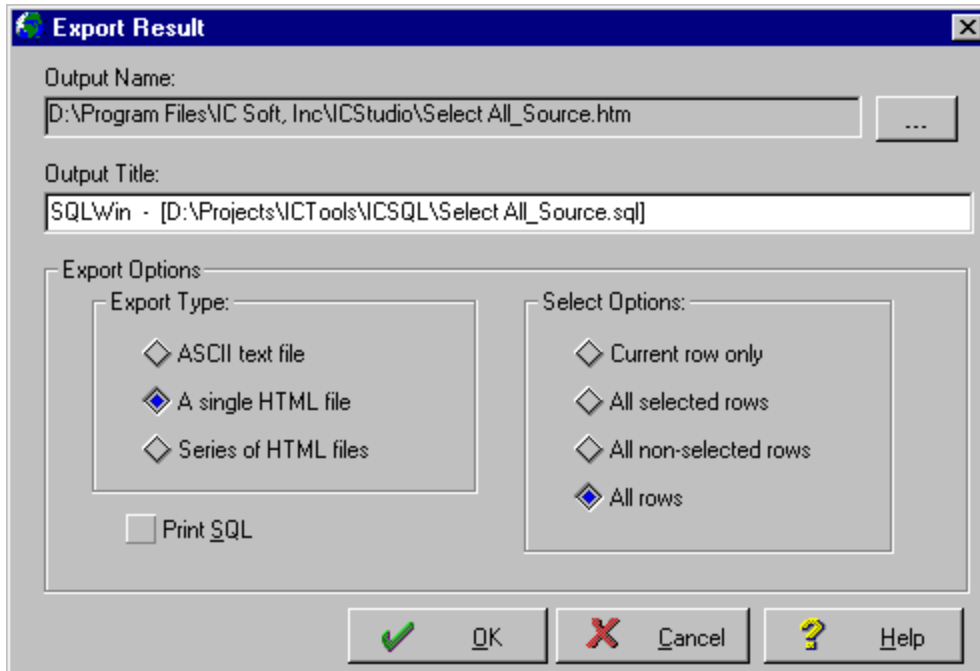
To find a value in the result view, select Find from the Edit menu or simply click on the **Find**  toolbar button. ICSQL displays the Find dialog.



- Enter the data value you want to search for in the **Find What** text box.
- Select the Search Column from the **Search** drop-down list box.
- Select the **Match if** drop-down list box.
- Choose **Find First** or **Find Next** button to begin the search.

Saving Results to HTML format

To export results of your query result to HTML file, choose **Output to HTML** from the **File** menu or simply click on **Output to HTML file**  button on the SQLWin toolbar. The Export Result window is displayed.



Choose the desired export options and click on **OK** button to produce HTML file in the designated location.

The saved HTML file can be viewed by opened by browser of your choice as shown below:

PM LIVE

File Edit View Favorites Tools Help

SQLWin - [D:\Projects\ICTools\MSQL>Select Customer.sql]

CUSTOMER_ID	NAME	ADDRESS	CITY	STATE	ZIP_CODE	AREA_CODE	PHONE_NUMBER	SAL
100	JOCKSPORTS	345 VIEWRIDGE	BELMONT	CA	96711	415	5986609	784
101	TKB SPORT SHOP	490 BOLI RD.	REDWOOD CITY	CA	94061	415	3681223	752
102	VOLLYRITE	9722 HAMILTON	BURLINGAME	CA	95133	415	6443341	765
103	JUST TENNIS	HILLVIEW	BURLINGAME	CA	97544	415	6779312	762

Done My Computer

ICObjects

Introduction to IObjects

IObjects provides easy viewing of any of the database objects such as Table, View, Synonym, Stored Procedure, Sequence, etc. It also allows maintenance of some of these objects. Its intuitive and comprehensive visual interface allows developers to get a clear perspective of the database.

IObjects manages

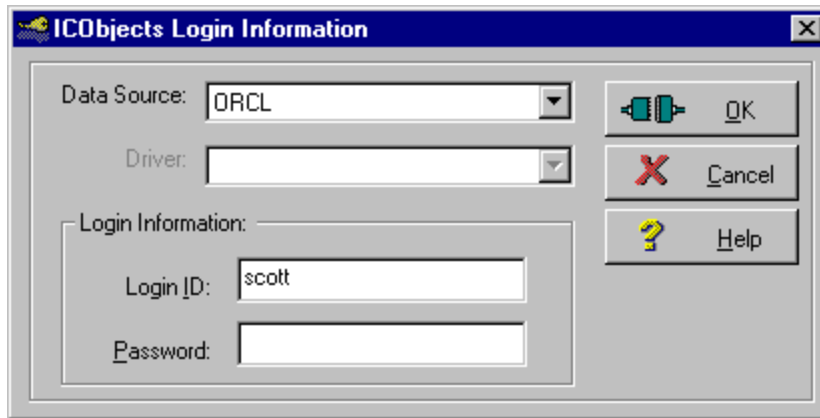
- Tables
- Views
- Synonyms
- Stored Procedures
- Packages
- Indexes
- Functions
- Sequences
- Snapshots
- Triggers
- Roles, Table Privileges
- Constraints
- More...

Key features

- Easy-to-use Graphical User Interface (GUI)
- **Object Editor** makes management of database objects easier than ever
- **Easy connection** to several types of databases
- **Easy viewing** of database objects
- Customizable features including the toolbar, colors, fonts, and others.

Logging IObjects

Start **IObjects** by double clicking on the **IObjects** icon. The IObjects Login is displayed.



To connect to a local database

- Select a **Data Source** of your database from the Data Source list box.
 - Enter the server user id in the Login ID edit control of Login Information.
- Enter the server password in the Password edit control of the Login Information.
- Click the **OK** button to connect. A Connection in Progress dialog box appears, showing the progress of server connection.

Note that both Data Source name and Login ID information you entered here will be stored in the system registry so that they will be filled the information last entered in this application.

To exit IObjects

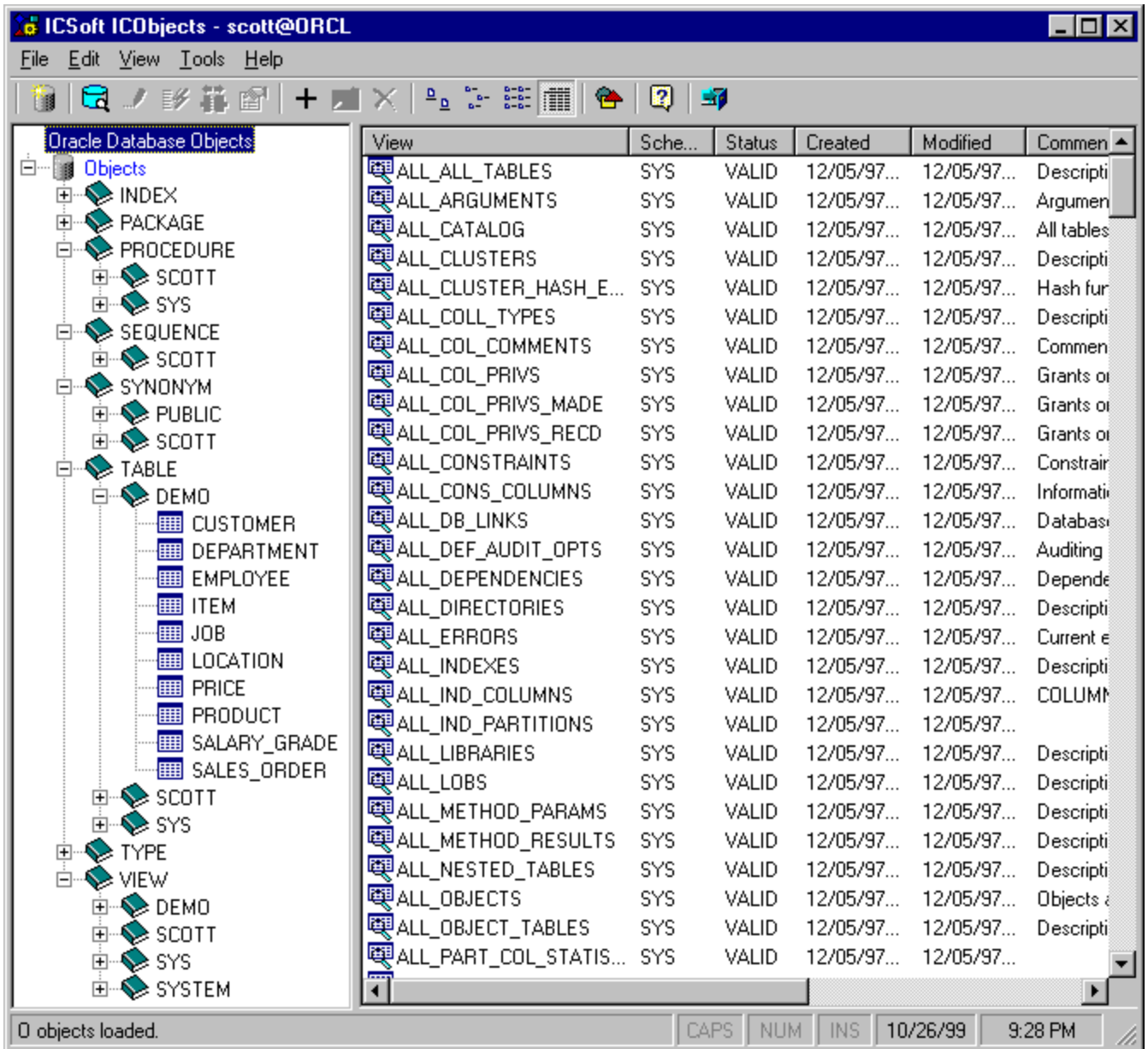
- Click on **Cancel** button or press **Esc** key to exit **IObjects**.

Working with IObjects

IObjects Environment


The **IObjects** main window is where you create the new schema objects, edit / view existing objects using the following windows:














- **Object Property** window is used to
 - View schema object data for tables, views, and synonyms.
 - Describe schema objects.
 - View indexes for the table objects.
 - View object properties.
- **Object Editor** window



ICSObjects main window allow you to quickly view any of the database objects and to manage some of the objects. Its intuitive and powerful graphical user interface allows developers to get a clear perspective of the database.

The following toolbar options are available in the ICSObjects:

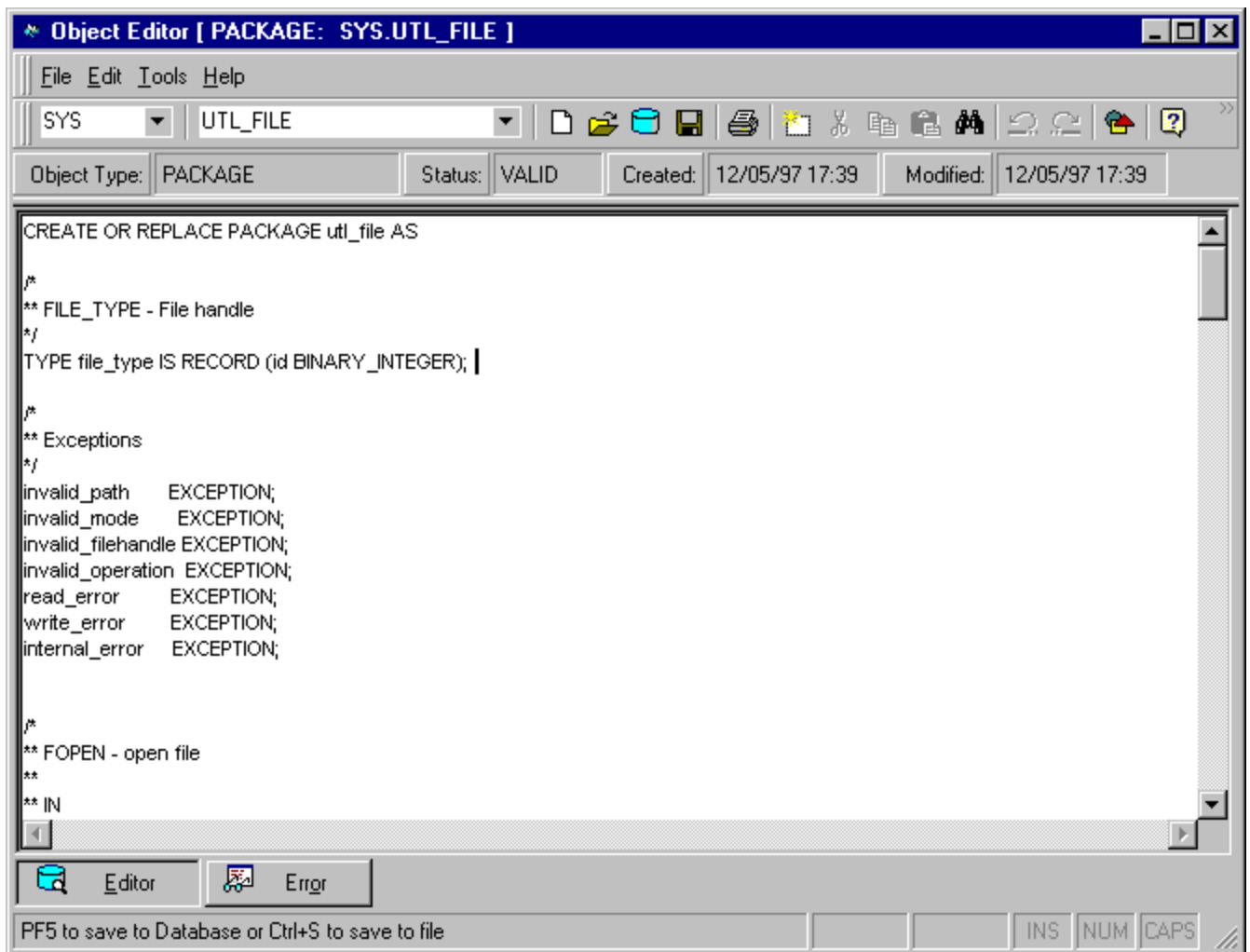
Buttons	Description
	Connect to database data source

	View selected object
	Describe object
	Show index
	Display constraints
	Display object information such as Owner, Name, Created Date, Modified Date, Status and Size.
	Delete an object
	Change the appearance of the Object Viewer using Large Icons
	Change the appearance of the Object Viewer to use Small Icons
	Change the appearance of the Object Viewer to use List
	Change the appearance of the Object Viewer to use Details
	Display Options Dialog
	Display Help information
	Exit IObjects

Using IObjects Editor

Overview of IObjects Editor
















The IObjects incorporates its own editor that enables you to view and maintain your database objects with ease.



It includes the standard editing features such as **Cut**, **Copy**, **Paste**, **Undo**, and **Redo**. To use any of the edit functions, from the **Edit** menu, click on the desired menu item or simply click on the toolbar button.

The following toolbar options are available in the IObjects Editor:

Button	Description
--------	-------------

	Create a new script
	Open a script file
	Execute a script and save to database.
	Save the active script with its current name. If you have not assigned the script with filename, the Save As dialog box is displayed.
	Print a script file
	Refresh editor
	Cut the selection from the opened script and save it on the clipboard
	Copies the selection to the clipboard
	Inserts what's on the clipboard
	Search a string in the open scrip.
	Undo
	Redo
	Display Options Dialog
	Display Help information
	Close Object Editor

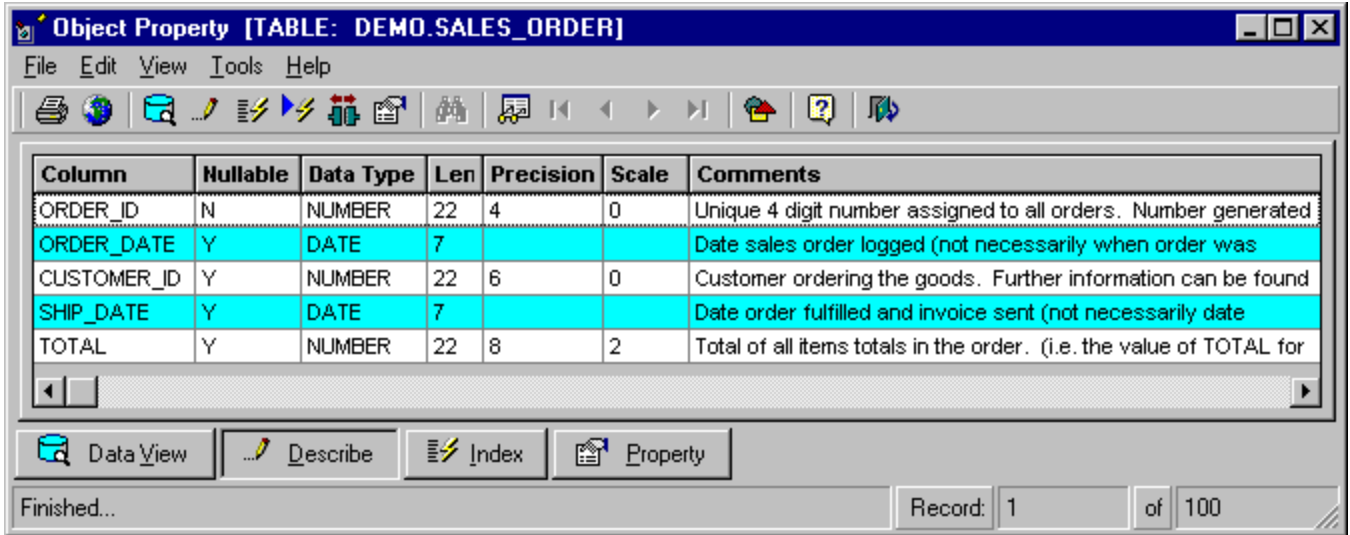
Using IObjects Property

Using IObjects Property

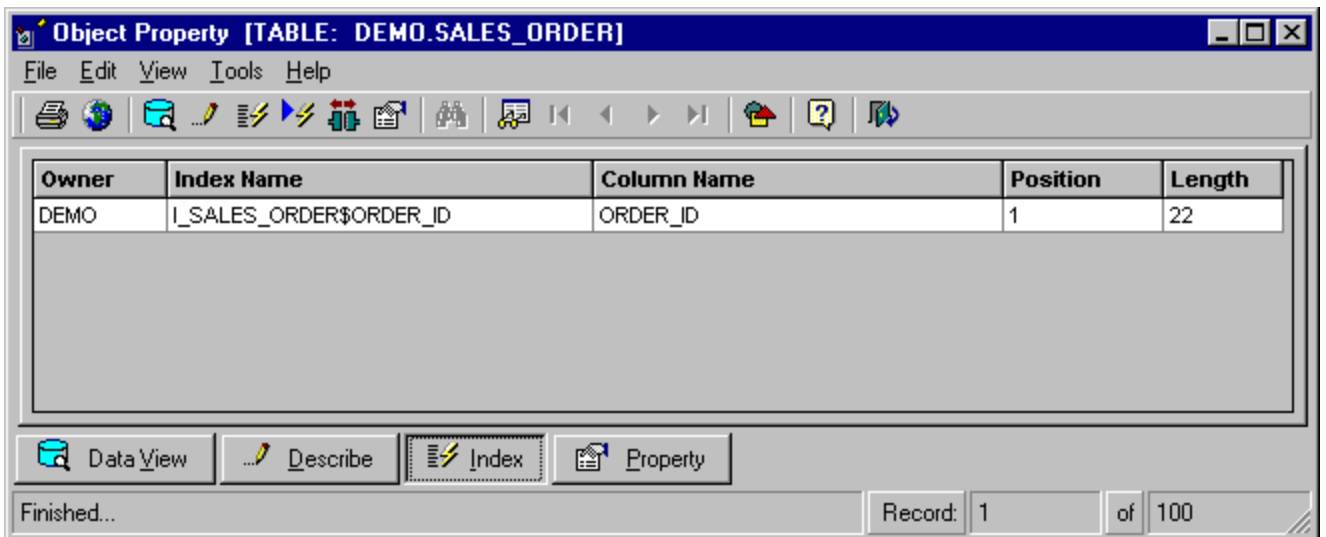
The IObjects Property window displays schema data:

	ORDER_ID	ORDER_DATE	CUSTOMER_ID	SHIP_DATE	TOTAL
▶	610	1/7/91	101	1/8/91	101.4
	611	1/11/91	102	1/11/91	45
	612	1/15/91	104	1/20/91	5860
	601	5/1/90	106	5/30/90	60.8
	602	6/5/90	102	6/20/90	56
	600	5/1/90	103	5/29/90	42
	604	6/15/90	106	6/30/90	642
	605	7/14/90	106	7/30/90	8374
	606	7/14/90	100	7/30/90	3.4
	609	8/1/90	100	8/15/90	102.5
	607	7/18/90	104	7/18/90	5.6
	608	7/25/90	104	7/25/90	35.2
	603	6/5/90	102	6/5/90	224
	620	3/12/91	100	3/12/91	4450
	613	2/1/91	108	2/1/91	6400
	614	2/1/91	102	2/5/91	23940
	616	2/3/91	103	2/10/91	764
	619	2/22/91	104	3/4/91	1260
	617	2/5/91	105	3/3/91	46370
	615	2/1/91	107	2/6/91	710
	618	2/15/91	102	3/6/91	3083
	621	3/15/91	100	4/1/91	730

The IObjects Property window provides description of schema objects:



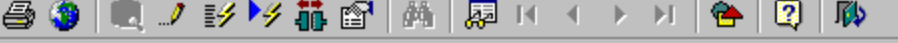
The IObjects Property window displays indexes on the table objects:



The IObjects Property window also displays the object properties such as owner, name, created timestamp, modified timestamp, object status, and total number of rows for the selected schema object.

Object Property [TABLE: DEMO.SALES_ORDER]

File Edit View Tools Help



Object Name	Object Value
Owner	DEMO
Name	SALES_ORDER
Created On	12/5/97 5:42:54 PM
Modified On	12/5/97 5:43:02 PM
Status	VALID
Size	100 rows

Data View Describe Index Property

Record: of

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