Analytical Solutions Inc. Presents

SQL Workshop ™ 3.0

Introducing The First Windows Based Stored Procedure Debugger For MS/Sybase SQL Server Databases

SQL Workshop 3.0™   Overview

SQL Workshop 3.0 is a **powerful tool for** querying, creating, and maintaining **database objects**.

SQL Workshop is the **perfect supplement** when using **Powersoft's Powerbuilder**, **Microsoft Visual Basic**, or any other GUI based development tool.

Most database tools are built for Database Administrators (DBA) and priced accordingly. SQL Workshop, although capable of performing all Database Administration functions, is tailored towards the developers of database objects and applications.

For example, application **developers spend a majority of their time** creating and testing database objects, managing table data, querying table data, and other similar development tasks. **They spend little, if any time** creating database devices, allocating databases, managing database space, and other tasks usually performed by database administrators.

SQL Workshop is the **only tool** that **focuses on the application developer** and provides all of the functionality client/server developers need to effectively do their jobs at a price that is **affordable to even the smallest development shops**.

Major features of SQL Workshop include:

- SQL Server **Stored Procedeure Debugger**

- **Compares and transfers** data between tables

- **Windows interface for** the SQL Server Bulk Copy Program (**BCP**)

SQL Workshop 3.0™   Features

- **Reverse engineers** database **objects** (tables, indexes, procedures, etc.).

- **Automatically creates** SQL SELECT **queries** for you.

- **Imports and exports table data** from/into Excel Spreadsheets.

SQL Workshop 3.0™   Features

- **Searches for text** in SQL Server objects throughout an entire server.

- Extensive **On-Line Help** and **SQL Syntax Reference**.

- And more....

SQL Workshop can access any ODBC compliant database (including Sybase System 10) which distinguishes it from similar database products.

SQL Workshop **increases your productivity** and **reduces your development time** by **automating many of the tasks** you perform to develop and maintain database objects.

For example, SQL Workshop generates for you, the SQL necessary to create all types of stored procedures.

The following presentation (50 slides) will focus on the features of SQL Workshop that make it **superior to other database management tools**.

Use the keys/mouse buttons shown below to navigate through the demo. Press the **ESCAPE** key to **exit** the demo at any time.

Introducing SQL Workshop 3.0...........

SQL Workshop 3.0 - System10

File **Edit** **Datasources** **Maint** **Query** **SQL Server** **Window** **Help**

Select 1 or More Columns To Build a SQL SELECT Statement | All Rows | 3/13/95 | 7:52 PM

Datasources

Active Datasource: System10

Database: pubs2

Tables/Views

- au_pix
- authors
- discounts
- **employees**
- publishers
- roysched
- sales
- salesdetail

Columns

- **employees.ssn**
- **employees.first_name**
- **employees.last_name**
- employees.middle_init
- employees.address
- employees.city
- employees.state

Query - 1 - System10

After logging onto a server/database (called a datasource in SQL Workshop), a list of Tables and Views within the database are displayed.   You can use this list to quickly build and execute queries within SQL Workshop.

SQL Workshop 3.0 - System10

File **Edit** **Datasources** **Maint** **Query** **SQL Server** **Window** **Help**

Select 1 or More Columns To Build a SQL SELECT Statement | All Rows | 3/13/95 | 7:52 PM

Datasources

Active Datasource: System10

Database: pubs2

Tables/Views
- au_pix
- authors
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- publishers
- roysched
- sales
- salesdetail

Columns
- employees.ssn
- employees.first_name
- employees.last_name
- employees.middle_init
- employees.address
- employees.city
- employees.state

Selecting one or more Tables/Views in the List, displays the columns in the Table or View in the Column List.

From the column list you can select one or more columns you want to use in a SQL SELECT query.

SQL Workshop 3.0 - System10

File **Edit** **Datasources** **Maint** **Query** **SQL Server** **Window** **Help**

Select 1 or More Columns To Build a SQL SELECT Statement | All Rows | 3/13/95 | 7:52 PM

Datasources

Active Datasource: System10   **Database:** pubs2

Tables/Views
- au_pix
- authors
- discounts
- **employees**
- publishers
- roysched
- sales
- salesdetail

Columns
- employees.ssn
- employees.first_name
- employees.last_name
- employees.middle_init
- employees.address
- employees.city
- employees.state

Select **A**ll Columns
Expression Builder
Build SQL Statement
Column Details

Query - 1 - System10

Pop Up menus are available by clicking the right mouse button over an object. **They enable you to quickly accomplish tasks related to a specific object. For example, the Pop Up menu for the Column List enables you to build a SQL Select Query for** ALL COLUMNS **or just for the columns selected.**

Weíll use the Build SQL Statement **option to build a query for the columns weíve selected.**

SQL Workshop 3.0 - System10

File   Edit   Datasources   Maint   Query   SQL Server   Window   Help

Enter 1 or More SQL Statements To Execute | All Rows | 3/13/95 | 7:52 PM

Datasources

Active Datasource: System10   Database: pubs2

Ta...

- au_pix
- authors
- discounts
- **employees**
- publishers
- roysched
- sales
- salesdetail

SQL Workshop builds a SQL SELECT query for the columns you selected. Query Windows are used to create and execute SQL queries.

You can enter and execute any valid SQL Query from a Query Window.

Up to 10 different Query Windows can be opened at one time.

Query - 1 - System10

```
SELECT employees.ssn, employees.first_name, employees.last_name FROM
employees
```

SQL Workshop 3.0 - System10

File Edit Datasources Maint Query SQL Server Window Help

Enter 1 or More SQL Statements To Execute | All Rows | 3/13/95 | 7:52 PM

Datasources

Active Datasource: System10

Database: pubs2

Tables

- au_pix
- authors
- discounts
- employees
- publishers
- roysched
- sales
- salesdetail

SQL Workshop also provides facilities to automate the process of creating SQL WHERE, ORDER BY, and GROUP BY clauses.

- employees.middle_init
- employees.address
- employees.city
- employees.state

Query - 1 - System10

```
SELECT employees.ssn, employees.first_name, employees.last_name FROM
employees
```

SQL Workshop 3.0 - System10

File **Edit** **Datasources** **Maint** **Query** **SQL Server** **Window** **Help**

Enter 1 or More SQL Statements To Execute | **All Rows** | 3/13/95 | 7:52 PM

Datasources

Active Datasource: System10   Database: pubs2

Ta...

au_pix
authors
discounts
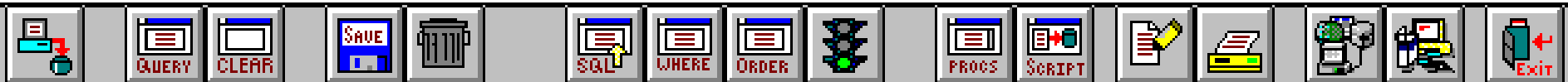**employees**
publishers
roysched
sales
salesdetail

In addition to using Pop Up Menus, you can use the toolbar to quickly accomplish tasks. SQL Workshop provides a toolbar button for the most commonly used tasks.

The RUN QUERY toolbar button is used to execute the SQL in a Query Window.

Query - 1 - System10

```
SELECT employees.ssn, employees.first_name, employees.last_name FROM
employees
```

SQL Workshop 3.0 - System10

File Edit Datasources Maint Query SQL Server Window Help

QUERY	CLEAR	SAVE	🗑	SQL	WHERE	ORDER	🚦	PROCS	SCRIPT					EXIT

5 Row(s) Processed By Query | All Rows | 3/13/95 | 7:53 PM

Results - 1 - System10

ssn	first_name	last_name
143335612	Daniel	Barney
158448098	John	Little
165621098	Mark	Sachais
187326782	Andrew	Soccer
210980230	Betsy	Frear

Query 1 - System10

```
SELECT employee                          e FROM
employees
```

Query Results are displayed within a Query Result Window where they can be viewed and printed.

SQL Workshop can also automatically load Query Results into your favorite text editor.

SQL Workshop 3.0 - System10

File **Edit** **Datasources** **Maint** **Query** **SQL Server** **Window** **Help**

Menu	Shortcut
Load Result Into Grid	
Save Result In Export Format	
Supress Result Set Column Headings	
Distinct	
Build SQL SELECT as VIEW	
Select All Columns	Ctrl+A
Build SQL SELECT	Ctrl+L
Where Clause	Ctrl+W
Order/Group By Clause	Ctrl+G
Expression Builder	
Set Rowcount	
Run Query	Ctrl+E

Enter 1 or More SQL Statements To Execute

5   7:53 PM

Active Datasource: System10

Tables/Views

au_pix
authors
discounts
employees
publishers
roysched
sales
salesdetail

SQL Workshop provides many powerful features related to running queries.

For example, you can load a result set into an editable grid. This enables you to edit the results of your queries which updates the tables used in the query. **SQL Workshop is the** only tool **of its** kind that letís you do this.

You can also save a query result in a text delimited file **that SQL Workshop can automatically load** into a text editor or a Microsoft Excel spreadsheet. The text delimited file can be used to import data into a table.

SQL Workshop 3.0 - System10

File Edit Datasources Maint Query SQL Server Window Help

| QUERY | CLEAR | SAVE | 🗑 | SQL | WHERE | ORDER | 🚦 | PROCS | SCRIPT | | | | | Exit |
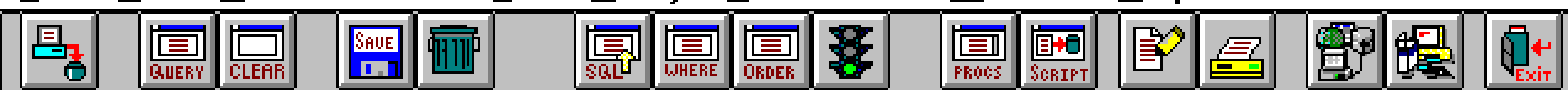
5 Row(s) Processed By Query | All Rows | 3/13/95 | 7:55 PM

Results - 1 - System10

ssn	first_name	last_name
143335612	Daniel	Barney
158448098	Edit The Results	Little
165621098	Mark	Sachais
187326782	Andrew	Soccer
210980230	Betsy	Frear

Hereís an example of a result set in an editable grid. Changing the result set data updates the underlying tables the result set was created from. An unlimited number of tables can be used and updated in a single query.

In our example above, the first_name field in the employee table will be changed.

```
SELECT
employees
```

SQL Workshop 3.0 - System10

File Edit Datasources Maint Query SQL Server Window Help

Double Click On a Row To Display The Index Definition Text | All Rows | 3/13/95 | 8:08 PM

employees - Table Details

Active

Owner: dbo   **Rows in table:** 5

au_pix
authors
discoun
employe
publish
roysche
sales
salesde

Columns:

Name	Type	Length	Decimals	Nullable
ssn	int	4		Yes
first_name	char	20		Yes
last_name	char	30		Yes
middle_init	char	1		Yes

Indexes:

Name	Indexed
emp_ix	ssn

Triggers: Select:

Insert:

Update:

Delete: dbo.emp_delete

Now that you've seen some of the query capabilities of SQL Workshop, let's take a look at how SQL Workshop helps you manage database objects.

SQL Workshop enables you to easily reverse engineer database objects.

This is the Table Details Window. It displays information about the columns in a table, indexes of a table, and any SQL Server Triggers on the table.

SQL Workshop 3.0 - System10

File   Edit   Datasources   Maint   Query   SQL Server   Window   Help

Double Click On a Row To Display The Index Definition Text

| All Rows | 3/13/95 | 8:08 PM |

employees - Table Details

Owner: dbo   Rows in table: 5

Columns:

Name	Type	Length	Decimals	Nullable
ssn	int	4		Yes
first_name	char	20		Yes
last_name	char	30		Yes
middle_init	char	1		Yes

Indexes:

Name	Indexed Fields	Unique	Clustered
emp_ix	ssn	Yes	Yes

Active

au_pix
authors
discoun
employe
publishe
roysche
sales
salesde

Triggers: Select:

Insert:

Update:

Delet   bo.emp_delete

To reverse engineer a database object, simply drag-and-drop the object to a Query Window.

TRIGGER   TRIGGER   TRIGGER   TRIGGER

OK

File   Edit   Datasources   Maint   Query   SQL Server   Window   Help
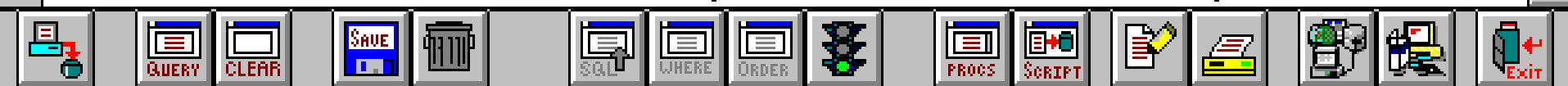
Ready   All Rows   3/13/95   8:10 PM

```
if exists (select * from sysobjects where name = 'emp_delete'  and type =
'TR')
DROP trigger emp_delete
GO


CREATE TRIGGER emp_delete ON employees FOR DELETE AS
if (select count(*) from deleted d, transactions_employees t
    where t.ssn = d.ssn) >0
    begin
        rollback transaction
        print "You can't delete an employee with outstanding transactions."

    end
```

SQL Workshop retrieves the SQL Script of the object from the database. You can now easily change and reload the object back to the database.

SQL Workshop 3.0 - System10

File　Edit　Datasources　Maint　SQL Server　Window　Help

| QUERY | CLEAR | SAVE | | SQL | WHERE | ORDER | | PROCS | SCRIPT | | | | | ExIT |
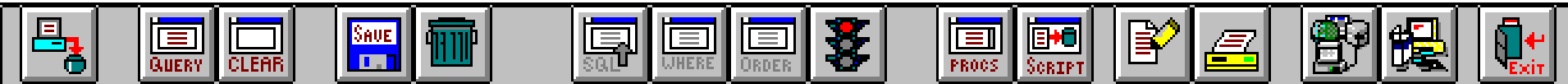
Double Click On a Row To Display Column Information　　　All Rows　　3/13/95　　8:10 PM

employees - Table Details

Owner: **dbo**　　　　　Rows in table:　**5**

Active

Columns:

Name	Type	Length	Decimals	Nullable
ssn	int	4		Yes
first_name	char	20		Yes
last_name	char	30		Yes
middle_init	c			Yes

au_pix
authors
discoun
employe
publish
roysche
sales
salesde

Indexes:

Name	Indexe		ique	Clustered
emp_ix	ssn		s	Yes

Table Details
Print
Drop Table/View
Delete All Rows
Update Statistics
Display CREATE Text

Trig

You can also use Pop Up Menus to reverse engineer objects.

Delete:　dbo.emp_delete

OK

File   Edit   Datasources   Maint   SQL Server   Query   Window   Help

| QUERY | CLEAR | SAVE | | SQL | WHERE | ORDER | | PROCS | SCRIPT | | | | | EXIT |

Enter 1 or More SQL Statements To Execute | All Rows | 3/13/95 | 8:10 PM

```
if exists (select * from sysobjects where name = 'employees'  and (type = 'U'
or type = 'S'))
   DROP TABLE employees
GO
Create Table employees (
     ssn                          int,
     first_name                   char(20),
     last_name                    char(30),
     middle_init                  char(1),
     address                      char(30),
     city                         char(20),
     state                        char(2),
     zip                          char(5),
     hire_date                    datetime,
     termination_date             datetime,
     last_review_date             datetime,
     salary                       money )
GO


if exists (select * from sysindexes where name = 'emp_ix'  and indid <> 0)
     DROP INDEX employees.emp_ix
GO

CREATE
```
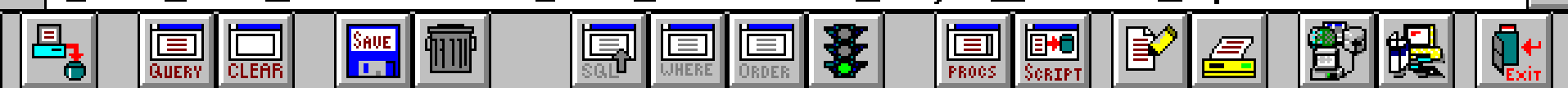
SQL Workshop saves you time by automatically creating **the necessary** DROP statements **for you.**

SQL GRANT and USE DATABASE statements can also be created for you.

Letís assume we need to change our existing table layout **to remove the** last_review_date **and** salary **fields.**

File   **Edit**   **Datasources**   **Maint**   **SQL Server**   **Query**   **Window**   **Help**

| QUERY | CLEAR | SAVE | | | SQL | WHERE | ORDER | | PROCS | SCRIPT | | | | | EXIT |

Enter 1 or More SQL Statements To Execute | **All Rows** | 3/13/95 | 8:11 PM

```
if exists (select * from sysobjects where name = 'employees_new'  and (type =
'U' or type = 'S'))
  DROP TABLE employees_new
GO
Create Table employees_new (
     ssn                              int,
     first_name                       char(20),
     last_name                        char(30),
     middle_init                      char(1),
     address                          char(30),
     city                             char(20),
     state                            char(2),
     zip                              char(5),
     hire_date                        datetime,
     termination_date                 datetime
)
GO

if exists (select * from sysindexes where name = 'emp_new_ix'  and indid <>
0)
     DROP INDEX employees_new.emp_new_ix
GO

CREATE
```
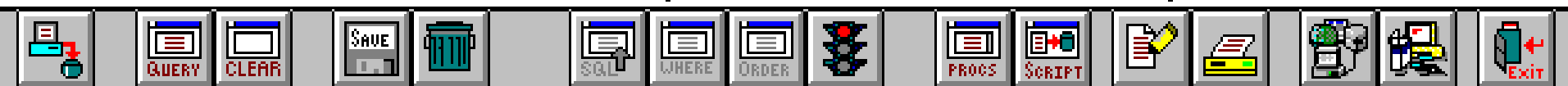
Simply rename the table, erase the two fields, and execute the SQL.

SQL Workshop 3.0 - System10

File   Edit   Datasources   Maint   Query   Query   Window   Help

Enter 1 or More SQL Statements To Execute   All Rows   3/13/95   8:13 PM

Datasources

Active Datasource: System10

Tables/Views

- au_pix
- authors
- discounts
- employees
- employees_new
- publishers
- roysched
- sales

SQL Workshop provides various ways to migrate data from one table to another. One way is using the Save Result In Export Format query option.

This option enables you to store the results of ANY query into a text delimited file. You can extract and format the results any way youíd like.

Weíll create a query to select all columns from the employee table except the two columns we removed.

Query - 1

```
SELECT employees.ssn, employees.first_name, employees.last_name,
employees.middle_init, employees.address, employees.city, employees.state,
employees.zip, employees.hire_date, employees.termination_date FROM
employees
```
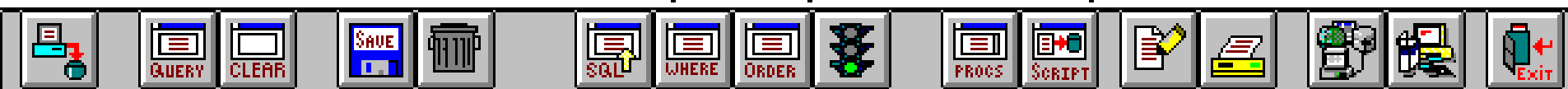
SQL Workshop 3.0 - System10

Menu bar: File Edit Datasources Maint Query SQL Server Window Help

Enter 1 or More SQL Statements To Execute

5   8:13 PM

Tooltip: Turn on the Save Result In Export Format query option, and run the SQL.....

Query menu:
- Load Result Into Grid
- Save Result In Export Format
- Supress Result Set Column Headings
- Distinct
- Build SQL SELECT as VIEW
- Select All Columns .... Ctrl+A
- Build SQL SELECT .... Ctrl+L
- Where Clause .... Ctrl+W
- Order/Group By Clause .... Ctrl+G
- Expression Builder
- Set Rowcount
- Run Query .... Ctrl+E
- Execute SQL in Selected Files

Table list:
- authors
- discounts
- employees
- employees_new
- publishers
- roysched
- sales

Query - 1 - System10

```
SELECT employees.ssn, employees.first_name, employees.last_name,
employees.middle_init, employees.address, employees.city, employees.state,
employees.zip, employees.hire_date, employees.termination_date FROM
employees
```

SQL Workshop 3.0 - System10

File　Edit　Datasources　Maint　Query　SQL Server　Window　Help
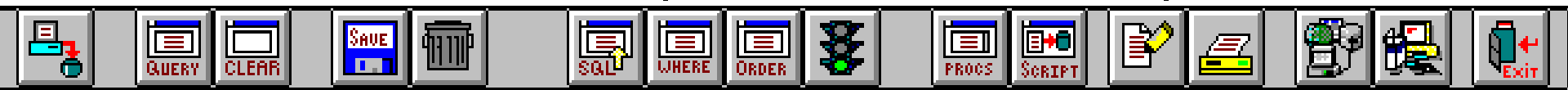
Select a delimiter to separate each data element | All Rows | 3/13/95 | 8:15 PM

Datasources

Active Datasource:　System10　　　　　Database:　pubs2

SQL Workshop prompts you for the data delimiter.

It also prompts you for the file to save the delimited text into.

Columns

employees.middle_init
employees.address
employees.city

Data Delimiter

Delimiter: [,]

| Comma (,) |
| Asterisk (*) |
| Tilde (~) |

```
SELECT employees.ssn,                      last_name,
employees.middle_init,                              ty, employees.state,
employees.zip, employees.hire_date, employees.termination_date FROM
employees
```

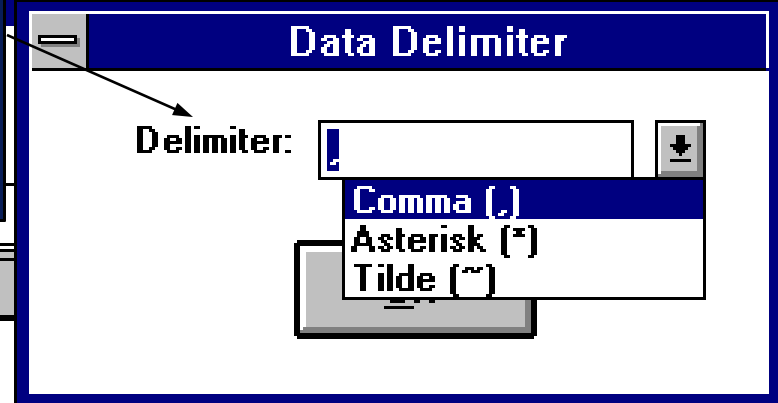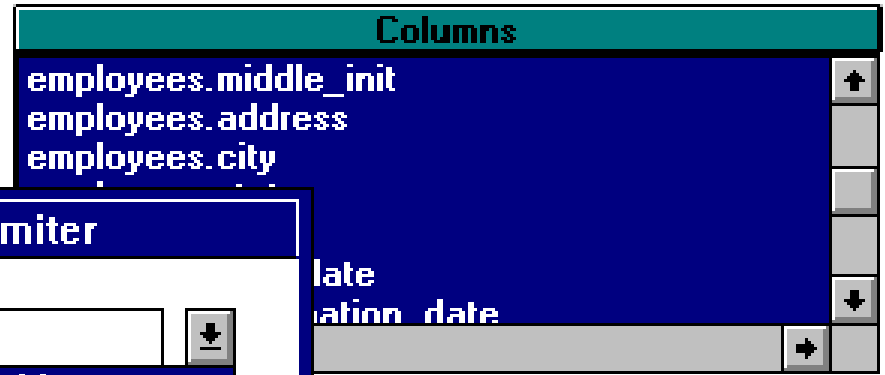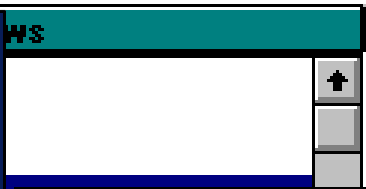# SQL Workshop 3.0 - System10

File **Edit** **Datasources** **Maint** **Query** **SQL Server** **Window** **Help**
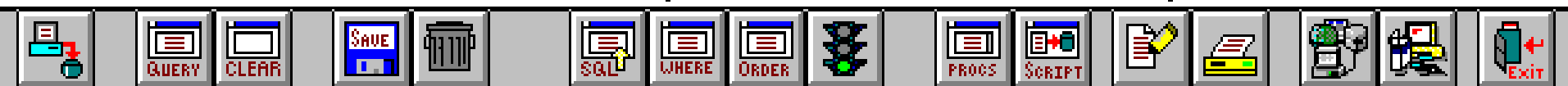
Formatting Row 5 | All Rows | 3/13/95 | 8:16 PM

Datasources

Active Datasource: System10   Database: pubs2

Tables/Views

- au_pix
- authors
- discounts
- **employees**
- employees_new
- publishers
- roysched
- sales

Columns

Export Completed

? Table data was successfully exported to file C:\EXPORT1.DTA.

Do you want to view the data in the text editor ?

[Yes]   [No]

```
SELECT employees.ssn, employees.first_name, employees.last_name,
employees.city, employees.state,
employees.termination_date FROM
```

SQL Workshop notifies you when the query completes and gives you the opportunity to review and modify the exported data.

SQL Workshop 3.0 - System10

File Edit Datasources Maint Query SQL Server Window Help

Ready | All Rows | 3/13/95 | 8:17 PM

Datasources

Notepad - EXPORT1.DTA

File Edit Search Help

```
niel,Barney,J,1522 Snoopy Ct.,Norcross,GA,34158,08/04/1992,01/01/1900
hn,Little,D,21 Poorhouse Rd.,Atlanta,GA,31010,12/18/1991,01/01/1900
rk,Sachais,J,18 Casino Lane,Atlanta,GA,30244,01/15/1990,01/01/1900
drew,Soccer,B,1700 Mansion Street,Dunwoody,GA,32011,08/24/1976,01/01/1900
tsy,Frear, ,31 Schoolhouse Rd.,Bucklhead,GA,31030,04/04/1989,01/01/1900
```

Choosing YES loads the data into the text
editor of your choice.

**Here you see the 5 rows of exported data
displayed in the Windows notepad.**

File   Edit   Datasources   Maint   Query   SQL Server   Window   Help

QUERY CLEAR SAVE [trash] SQL WHERE ORDER [traffic] PROCS SCRIPT [icons] EXIT

Select a table to bulk copy into/from. | All Rows | 3/13/95 | 8:20 PM |

BCP Table Data

Another way to copy data from a table is using the SQL Workshop Bulk Copy Facility (BCP). This facility also enables you to copy data into a table.

The BCP Table Data Window provides a GUI Interface to the cumbersome SQL Server Bulk Copy Program.

We'll use this facility to copy the data we've just exported into our new employee table.

Active Data

au_pix
authors
discounts
employees
employees_
publishers
roysched
sales

BCP Execution Parameters

○ BCP Out   ● BCP In

☐ Run BCP In DOS Shell

Table: **employees_new**

Format Parameters

Delimiter: `,`

Row Terminator: `\n`

Format File

Copy Parameter

First Row T
Last Row T
Max
Bat

Server Information:

Server   System10

Database: pubs2

User ID: MSAIS
Password: *******

SELECT em
employees
employees

Run BCP   Cancel

SQL Workshop 3.0 - System10

File   Edit   Datasources   Maint   Query   SQL Server   Window   Help

Ready | All Rows | 3/13/95 | 8:20 PM

BCP Table Data

Active Data

BCP Execution Parameters

○ BCP Out   ● BCP In

Table: employees_new

au_pix
authors
discounts
employees
employees_
publishers
roysched
sales

Form

Ro

BCP Completed

ℹ️ BCP copied 5 rows of data into employees_new.

[OK]

SELECT em
employees
employees

Server Information:

[Server] System10   User ID: MSAIS
Database: pubs2   Password: ********

[Run BCP]   [Cancel]   [View Errors]

SQL Workshop 3.0 - System10

File   Edit   Datasources   Maint   Query   SQL Server   Window   Help

Enter 1 or More SQL Statements To E

All Rows   3/13/95   8:22 PM

Maint menu:
- Indexes
- Keys
- Procedures
- Rules/Defaults
- Tables
- Triggers
- Views
- Data Mover
- Export Table Data
- Table Data

Active Datasource: System

Database: pubs2

Tables/Views
- au_pix
- authors
- discounts
- employees
- employees_new
- publishers
- roysched
- sales

Columns

SQL Workshop is the only database tool **that can** compare and transfer **data between tables.** The tables **can even** exist on different servers and be different database types (i.e. **Oracle and Sybase).**

SQL Workshop compares the data in each table, **row by row.** It then inserts and updates rows of data into the Destination Table based on the options you choose.

This is invaluable in managing and comparing tables in a multi-database environment.

SQL Workshop 3.0 - System10

File   Edit   Datasources   Maint   Query   SQL Server   Window   Help

Check this to report on any data differences between similar rows of data.

| All Rows | 3/13/95 | 8:24 PM |

Data Mover

Input Data Source
⦿ Table
◯ File

Data Transfer Options
⦿ Insert and Update Rows   ☒ Simulate Data Transfer
◯ Only Insert Rows   ☒ Report Data Differences
◯ Only Update Rows   ☐ Create INSERT/UPDATE SQL statements

Source Datasource/Table
Datasource   Development Server / pubs2

dbo.employees_new ▼

SQL Workshop can insert rows of data into the destination table that exist in the Source Table, but do not exist in the Destination Table.

Destination Datasource/Table
Datasource   Test Server / pubs2

dbo.employees_new ▼

ssn
first_name
last_name
middle_init
address

Transfer Data   Cancel   View Results

SQL Workshop 3.0 - System10

File   Edit   Datasources   Maint   Query   SQL Server   Window   Help

Check this to report on any data differences between similar rows of data. | All Rows | 3/13/95 | 8:24 PM |

Data Mover

Input Data Source
- ◉ Table
- ○ File

Data Transfer Options
- ◉ Insert and Update Rows
- ○ Only Insert Rows
- ○ Only Update Rows

- ☒ Simulate Data Transfer
- ☒ Report Data Differences
- ☐ Create INSERT/UPDATE SQL statements

Source Datasource/Table
Datasource   Development Server / pubs2

dbo.employees_new ▼

It can also update rows of data (or only columns that you choose) in the Destination Table. The rows are updated with the data of matching rows in the Source Table.

Destination Datasource/Table
Datasource   Test Server / pubs2

dbo.employees_new ▼

- ssn
- first_name
- last_name
- middle_init
- address

Transfer Data   Cancel   View Results

SQL Workshop 3.0 - System10

File   Edit   Datasources   Maint   Query   SQL Server   Window   Help

Check this to report on any data differences between similar rows of data.   All Rows   3/13/95   8:24 PM

Data Mover

Input Data Source
- ● Table
- ○ File

Data Transfer Options
- ● Insert and Update Rows   ⊠ Simulate Data Transfer
- ○ Only Insert Rows   ⊠ Report Data Differences
- ○ Only Update Rows   ☐ Create INSERT/UPDATE SQL statements

Source Datasource/Table
Datasource   Development Server / pubs2

dbo.employees_new ▼

**The Simulate and Report Data Differences options enable you to review the changes that will be made to the Destination Table prior to updating the table.**

Destination Datasource/Table
Datasource   Test Server / pubs2

dbo.employees_new ▼

ssn
first_name
last_name
middle_init
address

Transfer Data   Cancel   View Results

File   Edit   Datasources   Maint   Query   SQL Server   Window   Help
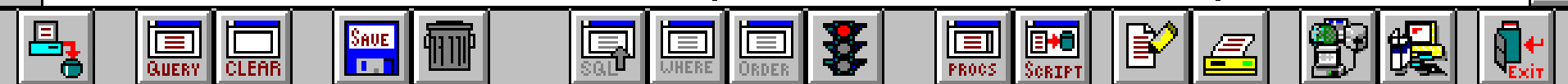
Row(s) Processed By Query   All Rows   3/13/95   8:29 PM

```
UPDATED ROW WHERE ssn = 143335612
    Column: address - DESTINATION Value: 1522 Snoopy Ct.
                    - SOURCE Value: 1200 Movin Up St.
    Column: city - DESTINATION Value: Norcross
                 - SOURCE Value: Buckhead


UPDATED ROW WHERE ssn = 158448098
    Column: address - DESTINATION Value: 21 Poorhouse Rd.
                    - SOURCE Value: 2100 StillPoor Rd.


*****  Data Transfer Simulation Summary *****


Table Updated                 : Test Server / pubs2 / dbo.employees_new
Source Table                  : Development Server / pubs2 / dbo.employees_new


Insert/Update Option: Inserts and Updates Performed


Table Columns Analyzed : All Columns


Data Rows Read     : 3
Data Rows Inserted: 0
Data Rows Updated : 2
```

The Data Transfer Report displays detailed information about the data transfer process.

In the above example, two rows of data will be updated in the Destination Table.

SQL Workshop 3.0 - System10

File   Edit   Datasources   Maint   Query   **SQL Server**   Window   Help

SQL Server menu:
- Change Database
- **Referencing Objects**   Ctrl+J
- Search For Text In Objects
- BCP Table Data
- SQL Syntax
- SET Options ▶
- Queries

Ready   13/95   8:30 PM

Data

Active Datasource: System10

Tables/Views

au_pix
authors
discounts
employees
employees_new
publishers
roysched
sales

SQL Workshop provides many powerful features **when working with Sybase/SQL Server databases.**

The Referencing Objects Window displays procedures, triggers, and views that reference a a selected table in the Tables/Views List.

Unlike other tools **that query the** sysdepends **table (which is not always correct), SQL Workshop** scans the database **looking for objects referencing the table. This** ensures the results presented are accurate.

SQL Workshop 3.0 - System10

File　Edit　Datasources　Maint　Query　SQL Server　Window　Help
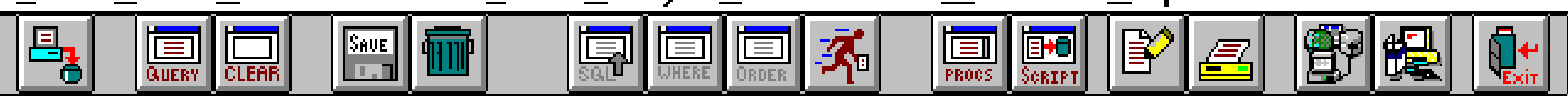
Select An Object To View　　　　　　All Rows　3/13/95　8:31 PM

System10.pubs2 - Stored Procedures

Active Datasource:　Total Objects:　10

au_pix
authors
discounts
employees
employees_new
publishers
roysched
sales

dbo.debug_proc
dbo.discount_proc
dbo.history_proc
dbo.insert_sales_proc
dbo.insert_salesdetail_proc
dbo.new_select_proc
dbo.storeid_proc
dbo.storename_proc
dbo.title_proc
dbo.titleid_proc

Procedures

Triggers

Views

Retreive Selected Object
Drop Object
Run Procedure
Debug Procedure
Print List

If no table is selected when the Referencing Objects Window is opened, all objects in the database are displayed.

You can drag-and-drop any object in the list to a Query Window, or use the Pop Up menu to retrieve the SQL Script of the object.

File   Edit   Datasources   Maint   Query   SQL Server   Window   Help
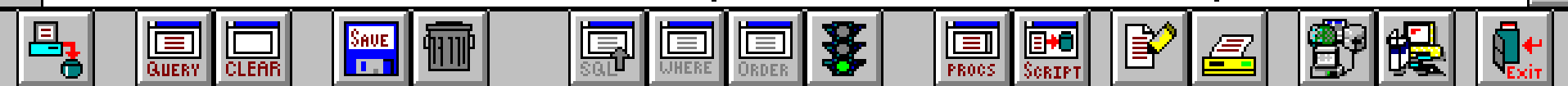
Ready   All Rows   3/13/95   8:31 PM

```
if exists (select * from sysobjects where name = 'debug_proc'   and type =
'P')
DROP procedure debug_proc
GO

  CREATE PROCEDURE dbo.debug_proc
          as
  declare @price money,
          @title  varchar(80)


  declare price_cursor cursor
      for select price, title from titles
      for read only


  open    price_cursor


  fetch   price_cursor
   into @price, @title


  while (@@sqlstatus = 0)
     begin
        if @price > 10.00
```

SQL Workshop retrieves the SQL
Script of the selected object.

You can now change the SQL and
reload the object back into the
database.

```
        end
```

SQL Workshop 3.0 - System10

File   Edit   Datasources   Maint   Query   SQL Server   Window   Help

Select An Object To View   All Rows   3/13/95   8:32 PM

Datasources

Active Datasource: System10   Database: pubs2

Ta...
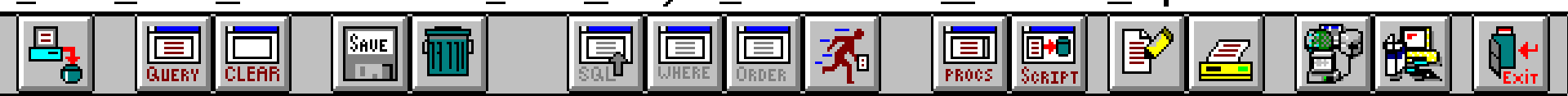
au_pix
authors
discounts
employees
employees_new
publishers
roysched
sales

System10.pubs2 - Stored Procedures

Total Objects: 10

dbo.debug_proc
dbo.discount_proc
dbo.history_proc
dbo.insert_sales_proc
dbo.insert_salesdetail_proc
dbo.new_select_proc
dbo.storeid_proc
dbo.storename_proc
dbo.title_proc
dbo.titleid_proc

Procedures

Triggers

Views

Cancel

Retreive Selected Object
Drop Object
Run Procedure
Debug Procedure
Print List

SQL Workshop is the ONLY TOOL available that enables you to Debug Stored Procedures within the Windows Environment.

SQL Workshop 3.0 - System10

File   Edit   Datasources   Maint   Query   SQL Server   Window   Help

All Rows | 3/13/95 | 8:32 PM

Debug Procedure - debug_proc

Variables To Display:
- @@error
- @@rowcount
- @@servername
- @@spid
- @@sqlstatus
- @price
- @title

☒ Prompt For Input Parameters

Break Point Lines: <16> <18>

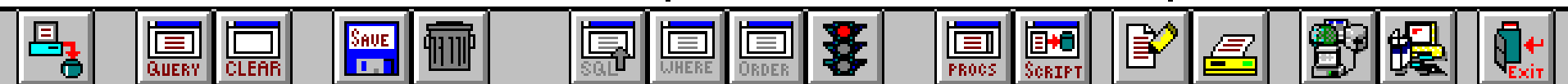**SQL Workshop displays the text of a stored procedure and all variables within the procedure.**

You can select which variables you want to display and also place break points at various lines lines within the procedure.

```
<8>        for select price, title from titles
<9>        for read only
<10>
<11>    open   price_cursor
<12>
<13>    fetch  price_cursor
<14>     into @price, @title
<15>
<16>    while (@@sqlstatus = 0)
<17>      begin
<18>       if @price > 10.00
<19>         begin
<20>          select @title, @price + (@price * .05)
<21>         end
<22>
<23>
<24>    into  @price, @title
```

Start/Continue	F5
Restart	Shift+F5
Trace Break Point	Ctrl+F5
Trace All	
Find Next Break Point	F8
Find Previous Break Point	Shift+F8

File   **Edit**   **Datasources**   **Maint**   **Query**   **SQL Server**   **Window**   **Help**

2 Row(s) Processed By Query | All Rows | 3/13/95 | 8:33 PM

Results - 1 - System10

```
Debug Break Point Line (Variables Displayed Below) -->>> 16

_time                        _@price                        _@title
------------------------     ------------------------       ------------------------

20:33:34.570                 19.9900                        The Busy Executive's D
```

```
<11>      open  price_cursor
<12>
<13>      fetch  price_cursor
<14>       into @price, @title
<15>
<16>      while (@@sqlstatus = 0)
<17>        begin
<18>         if @price > 10.00
<19>          begin
<20>            select @title, @price + (@price
<21>          end
<22>
<23>
<24>      into  @price, @title
```

When you run the procedure, SQL Workshop displays the variables you selected at the break points you've set.

Timing information is also displayed that enables you to easily find performance problems in your procedures.

SQL Workshop enables you to debug even the most complex stored procedures.

SQL Workshop 3.0 - System10

File | Edit | Datasources | Maint | Query | SQL Server | Window | Help

QUERY | CLEAR | SAVE | | SQL | WHERE | ORDER | | PROCS | SCRIPT | | | | | | Exit

Select 1 Or More Lines To Set Break Points On | All Rows | 3/13/95 | 8:33 PM

Debug Procedure - debug_proc   Break Point: <16>

Variables To Display:
- @@error
- @@rowcount
- @@servername
- @@spid
- @@sqlstatus
- **@price**
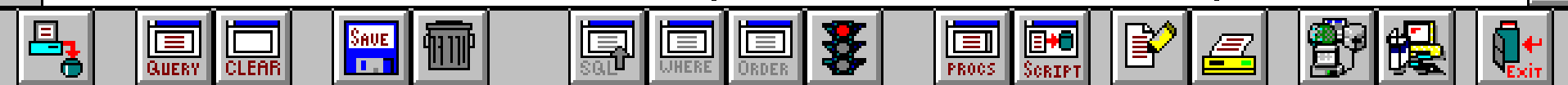- **@title**

☐ Prompt For Input Parameters

Break Point Lines:
- <16>
- <18>

> **The TRACE ALL Debug option runs the stored procedure and displays the values of all variables selected at each break point set.**

```
<8>        for s
<9>        for r
<10>
<11>       open    price_cursor
<12>
<13>    fetch  price_cursor
<14>     into @price, @title
<15>
<16>       while (@@sqlstatus = 0)
<17>          begin
<18>          if @price > 10.00
<19>             begin
<20>                select @title, @price + (@price * .05)
<21>             end
<22>
<23>
<24>    into  @price, @title
```

Start/Continue	F5
Restart	Shift+F5
Trace Break Point	Ctrl+F5
Trace All	
Find Next Break Point	F8
Find Previous Break Point	Shift+F8

File   Edit   Datasources   Maint   Query   SQL Server   Window   Help

50 Row(s) Processed By Query   All Rows   3/13/95   8:34 PM

```
Trace Break Point Line (Variables Displayed Below) -->>> 16

_time                         _@price                       _@title
-------------------------     -------------------------     -------------------------

20:34:18.073                  19.9900                       The Busy Executive's Da

Trace Break Point Line (Variables Displayed Below) -->>> 18

_time                         _@price                       _@title
-------------------------     -------------------------     -------------------------

20:34:18.073                  19.9900                       The Busy Executive's Da

Trace Break Point Line (Variables Displayed Below) -->>> 18

_time                         _@price                       _@title
-------------------------     -------------------------     -------------------------
```

This is a great way to find performance problems and errors in ìloopî logic.

```
20:34:18.150                                                                   rs:

-------------------------
```

```
Trace
```

SQL Workshop 3.0 - System10

File   Edit   Datasources   Maint   Query   SQL Server   Window   Help

Begin Searching Server Objects For The Text Entered | All Rows | 3/13/95 | 8:36 PM

Search Server Objects

Active Dat[a]

au_pix
authors
discounts
employees
employees_
publishers
roysched
sales

Search For Text LIKE: `title`

Search Objects

- [x] All Objects
- [ ] Defaults
- [ ] Procedures
- [ ] Rules
- [ ] Triggers
- [ ] Views

- [ ] Match Case

Search Databases:

master
model
pubs2
sybsystemprocs
tempdb

Objects Found

10

pubs2.dbo.debug_proc (P)
pubs2.dbo.deltitle (TR)
pubs2.dbo.history_proc (P)
pubs2.dbo.insert_salesdetail_pro[c]
pubs2.dbo.new_select_proc (P)
pubs2.dbo.title_idrule (R)
pubs2.dbo.title_proc (P)
pubs2.dbo.titleid_proc (P)
pubs2.dbo.titleview (V)

The Server Search Faciltiy enables you to search database objects for a specific text value.

A list of objects containing the text entered is displayed.

You can print the list or easily retrieve the SQL script of any object displayed in the list using drag-and-drop.

VIEW   VIEW   VIEW   VIEW

[Search]   [Cancel]

File **Edit** **Datasources** **Maint** **Query** **SQL Server** **Window** **Help**
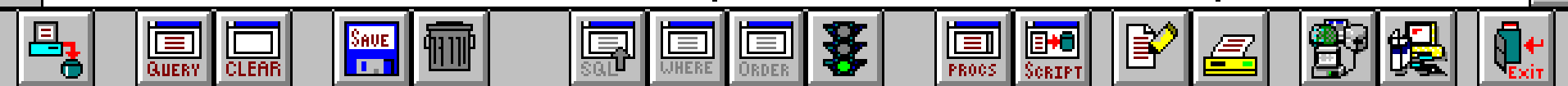
Enter 1 or More SQL Statements To Execute | All Rows | 3/13/95 | 8:36 PM

```
if exists (select * from sysobjects where name = 'titleview' and
user_name(uid) = 'dbo'  and type = 'V')
DROP view dbo.titleview
GO


create view titleview
  as
  select title, au_ord, au_lname,
  price, total_sales, pub_id
  from authors, titles, titleauthor
  where authors.au_id = titleauthor.au_id
  and titles.title_id = titleauthor.title_id


GO
GRANT SELECT ON dbo.titleview TO public
GO
```
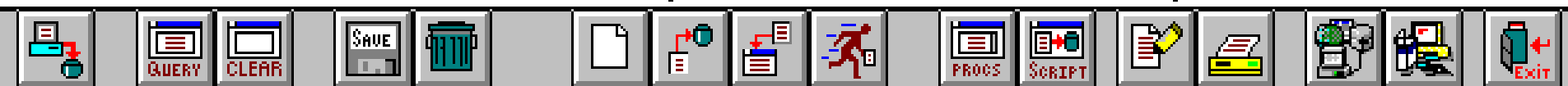
SQL Workshop retrieves the SQL Script of the selected object containing the text being searched for.

SQL Workshop 3.0 - System10

File   Edit   Datasources   Maint   Query   SQL Server   Window   Help

Ready | All Rows | 3/13/95 | 8:39 PM

Procedure Maintenance

Procedure Name:
- dbo.debug_proc
- dbo.discount_proc
- **dbo.history_proc**
- dbo.insert_sales_proc
- dbo.insert_salesdetail_proc

DOS Filename

Tables:
- publishers
- roysched
- **sales**
- salesdetail
- stores

Columns:
- stor_id
- ord_num
- date

Procedure Te...

```
CREATE PROCEDURE dbo.history_proc

@stor_id char(4)
as
select date,
     sales.ord_num,
     qty,
     salesdetail.title_id,
     discount,
     price,
     total = qty * price * (1 - discount/100)
from sales_salesdetail_titles
where s
```

In addition to using drag-and-drop, SQL Workshop enables you to create and maintain all database objects using an intuitive GUI interface.

Simply select the object from the list, change the text, and re-load the object back into the database.
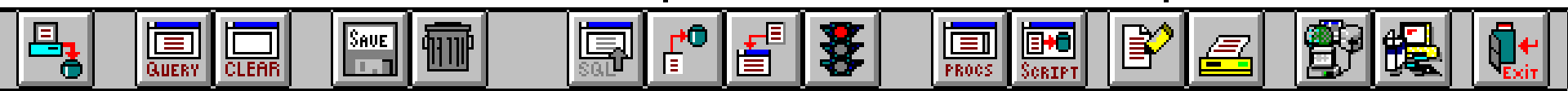
SQL Workshop 3.0 - System10

File | Edit | Datasources | Maint | Query | SQL Server | Window | Help

Select one or more columns to be used in the WHERE clause built | All Rows | 3/13/95 | 8:40 PM

Create New Procedure

Active

Procedure Type

- ⦿ Select
- ○ Insert
- ○ Update
- ○ Delete

Procedure Name: `new_employee_procedure`

DOS Filename

au_pix
authors
discour
employ
employ
publish
roysche
sales

Tables: `employees_new`

Input Parameters:

ssn
first_name
last_name
middle_init
address
city
state
zip

Unlike other database tools that force you to manually enter SQL **to create database objects, SQL Workshop** saves you time **by** generating SQL for you**.**
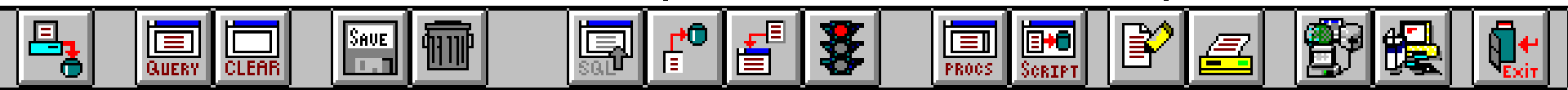
SQL Workshop 3.0 - System10

File | Edit | Datasources | Maint | Query | SQL Server | Window | Help

Select one or more columns to be used in the WHERE clause built | All Rows | 3/13/95 | 8:40 PM

Create New Procedure

Active

au_pix
authors
discour
employ
employ
publish
roysche
sales

Procedure Type

(●) Select   (○) Insert

(○) Update   (○) Delete

Procedure Name: new_employee_procedure

DOS Filename

Tables: employees_new ▼

Input Parameters:

ssn
first_name
last_name
middle_init
address
city
state
zip

For example, to create a new procedure simply:

- Select the type of procedure you want to create.
- Enter the procedure name.
- Choose the table you want to create the procedure for.
- Select the input parameters.

File   **Edit**   **Datasources**   **Maint**   **Query**   **SQL Server**   **Window**   **Help**
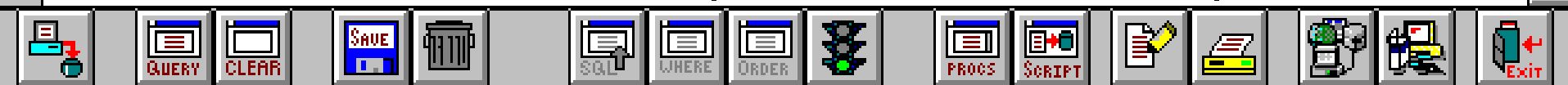
Enter 1 or More SQL Statements To Execute | All Rows | 3/13/95 | 8:41 PM

```
if exists (select * from sysobjects where name = 'new_employee_procedure' and
type = 'P')
   drop procedure new_employee_procedure
GO
|
CREATE PROCEDURE new_employee_procedure
(
        @p_ssn              int
)
AS

SELECT    ssn,
          first_name,
          last_name,
          middle_init,
          address,
          city,
          state,
          zip,
          hire_date,
          termination_date
FROM      employees_new
WHERE     ssn  =  @p_ssn

GRANT EXECUTE ON new_employee_procedure to public
```

SQL Workshop creates ALL the necessary SQL for you.

You can customize the SQL generated, or have SQL Workshop automatically load it into the database for you.

SQL Workshop 3.0 - System10

File Edit Datasources Maint Query SQL Server Window Help
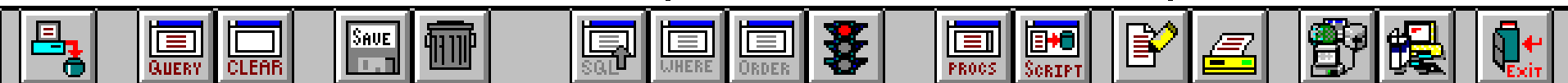
Enter 1 or More SQL Statements To Execute | All Rows | 3/13/95 | 8:42 PM

Datasources

authors
discounts
employees
employees_new
publishers
roysched
sales

SQL Server Queries

Query To Run: KILL Processes (SPIDS)

Error Messages
Groups
KILL Processes (SPIDS)
Locked Processes
Permissions
Servers
Table Locks
Users

SQL Workshop 3.0 - System10

File Edit Datasources Maint Query SQL Server Window Help
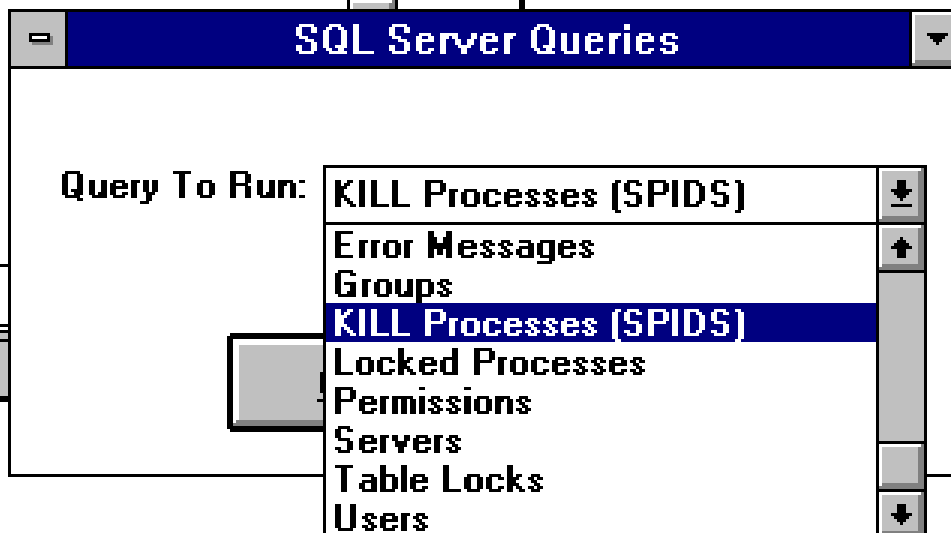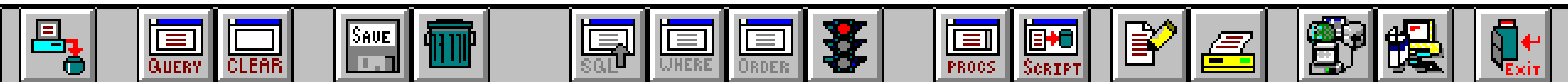
2 Row(s) Processed By Query | All Rows | 3/13/95 | 8:43 PM

Kill Processes (SPIDS) on Server System10

run_by	run_by_spid	cmd	blocked	status	d
MSAIS	1	AWAITING COMMAND	0	recv sleep	p
MSAIS	9	SELECT	0	running	p

Update Da**t**a
Restore Ro**w**
Kill Selected Processes
Save

The KILL Processes query enables you to monitor and KILL Active Processes if you have the authority to do so.

Simply select one or more processes from the list and press the delete key or use the Pop Up Menu to KILL the Processes.

File **Edit** **Datasources** **Maint** **Query** **SQL Server** **Window** **Help**
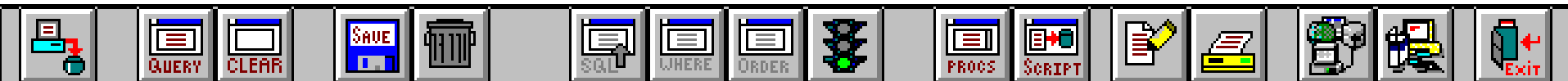
Enter 1 or More SQL Statements To Execute | All Rows | 3/13/95 | 8:38 PM

SQL Syntax

Active Datasource:

Ta...

au_pix
authors
discounts
employees
employees_new
publishers
roysched
sales

Paste Options

◉ Paste SQL In Current Query Window

○ Paste SQL In New Query Window

Paste SQL

Syntax To Paste

Create Default
Create Index
Create Procedure
Create Rule
Create Schema
Create Table

View SQL

In addition to extensive online help and documentation, SQL Workshop eliminates the need to remember complex SQL syntax by enabling you to view and paste SQL syntax into query windows.

You can then customize the syntax to meet your needs.

Query - 1 - System10

```
CREATE PROCEDURE [owner.]procedure_name[;number]
    [[ ( @parameter_name  datatype [(length) | (pr...
        [= default] [OUTPUT]
    [, ( @parameter_name  datatype [(length) | (pr...
        [= default] [OUTPUT] ]... [)] ]
    WITH RECOMPILE
    AS sql_statements
```

Major features :

- **SQL Server Stored Procedeure Debugger**

- **Compares and transfers data between tables**

- **Windows interface for the SQL Server Bulk Copy Program (BCP)**

- **Reverse engineer database objects.**

SQL Workshop 3.0™   Review

- **Automatically creates** SQL SELECT queries **for you.**

- **Import and export table data** from/into Excel Spreadsheets.

- **Search for text** in SQL Server objects **throughout an entire server**.

- Extensive **On-Line Help** and **SQL Syntax Reference**.

- And More……..

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SQL Workshop 3.0™

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