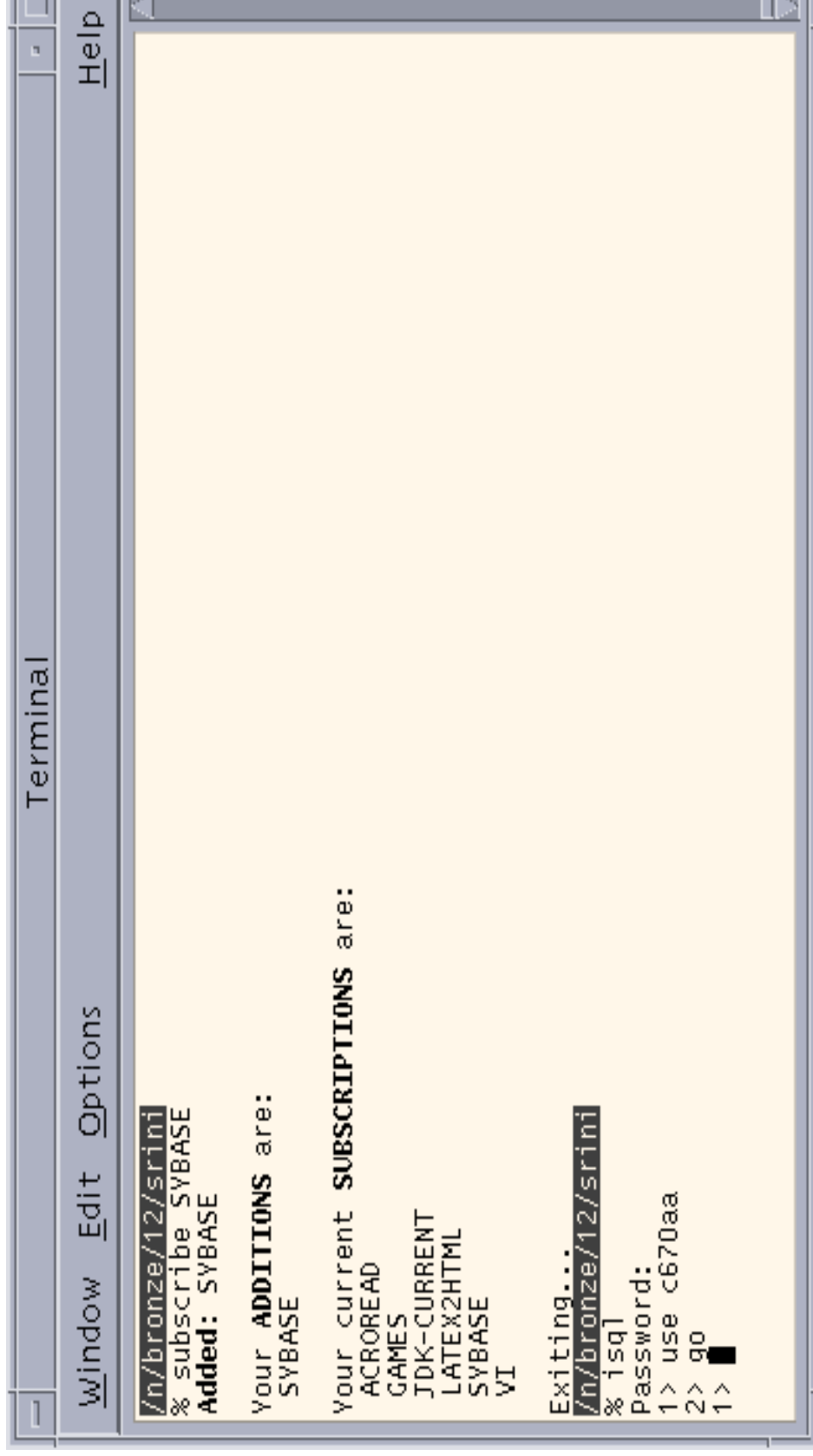


Lecture 6: Part I

ISQL

Subscribing to and Entering isql



```
Terminal
Window Edit Options Help

/n/bronze/12/srini
% subscribe SYBASE
Added: SYBASE

Your ADDITIONS are:
SYBASE

Your current SUBSCRIPTIONS are:
ACROREAD
GAMES
JDK-CURRENT
LATEX2HTML
SYBASE
VI

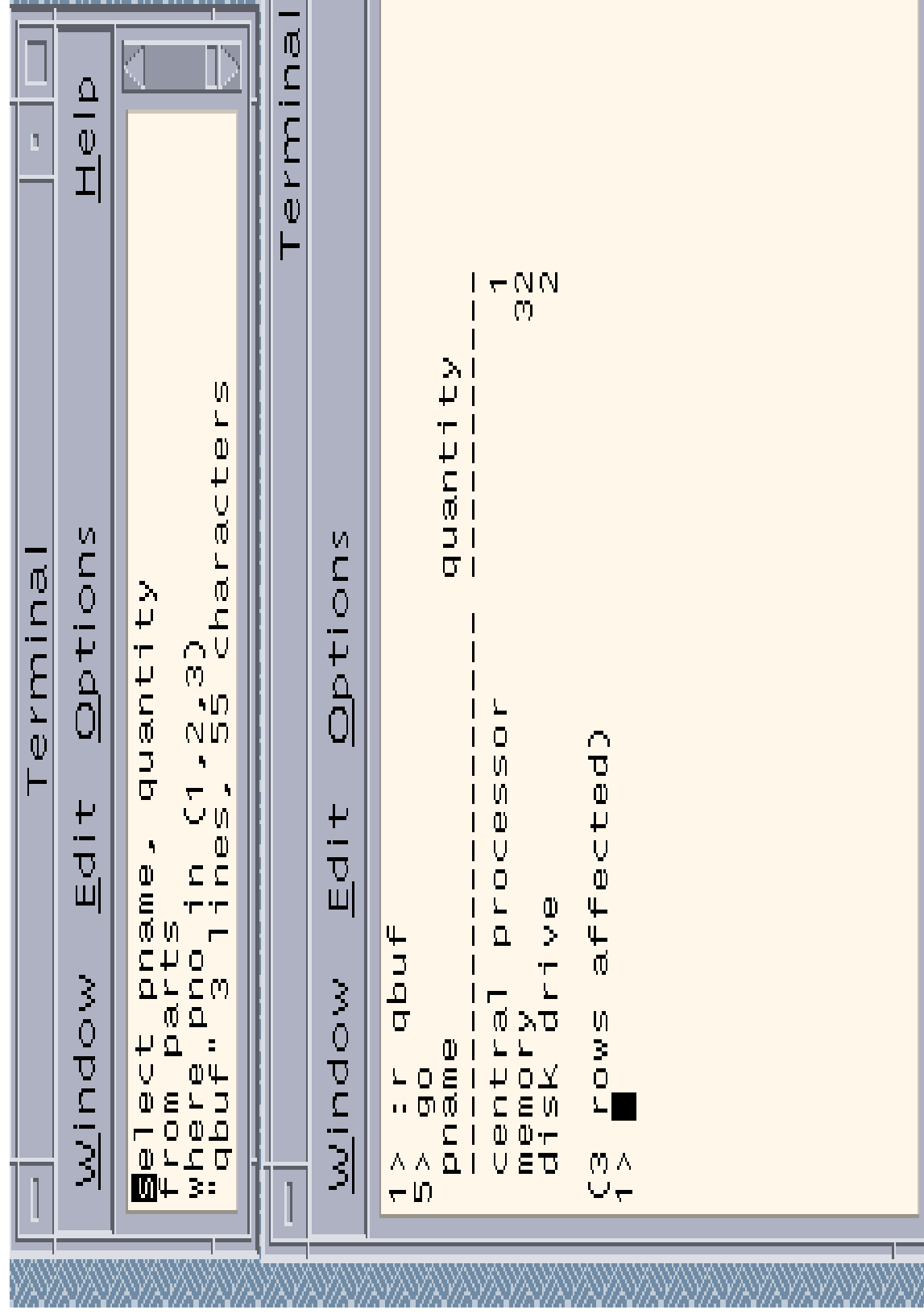
Exiting...
/n/bronze/12/srini
% isql
Password:
1> use c670aa
2> go
1> █
```

Select Everything

```
Terminal
Window Edit Options Help
Password:
1> use c670aa
2> go
1> select * from parts
2> go
pno      pname      color      weight      quantity
-----
1 central processor      pink        10          1
2 memory                gray        20         32
3 disk drive            black       685         2
4 tape drive            black       450         4
5 tapes                 gray        1          250
6 line printer          yellow      578         3
8 terminals             blue        19         15
9 terminal paper        white       2          350
10 byte-soap            clear       0          143
11 card reader          gray       327         0
12 card punch           gray       427         0
13 paper tape reader    black      107         0
14 paper tape punch     black      147         0
7 1-p paper             white       15         95

(14 rows affected)
1>
```

Projection+Selection



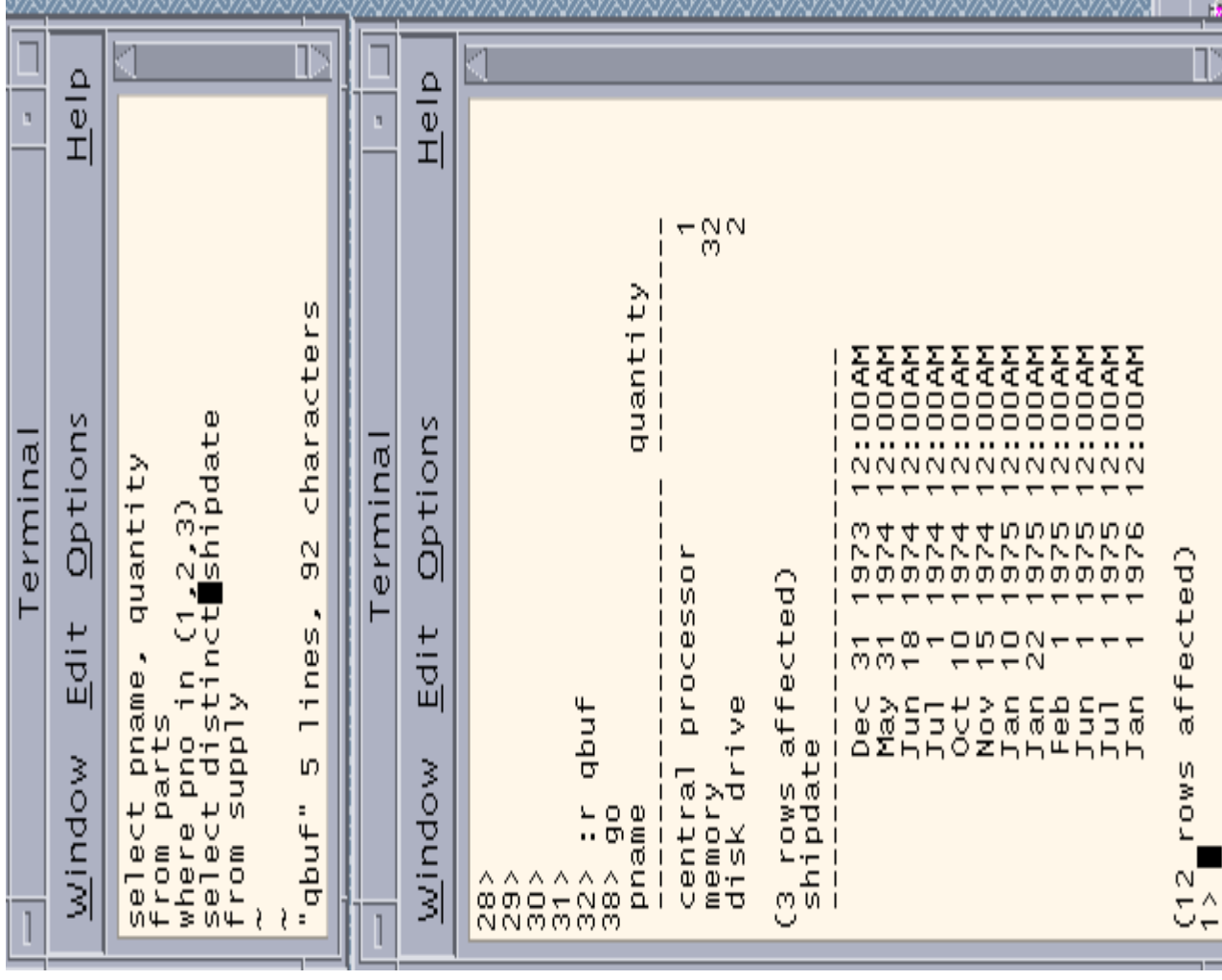
The image shows a terminal window with a menu bar containing 'Terminal', 'Window', 'Edit', 'Options', and 'Help'. The terminal content is as follows:

```
select pname, quantity
from parts
where pno in (1,2,3)
"qbuf" 3 lines, 55 characters
```

Below the terminal window, the output of the query is displayed:

```
1> :r qbuf
5> go
pname          quantity
-----
central processor      1
memory                 32
disk drive              2
(3 rows affected)
1>
```

Executing a sequence of queries



```
Terminal
Window Edit Options Help
select pname, quantity
from parts
where pno in (1,2,3)
select distinct shipdate
from supply
~
~
"qbuf" 5 lines, 92 characters

Terminal
Window Edit Options Help
28>
29>
30>
31>
32> :r qbuf
38> go
pname                quantity
-----
central processor    1
memory               32
disk drive           2

(3 rows affected)
shipdate
-----
Dec 31 1973 12:00AM
May 31 1974 12:00AM
Jun 18 1974 12:00AM
Jul 1 1974 12:00AM
Oct 10 1974 12:00AM
Nov 15 1974 12:00AM
Jan 10 1975 12:00AM
Jan 22 1975 12:00AM
Feb 1 1975 12:00AM
Jun 1 1975 12:00AM
Jul 1 1975 12:00AM
Jan 1 1976 12:00AM

(12 rows affected)
1>
```

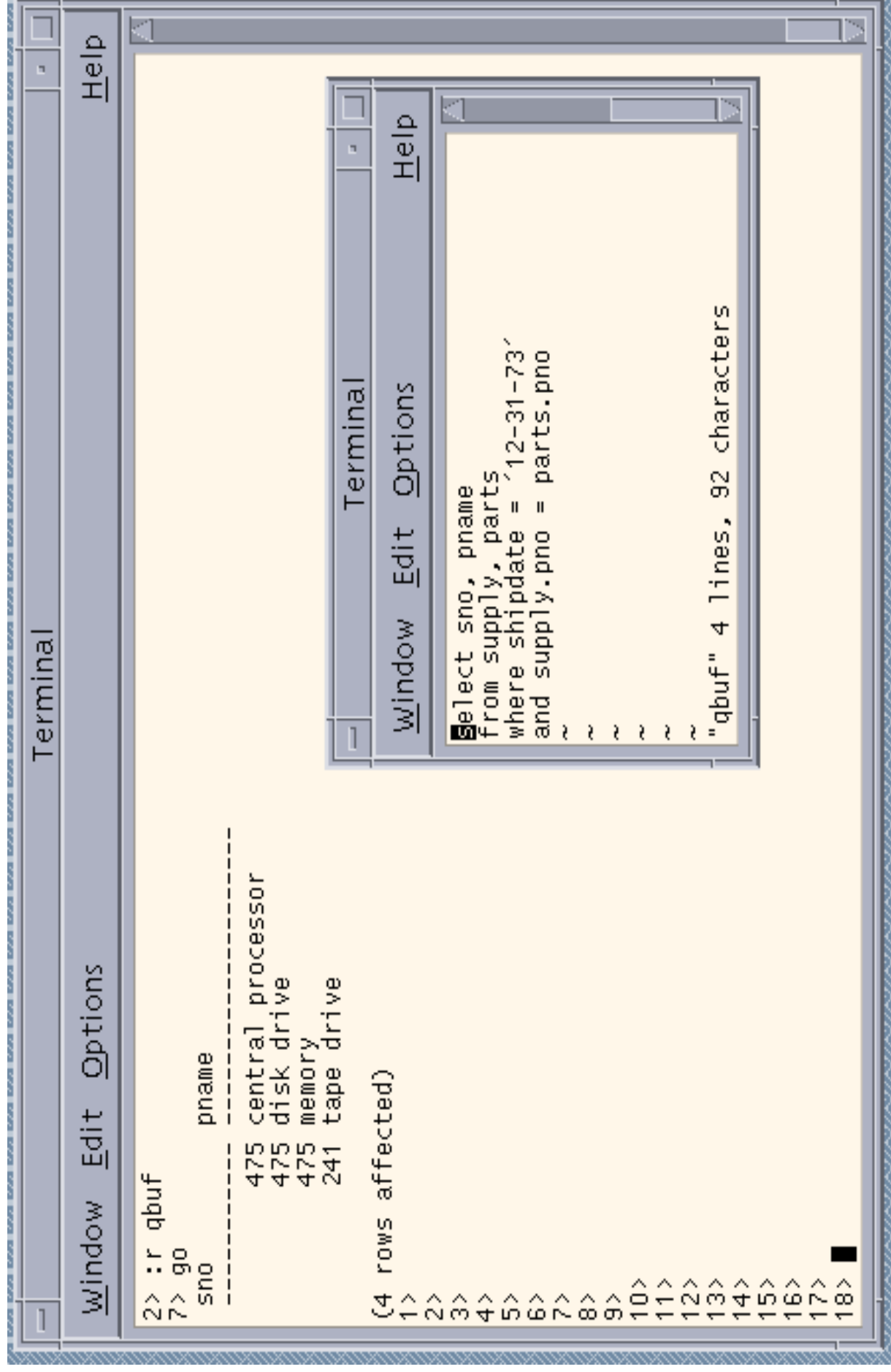
Arithmetic and Logic Operators

```
Terminal
Terminal
window Edit Options
9> go
-----
ename
Evans, Michael          5150.0000000
Smith, Pau              6300.0000000
Collins, Joanne        7450.0000000
allace, Maggie J.      8462.0000000
Bailey, Chas M.        9033.5500000
Onstad, Richard        9495.8500000
Edwards, Peter         9750.0000000
Williams, Judy         9750.0000000
Smith, Carol           9807.5000000
Thomas, To             10900.0000000

(10 rows affected)
eno      ename      salary
-----
13 Edwards, Peter          9,000.00
1958
98 Williams, Judy         9,000.00
1969
32 Smith, Carol           9,050.00
1967
129 Thomas, To           10,000.00
1962
15 Jones, Tim             12,000.00

-----
manager birthday
-----
"qbuf" 8 lines, 162 characters
~
~
```

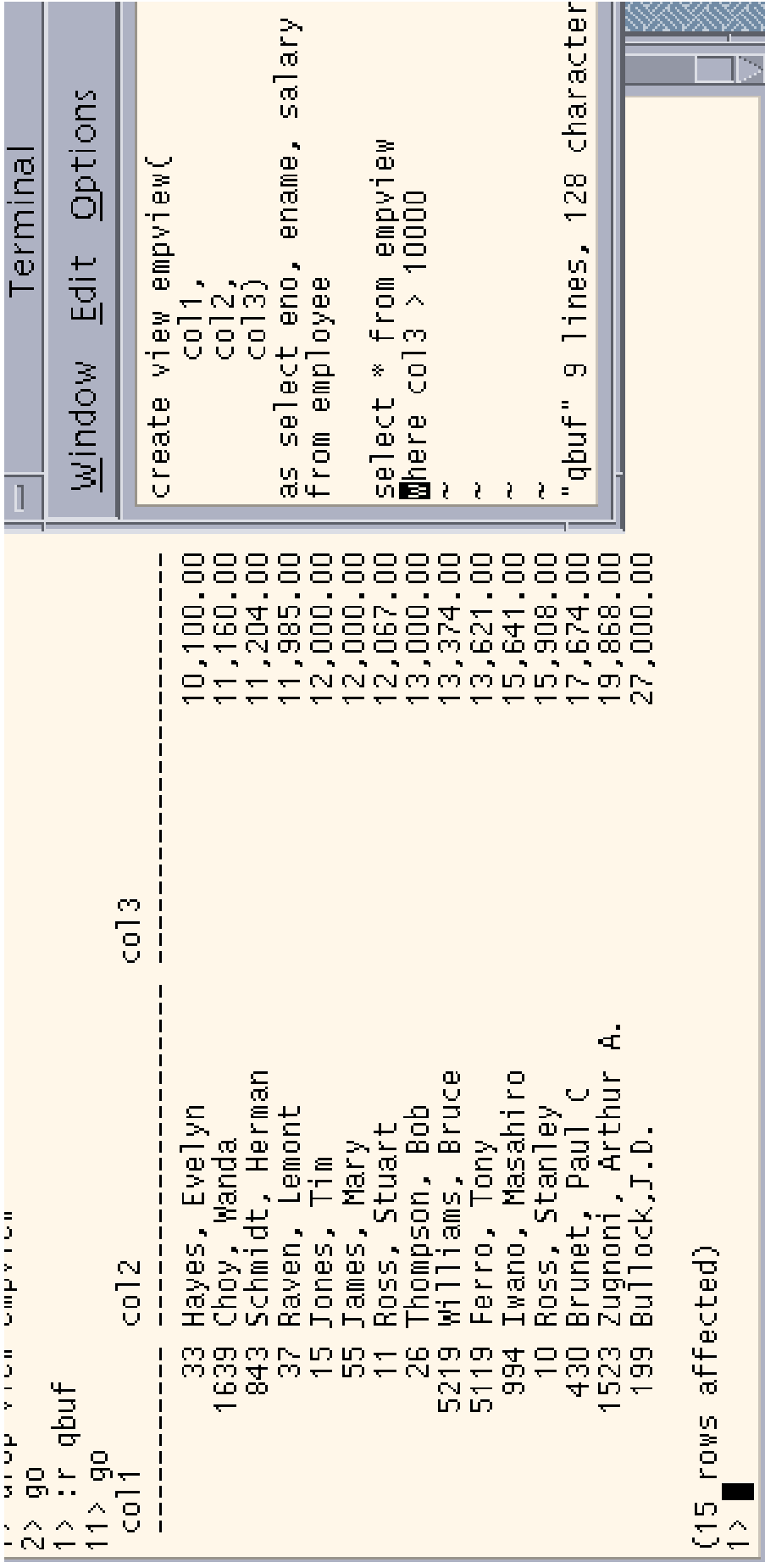
Simple Join Operation



Using views in isql

```
isql> create view empview
2> go
1> :r qbuf
11> go
col1          col2          col3
-----
33 Hayes, Evelyn          10,100.00
1639 Choy, Wanda          11,160.00
843 Schmidt, Herman      11,204.00
37 Raven, Lemont         11,985.00
15 Jones, Tim            12,000.00
55 James, Mary           12,000.00
11 Ross, Stuart          12,067.00
26 Thompson, Bob         13,000.00
5219 Williams, Bruce     13,374.00
5119 Ferro, Tony          13,621.00
994 Iwano, Masahiro       15,641.00
10 Ross, Stanley         15,908.00
430 Brunet, Paul C        17,674.00
1523 Zugnoni, Arthur A.  19,868.00
199 Bullock,J.D.         27,000.00

(15 rows affected)
1>
```

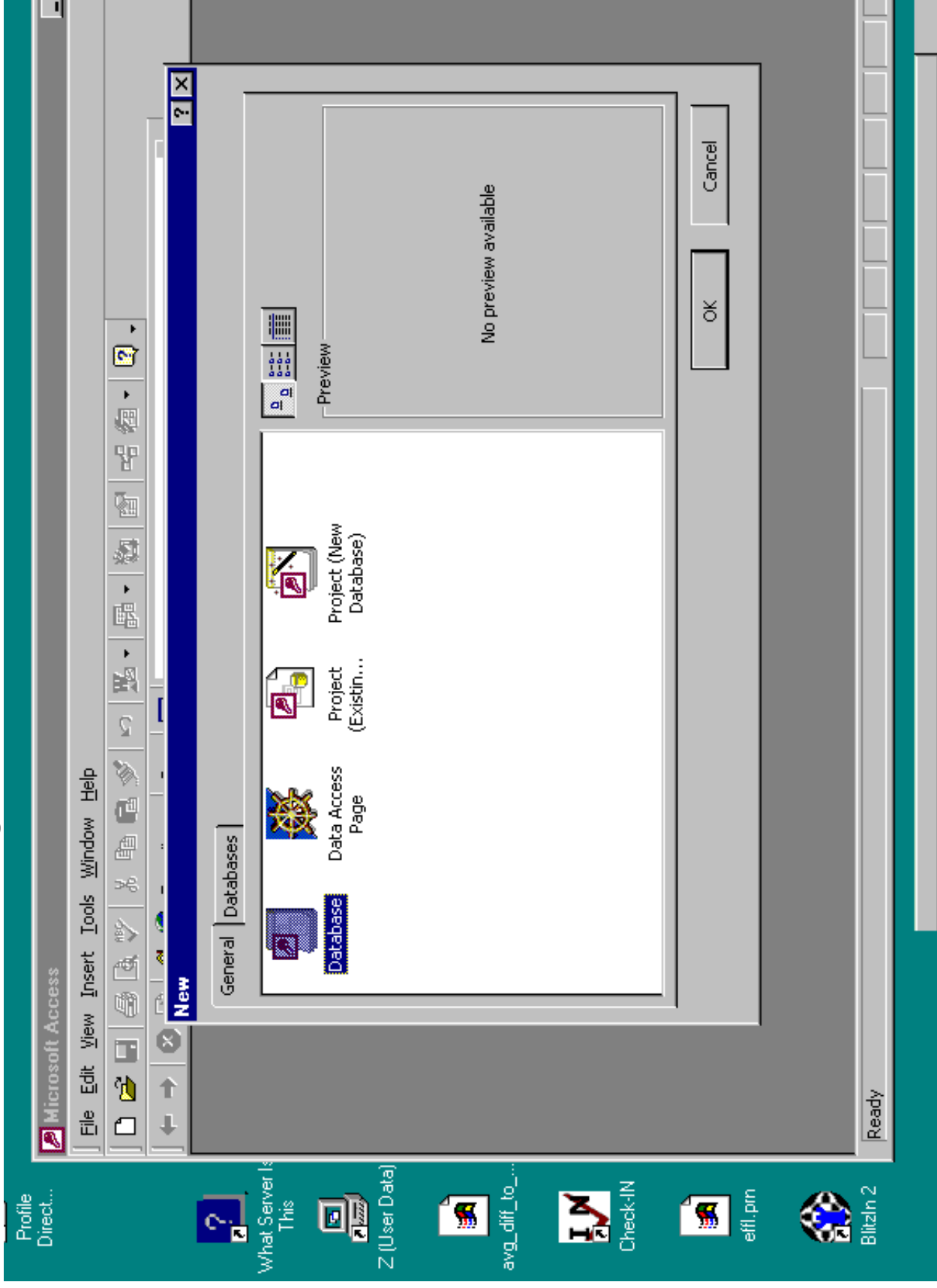


```
create view empview(
col1,
col2,
col3)
as select eno, ename, salary
from employee
select * from empview
where col3 > 10000
~
~
~
~
"qbuf" 9 lines, 128 character
```

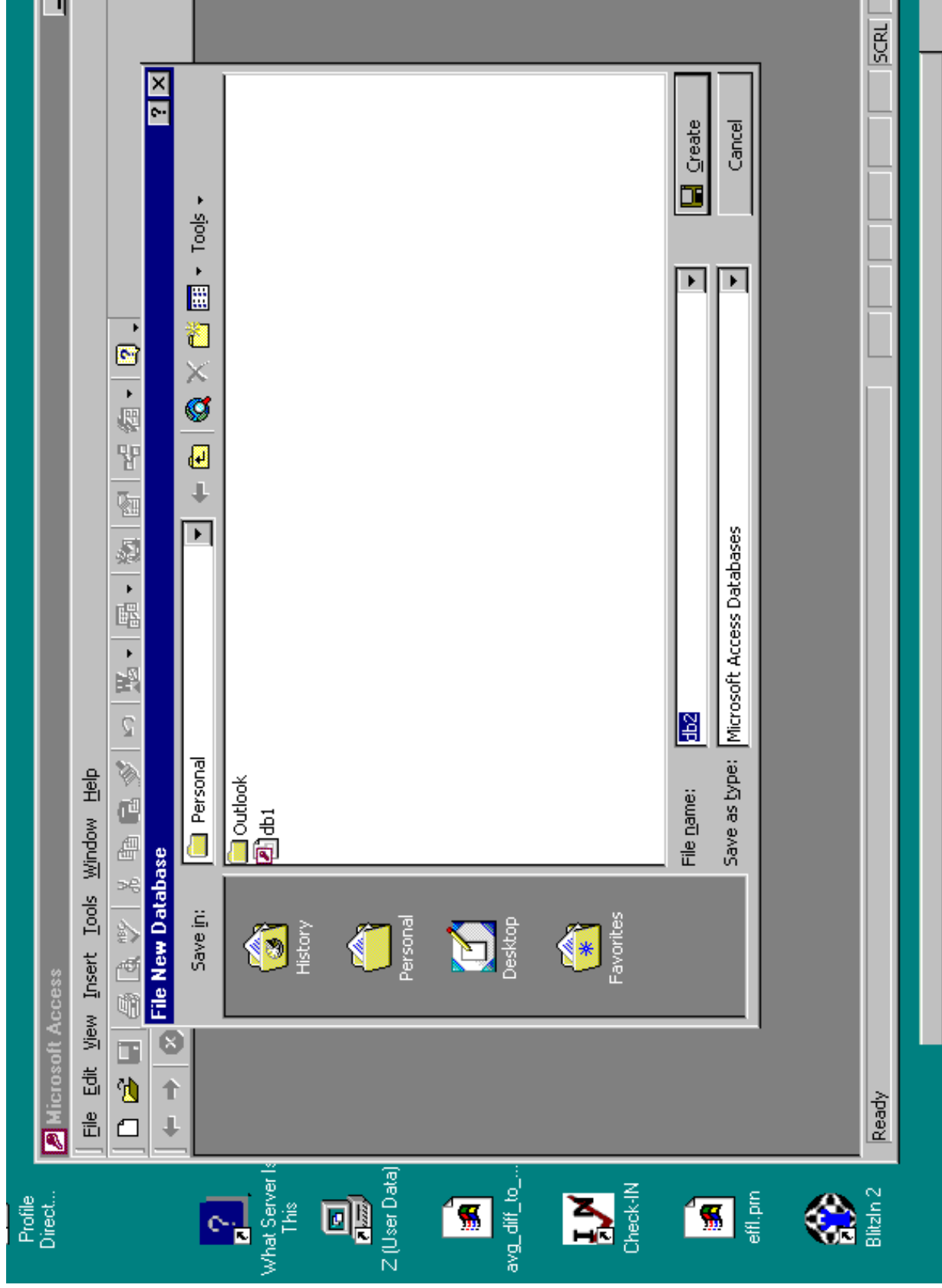
Lecture 6 Part II

Using Access while Linking to Sybase Server

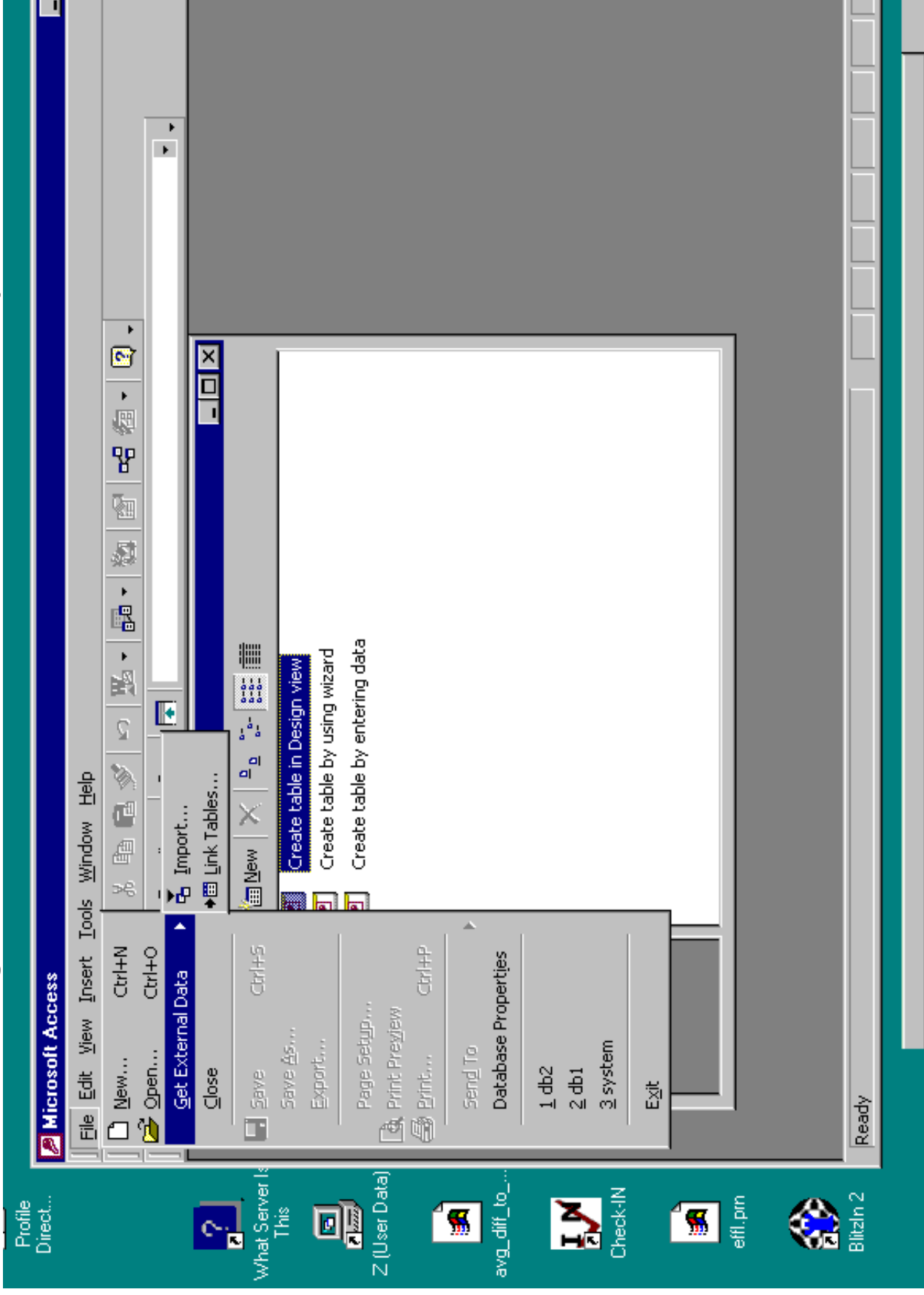
Creating a New Database



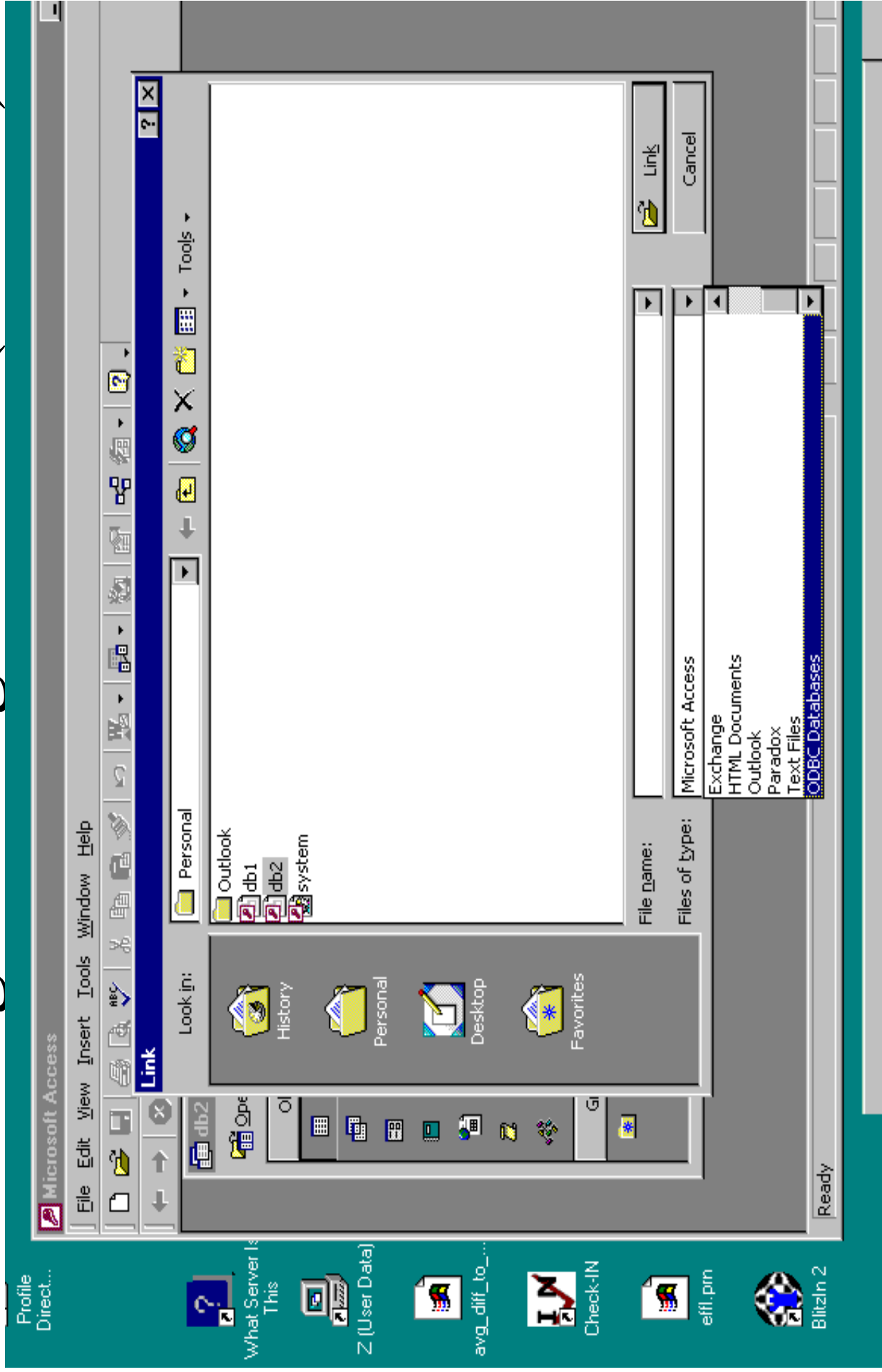
Naming new database



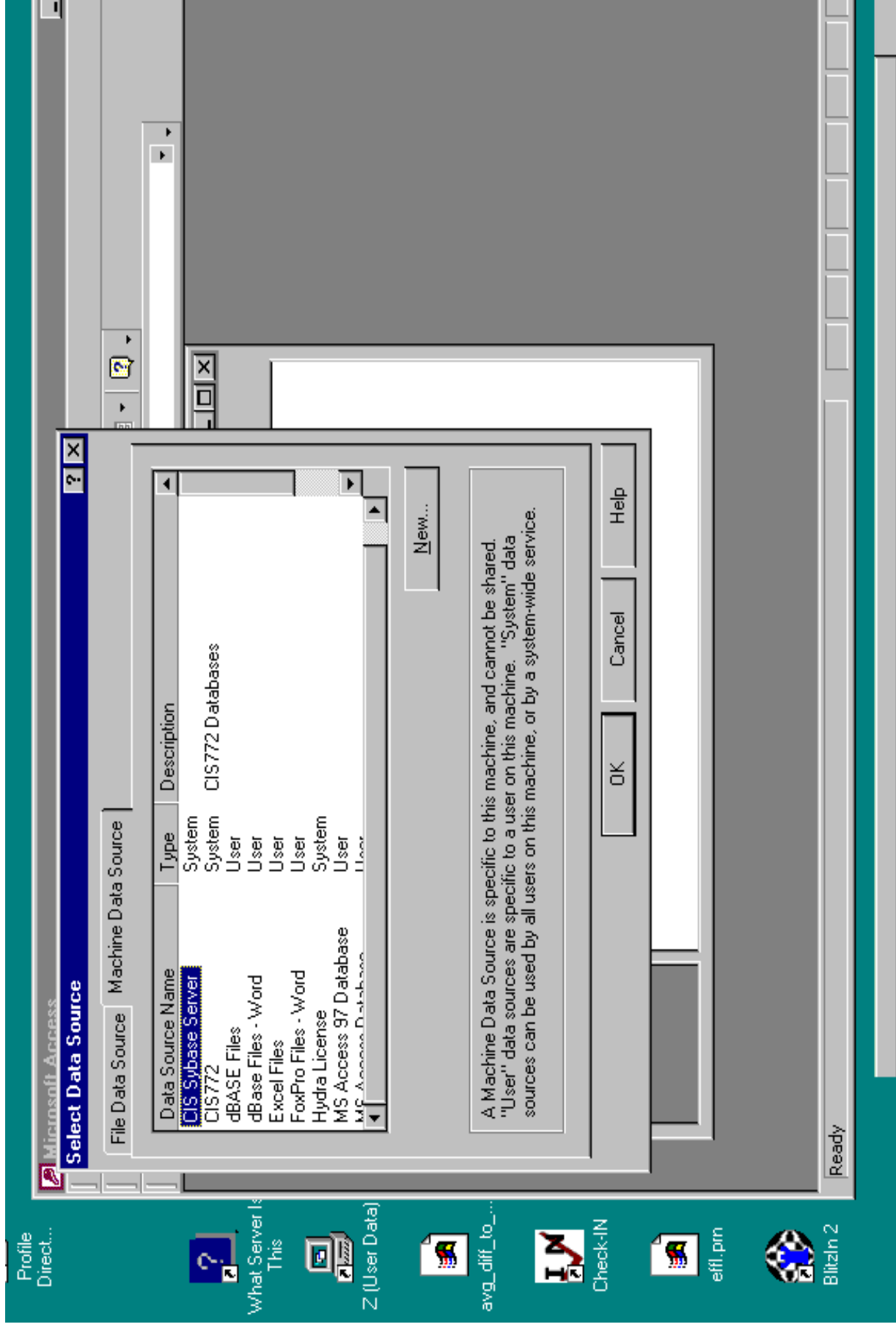
Linking to external data (sybase)



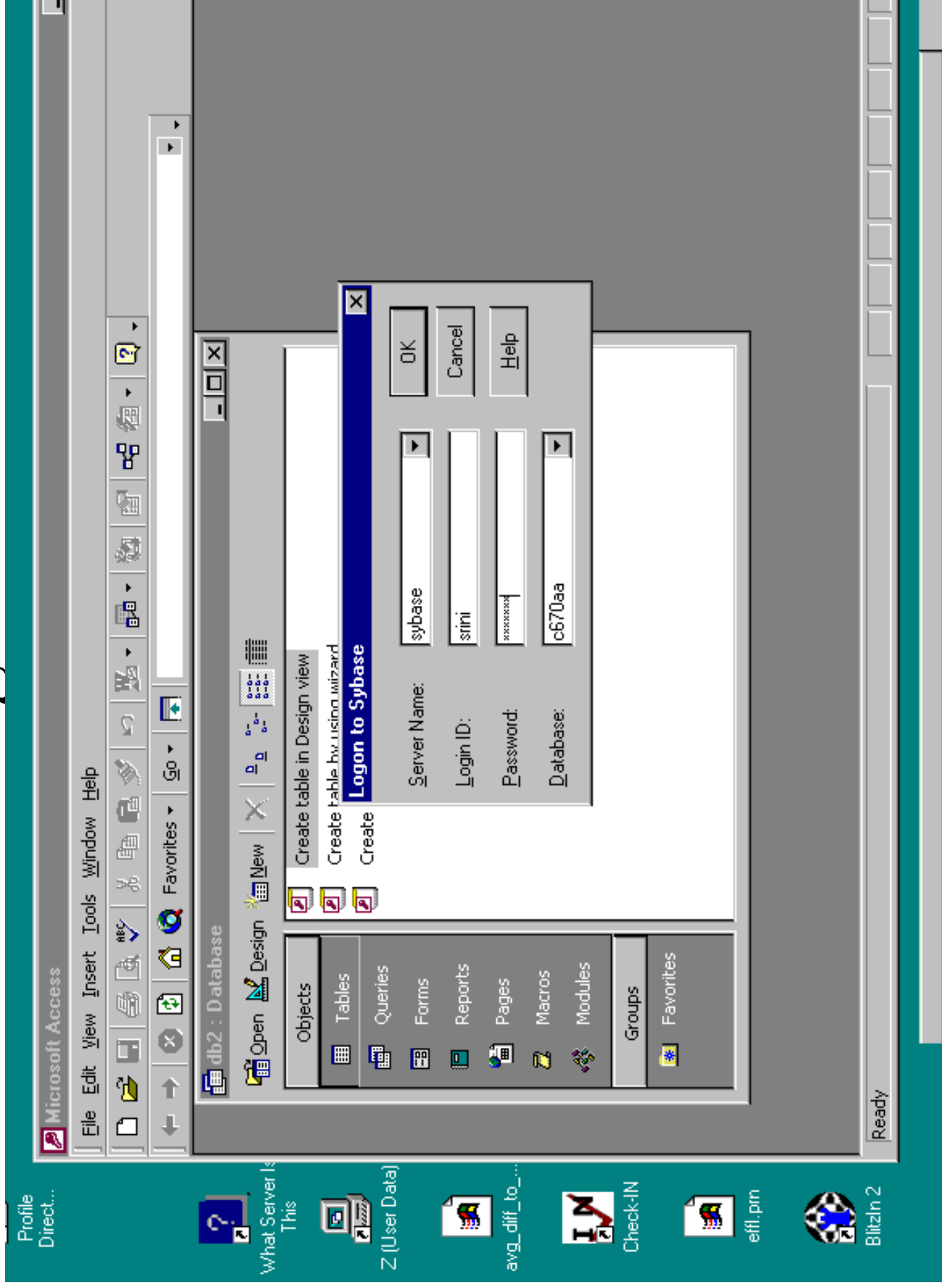
Selecting exchange format (ODBC)



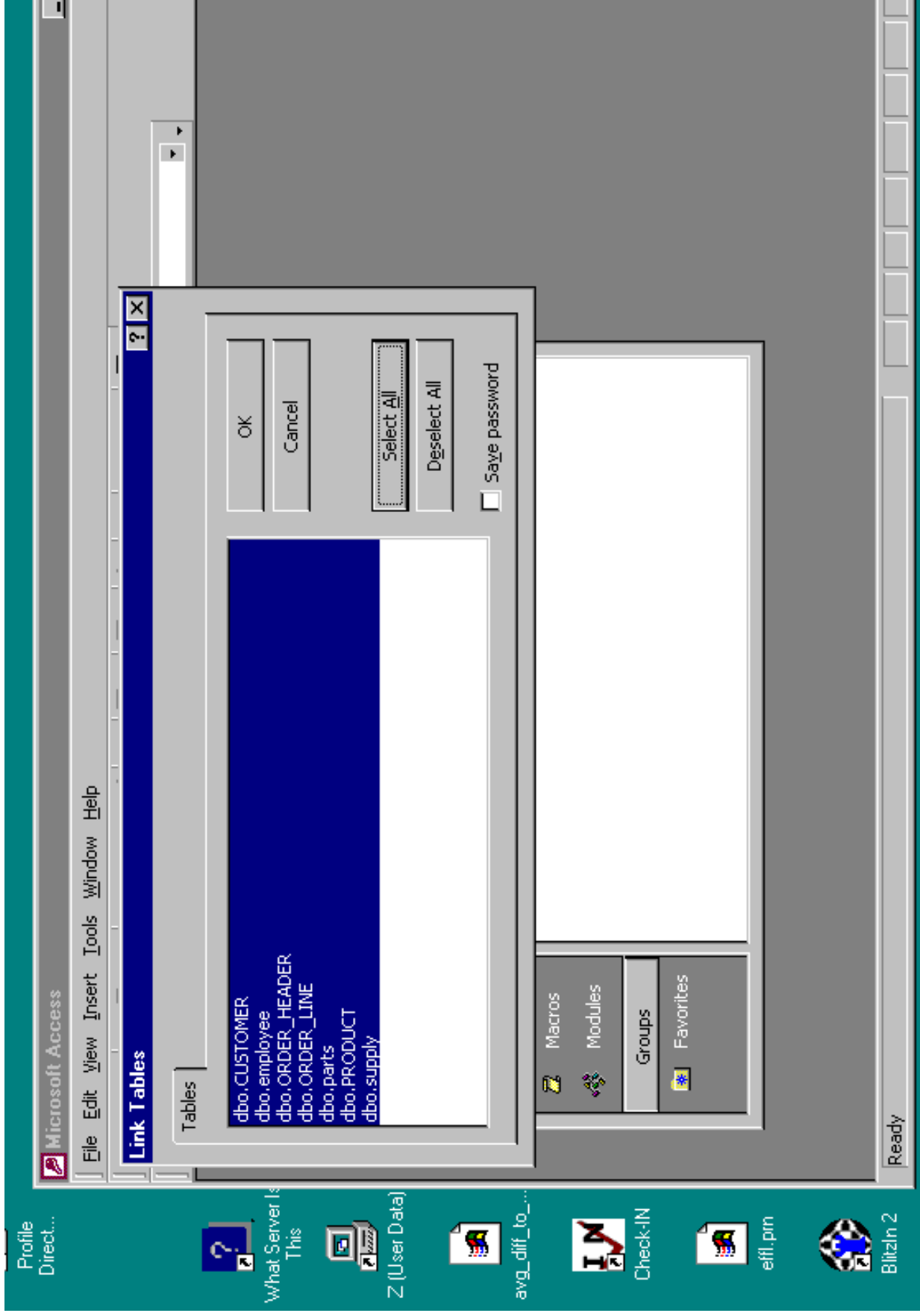
Picking the server



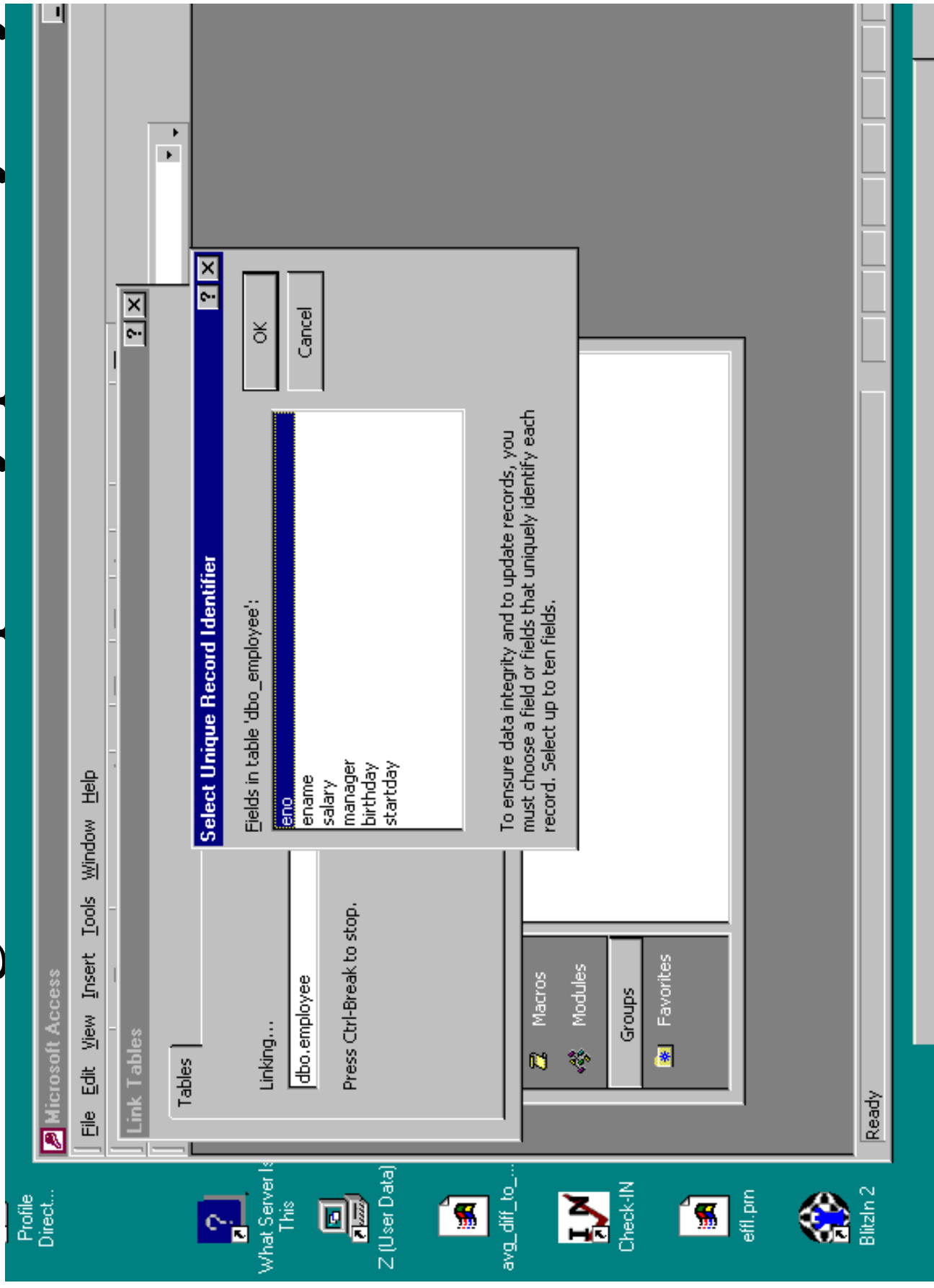
Connecting to the Server



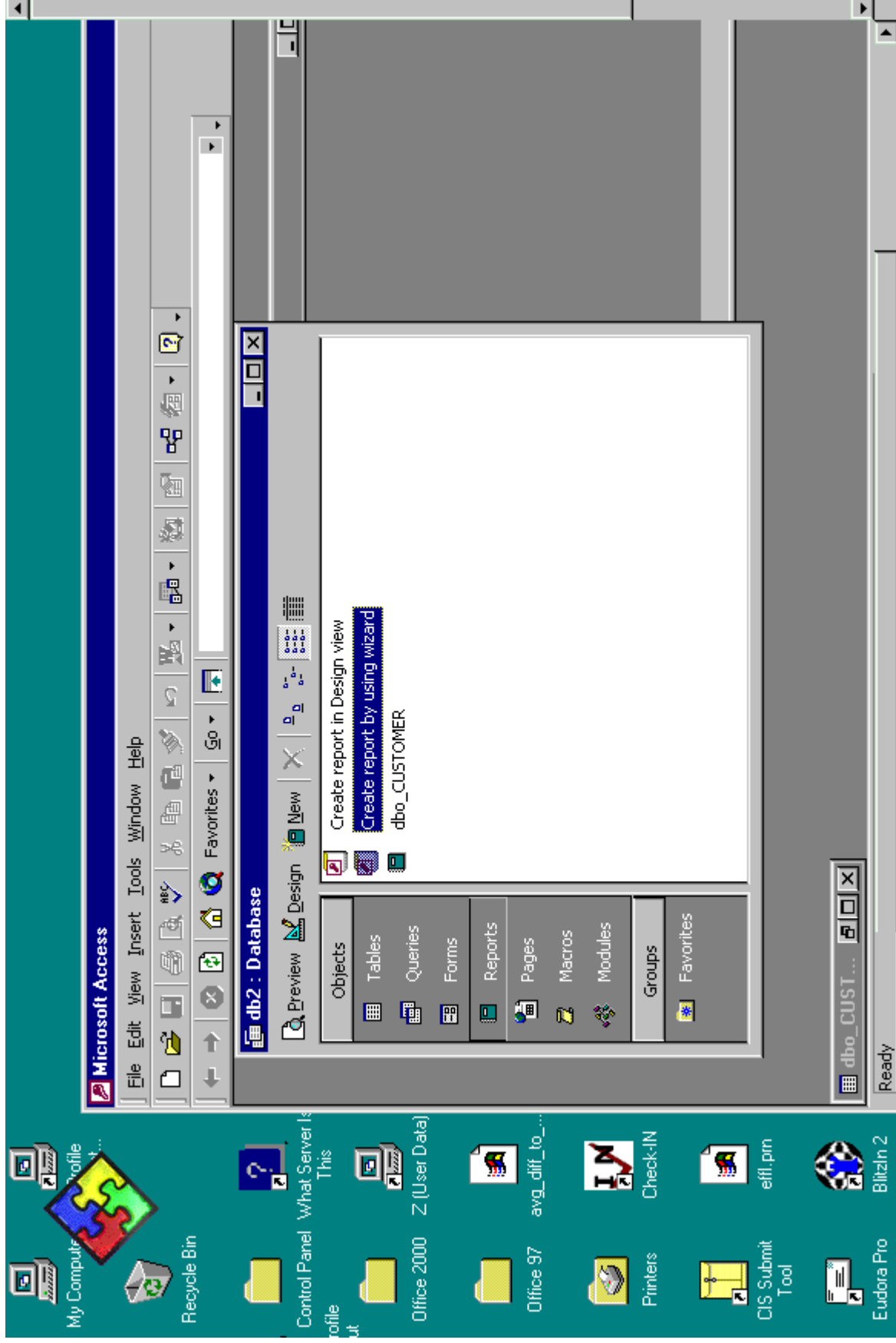
Selecting tables to link



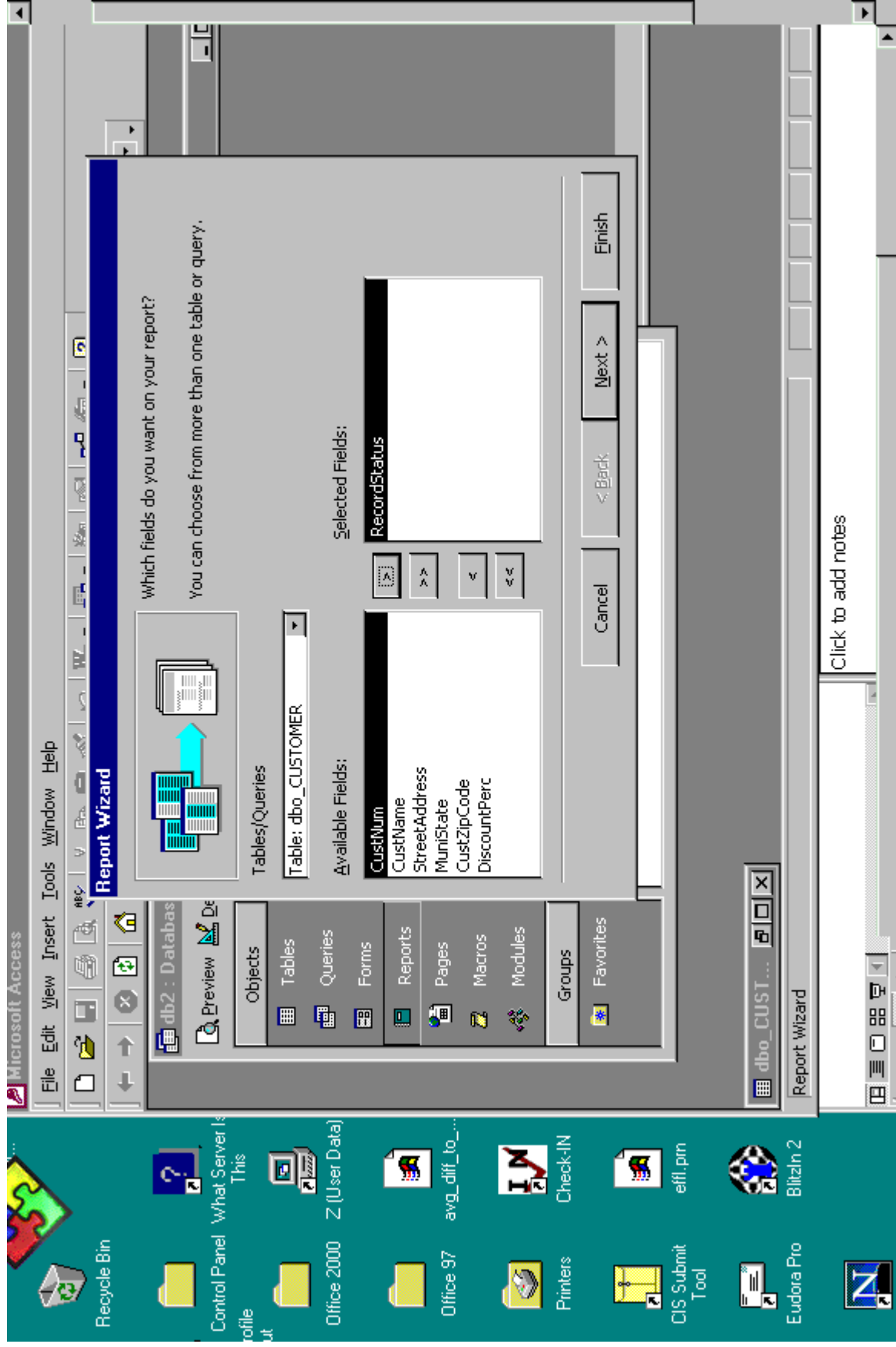
Processing tables: specify primary keys



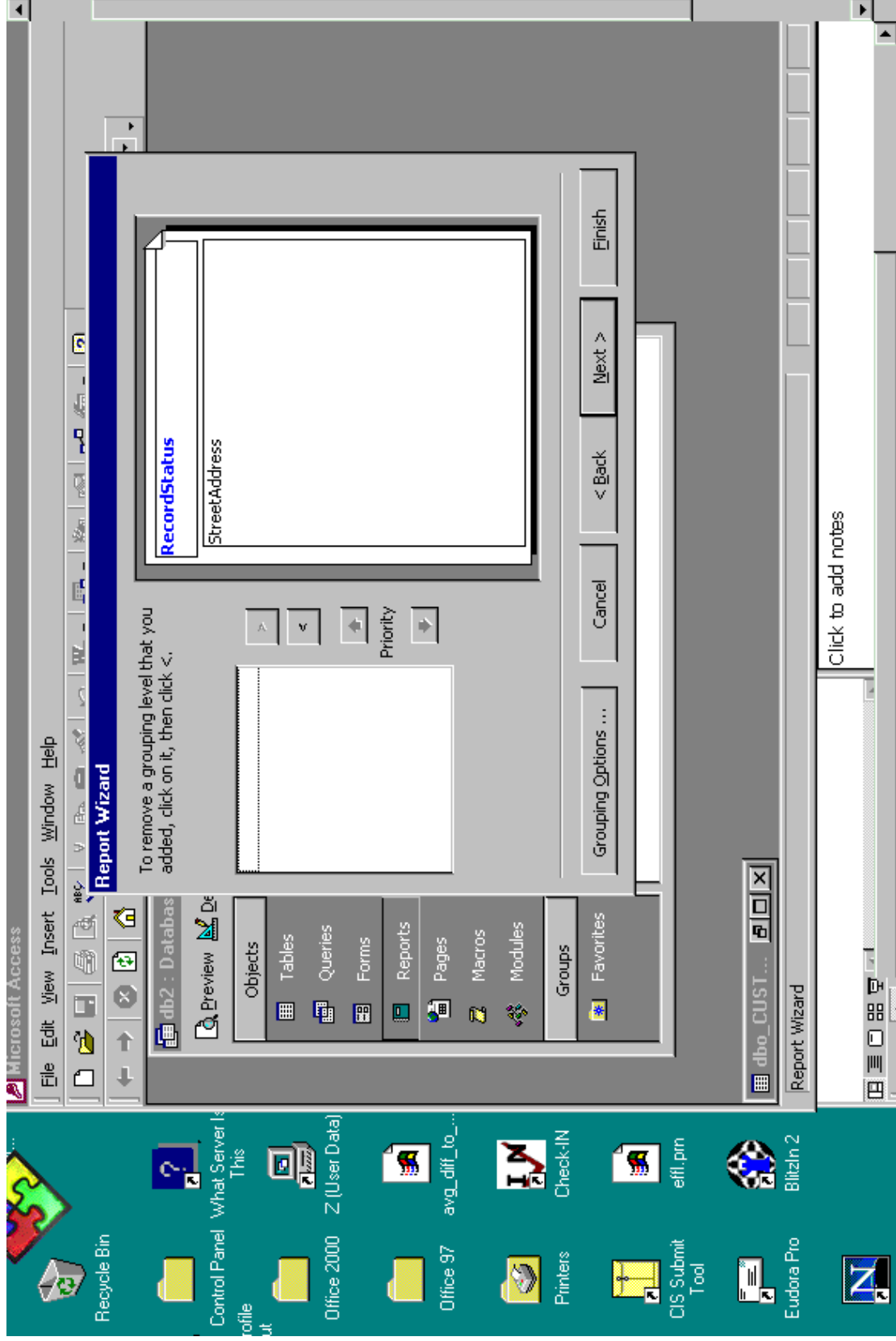
Creating reports using Report-wizard



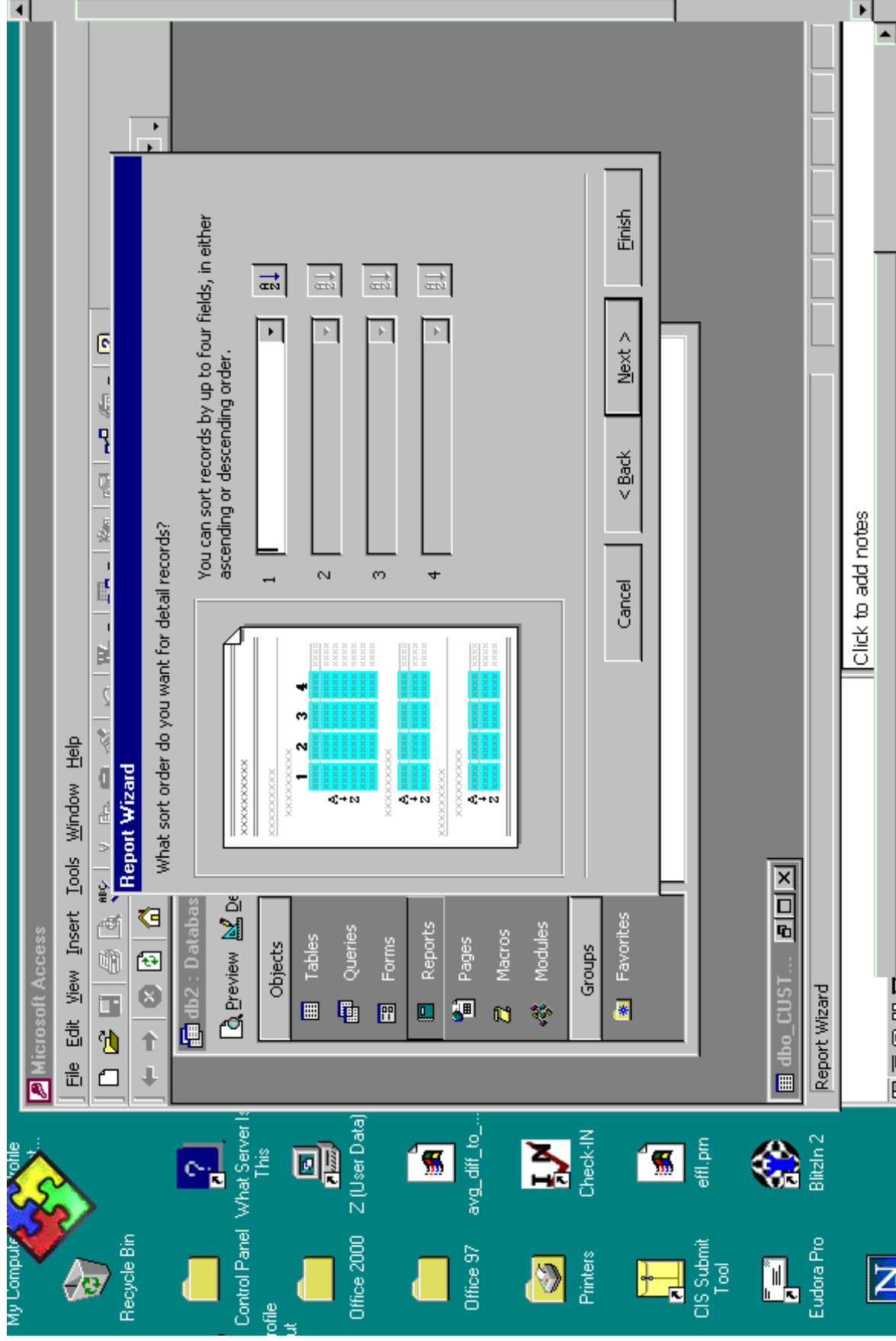
Deciding what goes into the report



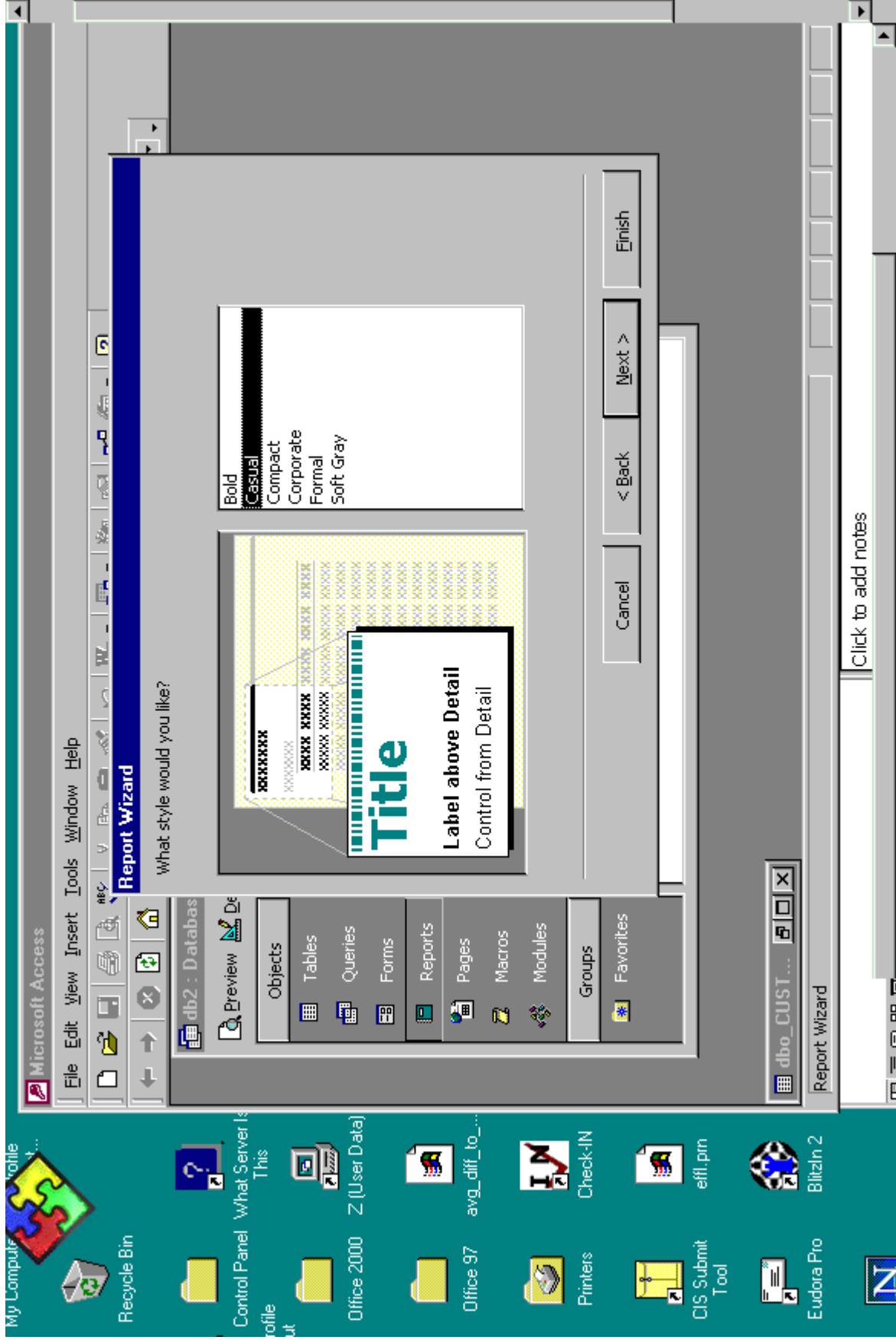
Grouping Items in Report (Formatting)



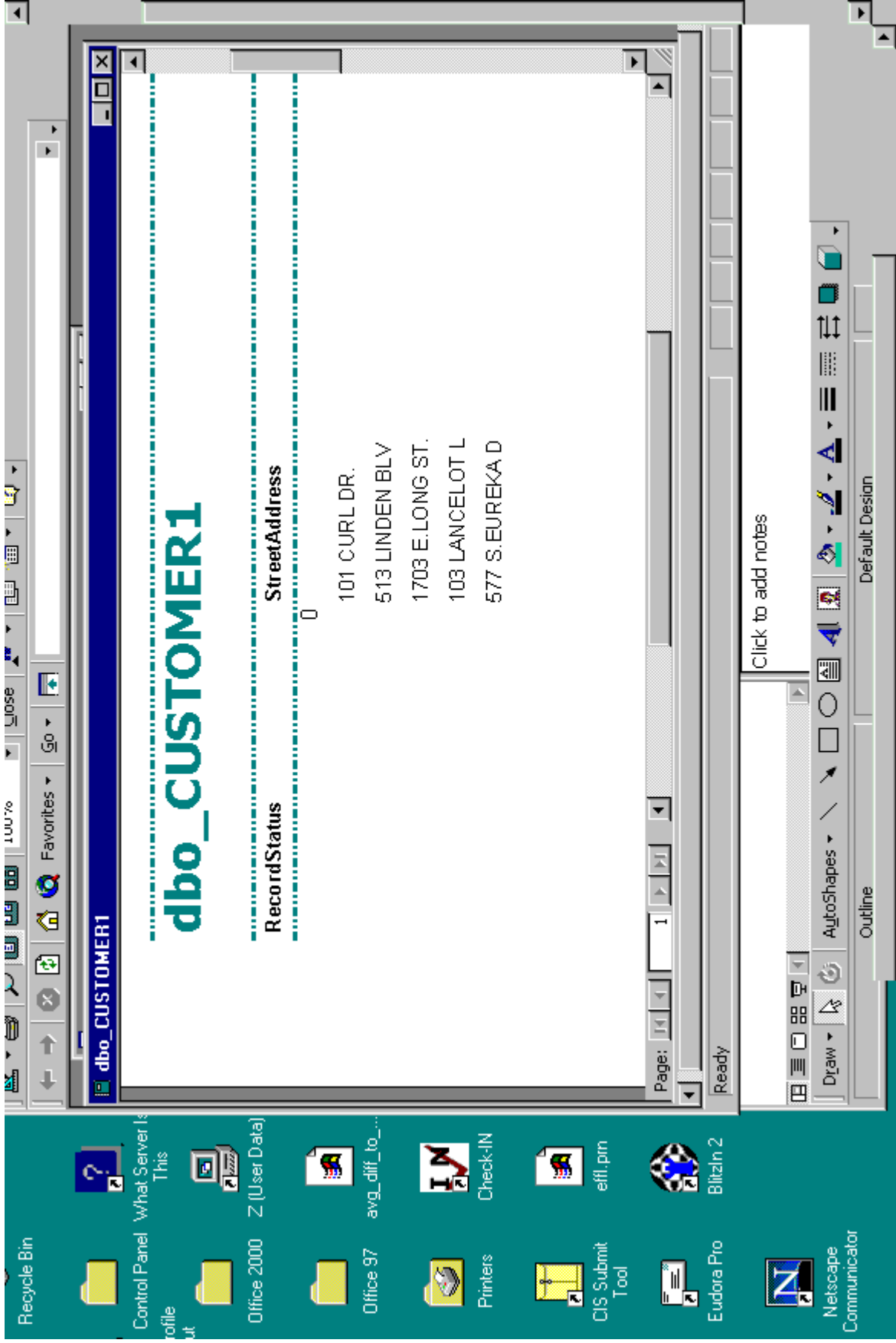
Ordering fields in report (sorting)



Yet more formatting (style)



Final Report



Report Writing

using Text's Company Database

Employees, their departments and salaries.

<u>dname</u>	<u>lname</u>	<u>fname</u>	<u>salary</u>
Administration	Jabbar	Ahmad	25000
Administration	Wallace	Jennifer	43000
Administration	Zeleya	Alicia	25000
Headquarters	Borg	James	55000
Research	English	Joyce	25000
Research	Narayan	Ramesh	38000
Research	Smith	John	30000
Research	Wong	Franklin	40000

Report Writing, continued

Departments, their manager, and the average salary in the department.

<u>dname</u>	<u>dnumber</u>	<u>lname</u>	<u>dept_avg_sal</u>
Administration	4	Wallace	31000
Headquarters	1	Borg	55000
Research	5	Wong	33250

Average salary of all employees.

<u>company_avg_sal</u>
35125

The Queries that Produced the Data

/* All *employees* by employee last name within department name */

```
select  dname, lname, fname, salary
from    employee e, department d
where   e.dno = d.dnumber
order by  dname, lname
```

The Queries that Produced the Data

- continued

```
/* All departments, including average salary by department name */  
select d.dname, d.dnumber, mgr.lname,  
        avg(e.salary) as dept_avg_sal  
from department d, employee mgr, employee e  
where d.mgrssn = mgr.ssn  
and e.dno = d.dnumber  
group by d.dname, d.dnumber, mgr.lname  
order by d.dname  
  
/* Average company salary */  
select avg(e.salary) as company_avg_sal  
from employee e
```

As a Report - larger font

Salary Information by Department

April 15, 1999

Department Name	Department Number	Department Manager	First Name	Salary
Administration	4	Wallace		
Employees				
		Jabbar	Ahmad	25000
		Wallace	Jennifer	43000
		Zeleya	Alicia	25000
Average Department Salary:				31000

Department Department Department
Name Number Manager

Research 5 Wong

Employees Last Name First Name Salary

English Joyce 25000
Narayan Ramesh 38000
Smith John 30000
Wong Franklin 40000

Average Department Salary: 33250

Average salary of all employees: 35125