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# Accessing DB2, ODBC and CA-IDMS using Interactive SQL

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VEGASOFT



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# Overview

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- ◆ In Interactive SQL you can enter and execute SQL commands
- ◆ Supported databases
  - DB2
  - ODBC via VG-ODBC Server
  - CA-IDMS R12 or later
- ◆ Your access privileges may prevent using some of them.



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# Overview

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- ◆ You can view retrieved data
  - automatically or
  - with function key PF11
- ◆ If your SQL statement contains errors, you can see the complete SQL error message

# ISQL Screen

```
(C) VEGASOFT OY          VEGA      TOOLS          V2R6
                        INTERACTIVE SQL
-----
SERVER : CAF          PASSWORD :          DICTNAME: DICTSD52  DICTNODE:
                                           MAX ROWS:    9999
                                           AUTO DISPLAY (Y/N): Y
                                           SAVE COMMANDS (Y/N): Y
-----
SQLCODE          0 SQLWARN          SQLERRP          NUM OF ROWS:    0
SQLERRM
ENTER = EXECUTE STATEMENT, PF7/PF8 = BWD/FWD, PF11 = LIST ROWS, PF3 = MENU
VG003101 PLEASE ENTER YOUR SQL STATEMENT
```

Enter the name of your data source Server as defined in the Server Control Table.

# ISQL Screen

```
(C) VEGASOFT OY          VEGA      TOOLS          V2R6
                          INTERACTIVE SQL
-----
SERVER : CAF             PASSWORD :          DICTNAME: DICTSD52  DICTNODE:
                          ACTION :          MAX ROWS:      9999
                          SQL STATEMENT:    AUTO DISPLAY  (Y/N): Y
                                          SAVE COMMANDS (Y/N): Y
-----
SQLCODE      0 SQLWARN          SQLERRP          NUM OF ROWS:      0
SQLERRM
ENTER = EXECUTE STATEMENT, PF7/PF8 = BWD/FWD, PF11 = LIST ROWS, PF3 = MENU
VG003101 PLEASE ENTER YOUR SQL STATEMENT
```

# ISQL Screen

```
(C) VEGASOFT OY          VEGA      TOOLS          V2R6
                          INTERACTIVE SQL

-----
SERVER : CAF          PASSWORD :          DICTNAME: DICTSD52  DICTNODE:
                                          MAX ROWS:      9999
ACTION :          Your CA-IDD dictionary name and node.  DISPLAY (Y/N): Y
                                          SAVE COMMANDS (Y/N): Y

SQL STATEMENT:

-----

SQLCODE          0 SQLWARN          SQLERRP          NUM OF ROWS:      0
SQLERRM
ENTER = EXECUTE STATEMENT, PF7/PF8 = BWD/FWD, PF11 = LIST ROWS, PF3 = MENU
VG003101 PLEASE ENTER YOUR SQL STATEMENT
```

# ISQL Screen

```
(C) VEGASOFT OY          VEGA      TOOLS          V2R6
                        INTERACTIVE SQL
-----
SERVER : CAF          PASSWORD :          DICTNAME: DICTSD52  DICTNODE:
                                MAX ROWS: 9999
ACTION :
                                NO DISPLAY (Y/N): Y
                                E COMMANDS (Y/N): Y
SQL STATEMENT:
                                Maximum number of rows in the scroll
                                area. See the PROFILE action for how to
                                set user specific defaults.
-----
SQLCODE          0 SQLWARN          SQLERRP          NUM OF ROWS:          0
SQLERRM
ENTER = EXECUTE STATEMENT, PF7/PF8 = BWD/FWD, PF11 = LIST ROWS, PF3 = MENU
VG003101 PLEASE ENTER YOUR SQL STATEMENT
```

# ISQL Screen

(C) VEGASOFT OY

VEGA TOOLS  
INTERACTIVE SQL

V2R6

SERVER : CAF

PASSWORD :

DICTNAME: DICTSD52

DICTNODE:

MAX ROWS: 9999

**ACTION** :

AUTO DISPLAY (Y/N): Y

SAVE COMMANDS (Y/N): Y

<u>Action</u>	<u>Explanation</u>
---------------	--------------------

<b>blank</b>	Executes the SQL statement
--------------	----------------------------

<b>CREATE</b>	Saves all SQL commands from this session in the queue area for later use.
---------------	---

<b>DELETE</b>	Deletes previously saved SQL commands.
---------------	--

<b>DISPLAY</b>	Displays an IDD module source. Module name is given in the field following ===>.
----------------	--

<b>READ</b>	Retrieves previously saved SQL commands from the queue area.
-------------	--

<b>NULL OFF</b>	Fills the SQL command field with trailing blanks.
-----------------	---

<b>NULL ON</b>	Does not fill the SQL command field with trailing blanks (default).
----------------	---

This enables the terminal insert mode.

<b>PRINT</b>	Prints the previous query results to the default printer.
--------------	---

Maximum line length is defined on the PROFILE screen.

<b>PROFILE</b>	Invokes the user profile screen.
----------------	----------------------------------

<b>&lt;tool&gt;</b>	Another VG-IDMS GATEWAY tool to switch to (eg. TDEF, EXPL)
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-----  
: 0

= MENU

# ISQL Screen

```
(C) VEGASOFT OY          VEGA      TOOLS          V2R6
                        INTERACTIVE SQL
-----
SERVER : CAF          PASSWORD :          DICTNAME: DICTSD52  DICTNODE:
                                MAX ROWS:      9999
ACTION :                                (AUTO DISPLAY (Y/N): Y
                                SAVE COMMANDS (Y/N): Y
```

SQL

**Y** Output screen for SELECT is displayed, when the first page of multiple pages is retrieved.  
If an SQL error occurs, the Explain Sqlcode screen is displayed.  
When the first page of a query is ready the query results screen is displayed.

**N** Use PF11 to display SELECTed rows.  
Use EXPL action to see the SQLCODE explanation in case of SQL errors.

```
-----
SQLCODE          0 SQLWARN          SQLERRP          NUM OF ROWS:      0
SQLERRM
ENTER = EXECUTE STATEMENT, PF7/PF8 = BWD/FWD, PF11 = LIST ROWS, PF3 = MENU
VG003101 PLEASE ENTER YOUR SQL STATEMENT
```

# ISQL Screen

```
(C) VEGASOFT OY          VEGA      TOOLS          V2R6
                        INTERACTIVE SQL
-----
SERVER : CAF          PASSWORD :          DICTNAME: DICTSD52  DICTNODE:
                                           MAX ROWS:      9999
ACTION :                                           AUTO DISPLAY (Y/N): Y
                                           SAVE COMMANDS (Y/N): Y
SQL STATEMENT:
```

```
Y Each SQL command is saved for the duration of the CA-IDMS/DC/UCF session.
N SQL commands are not saved.
```

```
-----
SQLCODE          0 SQLWARN          SQLERRP          NUM OF ROWS:      0
SQLERRM
ENTER = EXECUTE STATEMENT, PF7/PF8 = BWD/FWD, PF11 = LIST ROWS, PF3 = MENU
VG003101 PLEASE ENTER YOUR SQL STATEMENT
```

# ISQL Screen

```
(C) VEGASOFT OY          VEGA      TOOLS          V2R6
                        INTERACTIVE SQL
-----
SERVER : CAF           PASSWORD :          DICTNAME: DICTSD52  DICTNODE:
                                           MAX ROWS:    9999
ACTION :                                           AUTO DISPLAY (Y/N): Y
                                           SAVE COMMANDS (Y/N): Y
SQL STATEMENT:
select * from dsn8410.emp

This is the SQL statement to be executed.
The maximum length of the statement is
880 characters.

-----
SQLCODE          0 SQLWARN          SQLERRP          NUM OF ROWS:    0
SQLERRM
ENTER = EXECUTE STATEMENT, PF7/PF8 = BWD/FWD, PF11 = LIST ROWS, PF3 = MENU
VG003101 PLEASE ENTER YOUR SQL STATEMENT
```

# ISQL Screen

```
(C) VEGASOFT OY          VEGA      TOOLS          V2R6
                        INTERACTIVE SQL
-----
SERVER : CAF          PASSWORD :          DICTNAME: DICTSD52  DICTNODE:
                                           MAX ROWS:    9999
ACTION :                                           AUTO DISPLAY (Y/N): Y
                                           SAVE COMMANDS (Y/N): Y

SQL STATEMENT:
select * from dsn8410.emp

The fields below show the outcome of the query.
If SQLCODE is non-zero, hit PF11 to get the
full error explanation.

-----
SQLCODE      0  SQLWARN      SQLERRP      NUM OF ROWS:      0
SQLERRM
ENTER = EXECUTE STATEMENT, PF7/PF8 = BWD/FWD, PF11 = LIST ROWS, PF3 = MENU
VG003101 PLEASE ENTER YOUR SQL STATEMENT
```

# ISQL Screen

```
(C) VEGASOFT OY          VEGA      TOOLS          V2R6
                        INTERACTIVE SQL
-----
SERVER : CAF          PASSWORD :          DICTNAME: DICTSD52  DICTNODE:
                                           MAX ROWS:    9999
ACTION :                                           AUTO DISPLAY (Y/N): Y
                                           SAVE COMMANDS (Y/N): Y

SQL STATEMENT:
select * from dsn8410.emp

-----
SQLCODE          0 SQLWARN          SQLERRP          NUM OF ROWS:    0
SQLERRM
ENTER = EXECUTE STATEMENT, PF7/PF8 = BWD/FWD, PF11 = LIST ROWS, PF3 = MENU
VG003101 PLEASE ENTER YOUR SQL STATEMENT
```

Let's hit the ENTER key to process the query.

# Query Results Screen

ROW	EMPNO	FIRSTNME	MIDINIT	LASTNAME	WORKDEPT	PHONENO	HIREDATE	J
00001	000010	CHRISTINE	I	HAAS	A00	3978	01.01.1965	P
00002	000020	MICHAEL	L	THOMPSON	B01	3476	10.10.1973	M
00003	000030	SALLY	A	KWAN	C01	4738	05.04.1975	M
00004	000050	JOHN	B	GEYER	E01	6789	17.08.1949	M
00005	000060	IRVING	F	STERN	D11	6423	14.09.1973	M
00006	000070	EVA	D	DILLACKT	D21	7821	30.09.1980	M
00007	000090	EILEEN					15.08.1970	M
00008	000100	THEODORE					19.06.1980	M
00009	000110	VINCENZO					16.05.1958	S
00010	000120	SEAN		O'CONNELL	A00	2167	05.12.1963	C
00011	000130	DOLORES	M	QUINTANA	C01	4578	28.07.1971	A
00012	000140	HEATHER	A	NICHOLLS	C01	1793	15.12.1976	A
00013	000150	BRUCE		ADAMSON	D11	4510	12.02.1972	D
00014	000160	ELIZABETH	R	PIANKA	D11	3782	11.10.1977	D
00015	000170	MASATOSHI	J	YOSHIMURA	D11	2890	15.09.1978	D
00016	000180	MARILYN	S	SCOUTTEN	D11	1682	07.07.1973	D

-----

ENTER = SELECT, PF3/PF4 = SUS/END, PF7/PF8 = FWD/BWD, PF10/PF11 = LEFT/RIGHT  
 VG003138 V222 PROCESSING SQL SELECT...

If the field AUTO DISPLAY is Y(es) and more than 16 rows are fetched, the Query Results screen is displayed as soon as the first page has been filled.

# Query Results Screen

```
(C) VEGASOFT OY          VEGA      TOOLS          V2R6      HPOS:      1 / 141 >
                        QUERY RESULTS          PAGE:      1 / 2
-----
```

ROW	EMPNO	FIRSTNME	MIDINIT	LASTNAME	WORKDEPT	PHONENO	HIREDATE	J
00001	000010	CHRISTINE	I	HAAS	A00	3978	01.01.1965	P
00002	000020	MICHAEL	L	THOMPSON	B01	3476	10.10.1973	M
00003	000030	SALLY	A	KWAN	C01	4738	05.04.1975	M
00004	000050	JOHN	B	GEYER	E01	6789	17.08.1949	M
00005	000060	IRVING	F	STERN	D11	6423	14.09.1973	M
00006	000070	EVA	D	DHLACKT	D21	7821	30.09.1980	M
00007	000090	EILEEN				8	15.08.1970	M
00008	000100	THEODORE				2	19.06.1980	M
00009	000110	VINCENZO	G	LUCCHESI	A00	3490	16.05.1958	S
00010	000120	SEAN		O'CONNELL	A00	2167	05.12.1963	C
00011	000130	DOLORES	M	QUINTANA	C01	4578	28.07.1971	A
00012	000140	HEATHER	A	NICHOLLS	C01	1793	15.12.1976	A
00013	000150	BRUCE		ADAMSON	D11	4510	12.02.1972	D
00014	000160	ELIZABETH	R	PIANKA	D11	3782	11.10.1977	D
00015	000170	MASATOSHI	J	YOSHIMURA	D11	2890	15.09.1978	D
00016	000180	MARILYN	S	SCOUTTEN	D11	1682	07.07.1973	D

```
-----
ENTER = SELECT, PF3/PF4 = SUS/END, PF7/PF8 = FWD/BWD, PF10/PF11 = LEFT/RIGHT
VG003112 SQL COMMAND EXECUTED;          32 ROW(S) RETRIEVED
```

# Profile Screen

```
(C) VEGASOFT OY          VEGA      TOOLS          VERSION: V2R6
                        UPDATE SQL PROFILE
-----
AUTO DISPLAY   : Y      Y = YES, N = NO

MAX ROWS       : 9999  1 THRU  9999

LINES PER PAGE: 60    6 THRU 32767          LINE LENGTH : 132  80 - 000

HEADER 1      : (C) VEGASOFT OY
HEADER 2      : VEGA-90'S
HEADER 3      : QUERY RESULTS
HEADER 4      :      HPOS:   HEADER 5 :      PAGE:   ROW HEADER : ROW
FOOTER        : ENTER = SELECT, PF3/PF4 = SUS/END, PF7/PF8 = FWD/BWD, F10/PF11
               = LEFT/RIGHT

-----
ENTER = VERIFY, PF3 = SAVE, PF4 = TEMPORARY CHANGE
VG003141 USER SQL PROFILE
```

With profile settings you can tailor the behavior and output format of Interactive SQL.

# ISQL API

- ◆ Applications can invoke ISQL
- ◆ Example

```
MOVE 'Y'      TO WSQLP-WDB2ADSP.  
MOVE 'CAF'    TO WDB2NAME.  
MOVE 'SELECT * FROM DSN8220.EMP' TO WINPS-WDB2IVAR.  
LINK DIALOG 'DDB2SQLP'.  
DISPLAY.
```



# End of Presentation

See  
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international  
distributors.