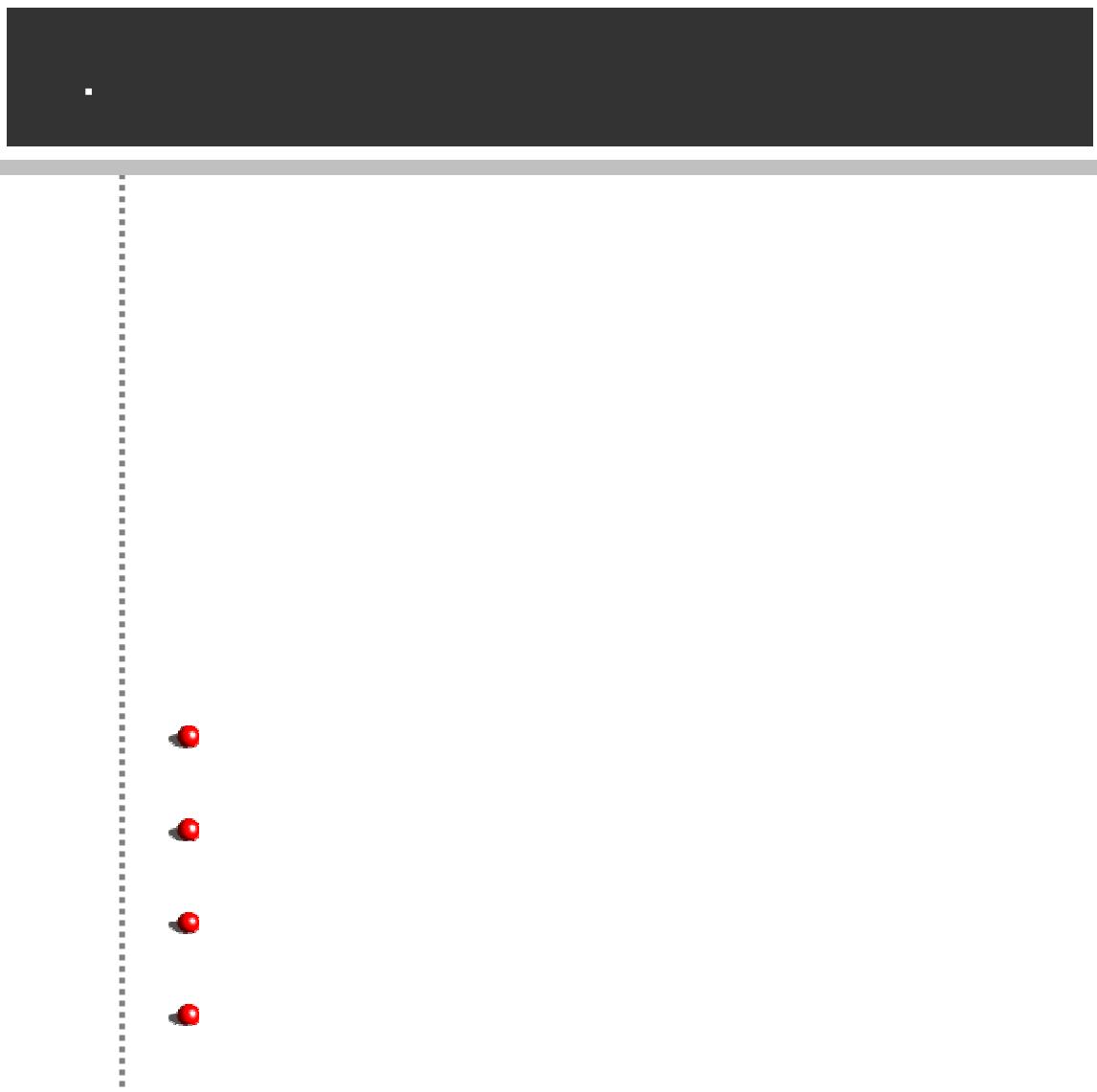


| | |
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| / / | | 102 |
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UI

UI

(ODI)



ODI

, ODI



/HTTP

XML, CSV

HTTP

XML

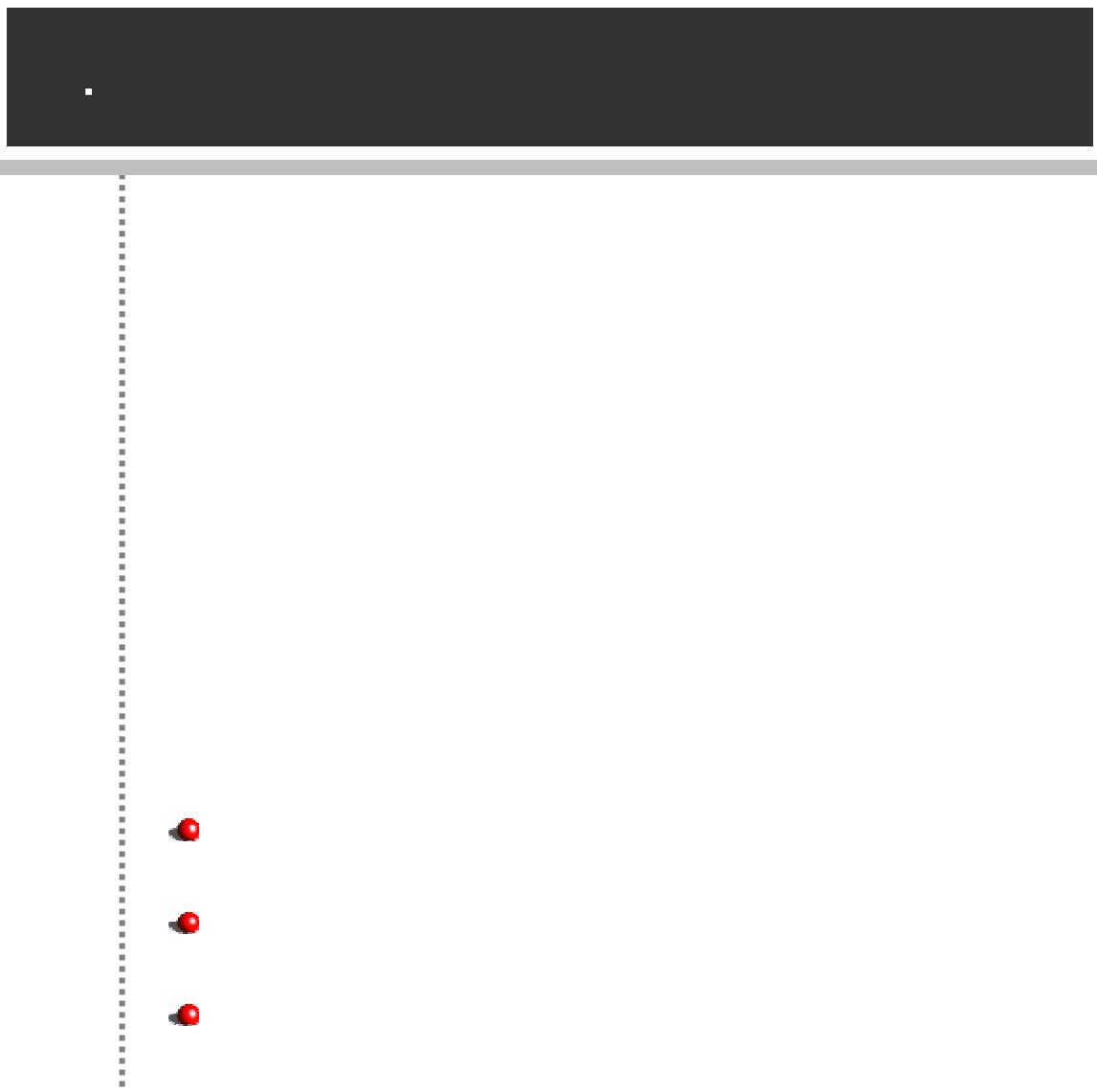
XML-DTD XML-XSD

SAP

SAP

가

| Manual | Description |
|-----------------|--|
| Getting Started | |
| 가 | |
| | |
| | |
| | |
| | 가 |
| | 가 |
| WAS | |
| API | API, UDS, USL, API API(Application Program Interface) |
| | |
| 가 | |





OS

Windows NT(Service pack4)/2000(Service pack2)/XP/2003
❖ ❖
Windows 95/98/ME Unicode

CPU

Pentium 500MHz

Main Memory

256MB (512MB)

HDD

50MB

XGA (1024 x 768)

| %OZQ_HOME% | Console.txt | Debug |
|-------------------------------|-------------------------|-------------------|
| %OZQ_HOME% bin | OZQueryDesigner.exe | |
| | OZRepositoryManager.ini | |
| | OZUSLClientDes128.dll | USL |
| | OZUSLClientSession.dll | |
| | user.cif | |
| %OZQ_HOME% bin/res | MultiLanguageList.xml | |
| | qd_ _ 가 .dll | |
| | qd_error_msg_ _ | |
| | 가 .xml | |
| | rm_ _ 가 .dll | |
| | rm_error_msg_ _ | |
| | 가 .xml | |
| %OZQ_HOME% config | server_error_msg_ _ | |
| | 가 .xml | |
| | launch.cfg | |
| %OZQ_HOME% lib | QDEnv.ini | |
| | crimson.jar | XML |
| | dtdparser120.jar | DTD |
| | jcert.jar | J2EE (HTTPS/SSL) |
| | jnet.jar | |
| | jsee.jar | JRE 1.3.X |
| | log4j.jar | Log |
| | ozsfw35.jar | |
| | parser.jar | XML |
| | xerces.jar | |

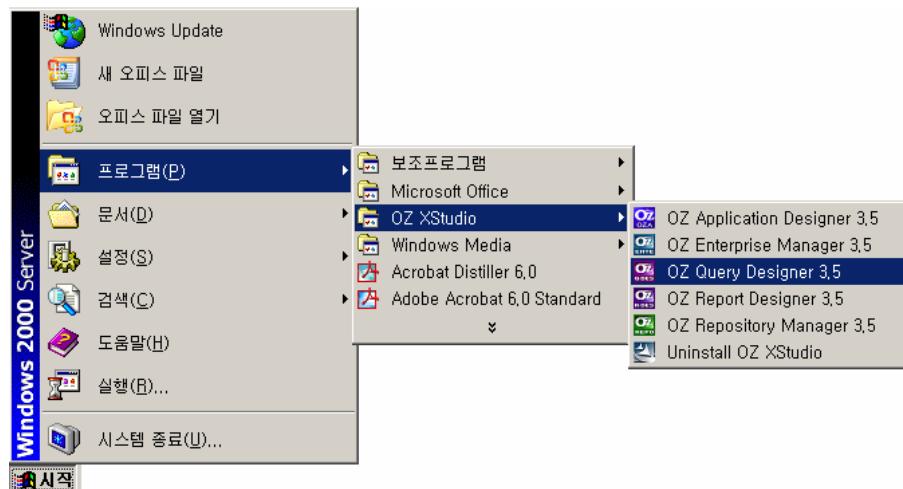
| | | |
|------------------------|--------------------------|---------------------------|
| UniversalDriver | ozlicense.xml | |
| | classes12.jar | Oracle 8i, 9i JDBC Driver |
| | classes12.zip | |
| | db2java.jar | IBM DB2 JDBC Driver |
| | db2java.zip | |
| | db2jcc.jar | IBM DB2 JDBC Type 8 |
| | db2jcc_license_cisuz.jar | (DB2 8) |
| | db2jcc_license_cu.jar | |
| | ifxjdbc.jar | Infomix JDBC Driver |
| | ijava.jar | Oracle 7i JDBC Driver |
| | jconn2.jar | Sybase ASE JDBC Driver |
| | jkjdbc.jar | MSSQL 97 JDBC |
| | jt400.jar | IBM JT400 JDBC |
| | msbase.jar | |
| | mssqlserver.jar | MSSQL 2000 JDBC |
| | msutil.jar | |
| | mysql.jar | Mysql JDBC |
| | sapjco.jar | SAP |
| | sapjcorfc.dll | |
| | unisqljdbc10.jar | UniSQL JDBC |
| | unisqljdbc205.zip | |

▪ 'UniversalDriver' JDBC

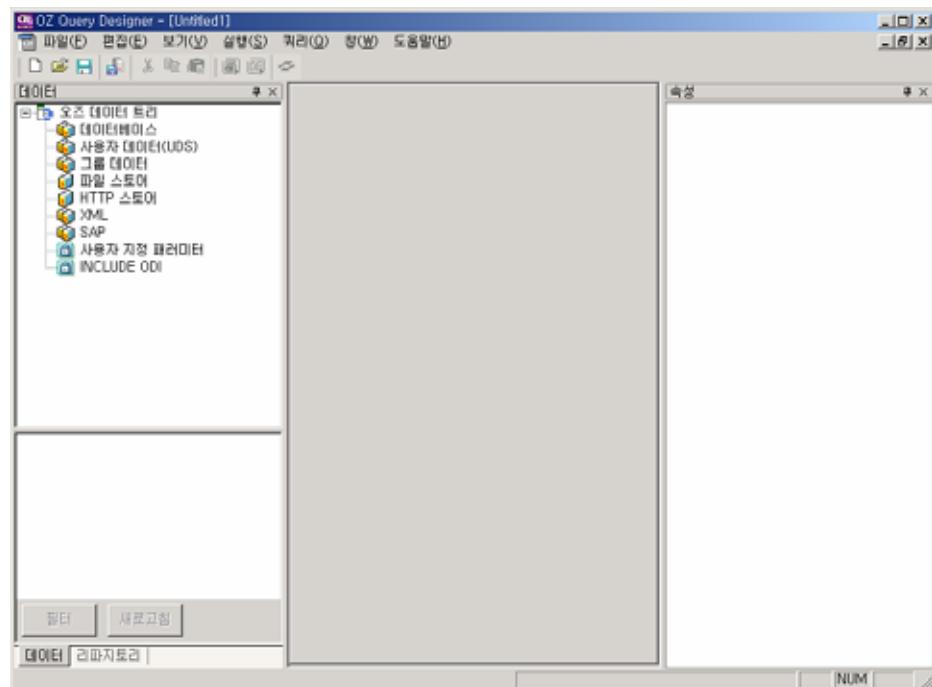
RDB JDBC

RDB JDBC

[] -> [OZ XStudio] -> [OZ Query Designer 3.5]
'OZ Query Designer 3.5'



가



OZ Query Designer

config

launch.cfg

launch.cfg

```
CLASSPATH
= .\lib\ozsfw35.jar;.\lib\log4j.jar;.\lib\parser.jar;.\lib\xerces.jar;.\lib\dtddparser120.jar;.\lib\jcert.jar;.\lib\jnet.jar;.\lib\jsse.jar;.\UniversalDriver\classes12.zip;.\UniversalDriver\db2java.zip;.\UniversalDriver\ifxjdbc.jar;.\UniversalDriver\jconn2.jar;.\UniversalDriver\msbase.jar;.\UniversalDriver\mssqlserver.jar;.\UniversalDriver\msutil.jar;.\UniversalDriver\mysql.jar;.\UniversalDriver\unisqljdbc10.jar
JRE_PATH = "C:\Program Files\Java\j2re1.4.2_03\bin\client\jvm.dll"
```

| | |
|--|--|
| <ul style="list-style-type: none"> ▪ JDBC ▪ JDBC ▪ JDBC | <p>JDBC</p> <p>CLASSPATH</p> <p>lib</p> |
| | <p>launch.cfg</p> |

가

: Java

```

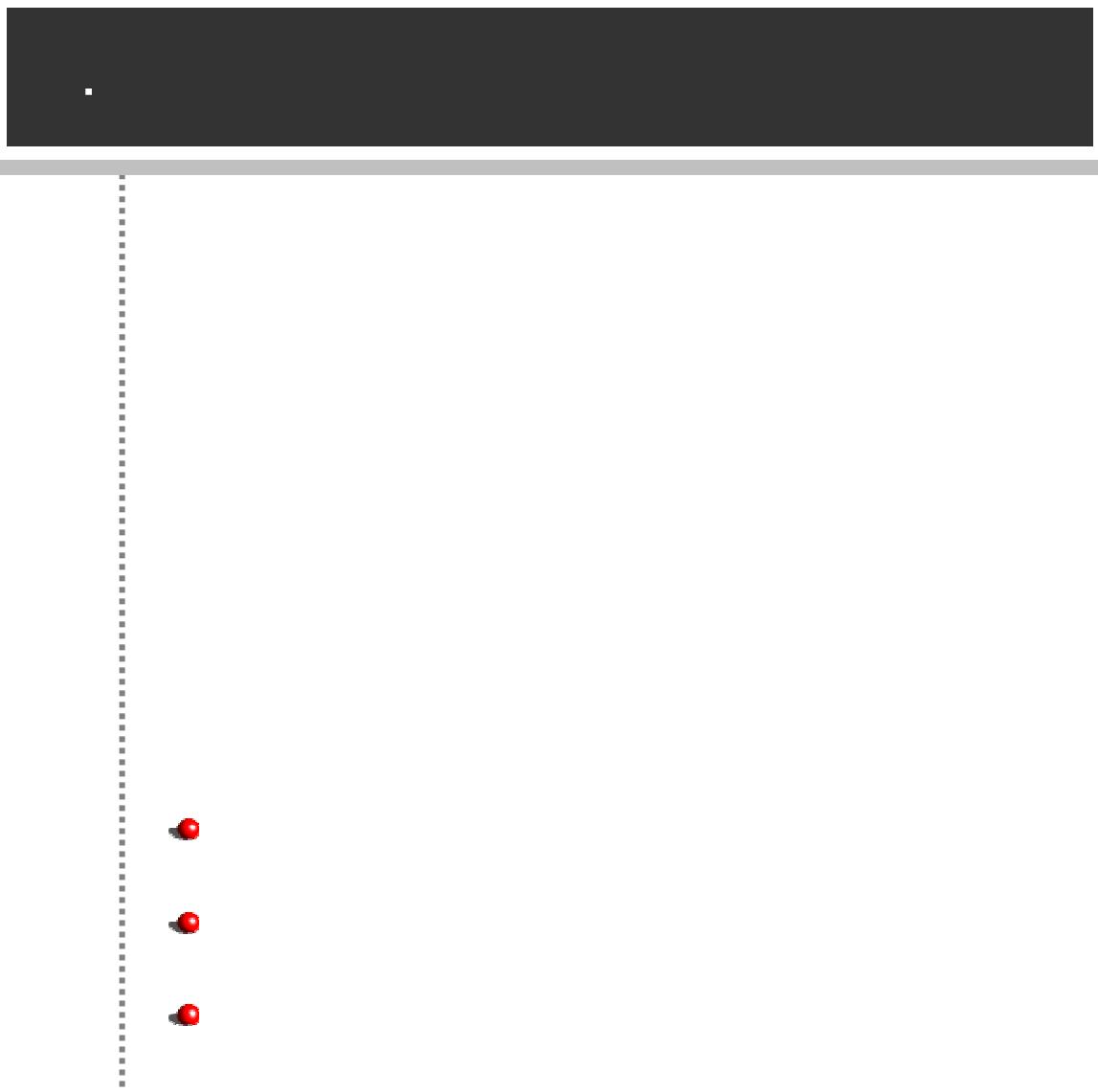
가           Java
launch.cfg      Java
                가 "-
Java           , Java           "-
launch.cfg      .
Java           가   launch.cfg      .

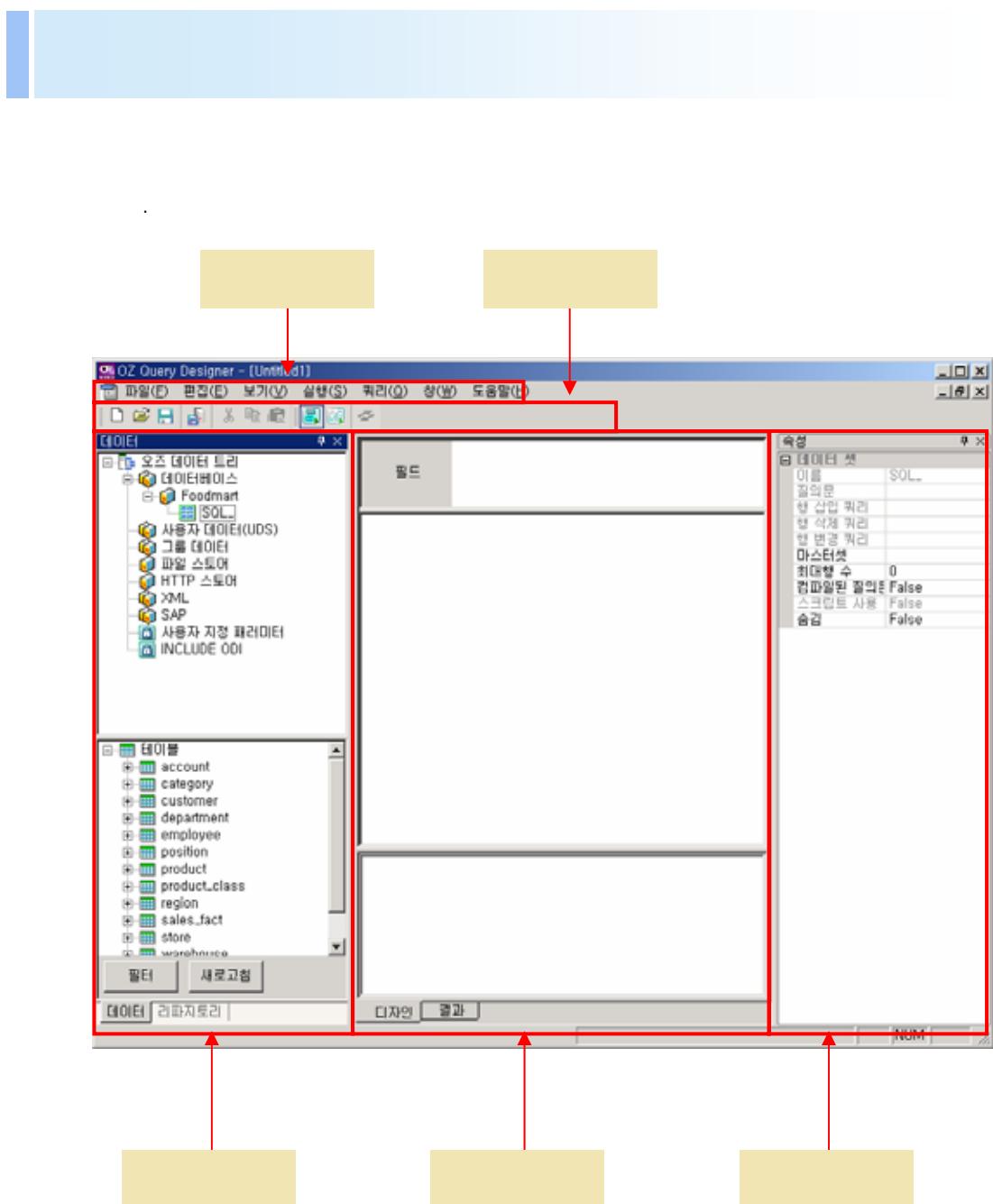
```

```

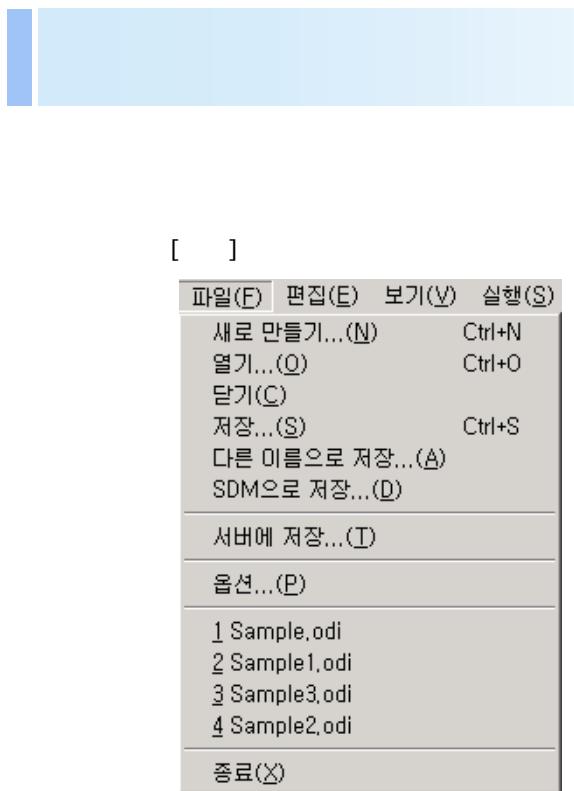
CLASSPATH
= .\lib\ozsfw35.jar;.\lib\log4j.jar;.\lib\parser.jar;.\lib\xerces.jar;.\lib\dt
dparser120.jar;.\lib\jcert.jar;.\lib\jnet.jar;.\lib\jsse.jar;.\UniversalDriv
er\classes12.zip;.\UniversalDriver\db2java.zip;.\UniversalDriver\ifxjdbc
.jar;.\UniversalDriver\jconn2.jar;.\UniversalDriver\msbase.jar;.\Univer
salDriver\mssqlserver.jar;.\UniversalDriver\msutil.jar;.\UniversalDriver
\mysql.jar;.\UniversalDriver\unisqljdbc10.jar
JRE_PATH = "C:\Program Files\Java\j2re1.4.2_03\bin\client\jvm.dll"
-Djava.version=AAA
-Djava.vendor=ABC
-Dos.name=DEF
-Dos.arch=GHI
-Dos.version=JKL
-Duser.name=MNO
-Duser.home=PQR
-Dsystem.IPs=STU
-Dforcs=Forcs

```



| | (pull down) |
|--|---------------------|
| | |
| | ODI(OZ Data Info) 가 |
| | |
| | |



■ **(Ctrl+N)**

ODI

■ **(Ctrl+O)**

ODI

■

■ **(Ctrl+S)**

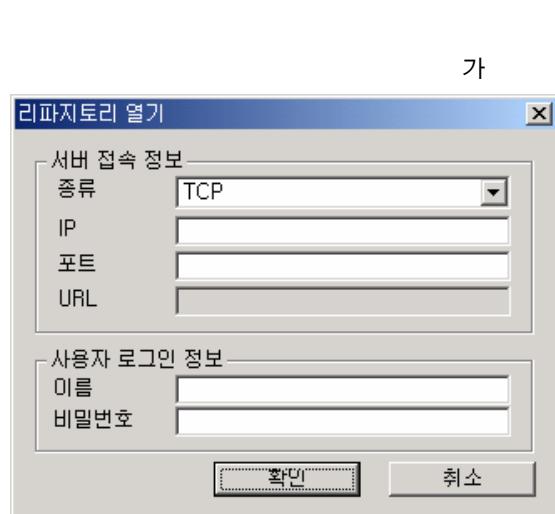
■

■ **SDM**

ODI

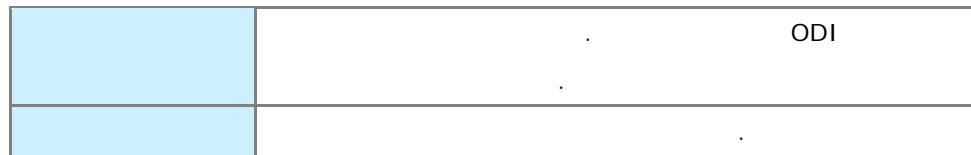
SDM (Server Data Module)

SDM



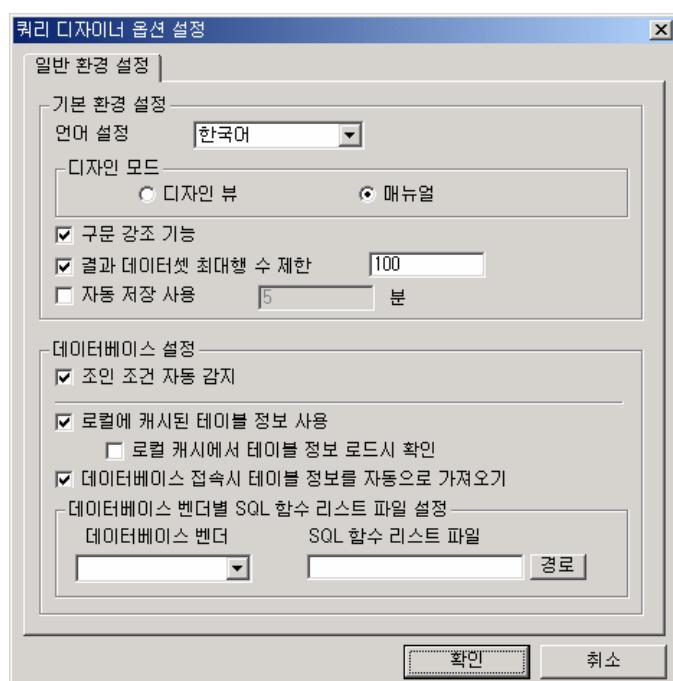
[] 가

| | | | |
|-----|--|------|--|
| | | TCP | |
| | | HTTP | |
| IP | | IP | |
| | | | |
| URL | | URL | |
| | | | |



▪ [] ODI

▪ [] 가



| | | |
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| | | |
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| | | |
| | | [] |
| | | ODI |
| | | |
| | | |
| | | 가 |
| | / | |
| | | |
| | | 가 |
| SQL | | |
| | SQL | 가 SQL |

SQL

JDBC Driver

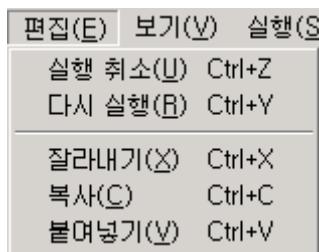
JDBC Driver

■ SQL

ASCII REPLACE
SUM MIN
USER DUMP
SYSDATE LAST_DAY NEXT_DAY

(Space Tab) , 4
 1 , 2 , 3
 , 4

■ ODI 4



■ (Ctrl+Z)

■ Undo

가

■ **(Ctrl+Y)**

가

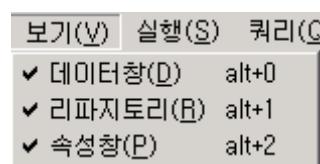
■ **(Ctrl+X)**

[]

■ **(Ctrl+C)**

[]

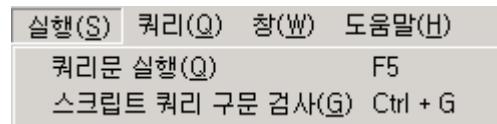
■ **(Ctrl+V)**



■ **(alt+0)**

■ **(alt+1)**

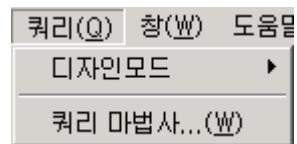
■ **(alt+2)**



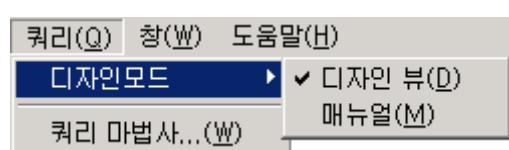
■ (F5)

■ (Ctrl+G)

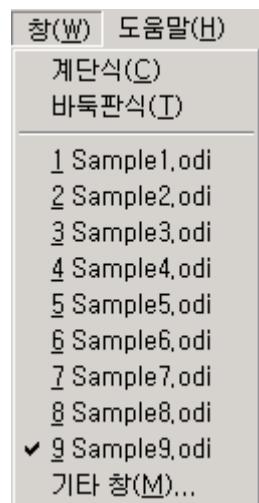
가 []
가 ,
'true'



■ []
2



GUI

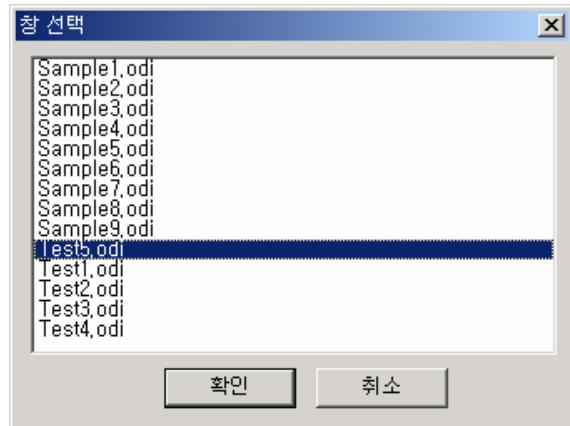


9

10

[] 가
[]

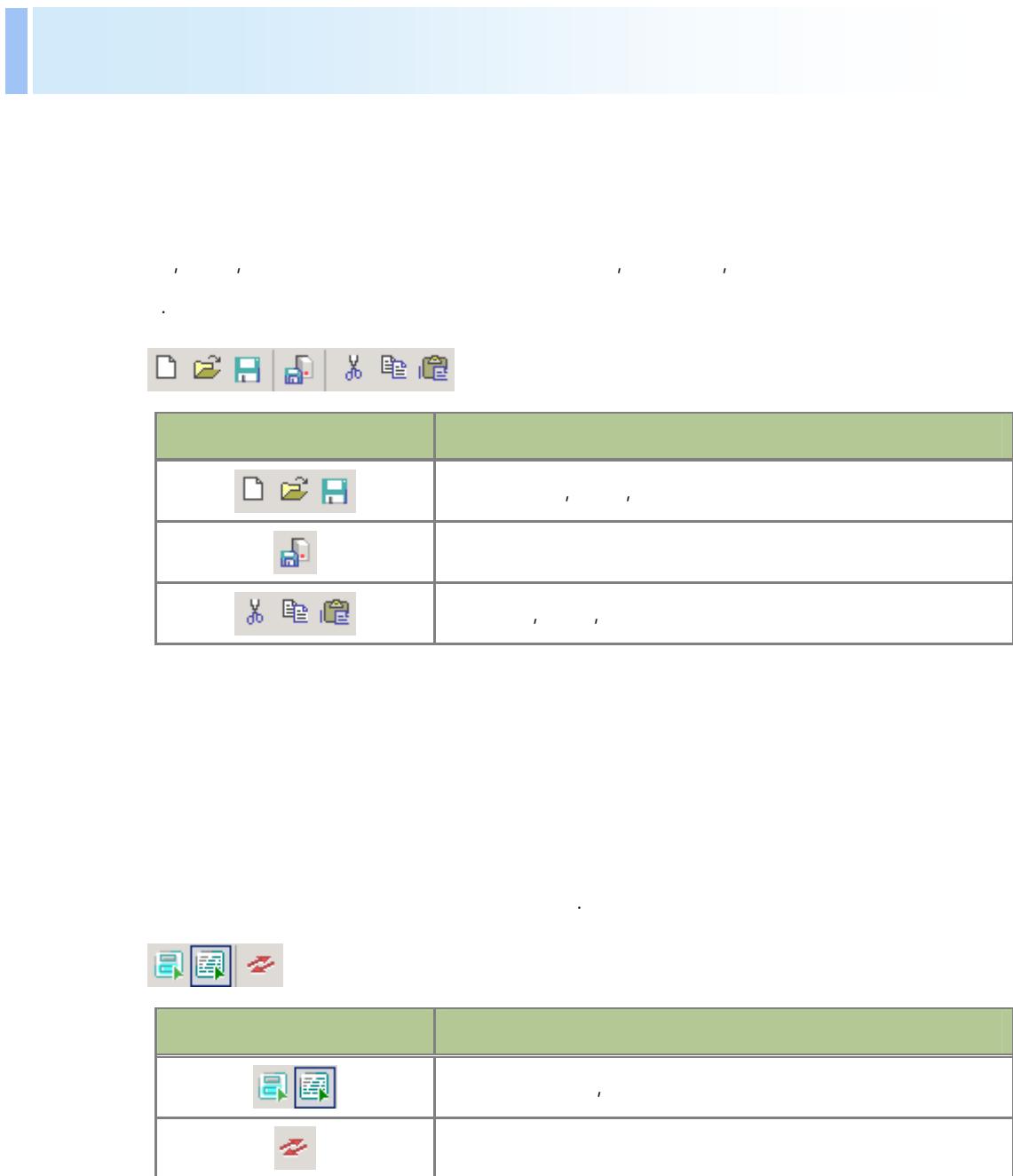
가

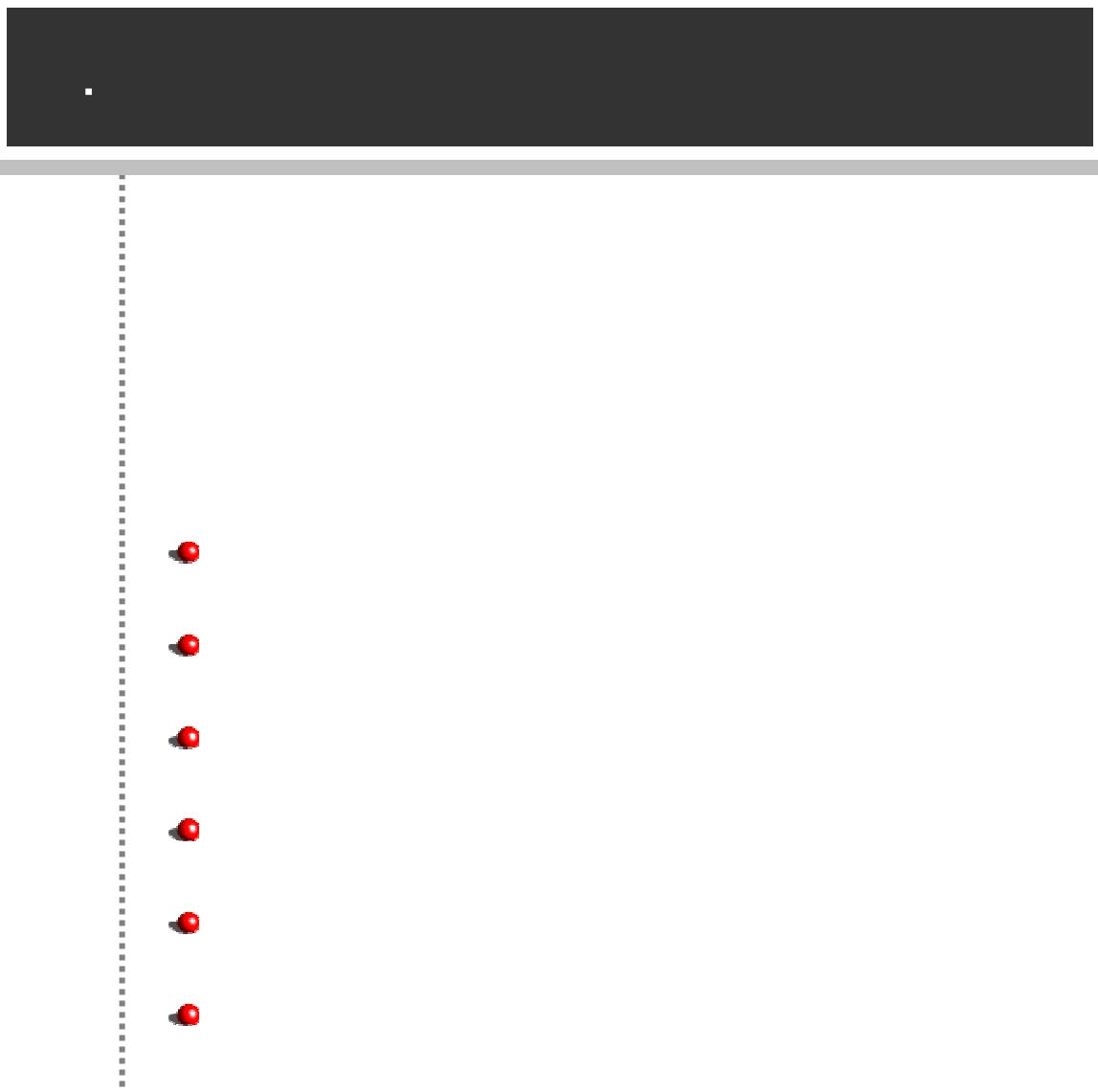


[]



■ OZ QueryDesigner





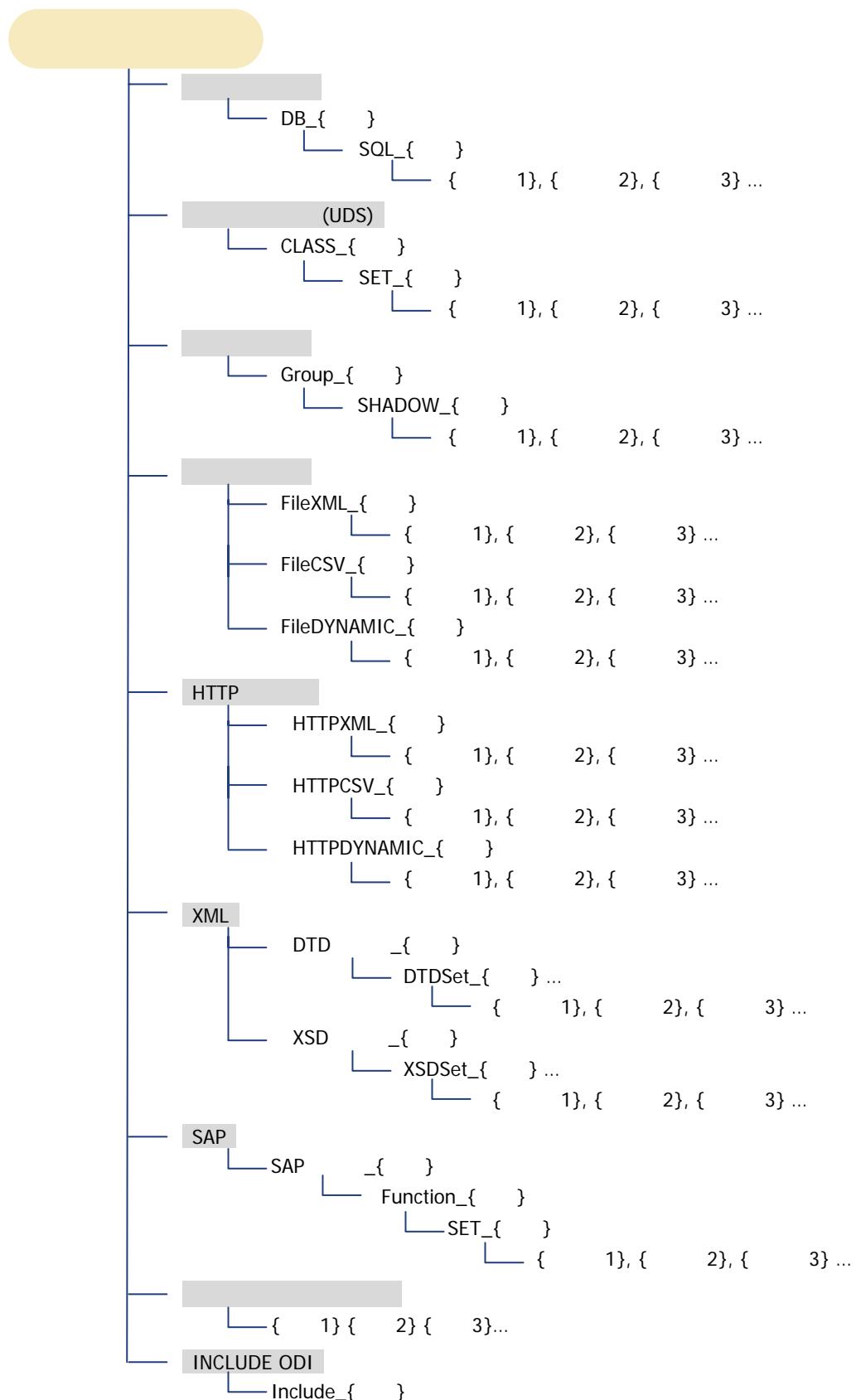


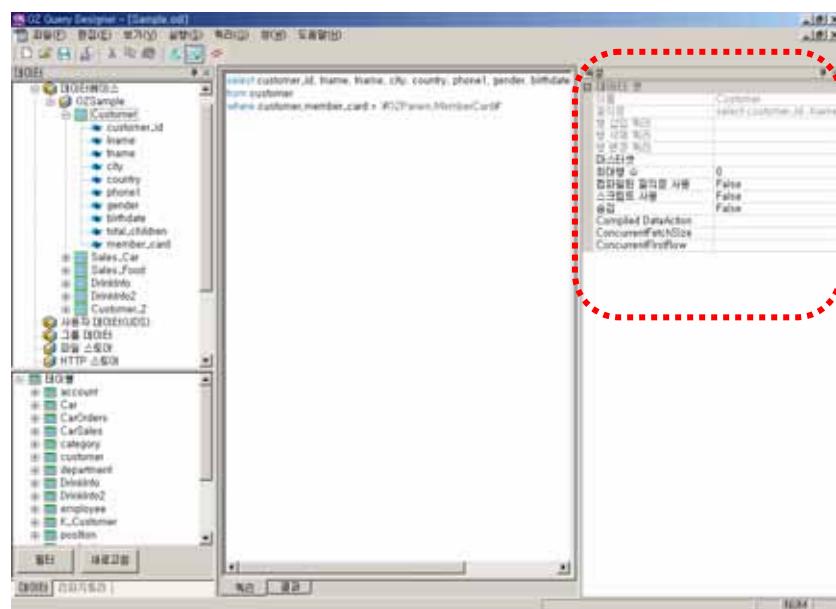
HTTP , XML

가

가

| | JDBC | ODBC | SQL |
|--------------|---|-------------------|------|
| (UDS) | (EJB, Servlet, ASP, JSP, Stored Procedure) Interface | CSV, XML Java | |
| | , UDS | | / |
| /HTTP | | XML(DTD가 , CSV | XML |
| XML | DTD/XSD | XML | |
| SAP | SAP R/3 | SAP | ABAP |





| | | | |
|--|-------|-----------------------------------|-----------|
| | | | '#' |
| | | 가 '#' | #OZParam. |
| | # | | |
| | True | ""(Null) , | 0 |
| | False | Null Null Data() Null Data | "null" |

| | | | |
|------------------------------|-----------------|----|------|
| JDBC | ODBC | [| [|
|] |] | [|] |
|]-[|]-[| 가 | 가 |
| ■ (DB_) | | | |
| JDBC | ODBC/JDBC | | |
| | 가 | | |
| | db.properties | | |
| | Select (Commit) | | |
| | | | |
| ■ JDBC | | | |
| dblink | DB2 | DB | JDBC |
| Oracle | | | |
| JDBC | OZ | | |
| com.setAutoCommit(false) | =false | | |
| com.prepareStatement(sqlstr) | =true | | |

■ (SQL_)

가

가

| | |
|--|---|
| | |
| | |
| | |
| | DataAction |
| | " " / / |
| | DataAction |
| | " " / / |
| | DataAction |
| | " " / / |
| | (Row) |
| | 'True' |
| | preparedstatement (JDBC " ") 'True' |
| | 가 |
| | 'True' |
| | 'True' |

| | | |
|-----------------------|-------------------------------|--------------------|
| | / / "True" "/ / "/ / | 'True' |
| Concurrent | | Byte |
| Concurrent Row | | '0' 가 "DataSet" |

| | |
|--|---|
| | |
| | |
| | |
| | 가 |

(UDS)

(UDS:) 가 EJB, Non-DB
UDS "API"

(CLASS_)

| | |
|--|-----|
| | |
| | UDS |

| | |
|--|-----|
| | UDS |
| | |

■ (SET_)

| | |
|----------------|--------------------|
| | |
| | UDS |
| | UDS 가 UDS |
| | DataAction |
| | DataAction |
| | DataAction |
| | |
| | (Row) |
| | 'True' |
| Concurrent | Byte '0' |
| Concurrent Row | '0' 가 "DataSet" |

■

| | |
|--|-----|
| | |
| | UDS |
| | UDS |
| | 가 |

■

(GROUP_)

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■

(Shadow_)

| | | |
|--------------------|------------|--------|
| | | |
| | | |
| | | |
| | | |
| | Comsum Row | |
| Consume Row | 가 | 'True' |
| | 가 | 'True' |
| | (Row) | |
| | 'True' | |

| | | |
|----------------|-------|-------------|
| Concurrent | | Byte |
| | : '0' | |
| Concurrent Row | : '0' | 가 "DataSet" |

■

| | |
|--|---|
| | |
| | |
| | |
| | 가 |

■ XML (FileXML_)

| | |
|--|--------|
| | |
| | |
| | (Row) |
| | XML |
| | XML |
| | 'True' |

| | |
|---------------------------------|----------------------------|
| Concurrent | Byte : '0' |
| Concurrent Row | : '0' "DataSet" 가 |

| CSV | (FileCSV_) |
|------------|-------------|
| | |
| | |
| | (Row) |
| | |
| | |
| | 가 |
| | 'True' |
| Concurrent | Byte |
| | : '0' |
| Concurrent | |
| Row | : '0' |
| | "DataSet" |
| PGP | 가 |
| CSV | |
| UDS | |

■

| | |
|--|---|
| | |
| | |
| | |
| | 가 |

HTTP

■ HTTP XML (HTTPXML_)

| | |
|-------------------|--------------------------------|
| | |
| | Http |
| | |
| | (Row) |
| | XML |
| | XML |
| | 'True' |
| Concurrent | Byte : '0' |
| Concurrent Row | : '0' "DataSet" 가 |

■ **HTTP** **CSV** **(HTTPCSV_)**

| | |
|---------------------------------|-------------------------|
| | |
| | Http |
| | |
| | (Row) |
| | |
| | 가 |
| | |
| | 'True' |
| Concurrent | Byte |
| | : '0' |
| Concurrent Row | : '0' "DataSet" 가 |

■

| | |
|--|---|
| | |
| | |
| | |
| | 가 |

XML

DTD/XSD

XML

■ XML DTD/XSD

| | |
|--|-----|
| | |
| | XML |

■ XML DTD/XSD (DTDSet_ , XSDSet_)

| | |
|-----------------------|----------------------|
| | |
| | XML |
| | |
| | 'True' |
| Concurrent | Byte : '0' |
| Concurrent Row | : '0' "DataSet" 가 |

■

| | |
|--|-------------|
| | |
| | |
| | (Full Name) |
| | XML |
| | XML |
| | 가 |

SAP

■ SAP

| | |
|-----|-----|
| | |
| | |
| () | SAP |
| | SAP |

■ SAP

| | |
|--|-----|
| | SAP |
|--|-----|

■ SAP

| | SAP |
|---------------------------------|-----------|
| | |
| Concurrent | Byte |
| | : '0' |
| Concurrent Row | : '0' |
| | "DataSet" |
| | 가 |

| | |
|--|--|
| | |
| | |
| | |

| | | |
|--|---|---|
| | 가 | . |
|--|---|---|

가



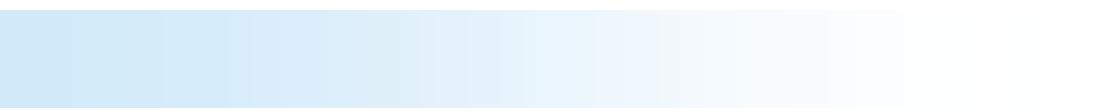
| | | |
|--|---|---|
| | 가 | . |
| | | . |
| | | . |
| | 가 | . |
| | | 가 |

Include ODI

LocalExplorer ODI Include

■ **Include**

| | | |
|-------|--|---|
| | Include | . |
| OZURL | URL ODI OZ URL [Repository Root] [LocalExplorer]) ozp:/// / | . |



ODBC/JDBC

가

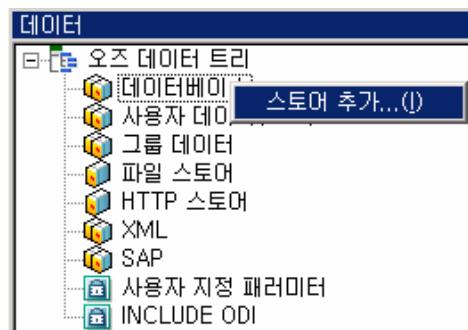
가

Step 1

[]

[]

가]



Step 2

[]

가]

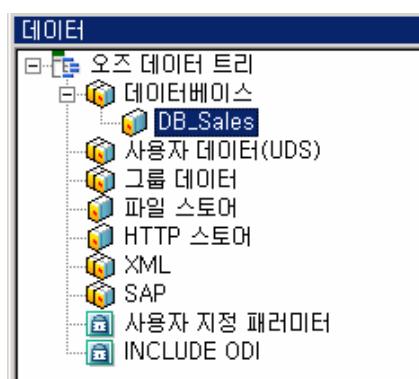
가

Step 3

[]

[DATABASE]

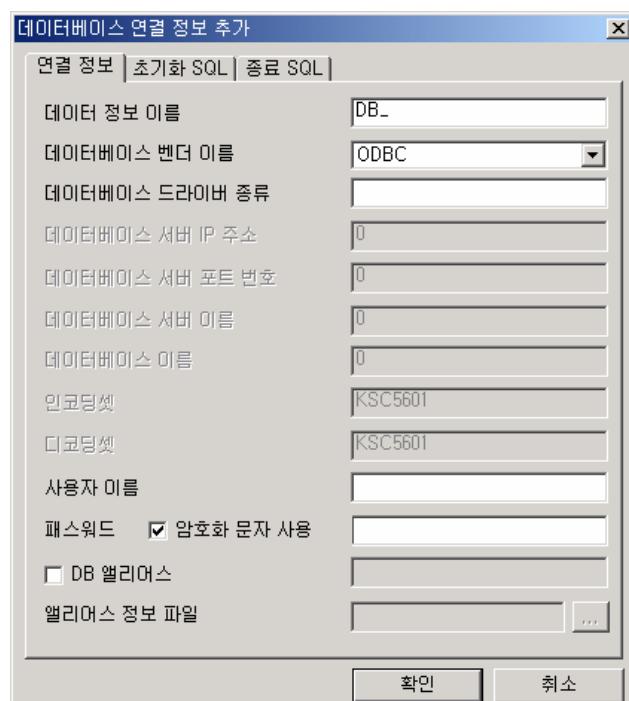
가



가

SQL'

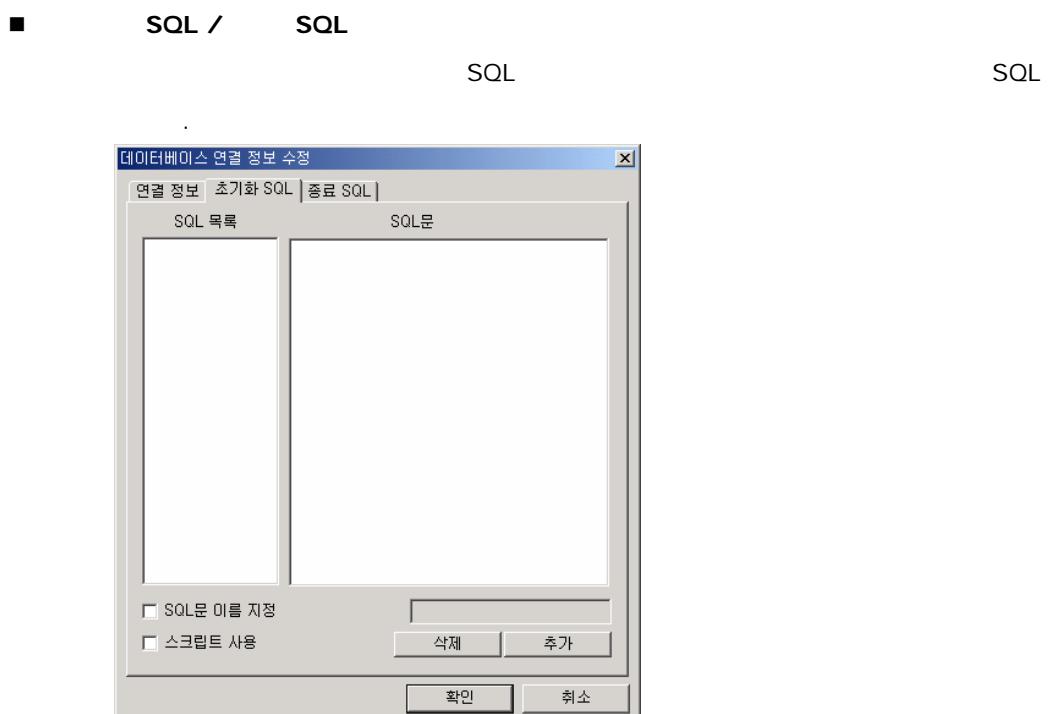
JDBC ODBC

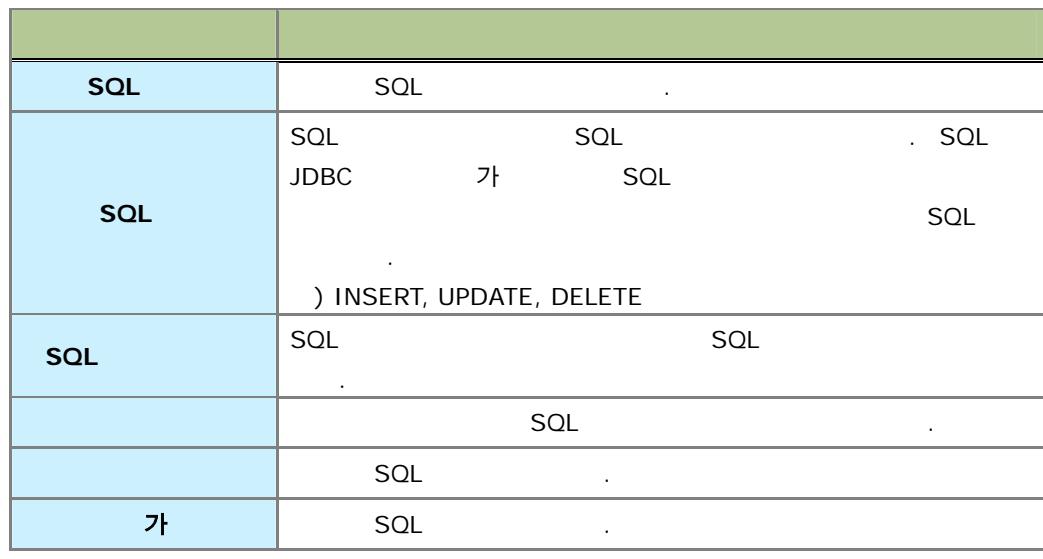


| | 가 | |
|----|------------------------|---------------------------------------|
| | () | |
| | JDBC ODBC) ODBC | JDBC Driver Type (ODBC JDBC |
| IP | IP | |

| | |
|-----------|-----------------------------|
| | |
| | (Oracle, Informix) |
| | |
| | |
| | 가 |
| | ID |
| | |
| DB | db.properties DB |
| | DB 가 DB db.properties |

"Appendix.





SQL

ODBC JDBC

■ ODBC

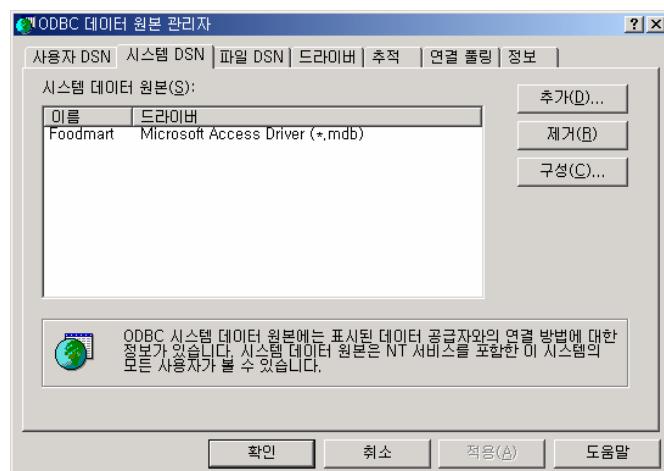
ODBC

ODBC

MS Access, dBase, Foxpro

ODBC

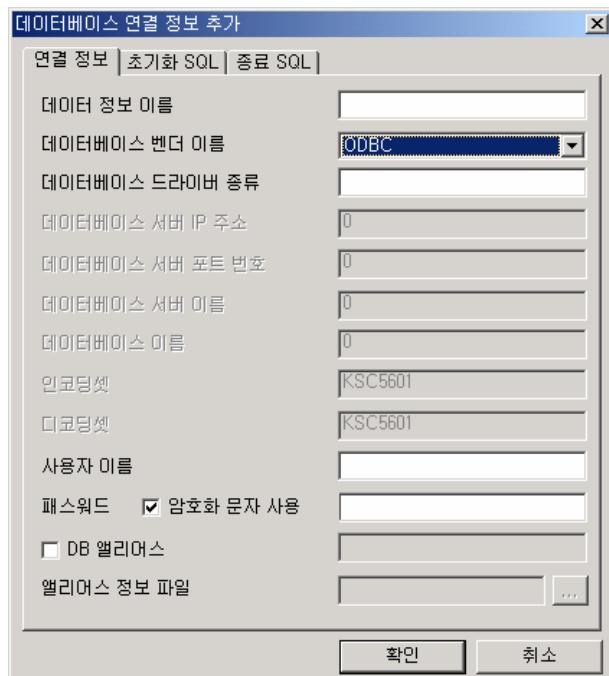
가



ODBC

[

]



• [] 가 []

가

• [] ODBC

• [] [ODBC]]

• [] / []

[]

■ JDBC

JDBC

JDBC

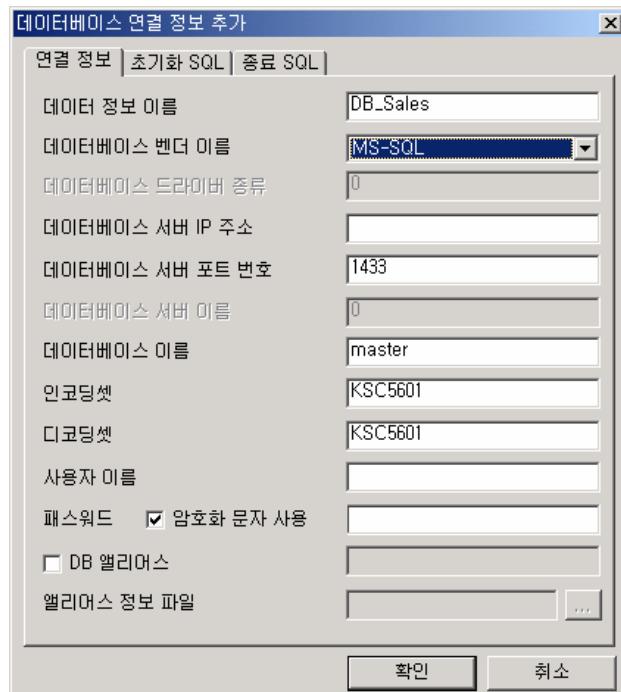
MS-SQL, Oracle, Sybase

JDBC

[]

가

MS-SQL



- [] 가 []
- [] 가 []
- []] 'MS-SQL'
- [] IP [] / []] MS-SQL
- []] IP []
- [] / []] []

Oracle

Oracle MS-SQL [] []

[]

• [] 가 []

가

• [] 'Oracle'

• [] Oracle JDBC

Oracle JDBC thin(Type-4) oci(Type-2) 가 가

• [] IP] / [] Oracle

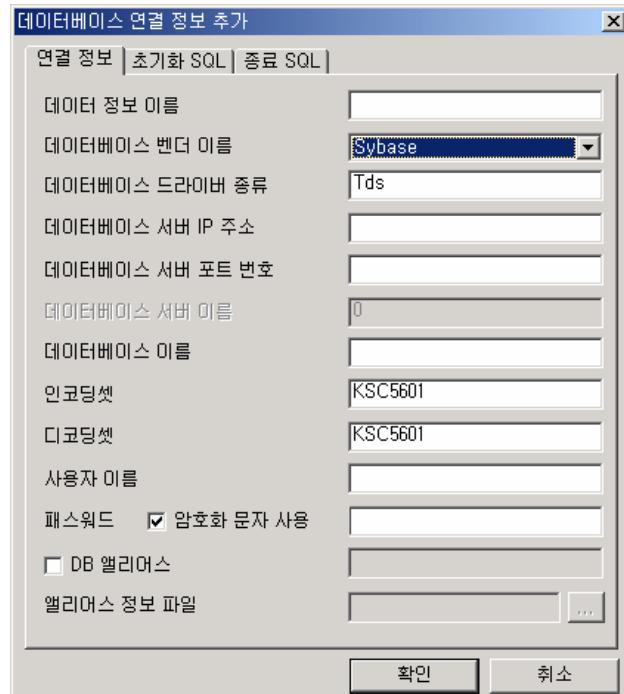
IP

• [] Oracle Oracle SID() 'ORCL'

• [] / [] []

Sybase

Sybase [] 가 가 MS-SQL



- [] 가 [] 가 .
- [] 'Sybase'
- [] Sybase JDBC jConnect
'Tds' Tds(Tabular Data Stream) Adative Server
Sybase
- [] IP [] / []] Sybase
IP
- [] []
- [] / [] []

Informix

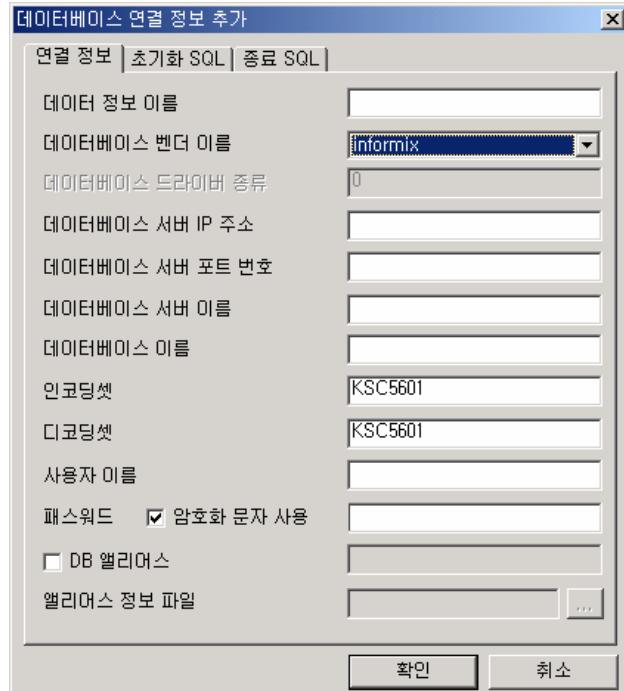
Informix

[

]

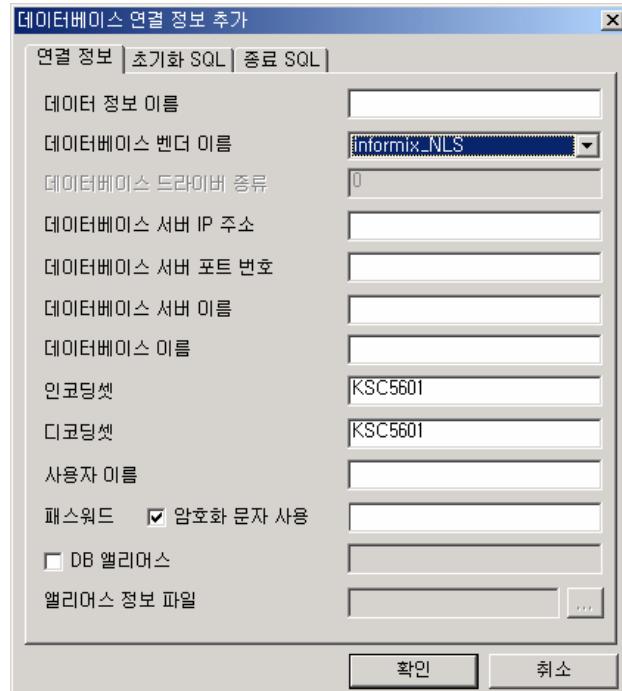
가

MS-SQL

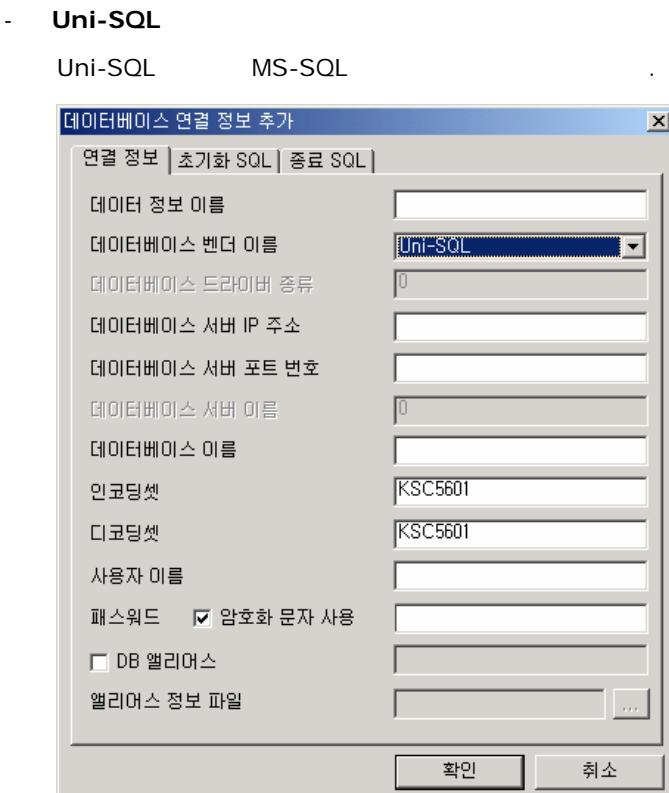


▪ **Informix_NLS**

Informix_NLS [] 가 MS-SQL

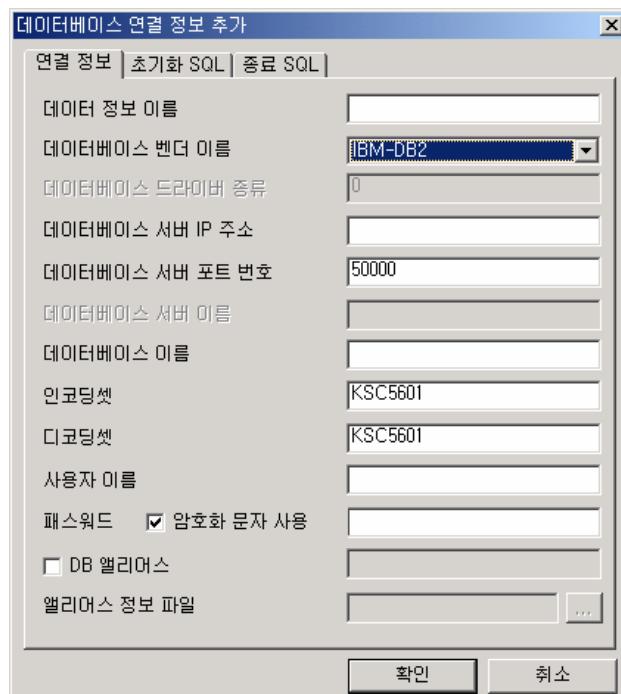


- [] 가 []
- [] 'Informix_NLS'
- [IP] / [] Informix
- [] Informix_NLS
- []
- [] / [] []

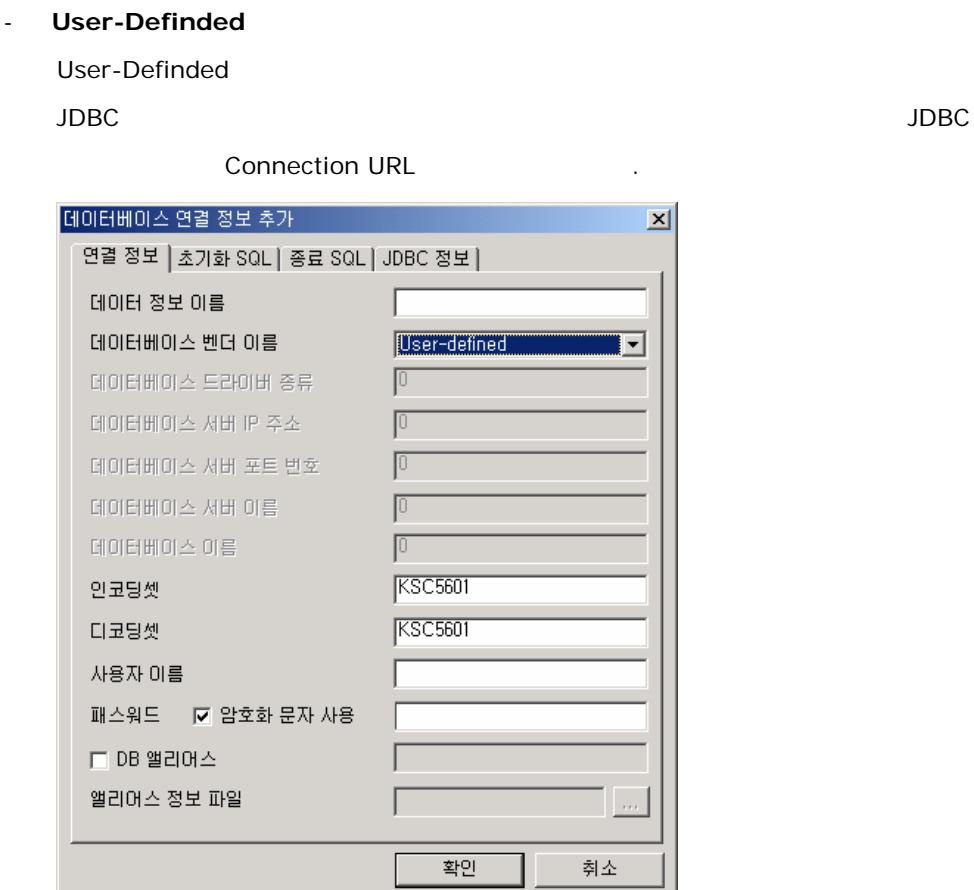


- [] 가 []
가 .
- [] 'Uni-SQL'
- [IP] / [] Uni-SQL
- []
- [] / [] . []

IBM-DB2
 IBM-DB2 MS-SQL
 User-Defined



- [] 가 []
- [] 가 []
- [] 'IBM-DB2'
- [] / [] IBM-DB2
- [] IP
- []
- [] / []
- [] []

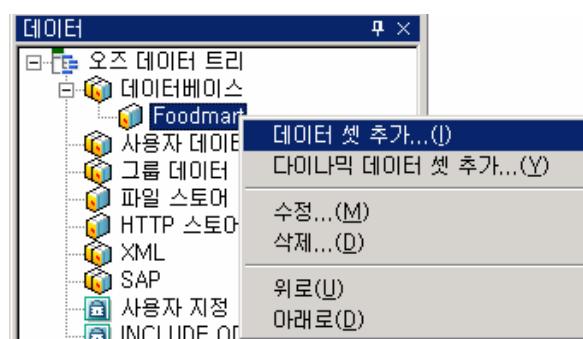


- [] 가 []
- 가
- [] 'User-defined'
- [IP] / [] Uni-SQL
- []
- [] / []
- []
- DB DB Connection URL [] / []
-]

Step 1

'Foodmart'

가]



Step 2

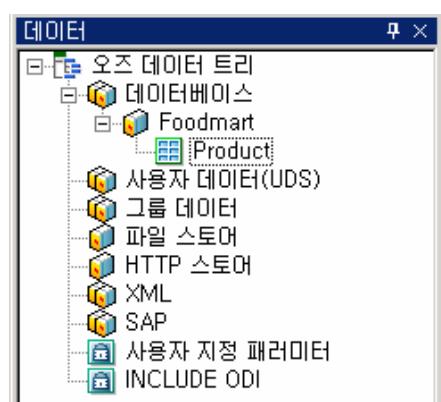
[]



Step 3

[]

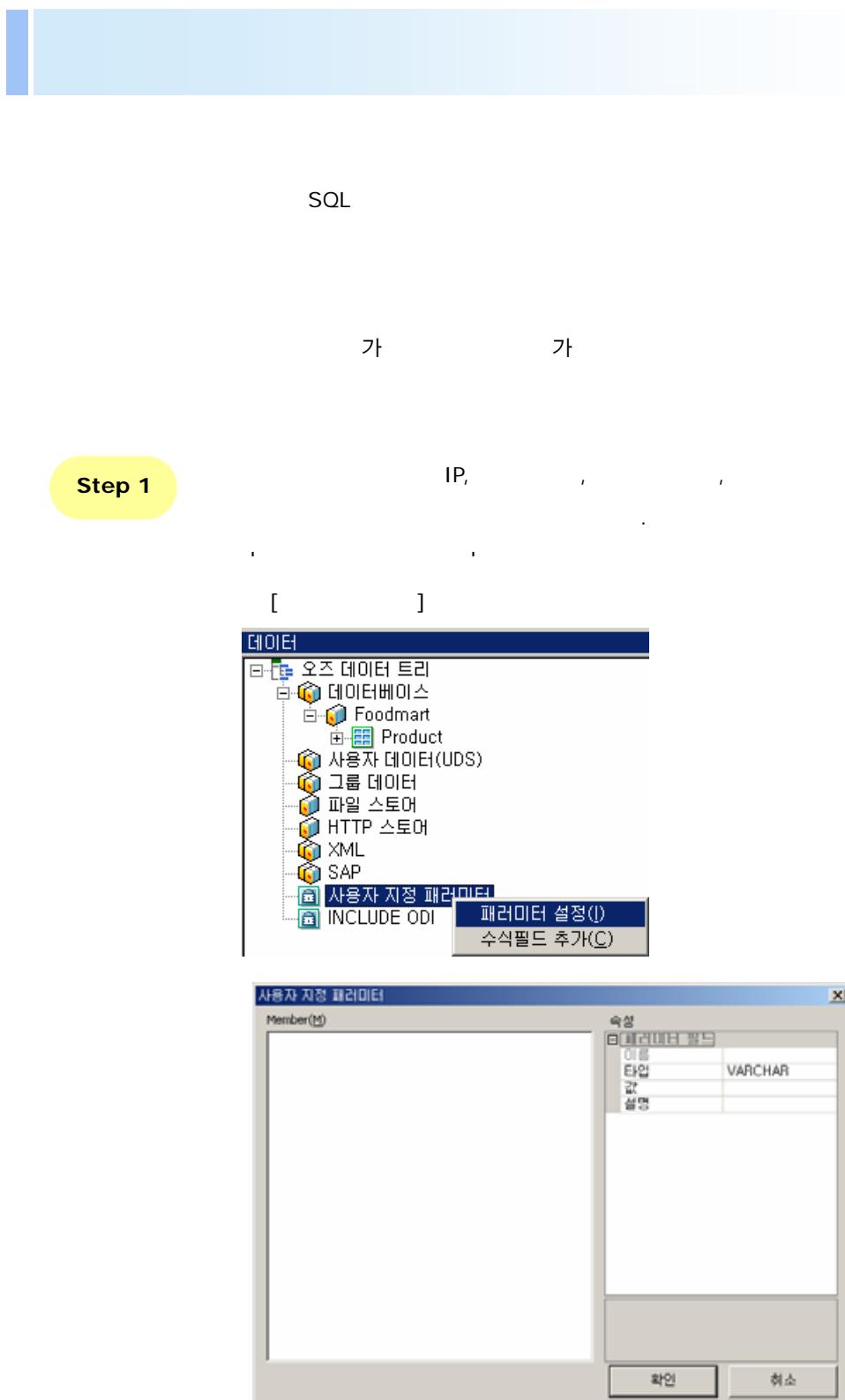
가



Step 4

()

"V.



| | |
|--|-------------|
| | |
| | 가 |
| | 가 |
| | 가 (Default) |
| | 가 |

Step 2

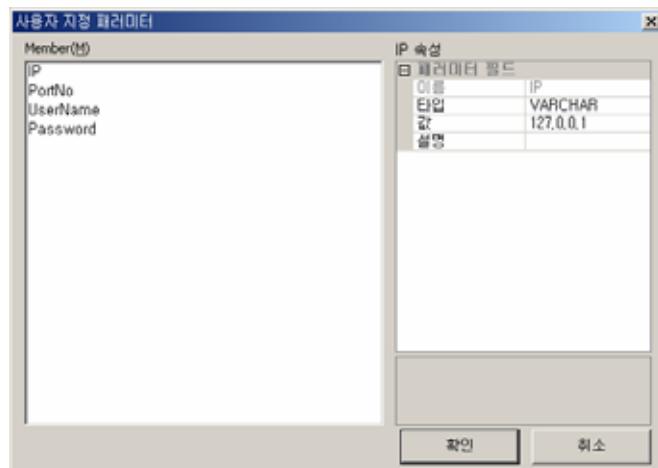
[]

가

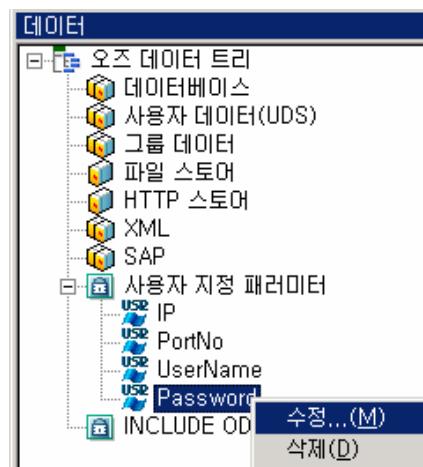
'IP',

'PortNo', 'UserName', 'Password'

가

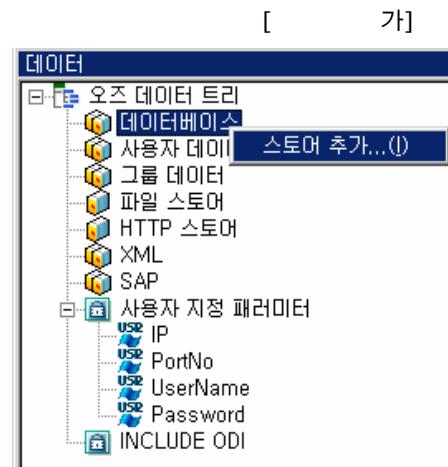


[]

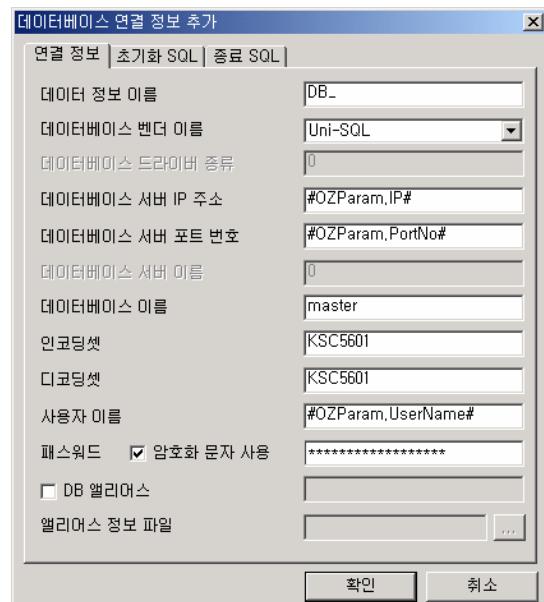


Step 3

가



Step 4



#OZParam.Password#

(Alias)

가
가 db.properties

가 db.properties

가 db.properties

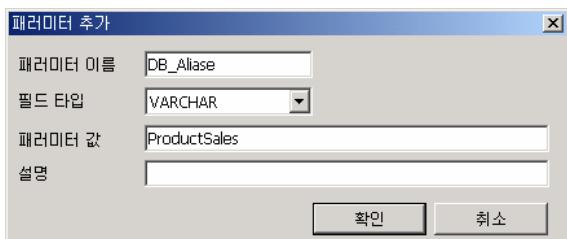
MS_SQL "ProductSales"

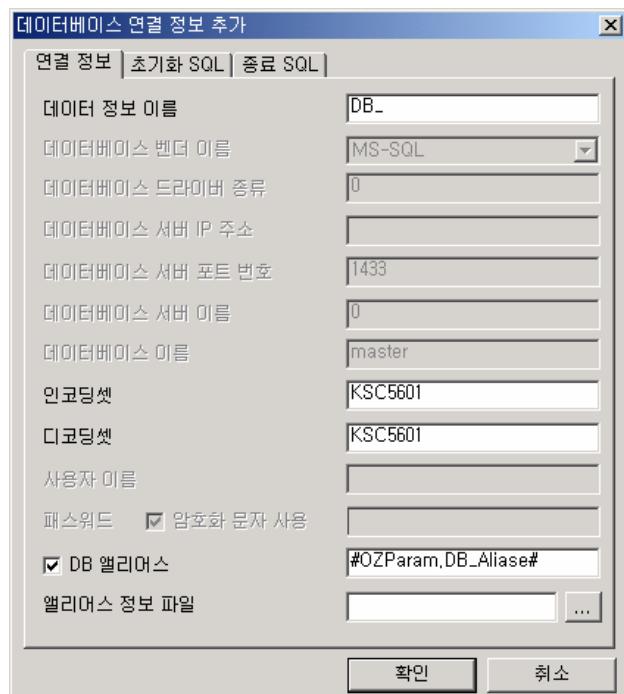
```
# setting for MS-SQL with Alias ProductSales

ProductSales.vendor=mssql
ProductSales.serverAddress=127.0.0.1
ProductSales.portNo=1433
ProductSales.dbName=marketing
ProductSales.user=sa
ProductSales.password=
ProductSales.maxconns=20
ProductSales.initconns=5
ProductSales.timeout=5
```

ODI (:DB_Aliase,
:ProductSales) 가

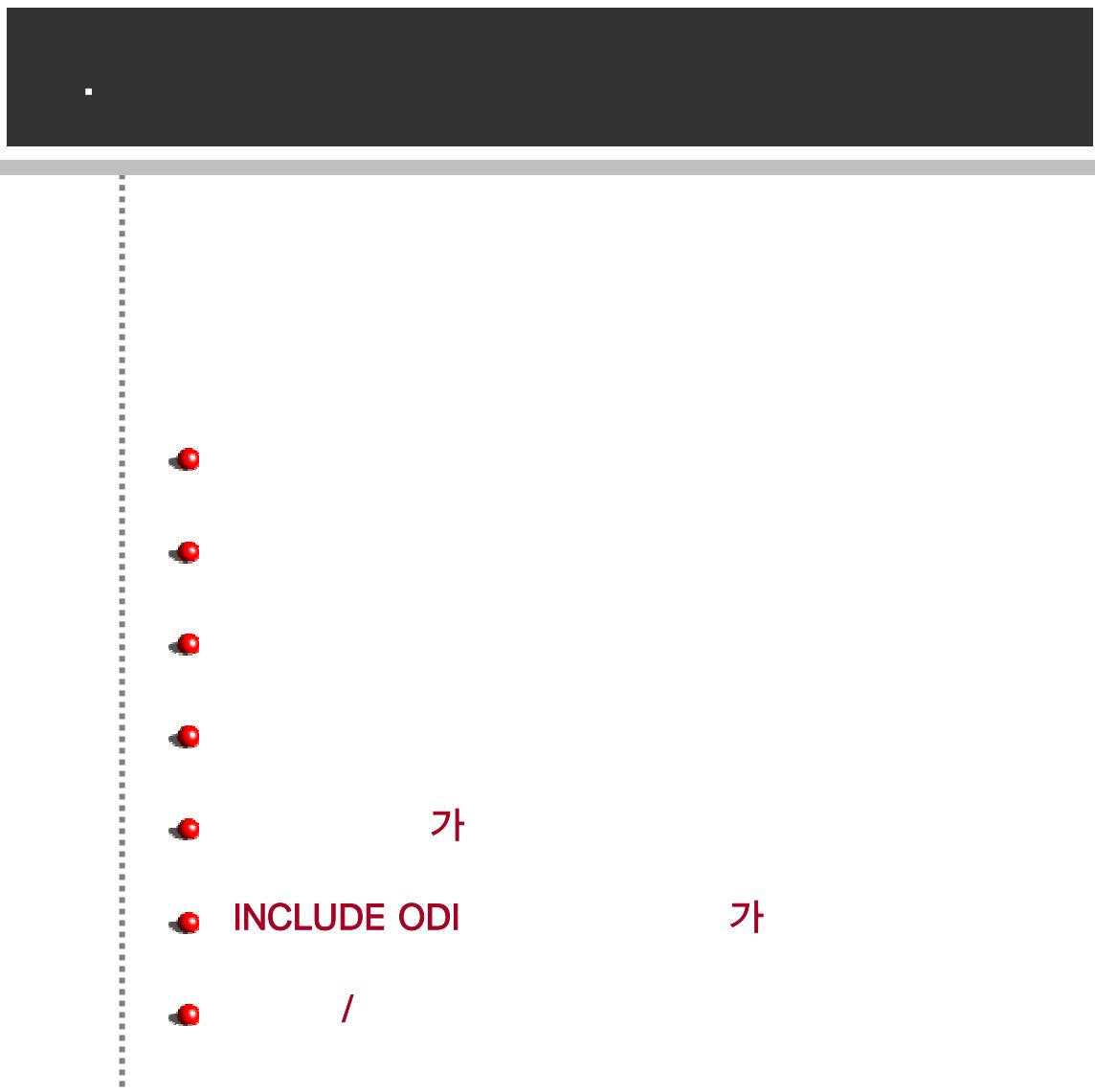
가



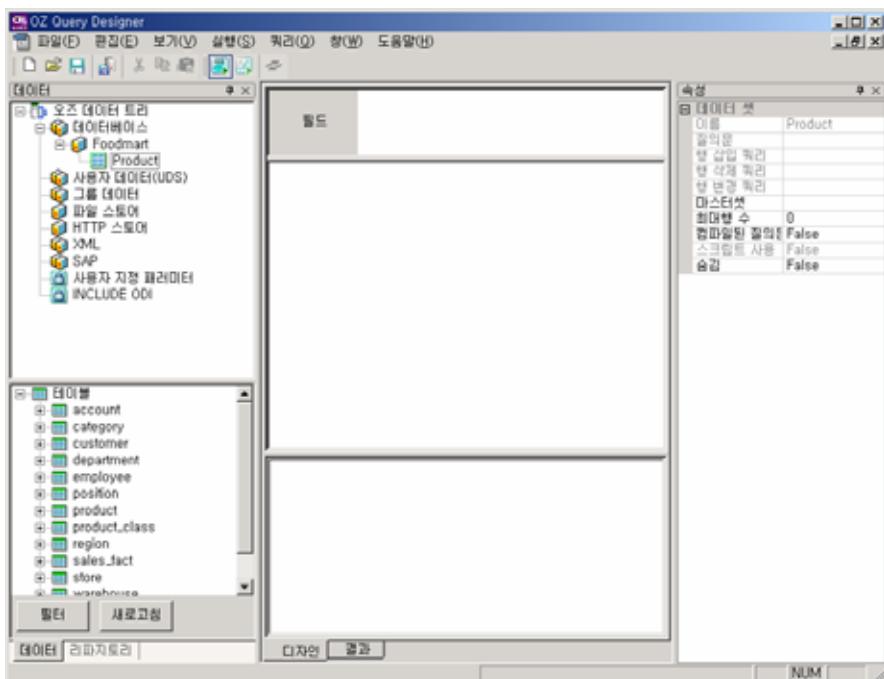


DB

UI



RDB



| | () | |
|--|-----|---|
| | / | / |
| | 가 | 가 |
| | 가 | 가 |
| | 가 | 가 |

▪ [] []

▪

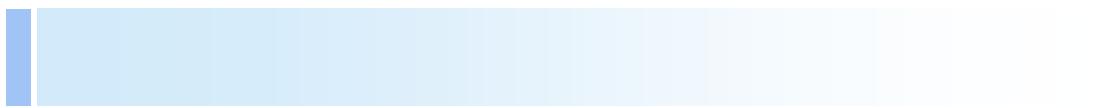
SQL

가

SQL

가

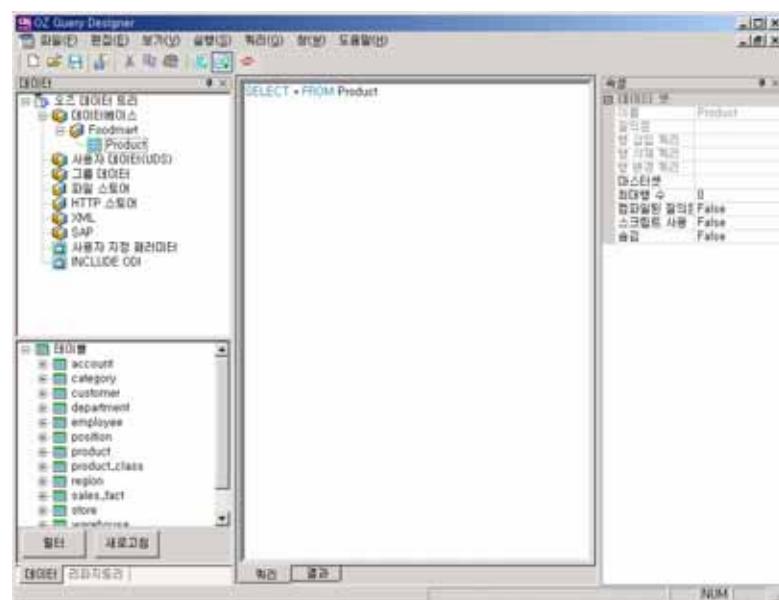
가



[] -> [] -> []


Step 1

[]



Step 2

[] []

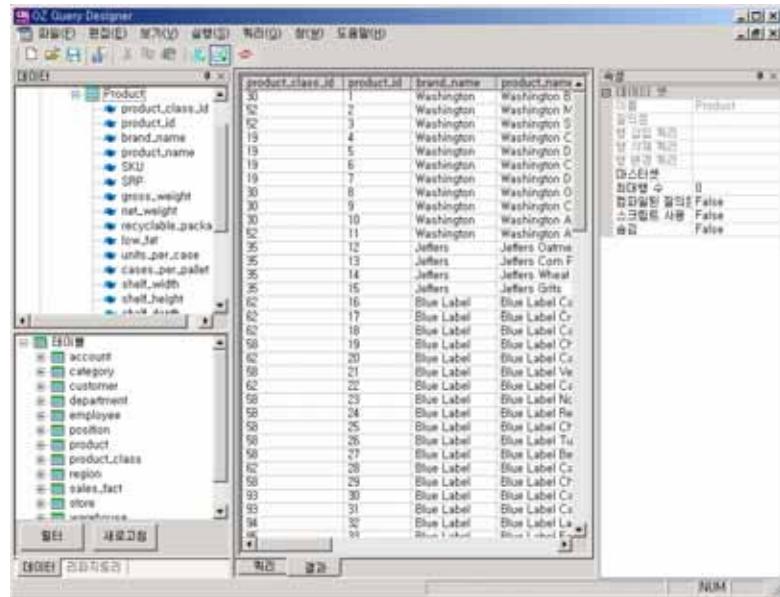
()

<F5 >

가

[]

가

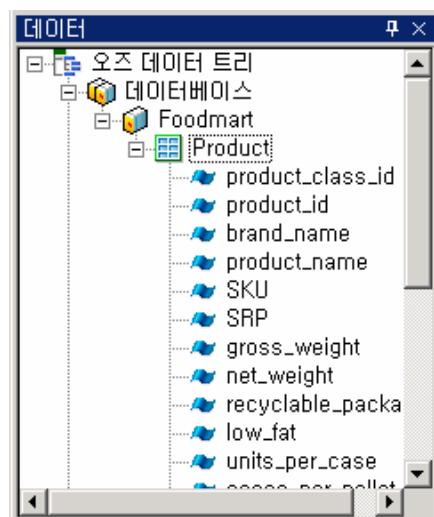


가

Step 3

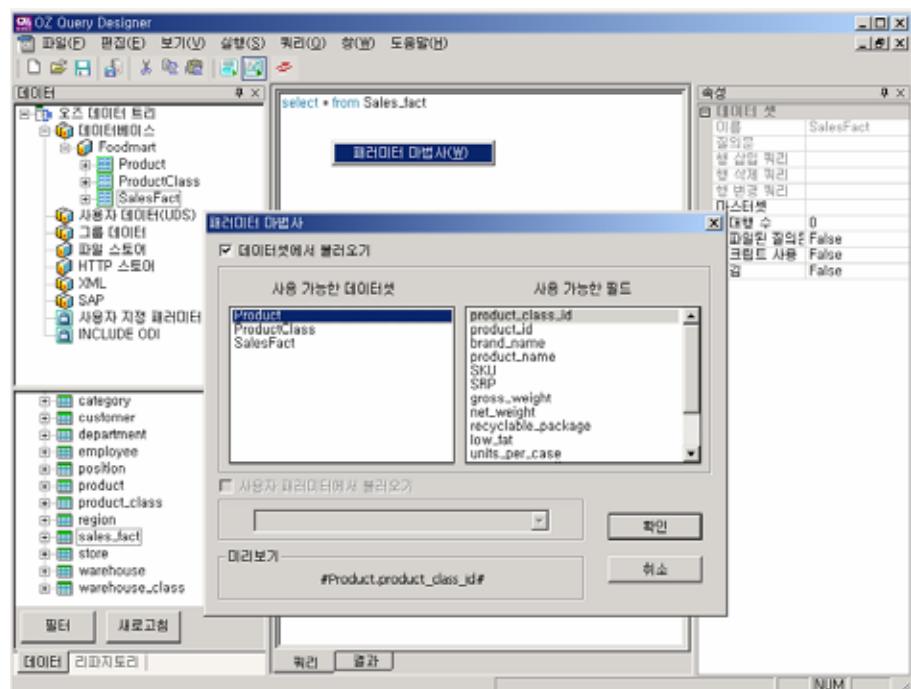
가

가

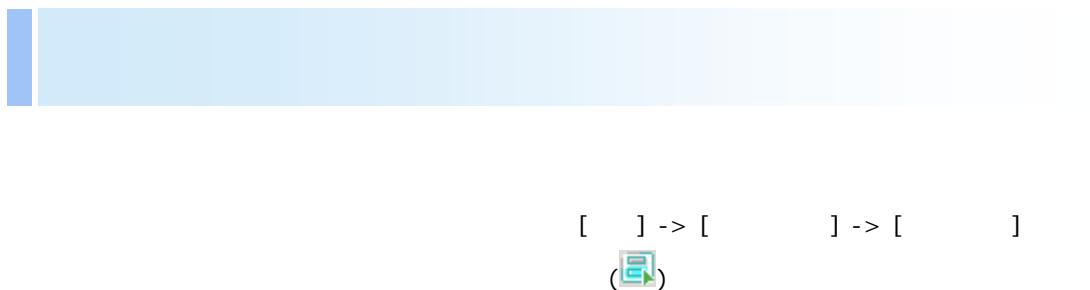


Where

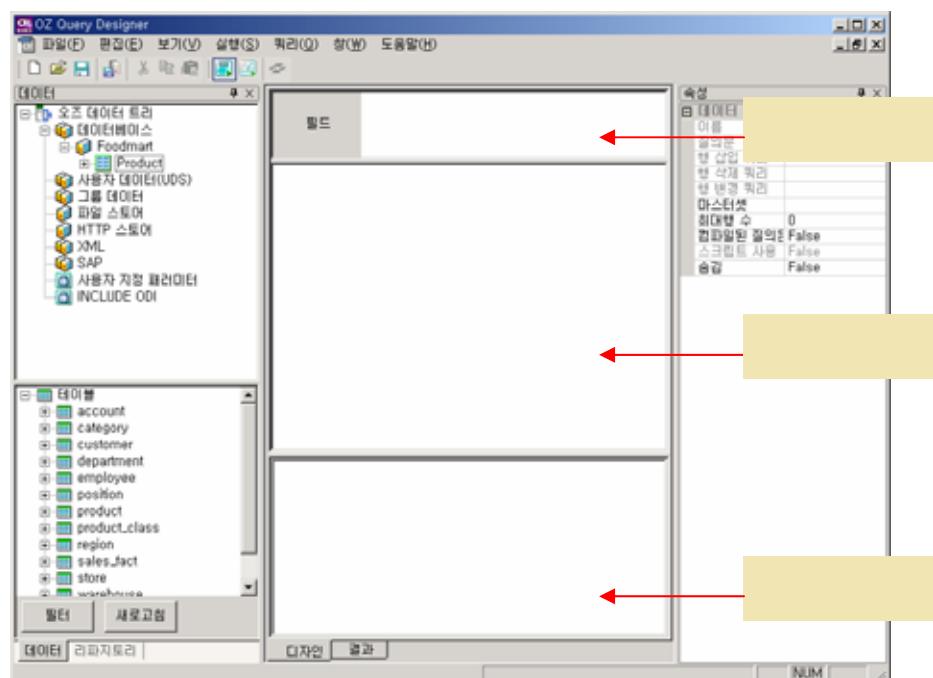
[] 가



| | | |
|---|---|-----------------|
| | | |
| | 가 | 가 |
| | 가 | [가] |
| 가 | | |
| 가 | | |



[]
가



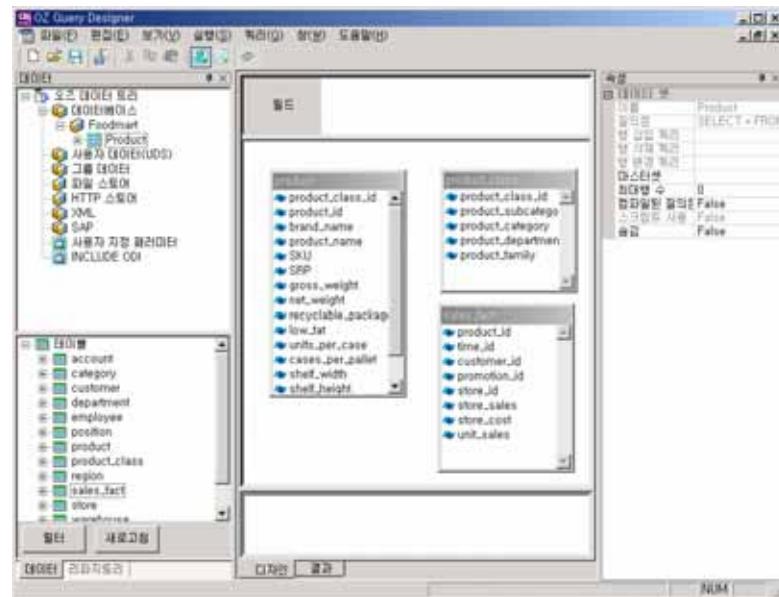
Step 1

[]

&

가

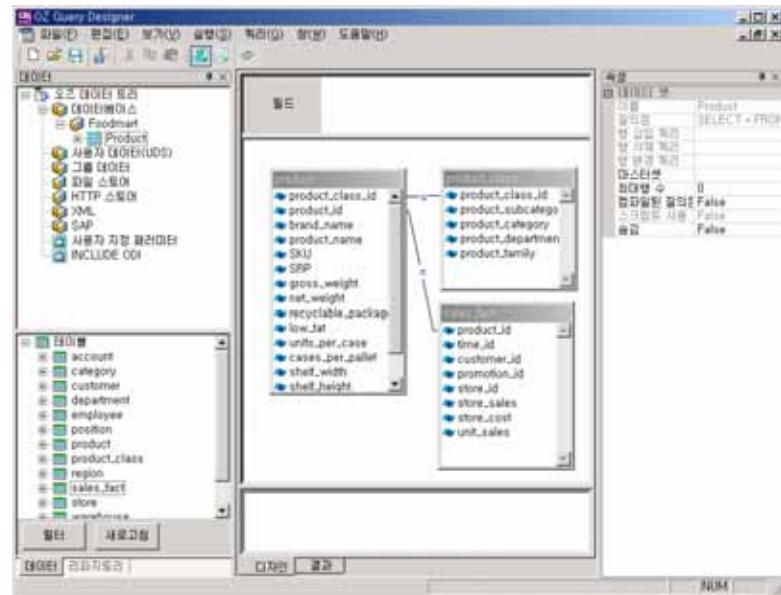
From



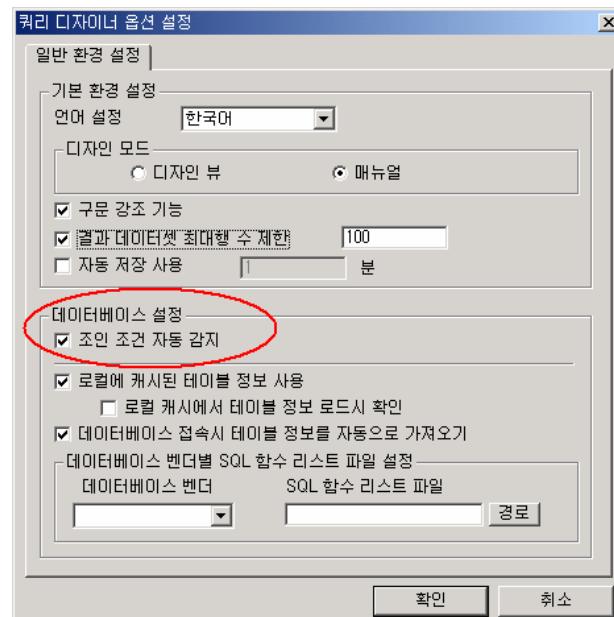
Step 2

가

- DB Primary, Foreign Key JDBC 가
(Oracle, MS-SQL) : 가 Primay, Foreign Key
- DB Primary, Foreign Key JDBC 가
(ODBC) :



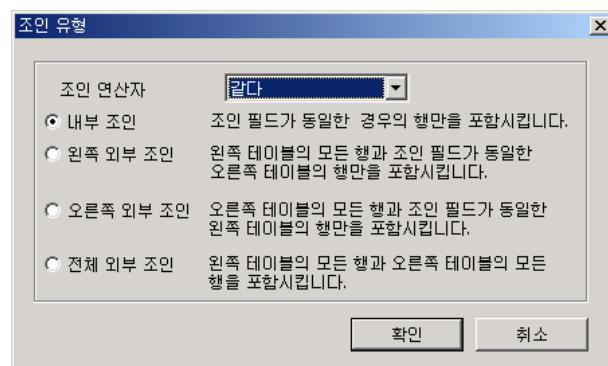
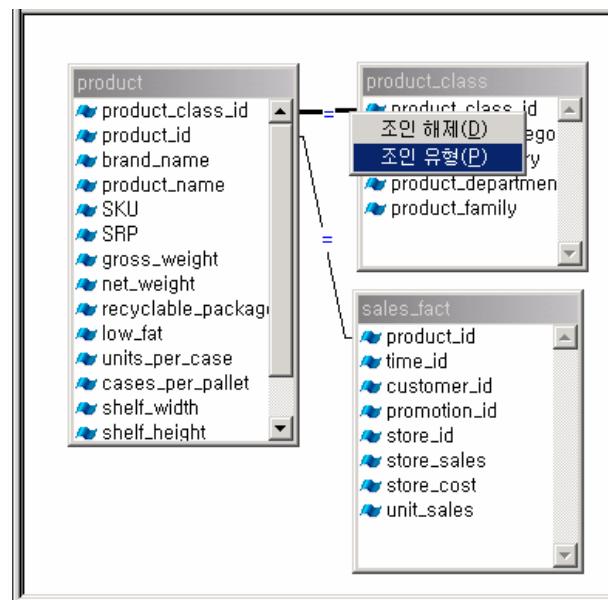
[] -> []



가

&

[]

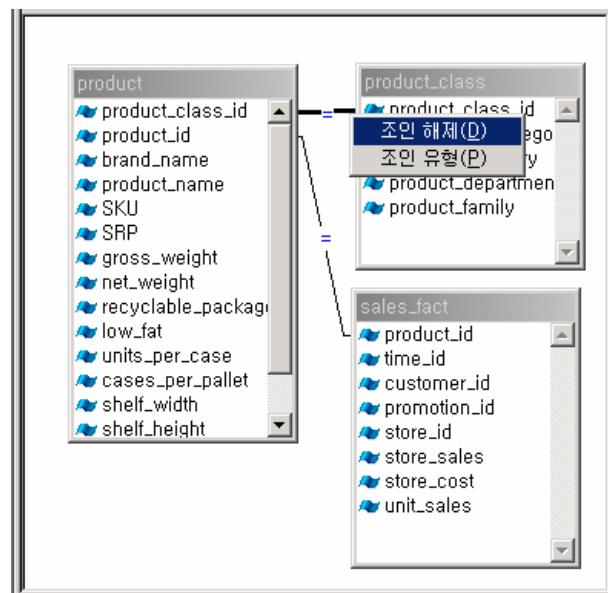


가

9i

<Delete>

[]

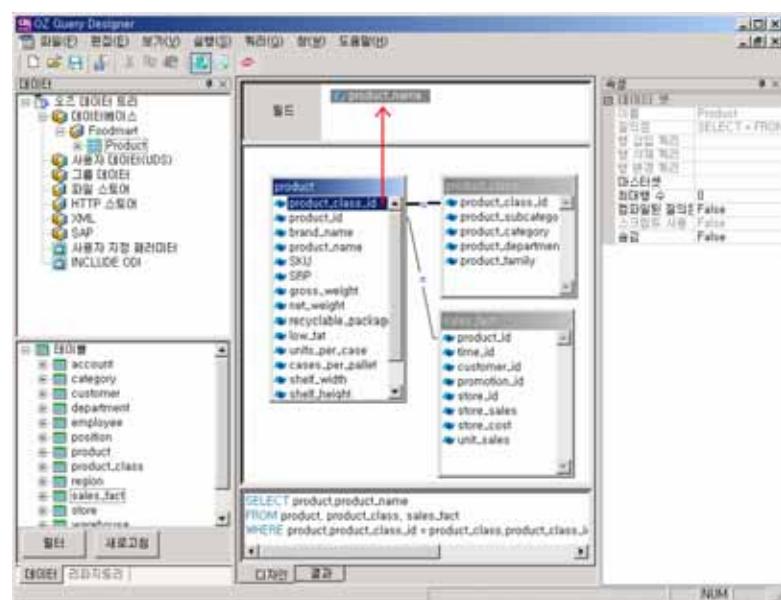


Step 3

가

&

가



가

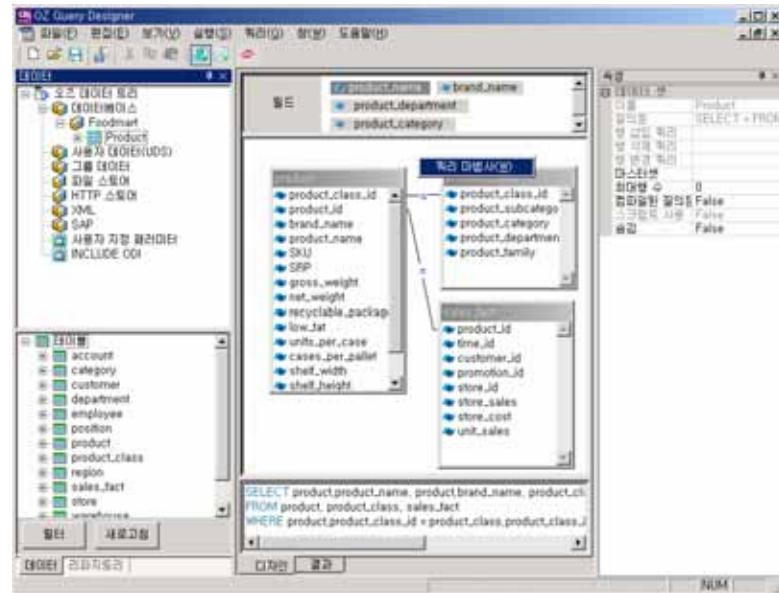
가

<Delete>

Step 4

[] ->

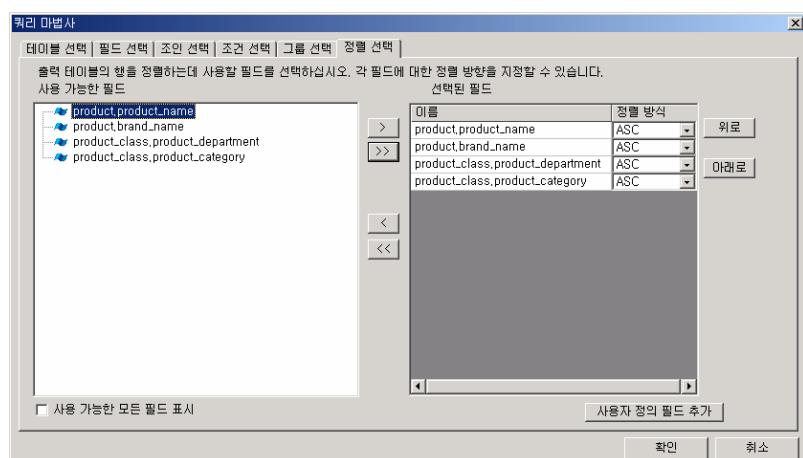
[] []



[]

가

가

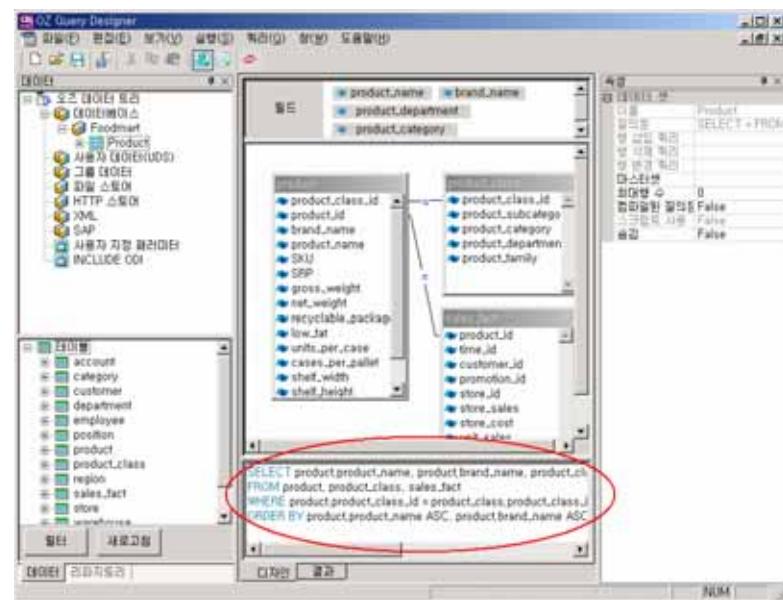


Step 5

가

가

Step 6



가 MDB MS-SQL

가 "[]]. "

ex) Car Sales -> [Car Sales].

가

ex) 9Sales -> [9Sales].

ex) Sales.Sales -> [Sales].Sales

Step 7

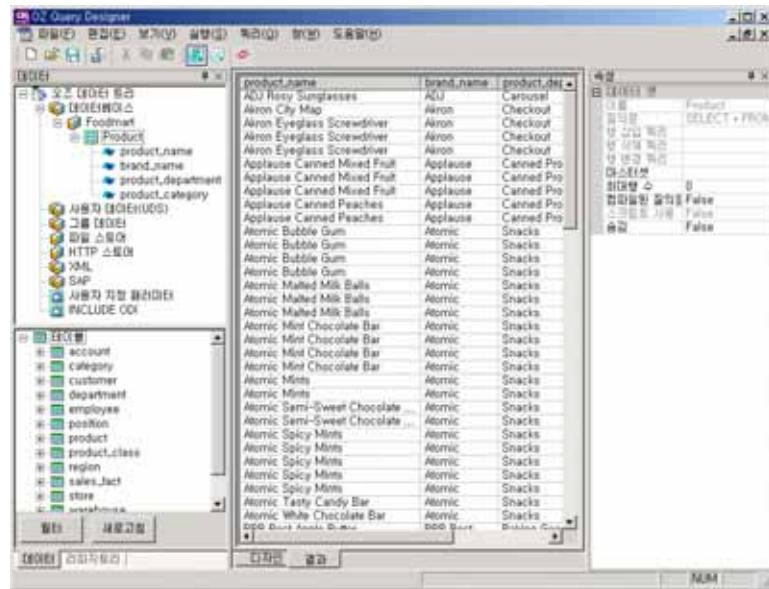
[] -> []

()

<F5>

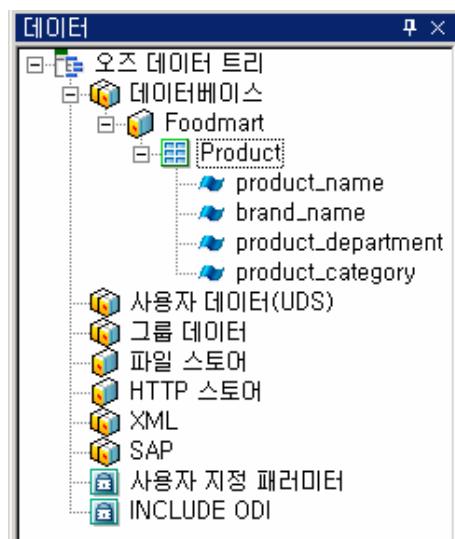
[]

가



Step 8

가



SQL

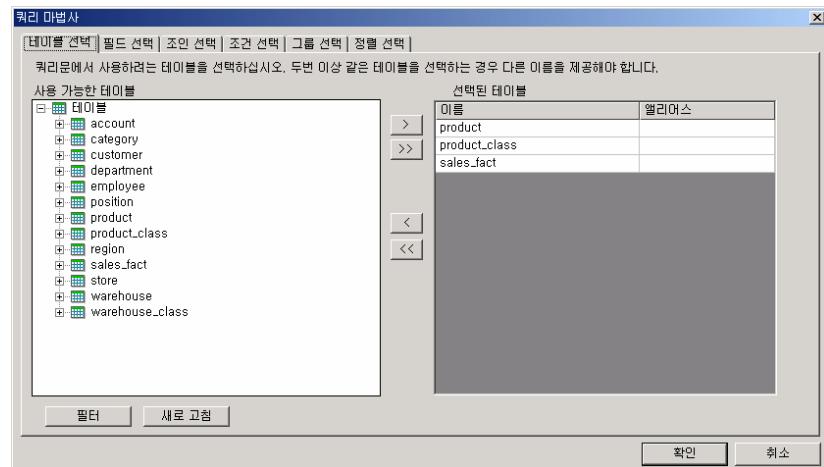
SQL SELECT

UI

| | |
|--|------------------------------------|
| | 가 |
| | From 가 |
| | Select 가 |
| | Where 가 |
| | 가 가 Where 가 |
| | Group by 가 , Select 가 |
| | Order by 가 |

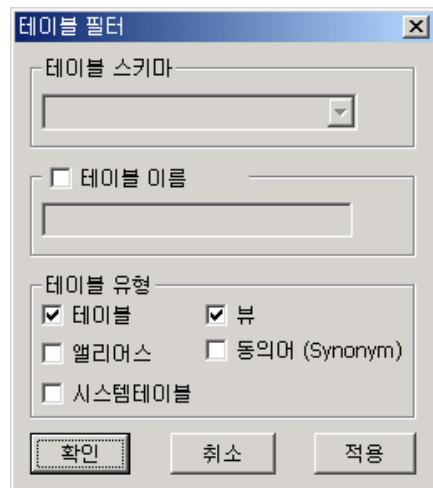
가

From



| UI | |
|-------|-------------|
| 가 | 가 |
| | 가 |
| | 가 |
| >, >> | 가 가 가 |
| <, << | 가 |

가



| UI | | |
|----|---|---|
| | 가 | 가 |
| | . | . |
| | . | . |

: DB2

▪ DB

가

가

가

가

가

가

가

가

가

DB2

]

[]

[

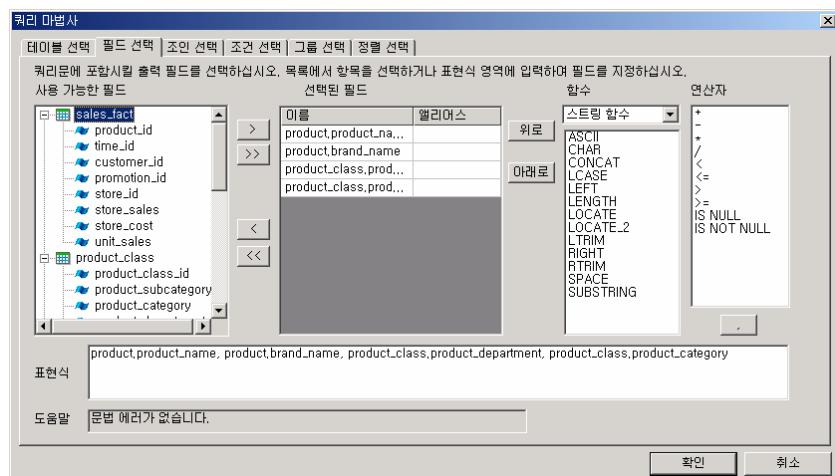
가

가

가

가

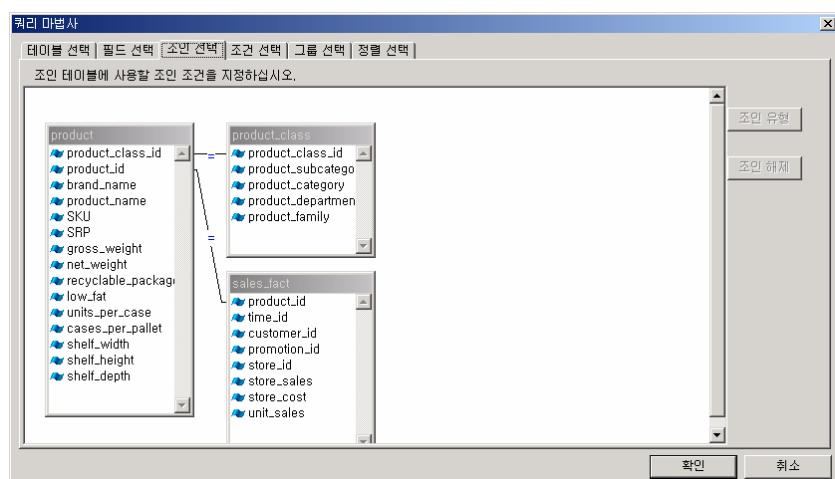
가



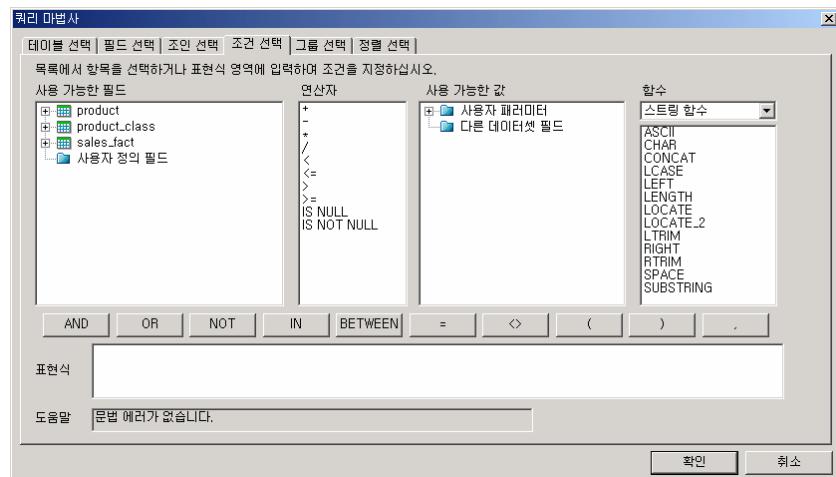
| UI | |
|----|--------|
| 가 | 가 |
| | 가 [] |
| > | 가 가 |
| >> | 가 가 |
| < | |
| << | 가 |
| | [] |

| | |
|--|---------|
| | JDBC |
| | SQL () |
| | |
| | |
| | 가 |
| | |

&

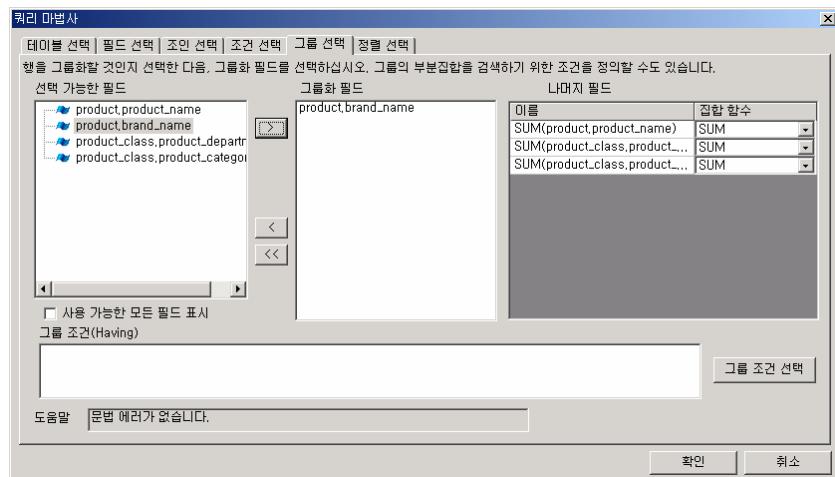


SQL Where



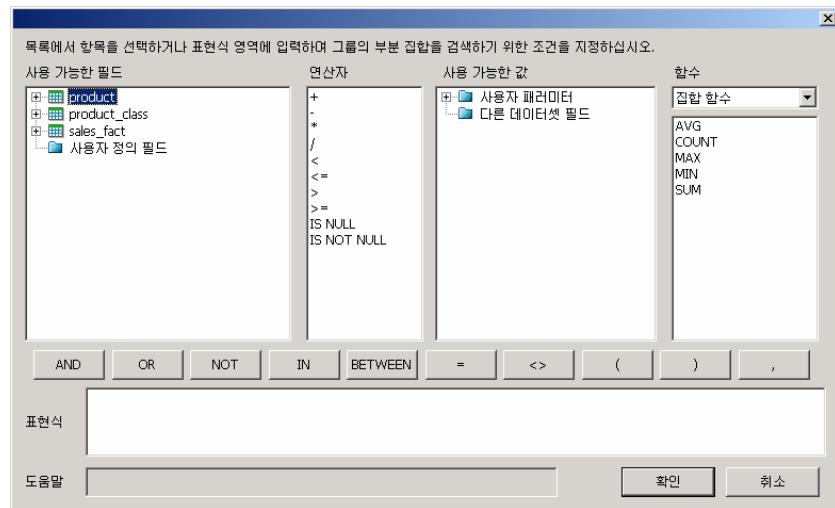
| UI | |
|---|------|
| 가 | 가 |
| | |
| 가 | |
| | JDBC |
| SQL () | |
| AND / OR /NOT/IN/B ETWEEN/ = / <> / (/) / , | |
| | |
| | |

SQL Group by



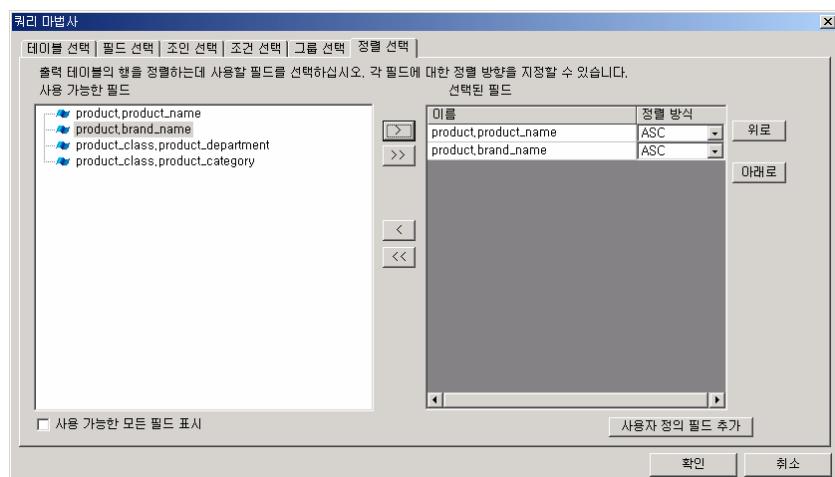
| UI | |
|----------|----------------------------------|
| 가 | |
| 가 | 가 |
| > | 가 |
| <, << | 가 |
| | 가 (AVG, COUNT, MAX, MIN, SUM) |
| (Having) | |
| | 가 |
| | |

[] 가



가

SQL Order by



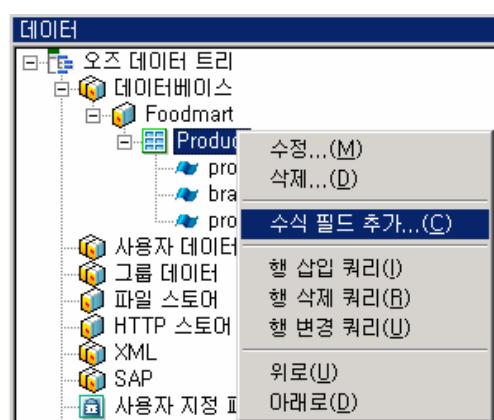
| UI | |
|----|--------|
| 가 | |
| 가 | 가 가 |

| | |
|-------|---------|
| >, >> | 가 |
| <, << | |
| | 가 / |
| | |
| | 가 가' |

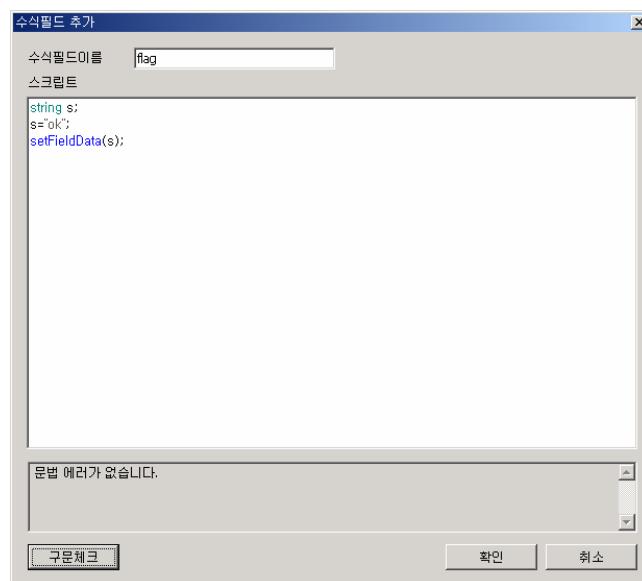
가

가 . , UDS , XML
, CSV , 가 가

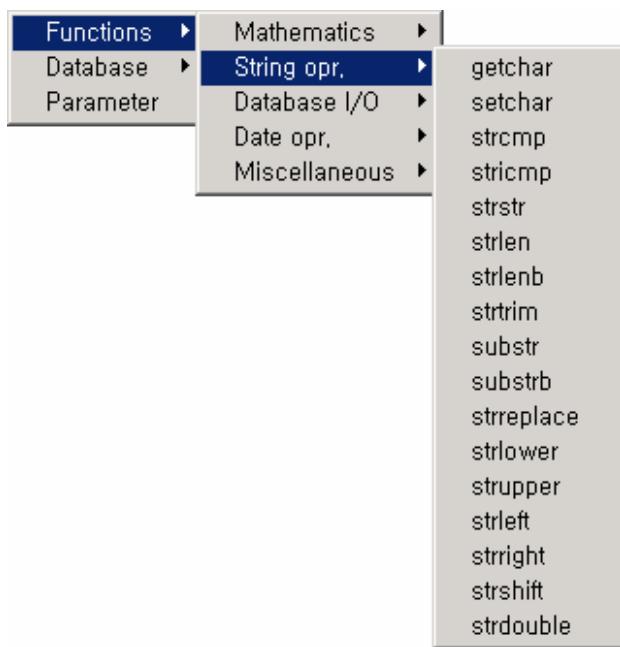
Step 1



Step 2



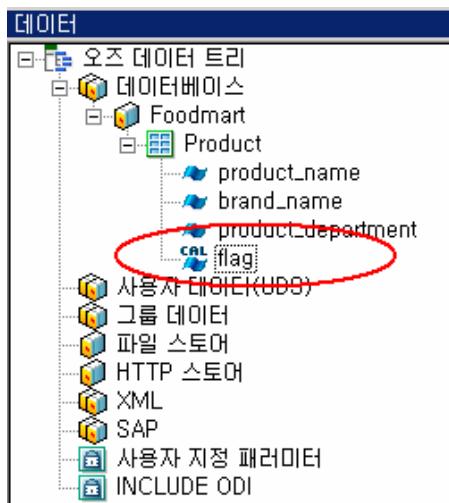
/ . 가



Step 3

[]

가 가



INCLUDE ODI

가

ODI 가

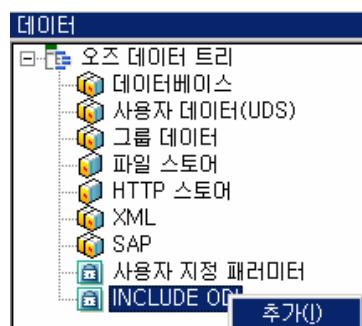
ODI 가

Include 가

Step 1

[INCLUDE ODI]

[가]



Step 2

가 ODI

[]

'Include

가



'Include

ODI

가

Step 3

ODI

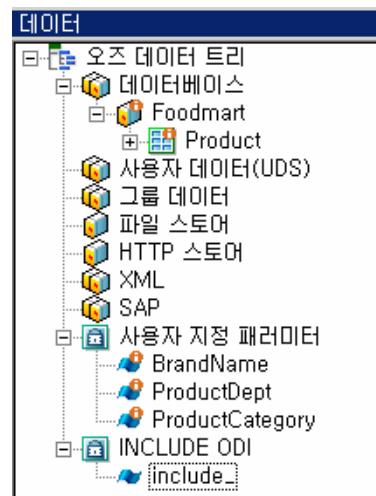
Include

가

Include

가

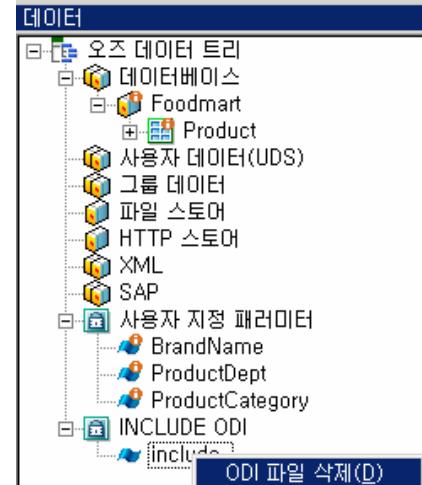




Include

Include

[ODI



Include

가

[]

Include

가

Include 가

"Include ODI"

ODI

ODI

가

- ODI 가 ODI 가
- ODI 가 ODI , , 가
- ODI 가 가 . , A.odi 가 B.odi C.odi
가 C.odi A.odi , , B.odi
가 .

/

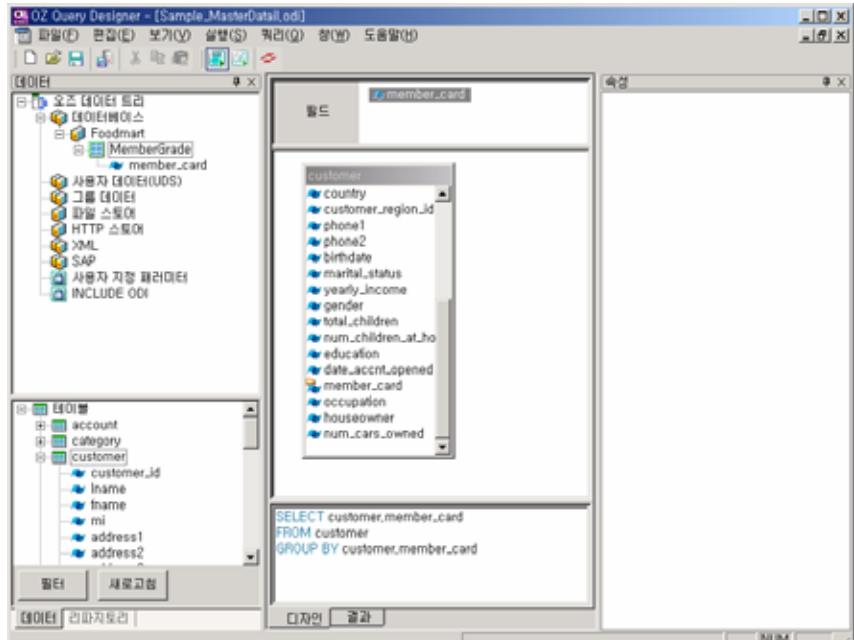
:

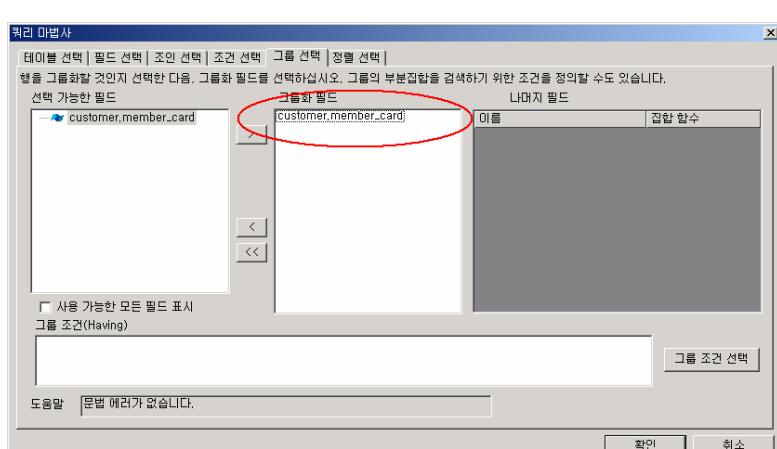
 (MemberGrade)

 :

 (Customer)

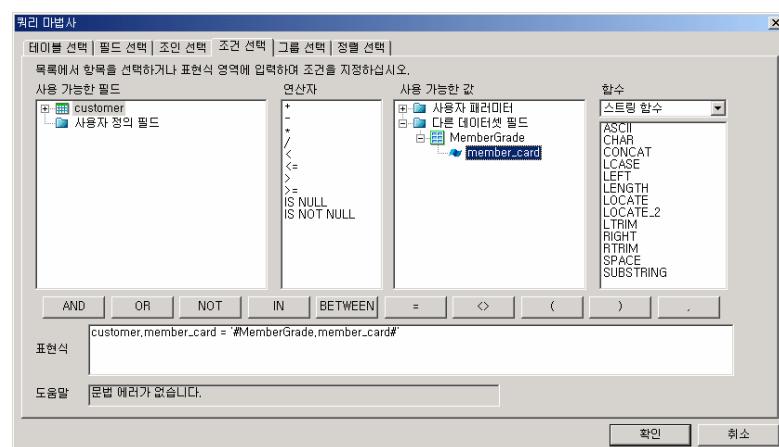
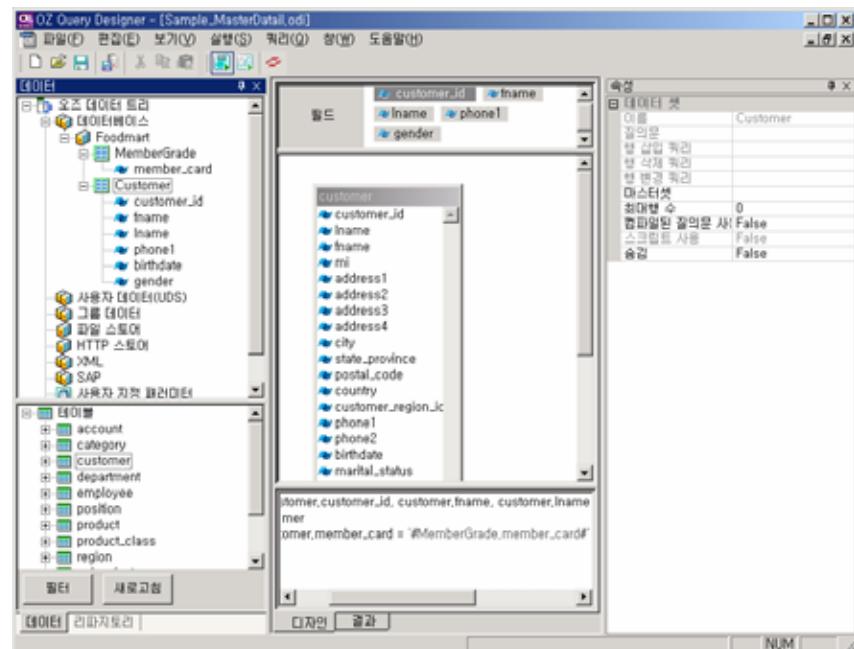
Step 1


 The screenshot shows the OZ Query Designer interface. The left pane displays a tree view of data sources, including 'Foodmart' and 'MemberGrade' under 'OZ 데이터 트리'. The 'Customer' table is selected. The middle pane shows a list of fields: 'customer' (country, customer_region_id, phone1, phone2, birthday, marital_status, yearly_income, gender, total_children, num_children_at_ho, education, date_account_opened, member_card, occupation, houseowner, num_cars_owned). The bottom pane contains the SQL query: 'SELECT customer,member_card FROM customer GROUP BY customer,member_card'. The right pane is empty.


 The 'Query Wizard' dialog box is open. It shows a 'Grouped Field' section with 'customer.member_card' selected. This field is highlighted with a red oval. The 'Name Field' section is also visible. The bottom status bar says '문법 에러가 없습니다.' (No syntax errors).

```
SELECT customer.member_card FROM customer
GROUP BY customer.member_card
```

Step 2

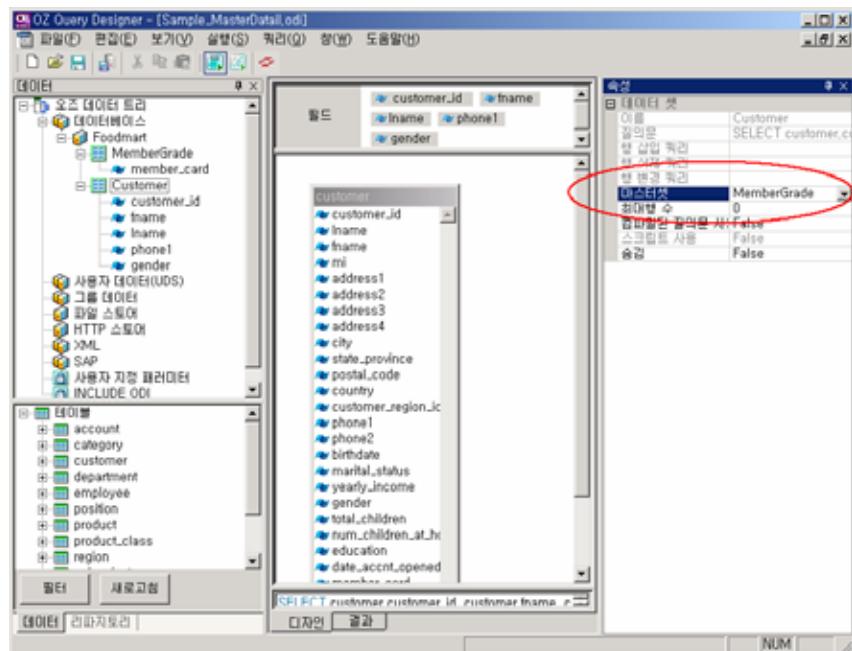


```
SELECT customer.customer_id, customer.fname, customer.lname,
customer.phone1, customer.gender FROM customer
WHERE customer.member_card = '#MemberGrade.member_card#'
```

Step 3

(Customer)

(MemberGrade)



JDBC "PreparedStatement"
" " " "True"

■ = "False", = "True"/"False"
#OZParam. # ' #OZParam. #'

```
가  
SELECT * FROM  
WHERE          = #OZParam. #
```

```
가  
SELECT * FROM  
WHERE      = '#OZParam.  
#'
```

```
SELECT * FROM  
WHERE          LIKE '%#OZParam.      #%
```

```
■ = "True", = "True"  
#OZParam. # #OZParam. #
```

```
    가  
string sql;  
sql = "SELECT * FROM           WHERE           = #OZParam.      #";  
setQueryString(sql);
```

가

```
string sql;
sql = "SELECT * FROM          WHERE          = '#OZParam.      #' ";
setQueryString(sql);
```

```
string sql;
sql = "SELECT * FROM          WHERE          LIKE '%#OZParam.      #' "
      #' ;
setQueryString(sql);
```

= "True", = "False"

#OZParam. #' '#OZParam. #'

ex) '#OZParam. #' → " " + #OZParam. #' + " "

가

```
string sql;
sql = "SELECT * FROM          WHERE          = " + #OZParam.      #' ;
setQueryString(sql);
```

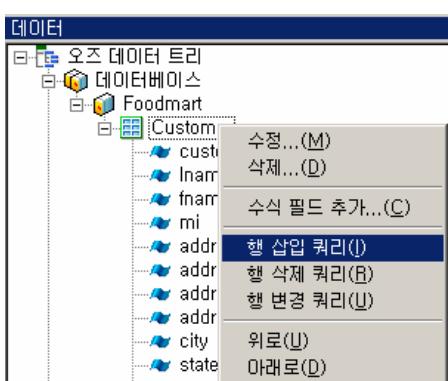
가

```
string sql;
sql = "SELECT * FROM          WHERE          = " + " " + #OZParam.      #' "
      + " " ;
setQueryString(sql);
```

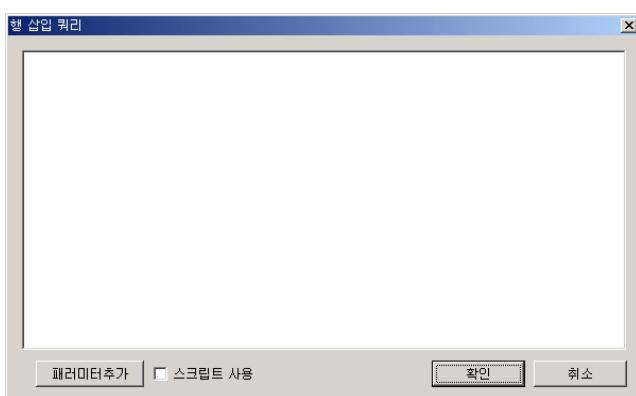
```
string sql;
sql = "SELECT * FROM          WHERE          LIKE " + " '%" + #OZParam.
      #' + "%' ";
setQueryString(sql);
```

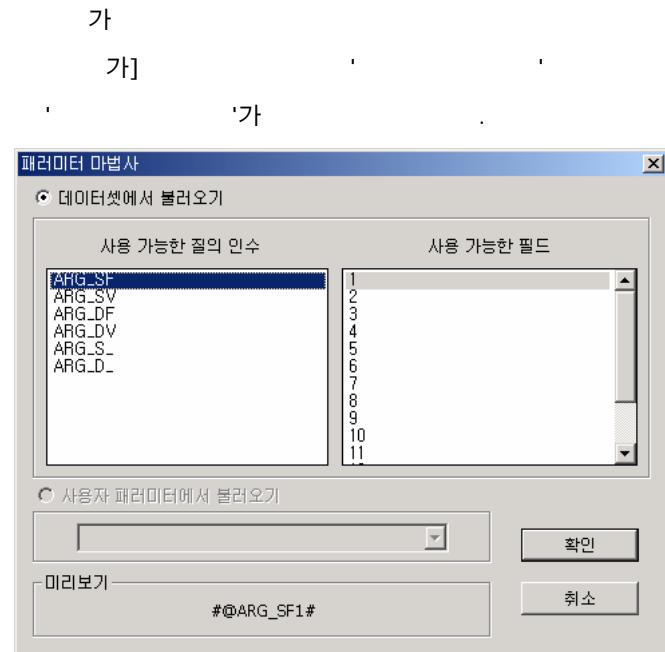


/ / 가 [] [] [] []



[/]
가 .

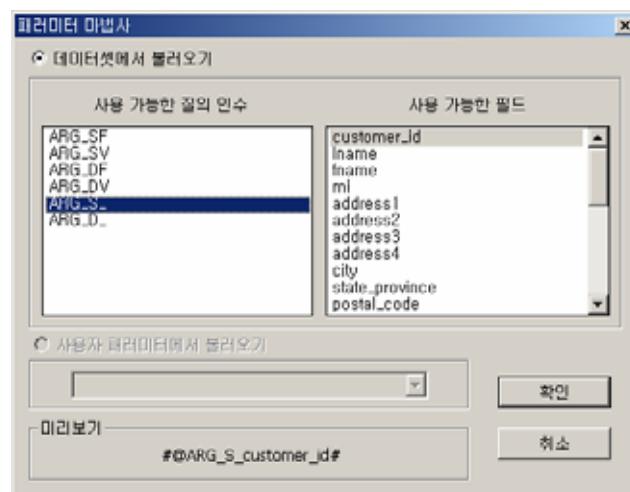


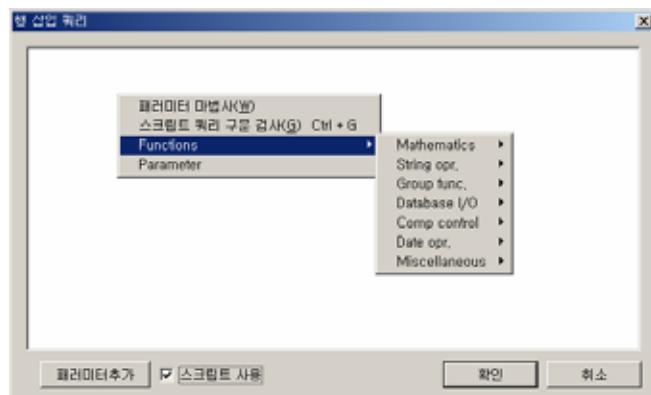


가
[]
가 가

"ARG_SF", "ARG_SV", "ARG_DF", "ARG_DV"

가
가
"ARG_S_", "ARG_D_"
가





[] / /

/ /

■ / /
- 가

- 가/

ANSWER

#@ARG_SV1#, '#@ARG_SV2#', '#@ARG_SV3#', '#@ARG_SV4#'

```

■ = "False",           = "True"/"False"
#@ARG_SF#   '#@ARG_SF#'

➤ ( )
INSERT INTO
  (@ARG_SF1#, @ARG_SF2#, ..... , @ARG_SF#)
VALUES
  (@ARG_SV1#, '@ARG_SV2#', ..... , '@ARG_SV#')

➤ ( )
INSERT INTO
  ( 1 , 2 , ..... , n )
VALUES
  (@ARG_S_ 1 #, '@ARG_S_ 2 #', ..... , '@ARG_S_ n #')

➤ ( )
DELETE FROM
  WHERE @ARG_DF1# = @ARG_DV1#
  AND @ARG_DF2# = '@ARG_DV2#'
  .....
  AND @ARG_DF# = '@ARG_DV#'

➤ ( )
DELETE FROM
  WHERE 1 = @ARG_D_ 1 #
  AND 2 = '@ARG_D_ 2 #'
  .....
  AND n = '@ARG_D_ n #'

➤ ( ) /
UPDATE
  SET @ARG_SF1# = @ARG_SV1#,
      @ARG_SF2# = '@ARG_SV2#',
  .....
  @ARG_SF# = '@ARG_SV#'

```

```

WHERE #@ARG_DF1# = #@ARG_DV1#
AND #@ARG_DF2# = '#@ARG_DV2#'
.....
AND #@ARG_DFn# = '#@ARG_DVn#'

➤ ( / )
UPDATE
SET 1 = #@ARG_S_ 1 #,
2 = '#@ARG_S_ 2 #' ,
.....
n = '#@ARG_S_ n #' 
WHERE 1 = #@ARG_D_ 1 #
AND 2 = '#@ARG_D_ 2 #' 
.....
AND n = '#@ARG_D_ n #' 

■ = "True", = "True"
#@ARG_SF# '#@ARG_SF#'
가 .

➤ ( )
string sql;
sql = " INSERT INTO      (#@ARG_SF1#, #@ARG_SF2#, .... , #@ARG_SFn#) VALUES (#@ARG_SV1#, '#@ARG_SV2#', .... , '#@ARG_SVn#') ";
setQueryString(sql);

➤ ( )
string sql;
sql = " INSERT INTO      ( 1 , 2 , .... , n ) VALUES
(@#ARG_S_ 1 #, '#@ARG_S_ 2 #' , .... , '#@ARG_S_ n #' )
setQueryString(sql);

➤ ( )
string sql;
sql = " DELETE FROM      WHERE #@ARG_DF1# = #@ARG_DV1#

```

```
AND  #@ARG_DF2# = '#@ARG_DV2#' ..... AND  #@ARG_DFn# =
'#@ARG_DVn#' ";
```

```
setQueryString(sql);
```

➤ ()

```
string sql;
```

```
sql = " DELETE FROM           WHERE 1 = #@ARG_D_ 1 #
AND 2 = '#@ARG_D_ 2 #' ..... AND n = '#@ARG_D_ n #' ";
```

```
setQueryString(sql);
```

➤ (/)

```
string sql;
```

```
sql = " UPDATE           SET   #@ARG_SF1# = #@ARG_SV1#,
#@ARG_SF2# = '#@ARG_SV2#', ..... , #@ARG_SFn# = '#@ARG_SVn#'
WHERE #@ARG_DF1# = #@ARG_DV1# AND #@ARG_DF2# =
'#@ARG_DV2#' ..... AND #@ARG_DFn# = '#@ARG_DVn#' ";
```

```
setQueryString(sql);
```

➤ (/)

```
string sql;
```

```
sql = " UPDATE           SET   1 = #@ARG_S_ 1 #, 2
= '#@ARG_S_ 2 #', ..... , n = '#@ARG_S_ n #' "
WHERE 1 = #@ARG_D_ 1 # AND 2 = '#@ARG_D_
2 #' ..... AND n = '#@ARG_D_ n #' ";
```

```
setQueryString(sql);
```

■ = "True", = "False"
 #@ARG_SF1# '#@ARG_SF1#'

ex) '#@ARG_SF1#' → "" + #@ARG_SF1# + ""

➤ ()

```
string sql;
```

```
sql = " INSERT INTO      (@#ARG_SF1#, #@ARG_SF2#, ..... ,
```

```
#@ARG_SFn#) VALUES (@ARG_SV1#, '@ARG_SV2#', ..... , '@ARG_SVn#') ";
setQueryString(sql);
```

```
string sql;

sql = " INSERT INTO      (@ARG_SF1#, @ARG_SF2#, ..... ,
#@ARG_SFn#) VALUES (" + @ARG_SV1# + ", " + "" + @ARG_SV2# + "" +
", ..... , " + "" + @ARG_SVn# + "" + ") ";

setQueryString(sql);

➤ ( )
```

```
string sql;

sql = " INSERT INTO      ( 1 , 2 , ..... , n ) VALUES
(@ARG_S_ 1 #, @ARG_S_ 2 #, ..... , @ARG_S_ n #)
";

setQueryString(sql);
```

```
string sql;

sql = " INSERT INTO      ( 1 , 2 , ..... , n ) VALUES
(" + @ARG_S_ 1 # + ", " + "" + @ARG_S_ 2 # + "" + ", ..... ,
" + "" + @ARG_S_ n # + "" + ") ";

setQueryString(sql);
```

```
➤ ( )
```

```
string sql;

sql = " DELETE FROM      WHERE @ARG_DF1# = @ARG_DV1#
AND @ARG_DF2# = '@ARG_DV2#' ..... AND @ARG_DFn# =
'@ARG_DVn#' ";

setQueryString(sql);
```

```
string sql;

sql = " DELETE FROM      WHERE @ARG_DF1# = " + @ARG_DV1#
+ " AND @ARG_DF2# = " + "" + @ARG_DV2# + "" + " ..... AND
@ARG_DFn# = " + "" + @ARG_DVn# + "";

setQueryString(sql);
```

```
>          (          )
string sql;

sql = " DELETE FROM           WHERE   1      = #@ARG_D_  1      #
AND      2      = '#@ARG_D_  2      #' ..... AND      n      =
'#@ARG_D_  n      #' ";

setQueryString(sql);
```

```
string sql;

sql = " DELETE FROM           WHERE   1      = " +  #@ARG_D_  1
      "# + " AND      2      = " +     + "#@ARG_D_  2      # +     + " .....
      AND      n      = " +     + "#@ARG_D_  n      # +     ";

setQueryString(sql);
```

```
>          (          /          )
string sql;

sql = " UPDATE           SET      #@ARG_SF1# = #@ARG_SV1#,
#@ARG_SF2# = '#@ARG_SV2#', ..... , #@ARG_SFn# = '#@ARG_SVn#'
WHERE  #@ARG_DF1# = #@ARG_DV1# AND  #@ARG_DF2# =
'#@ARG_DV2#' ..... AND #@ARG_DFn# = '#@ARG_DVn#' ";

setQueryString(sql);
```

```
string sql;

sql = " UPDATE           SET  #@ARG_SF1# = " + #@ARG_SV1# + ",
#@ARG_SF2# = " +     + #@ARG_SV2# +     + ", ..... #@ARG_SFn# = "
+     + #@ARG_SVn# +     + " WHERE  #@ARG_DF1# = " +
#@ARG_DV1# + " AND #@ARG_DF2# = " +     + #@ARG_DV2# +     +
" ..... AND #@ARG_DFn# = " +     + #@ARG_DVn# +     ";

setQueryString(sql);
```

```
>          (          /          )
string sql;

sql = " UPDATE           SET      1      = #@ARG_S_  1      #,      2
      = '#@ARG_S_  2      #' , ..... ,      n      = '#@ARG_S_  n      #
      WHERE      1      = #@ARG_D_  1      # AND      2      = '#@ARG_D_
      2      #' ..... AND      n      = '#@ARG_D_  n      #' ";

setQueryString(sql);
```

```

string sql;

sql = " UPDATE           SET      1      = " + #@ARG_S_      1      # + ", _  

      2      = " + "" + #@ARG_S_      2      # + "" + ", ..... ,      n      = "  

      + "" + #@ARG_S_      n      # + "" + " WHERE      1      = " +  

#@ARG_D_      1      # + " AND      2      = " + "" + #@ARG_D_      2  

      # + "" + " ..... AND      n      = " + "" + #@ARG_D_      n      # + "";  

setQueryString(sql);

```

/ /

■ = "False", = "True"/"False"
 "Customer" , / /

```

INSERT INTO Customer  

(#@ARG_SF1#, #@ARG_SF2#, #@ARG_SF3#, #@ARG_SF4#, #@ARG_SF5#, #@ARG_SF6#  

, #@ARG_SF7#, #@ARG_SF8#)  

VALUES(#@ARG_SV1#, #@ARG_SV2#, #@ARG_SV3#, #@ARG_SV4#, #@ARG_SV5#, #@ARG_SV6#  

, #@ARG_SV7#, #@ARG_SV8#)

```

```

DELETE FROM Customer  

WHERE #@ARG_DF1# = #@ARG_DV1# AND #@ARG_DF2# = '#@ARG_DV2#' AND  

#@ARG_DF3# = '#@ARG_DV3#'

```

```

UPDATE Customer SET #@ARG_SF1# = #@ARG_SV1#, #@ARG_SF2# = '#@ARG_SV2#',  

#@ARG_SF3# = '#@ARG_SV3#', #@ARG_SF4# = '#@ARG_SV4#', #@ARG_SF5# =  

'#@ARG_SV5#', #@ARG_SF6# = '#@ARG_SV6#', #@ARG_SF7# = '#@ARG_SV7#',  

#@ARG_SF8# = '#@ARG_SV8#'  

WHERE #@ARG_DF1# = #@ARG_DV1# AND #@ARG_DF2# = '#@ARG_DV2#' AND  

#@ARG_DF3# = '#@ARG_DV3#'

```

■ = "True", = "True"

"Customer" , / /

```
string sql;

sql = "INSERT INTO
Customer(#@ARG_SF1#,#@ARG_SF2#,#@ARG_SF3#,#@ARG_SF4#,#@ARG_SF5#,#@A
RG_SF6#,#@ARG_SF7#,#@ARG_SF8#)
VALUES(#@ARG_SV1#,#@ARG_SV2#,#@ARG_SV3#,#@ARG_SV4#,#@ARG_SV5#,#@A
RG_SV6#,#@ARG_SV7#,#@ARG_SV8#)";

setQueryString(sql);
```

```
string sql;

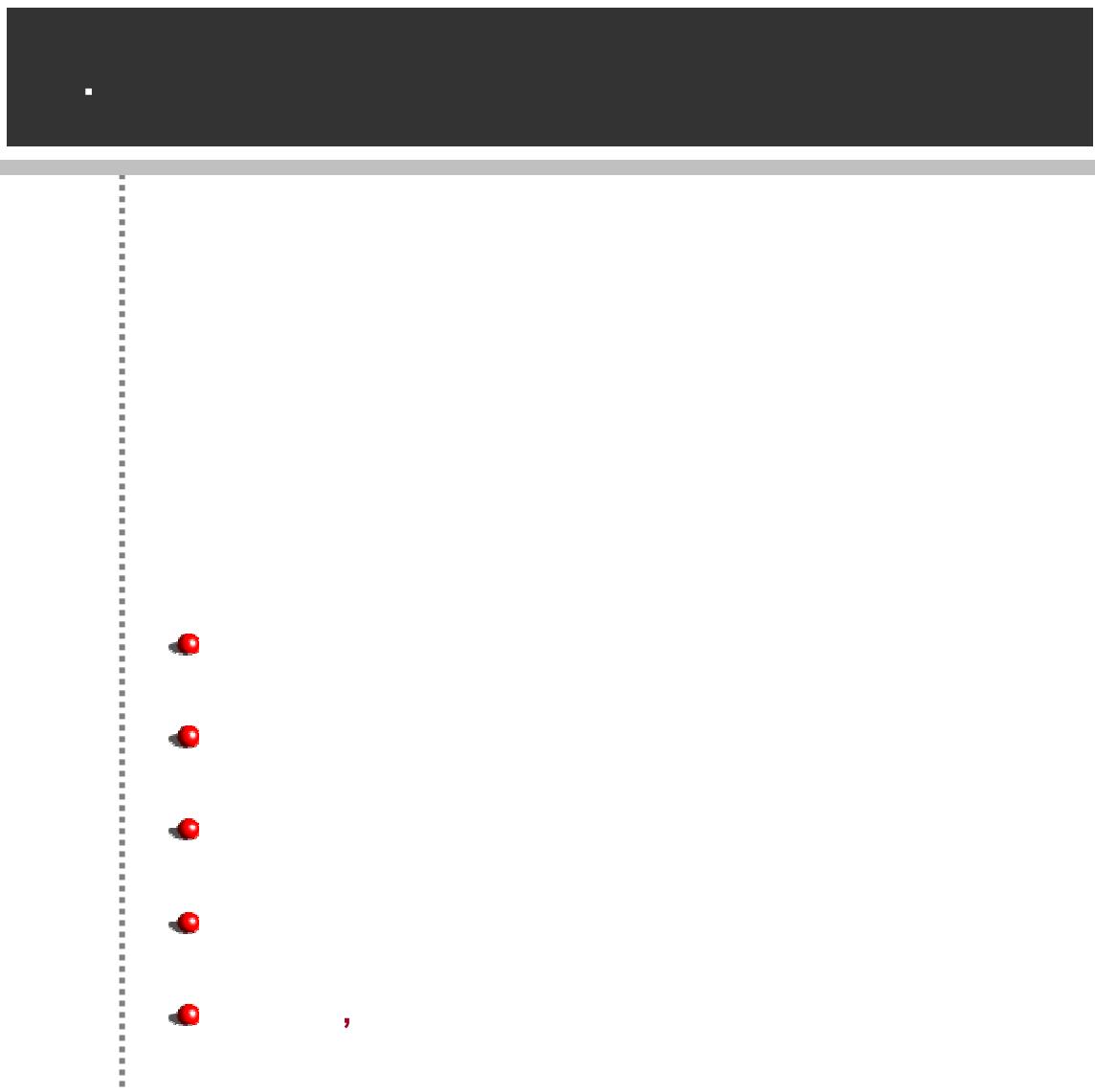
sql = "DELETE FROM Customer WHERE #@ARG_DF1# = #@ARG_DV1# AND
#@ARG_DF2# = '#@ARG_DV2#' AND #@ARG_DF3# = '#@ARG_DV3#';

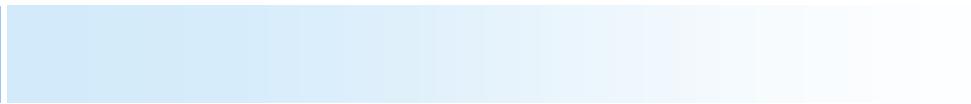
setQueryString(sql);
```

```
string sql;

sql = "UPDATE Customer SET #@ARG_SF1# = #@ARG_SV1#, #@ARG_SF2# =
'#@ARG_SV2#', #@ARG_SF3# = '#@ARG_SV3#', #@ARG_SF4# = '#@ARG_SV4#',
#@ARG_SF5# = '#@ARG_SV5#', #@ARG_SF6# = '#@ARG_SV6#', #@ARG_SF7# =
'#@ARG_SV7#', #@ARG_SF8# = '#@ARG_SV8#' WHERE #@ARG_DF1# =
#@ARG_DV1# AND #@ARG_DF2# = '#@ARG_DV2#' AND #@ARG_DF3# =
'#@ARG_DV3#';

setQueryString(sql);
```

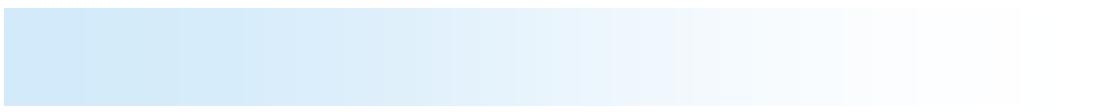





가

가

-
-
- /
-

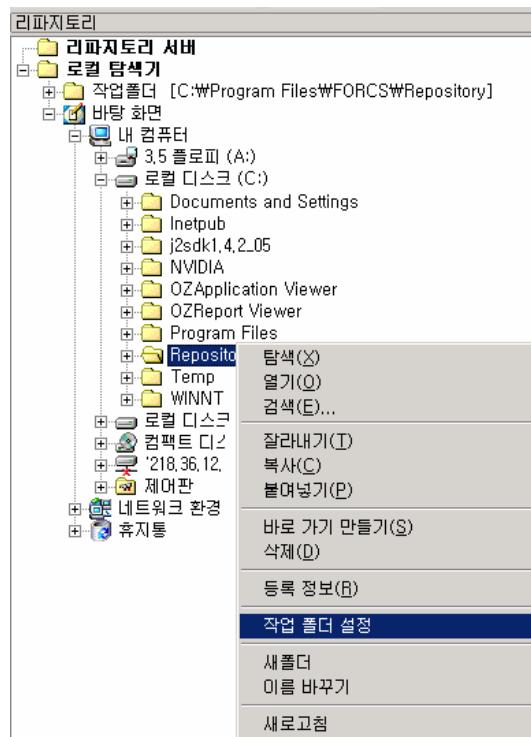


가

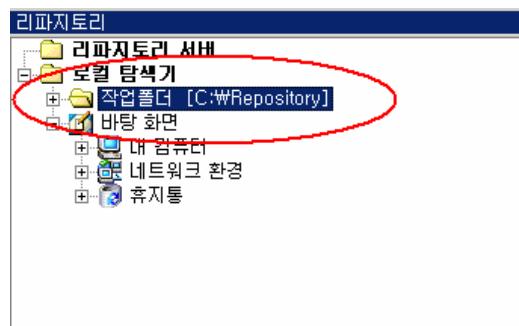
가 가 Repository
가 Repository 가
가 가
C:\Program Files\FORCS\OZ Product\QueryDesigner

C:\Program Files\FORCS\OZ Product\Repository

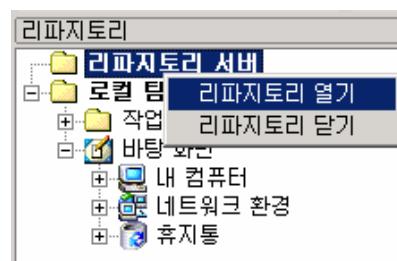
[] 가



가



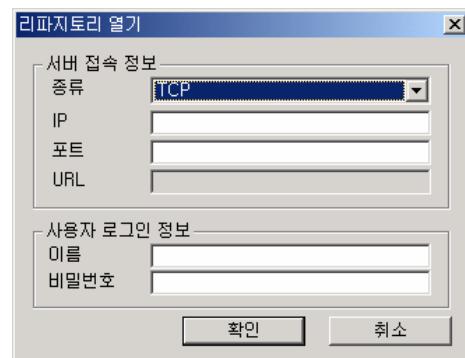
Step 1



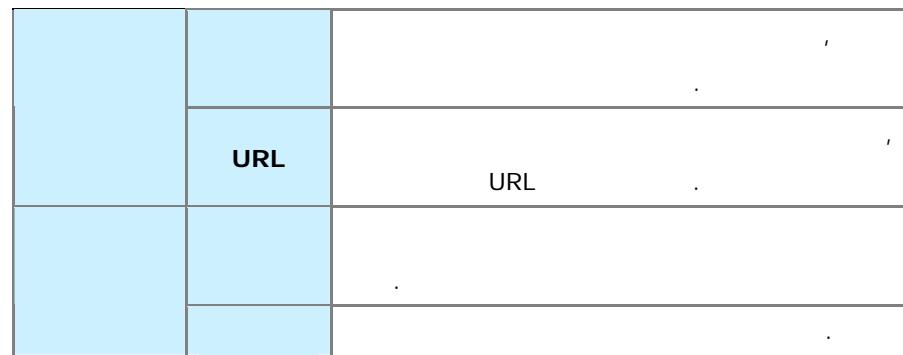
[]

Step 2

가

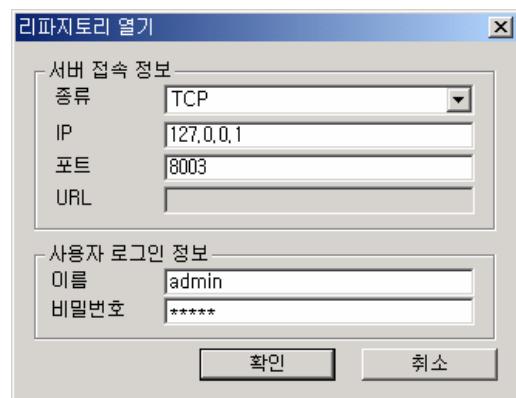


| | | TCP HTTP |
|--|----|-------------|
| | IP | IP |



Step 3

[]

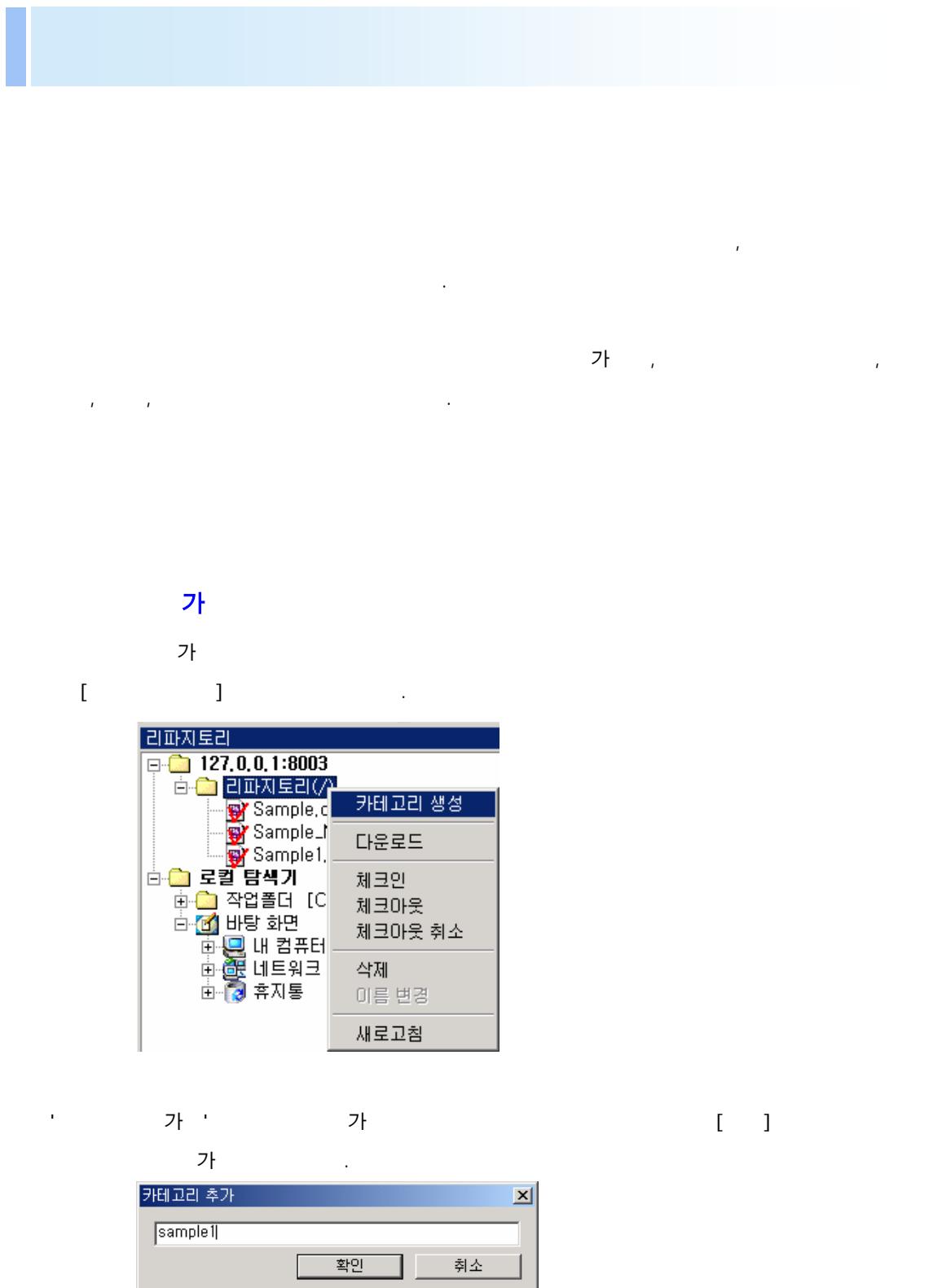


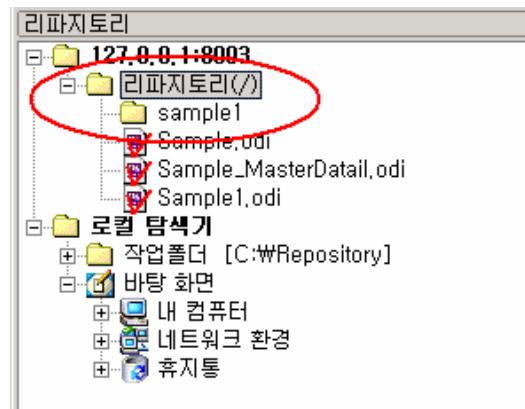
'admin'

Step 4

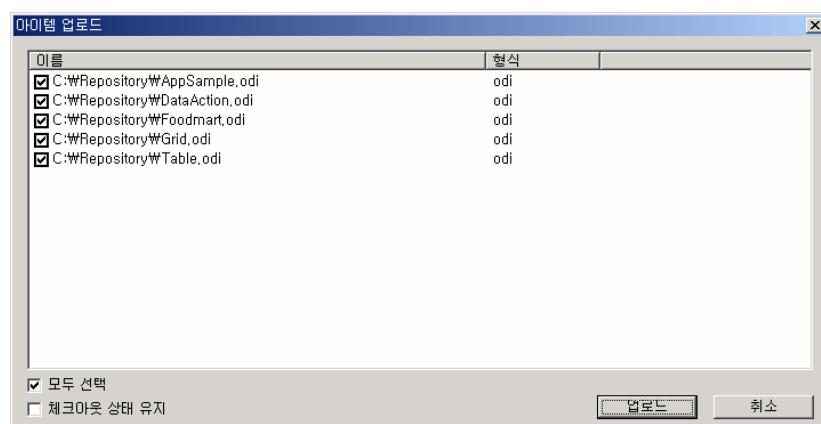






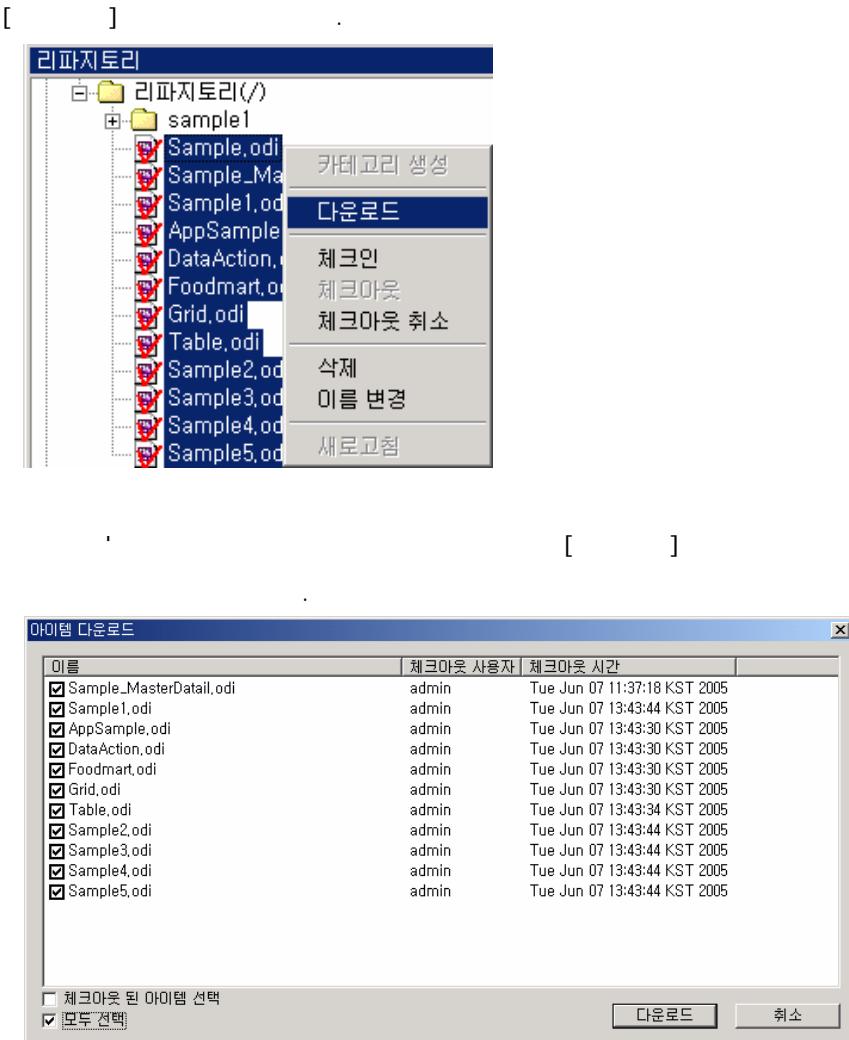


&

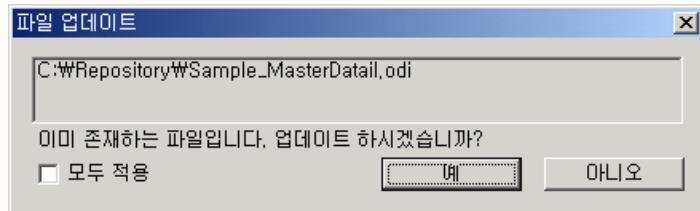


가

odi



(가)



[]

리파지토리

- 리파지토리(/)
 - Sample.odi
 - Sample_MasterDetail.odi
 - Sample1.odi
 - AppSample.odi
 - DataAction.odi
 - Foodmart.odi
 - Grid.odi
 - Table.odi
 - Sample2.odi
 - Sample3.odi
 - Sample4.odi
 - Sample5.odi
- 로컬 탐색기

삭제

마이템 삭제

| 마일 | 체크마웃 사용자 | 체크마웃 시간 |
|--------------------------|----------|------------------------------|
| /Sample_MasterDetail.odi | admin | Tue Jun 07 11:37:18 KST 2005 |
| /Sample1.odi | admin | Tue Jun 07 13:43:44 KST 2005 |
| /AppSample.odi | admin | Tue Jun 07 13:43:30 KST 2005 |
| /DataAction.odi | admin | Tue Jun 07 13:43:30 KST 2005 |
| /Foodmart.odi | admin | Tue Jun 07 13:43:30 KST 2005 |

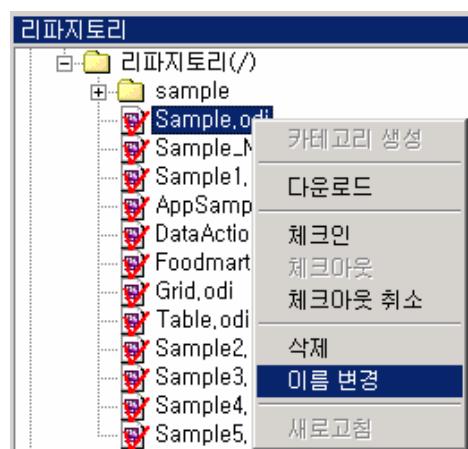
체크마웃 된 아이템 선택 모두 선택 [삭제] [취소]

[]

가

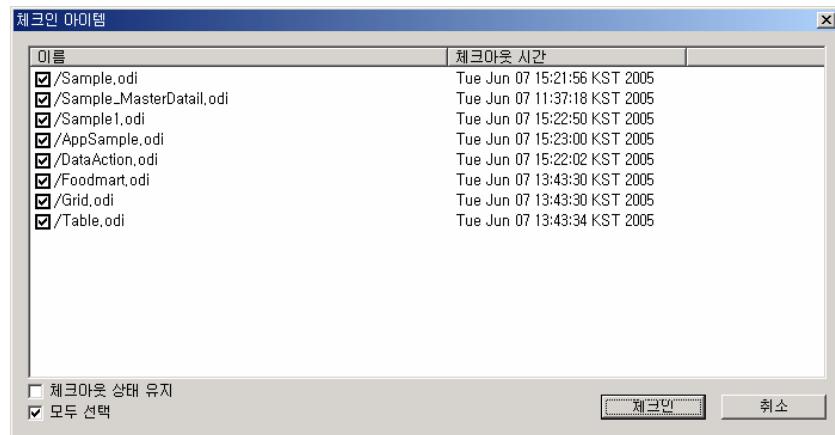
[]

[]





[Check In]

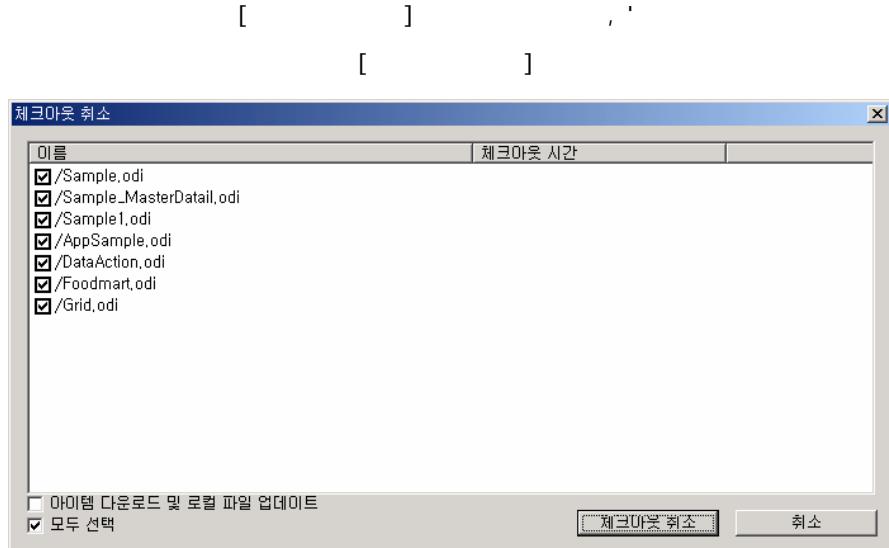


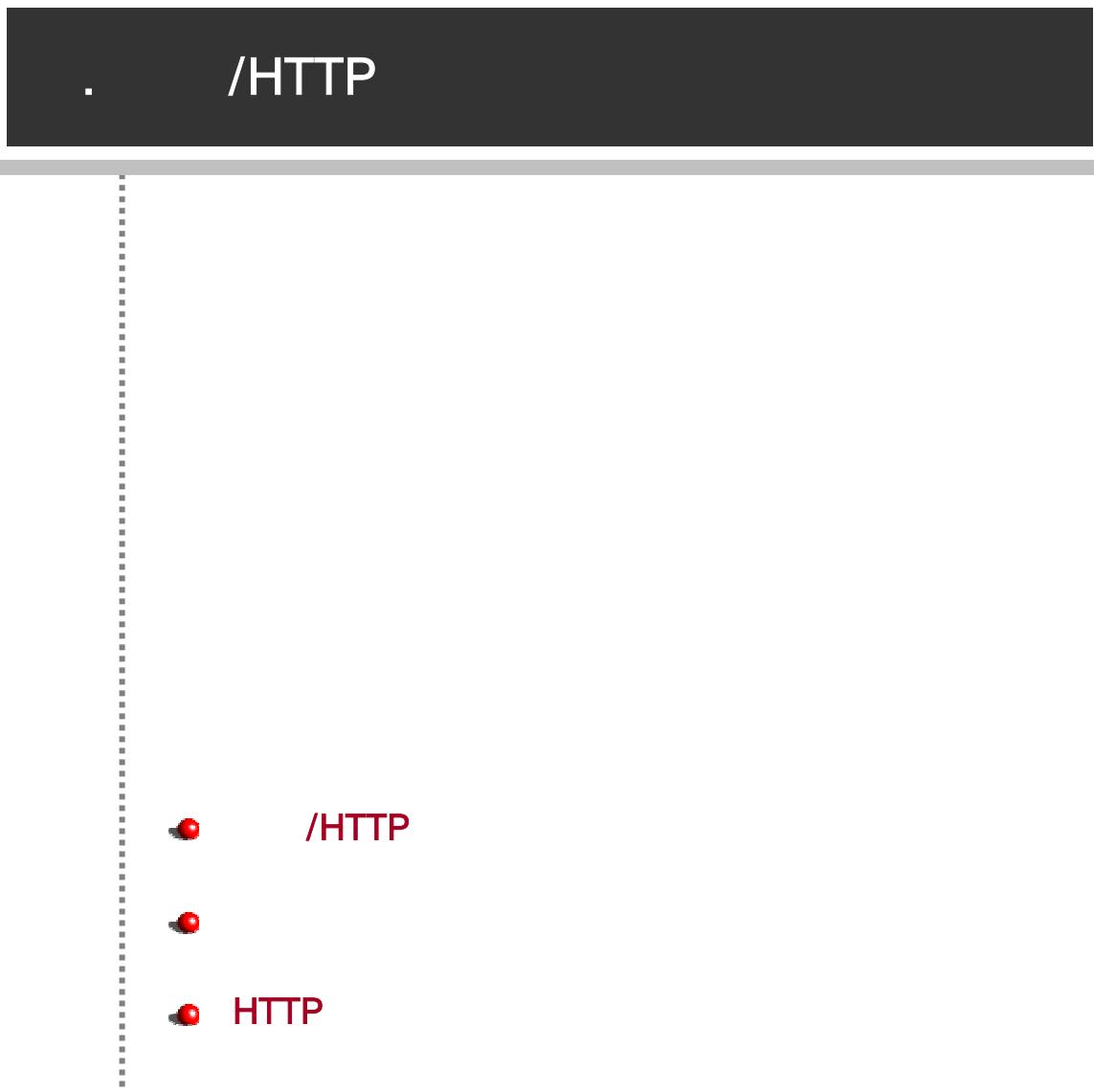
[]

Admin

'None'

Admin





/HTTP

CSV /HTTP XML
DTD XSD

CSV(Comma-Separated Value)

CSV
/HTTP
CSV

■ CSV

/HTTP 가 CSV

가
가

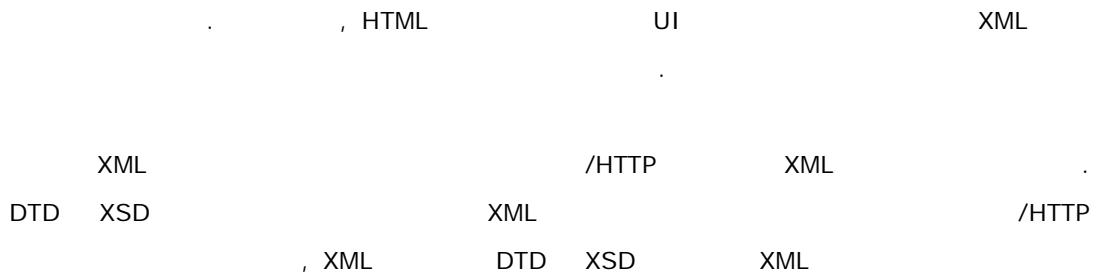
■ CSV

CSV
no,jumin_id,name,address
INT,VARCHAR,VARCHAR,VARCHAR
1,7411231932347,kim,seoul
2,6305212983717,lee,pusan
3,7006031837261,park,daegu
4,7271722848281,song,daejeon

XML(Extensible Markup Language)

XML

, The World Wide Web Consortium(W3C)



■ XML

/HTTP 가 XML
DTD가 XML

XML

```

<FIELDINFO>
  <FIELD NAME="ID" TYPE="INT"/>
  <FIELD NAME="NAME" TYPE="CHAR"/>
  <FIELD NAME="ADDRESS" TYPE="VARCHAR"/>
  ...
</FIELDINFO>
  
```

■ XML

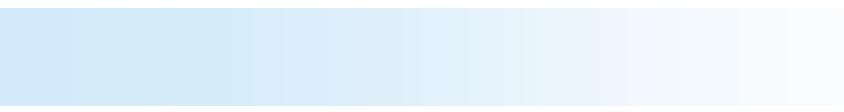
'DATASET', 'RECORD'

XML

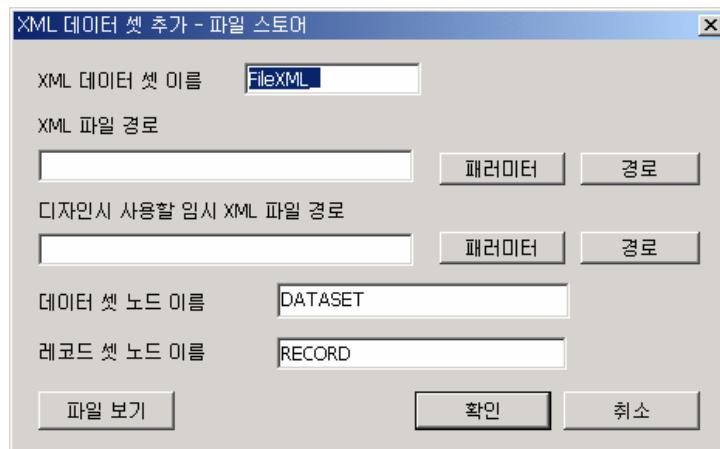
```

<?xml version="1.0" encoding="KSC5601"?>
<XMLSET>
  <DATASET>
    <FIELDINFO>
      <FIELD NAME="ID" TYPE="INT"/>
      <FIELD NAME="NAME" TYPE="CHAR"/>
    
```

```
<FIELD NAME="ADDRESS" TYPE="VARCHAR"/>
</FIELDINFO>
<RECORD>
<ID>1</ID>
<NAME>Park Chan Ho</NAME>
<ADDRESS>Texas</ADDRESS>
</RECORD>
<RECORD>
<ID>2</ID>
<NAME>Shin Ki Sung</NAME>
<ADDRESS>Seoul</ADDRESS>
</RECORD>
<RECORD>
<ID>3</ID>
<NAME>Kim Byung Hyun</NAME>
<ADDRESS>Arizona</ADDRESS>
</RECORD>
</DATASET>
</XMLSET>
```



XML CSV

■ XML

| XML | 가 |
|-----|------------------|
| XML | XML |
| XML | XML 가 XML |
| | XML 'DATASET' |
| | XML 'RECORD' |

| | |
|--|-------|
| | "V. |
| | 가 XML |
| | |

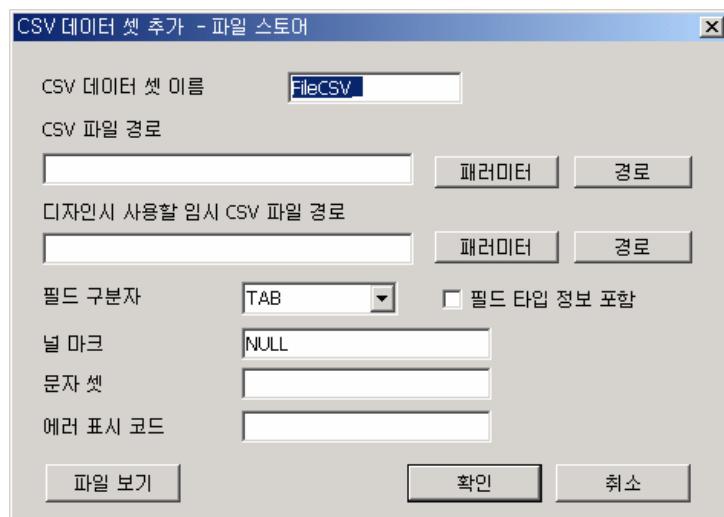
■ XML

```

<?xml version="1.0" encoding="KSC5601"?>
<!-- Data Sample of OZ XML Dataset-->
<XMLSET>
  <DATASET>
    <FIELDINFO>
      <FIELD NAME="ID" TYPE="INT"/>
      <FIELD NAME="NAME" TYPE="CHAR"/>
      <FIELD NAME="ADDRESS" TYPE="VARCHAR"/>
    </FIELDINFO>
    <RECORD>
      <ID>1</ID>
      <NAME>Park Chan Ho</NAME>
      <ADDRESS>USA</ADDRESS>
    </RECORD>
  </DATASET>
</XMLSET>

```

■ CSV



| | |
|-----|---|
| CSV | 가 |
| CSV | CSV |
| CSV | CSV 가 CSV |
| | TAB, SPACE, SEMICOLON, COLON, COMMA 가 |
| | CSV 가 |
| | 'VARCHAR' |
| | NULL |
| | 가 'Appendix.' |
| | CSV "ERR" "ERR" CSV |
| | "V." |
| | 가 CSV |

■ CSV 가 CSV 가

XML

XML

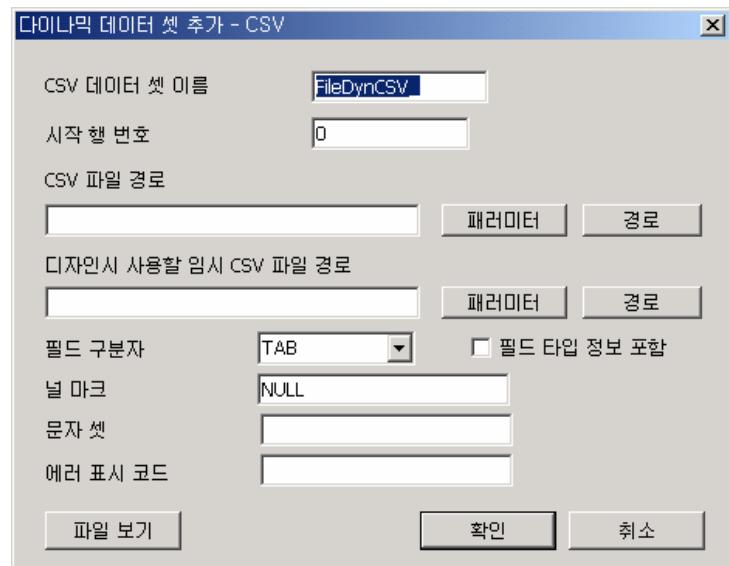
가

가

" "



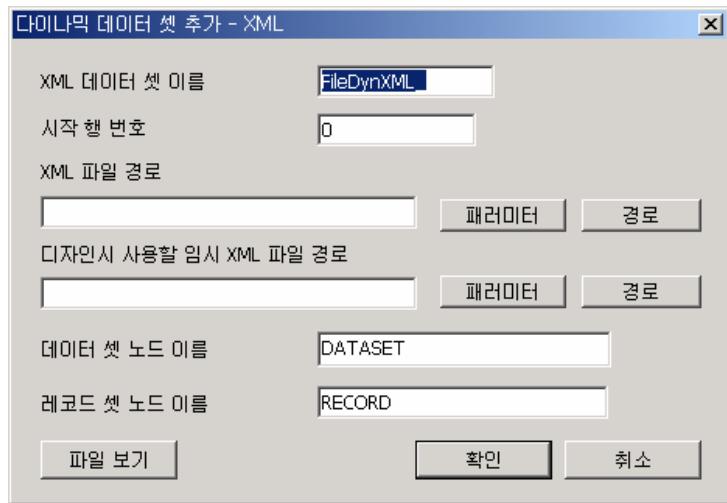
가 - CSV



| | |
|-----|---|
| CSV | 가 |
| | ROW INDEX '0' 가 ROW INDEX 0 0 가 0 |
| CSV | CSV |
| CSV | CSV 가 CSV |

| | |
|---|--|
| | TAB, SPACE, SEMICOLON, COLON, COMMA 가 가 |
| | CSV 가 'VARCHAR' |
| | NULL |
| | 가 'Appendix.' |
| | CSV "ERR" "ERR" "ERR" CSV |
| | "V. " |
| 가 | CSV |
| | |

가 - XML



| XML | 가 |
|---------|---------------------------------------|
| | ROW INDEX '0' ROW INDEX 0 가 가 0 |
| XML | XML |
| XML () | XML 가 XML |
| | XML 'DATASET' |
| | XML 'RECORD' |
| | "V" |
| | 가 XML |
| | |

(XML/CSV/
)

■ XML

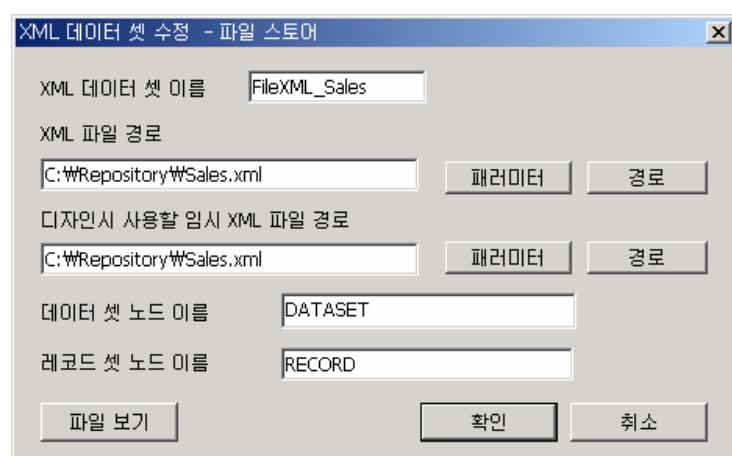
Step 1

[]
[XML 가]



Step 2

[]
[]



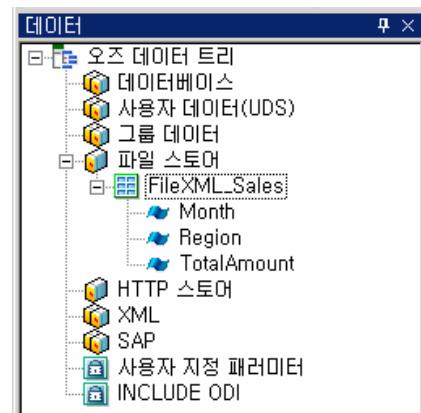
결과

| Month | Region | TotalAmount |
|-------|--------|-------------|
| 1 | 서울 | 23860000 |
| 1 | 경기 | 50500000 |
| 1 | 대전 | 2300000 |
| 1 | 충청 | 50300000 |
| 1 | 부산 | 3200000 |
| 1 | 경상 | 70300000 |

확인

Step 3

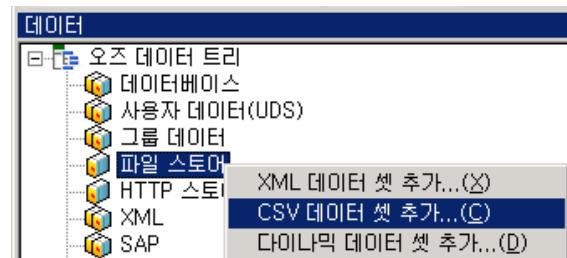
[] 가 XML 가



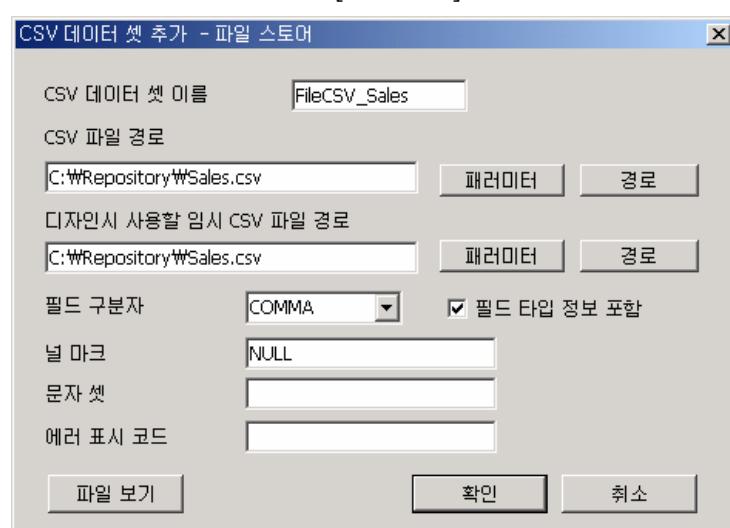
■ CSV

Step 1

[]
[CSV] 가]



Step 2



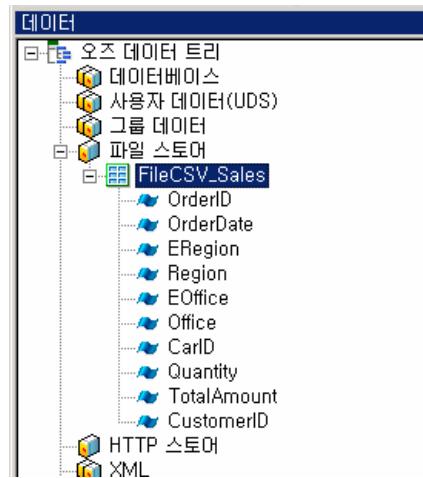
결과

| OrderID | OrderDate | ERegion | Region | EOffice | Office | CarID | Q1 |
|----------|------------|------------|--------|---------|--------|-------|----|
| 20000101 | 2000-01-05 | Seoul | 서울 | Gangnam | 강남 | H03 | 1 |
| 20000102 | 2000-01-13 | Seoul | 서울 | Gangnam | 강남 | K02 | 1 |
| 20000103 | 2000-01-20 | Seoul | 서울 | Gangnam | 강남 | D03 | 1 |
| 20000203 | 2000-02-15 | Seoul | 서울 | Chongro | 종로 | H04 | 1 |
| 20000204 | 2000-02-22 | Seoul | 서울 | Chongro | 종로 | K03 | 1 |
| 20000205 | 2000-02-28 | Seoul | 서울 | Chongro | 종로 | D03 | 1 |
| 20000301 | 2000-03-05 | Gyeonggi | 경기 | Inchon | 인천 | K01 | 1 |
| 20000302 | 2000-03-09 | Gyeonggi | 경기 | Inchon | 인천 | H01 | 1 |
| 20000303 | 2000-03-25 | Gyeonggi | 경기 | Inchon | 인천 | D01 | 1 |
| 20000304 | 2000-03-31 | Gyeonggi | 경기 | Suwon | 수원 | H01 | 1 |
| 20000401 | 2000-04-06 | Gyeonggi | 경기 | Suwon | 수원 | K03 | 1 |
| 20000402 | 2000-04-12 | Gyeonggi | 경기 | Suwon | 수원 | H02 | 1 |
| 20000403 | 2000-04-24 | Gyeongsang | 경상 | Deagu | 대구 | H03 | 1 |
| 20000404 | 2000-04-28 | Gyeongsang | 경상 | Deagu | 대구 | D01 | 1 |
| 20000501 | 2000-05-10 | Gyeongsang | 경상 | Deagu | 대구 | H03 | 1 |
| 20000502 | 2000-05-18 | Gyeongsang | 경상 | Busan | 부산 | K01 | 1 |
| 20000503 | 2000-05-21 | Gyeongsang | 경상 | Busan | 부산 | H05 | 1 |
| 20000504 | 2000-05-29 | Gyeongsang | 경상 | Busan | 부산 | D03 | 1 |
| 20000505 | 2000-05-11 | Jeolla | 전라 | Chunju | 전주 | K02 | 1 |
| 20000506 | 2000-04-21 | Jeolla | 전라 | Chunju | 전주 | H01 | 1 |

확인

Step 3

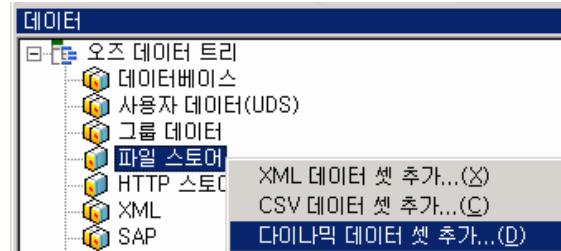
[] 가 CSV 가



Step 1

[]

[] 가]



Step 2

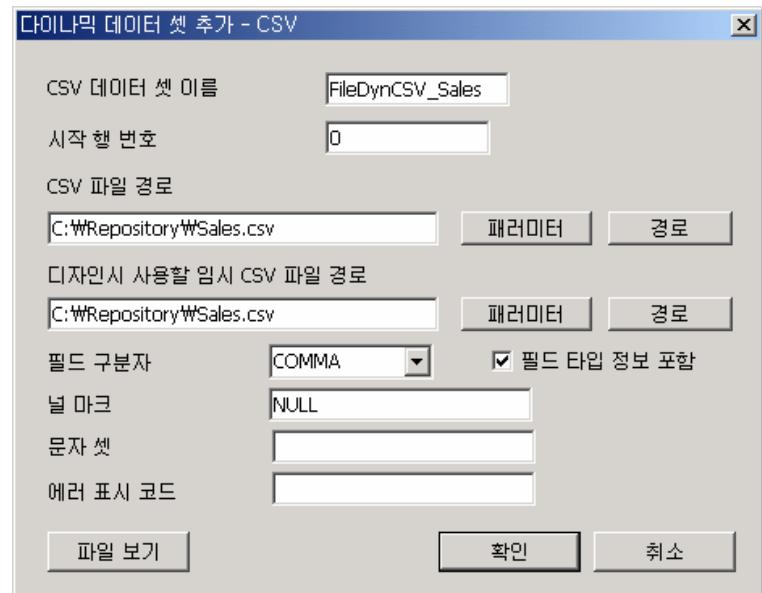
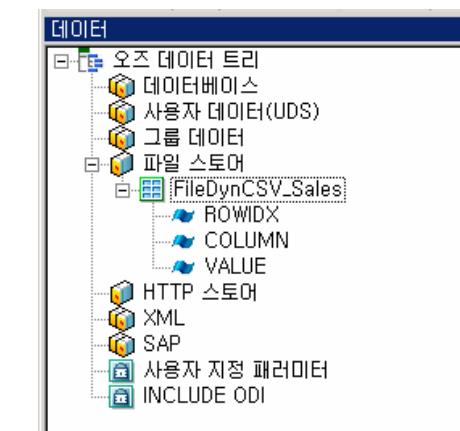
가 'CSV'



Step 3

[]

가-CSV

**Step 4**

HTTP

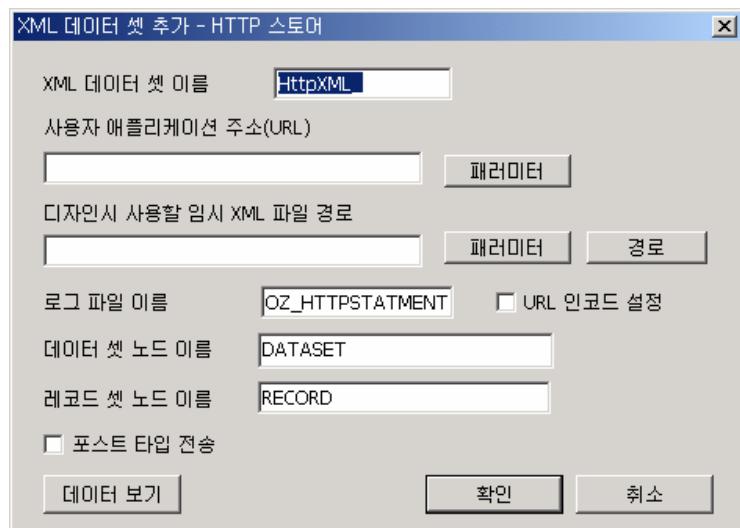
JSP ASP

HTTP

HTTP

XML CSV

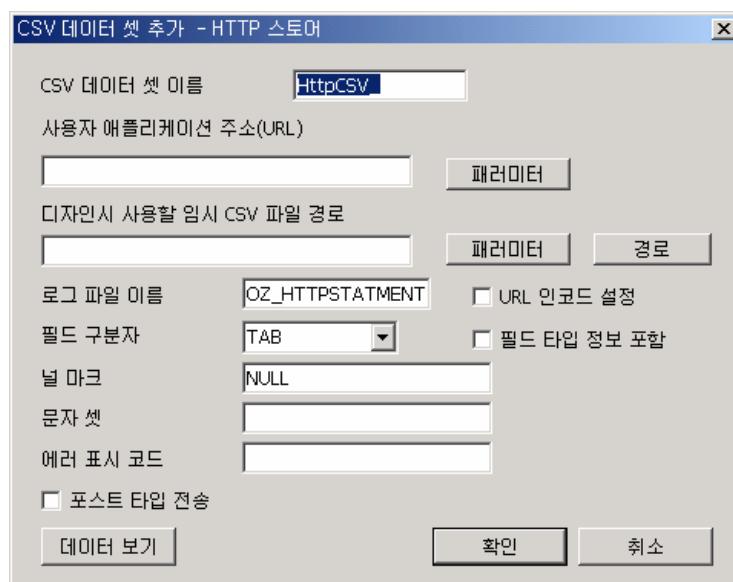
■ XML



| | |
|-------|-----------|
| XML | 가 |
| (URL) | 가 HTTP |
| XML | |

| | |
|------------|------------------------------------|
| | |
| URL | Server URL URL 'TRUE' |
| | XML 'DATASET' |
| | XML 'RECORD' |
| | URL GET POST |
| | "V." |
| | 가 XML |
| | |

■ CSV



| | |
|--------------|--|
| | |
| CSV | 가 |
| (URL) | 가 HTTP |
| CSV | |
| URL | Server URL URL 'TRUE' |
| | TAB, SPACE, SEMICOLON, COLON, COMMA 가 가 |
| | CSV 가 'FALSE' 'VARCHAR' (TRUE/FALSE) |
| | NULL |
| | 가 'Appendix.' |
| | CSV "ERR" "ERR" "ERR" CSV |

| | | |
|--|-------------|-----|
| | URL POST | GET |
| | "V. | " |
| | 가 CSV | |

가"

HTTP

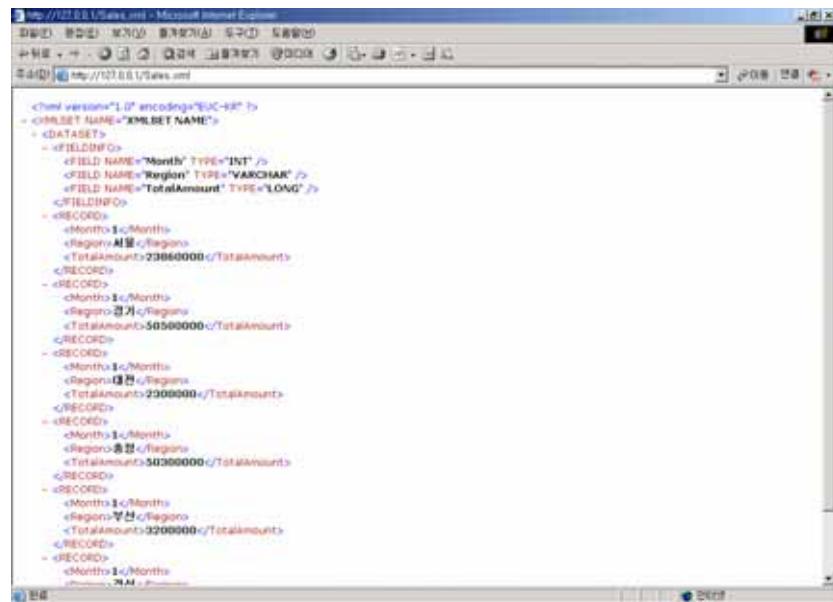
)

■ XML

Step 1

가

XML (Sales.xml)

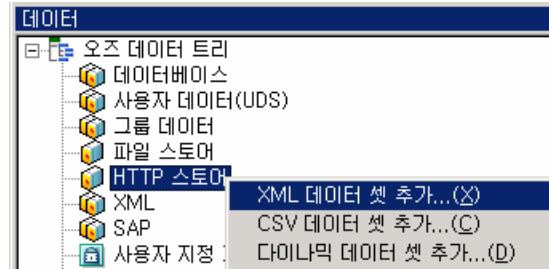


Step 2

[HTTP

[XML]

가]

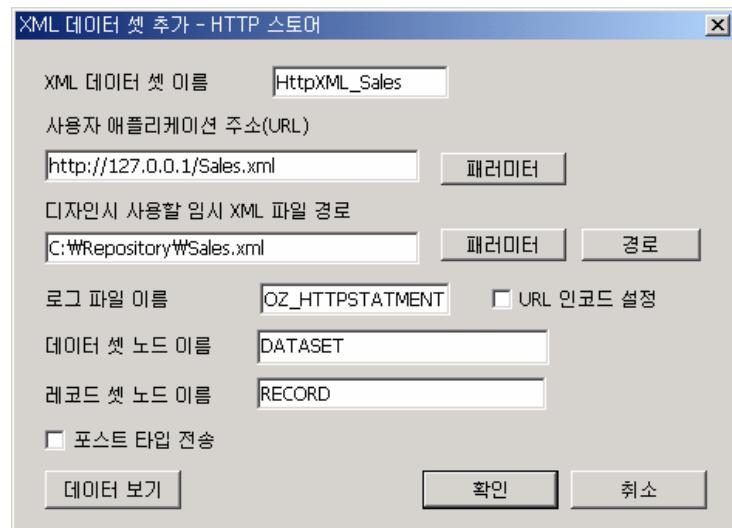


Step 3

'HTTP

'XML

가



| 결과 | | |
|-------|--------|-------------|
| Month | Region | TotalAmount |
| 1 | 서울 | 23860000 |
| 1 | 경기 | 50500000 |
| 1 | 대전 | 2300000 |
| 1 | 충청 | 50300000 |
| 1 | 부산 | 3200000 |
| 1 | 경상 | 70300000 |

Step 4

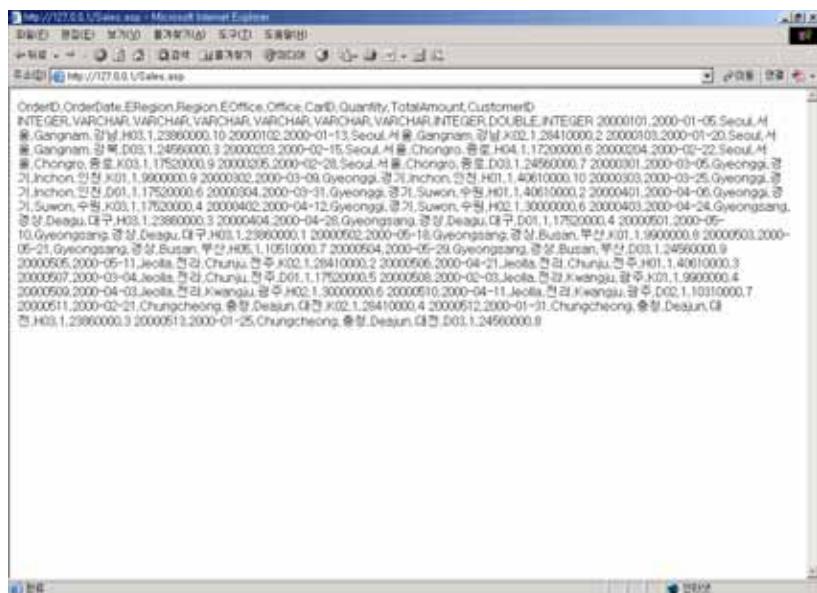
[] [HTTP] 가 XML 가



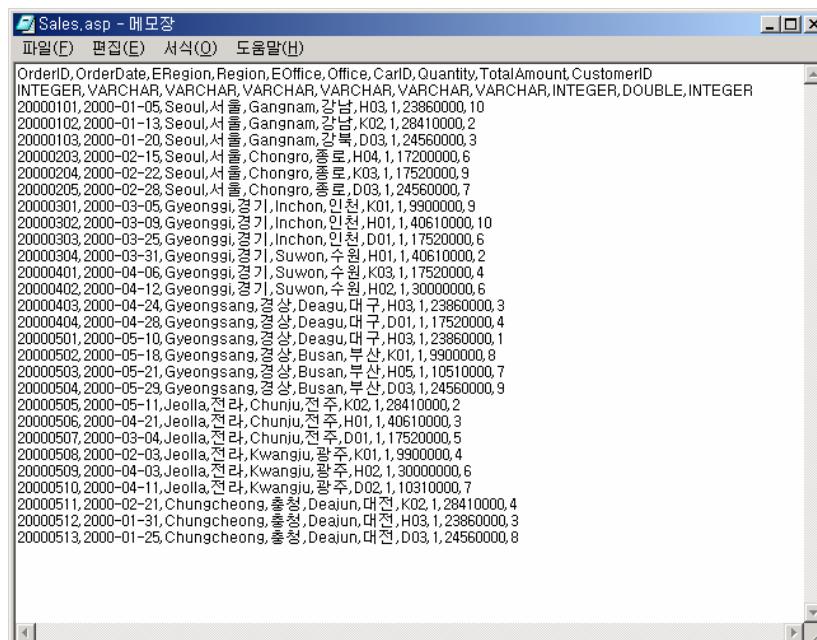
■ CSV

Step 1

HTTP CSV
http CSV
가

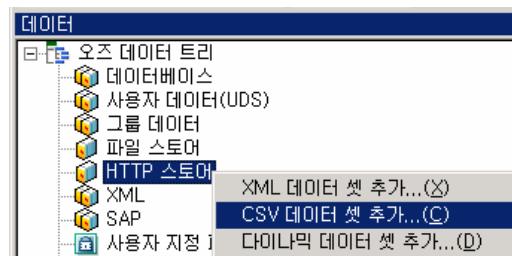


CSV



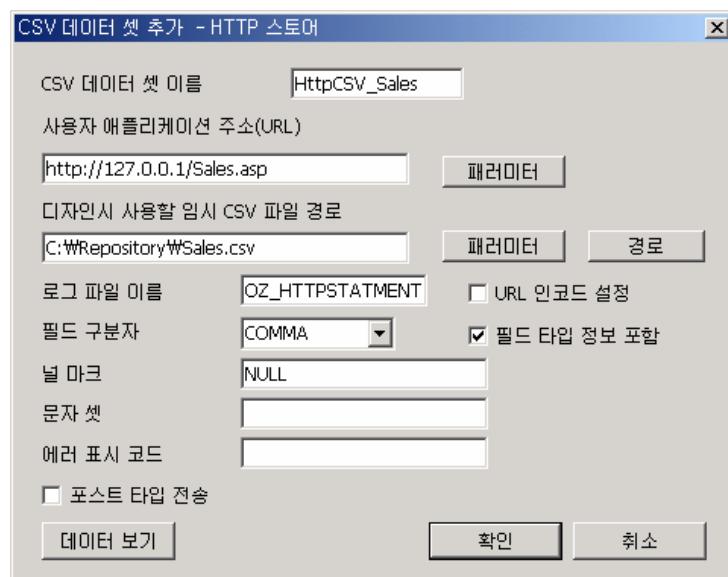
Step 2

[HTTP]
[CSV]
가]



Step 3

'HTTP'
[]
'CSV'
가]



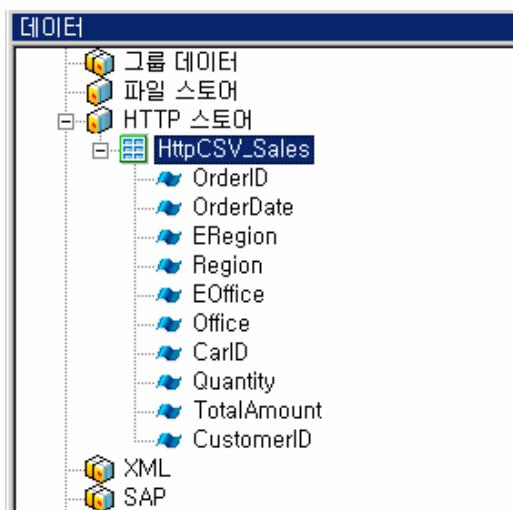
결과

| OrderID | OrderDate | ERegion | Region | EOffice | Office | CarID | Q1 |
|----------|------------|------------|--------|---------|--------|-------|----|
| 20000101 | 2000-01-05 | Seoul | 서울 | Gangnam | 강남 | H03 | 1 |
| 20000102 | 2000-01-13 | Seoul | 서울 | Gangnam | 강남 | K02 | 1 |
| 20000103 | 2000-01-20 | Seoul | 서울 | Gangnam | 강남 | D03 | 1 |
| 20000203 | 2000-02-15 | Seoul | 서울 | Chongro | 종로 | H04 | 1 |
| 20000204 | 2000-02-22 | Seoul | 서울 | Chongro | 종로 | K03 | 1 |
| 20000205 | 2000-02-28 | Seoul | 서울 | Chongro | 종로 | D03 | 1 |
| 20000301 | 2000-03-05 | Gyeonggi | 경기 | Inchon | 인천 | K01 | 1 |
| 20000302 | 2000-03-09 | Gyeonggi | 경기 | Inchon | 인천 | H01 | 1 |
| 20000303 | 2000-03-25 | Gyeonggi | 경기 | Inchon | 인천 | D01 | 1 |
| 20000304 | 2000-03-31 | Gyeonggi | 경기 | Suwon | 수원 | H01 | 1 |
| 20000401 | 2000-04-06 | Gyeonggi | 경기 | Suwon | 수원 | K03 | 1 |
| 20000402 | 2000-04-12 | Gyeonggi | 경기 | Suwon | 수원 | H02 | 1 |
| 20000403 | 2000-04-24 | Gyeongsang | 경상 | Deagu | 대구 | H03 | 1 |
| 20000404 | 2000-04-28 | Gyeongsang | 경상 | Deagu | 대구 | D01 | 1 |
| 20000501 | 2000-05-10 | Gyeongsang | 경상 | Deagu | 대구 | H03 | 1 |
| 20000502 | 2000-05-18 | Gyeongsang | 경상 | Busan | 부산 | K01 | 1 |
| 20000503 | 2000-05-21 | Gyeongsang | 경상 | Busan | 부산 | H05 | 1 |
| 20000504 | 2000-05-29 | Gyeongsang | 경상 | Busan | 부산 | D03 | 1 |
| 20000505 | 2000-05-11 | Jeolla | 전라 | Chunju | 전주 | K02 | 1 |
| 20000506 | 2000-04-21 | Jeolla | 전라 | Chunju | 전주 | H01 | 1 |

Buttons at the bottom are 'Confirm' and 'Cancel'.

Step 4

[] [HTTP] 가 CSV 가



가"

. XML

- XML
- XML

XML

XML

XML

, The World Wide Web Consortium(W3C)

, HTML

UI

XML

XML DTD/XSD

DTD/XSD XML

(Schema)

DTD/XSD

XML

가 가

XML

XML

DTD/XSD

XML

XML

XML

XML

XML

가

XML

, DTD

XSD

가 XML

/HTTP

DTD

XSD

XML

XML

XML DTD

XML XSD

XML

XML

XML

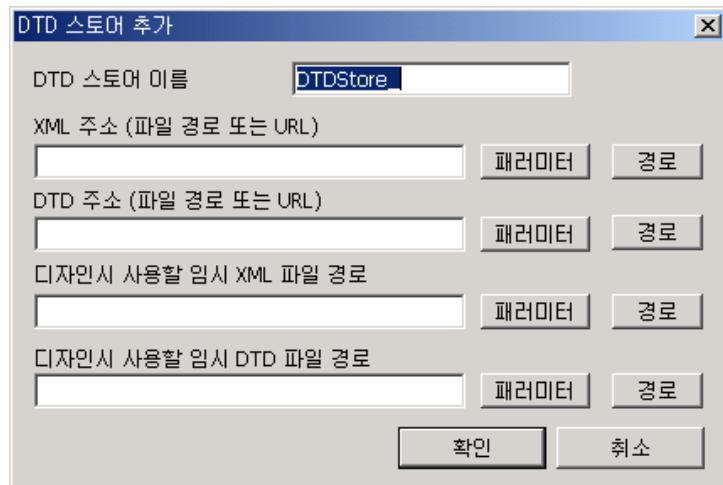
XML

XML DTD/XSD

XML

XML

■ DTD/XSD



| DTD/XSD | 가 |
|-----------------|---------|
| XML (URL) | XML |
| DTD/XSD (URL) | DTD/XSD |
| XML | XML |
| DTD/XSD | DTD/XSD |

| | |
|--|-----|
| | |
| | "V. |

| | | | |
|--|---|-----|-----|
| | 가 | XML | DTD |
|--|---|-----|-----|

XML

XML (DTD/XSD)

XSD DTD

가

DTD

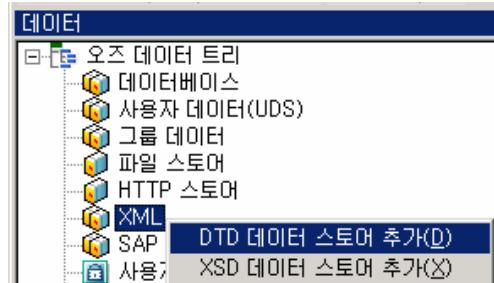
■ XML DTD

Step 1

[XML]

[DTD]

가]



Step 2

'DTD/XSD

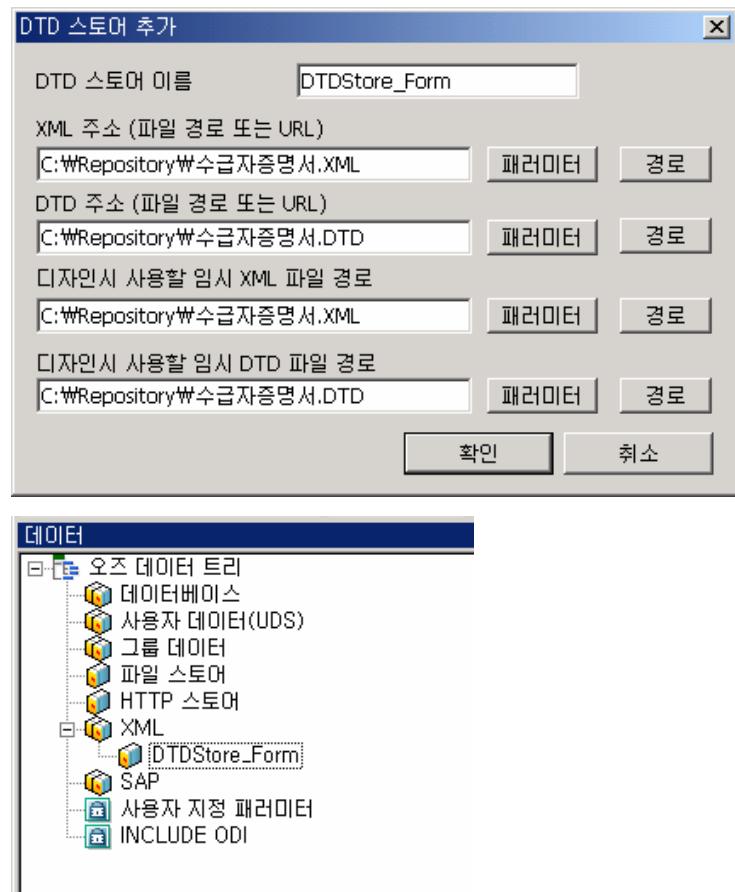
[]

'DTD

가

가

'DTD



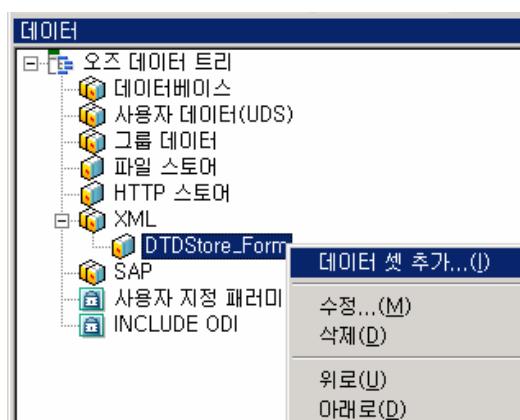
Step 3

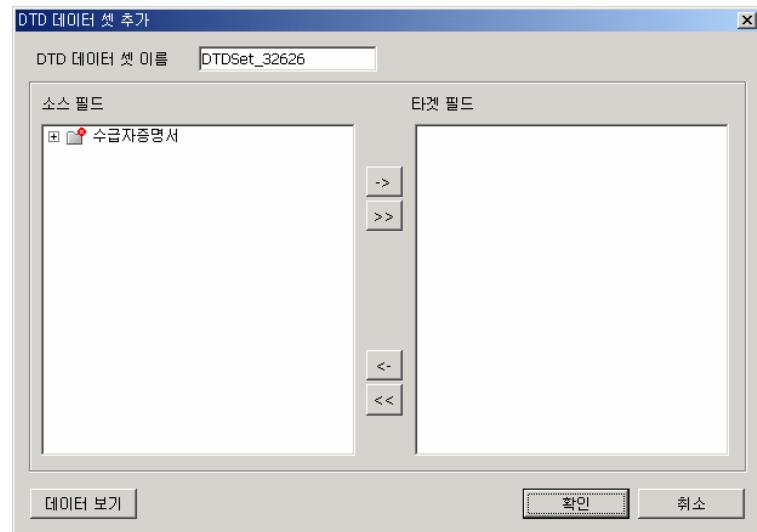
DTD

[] 가]

'DTD

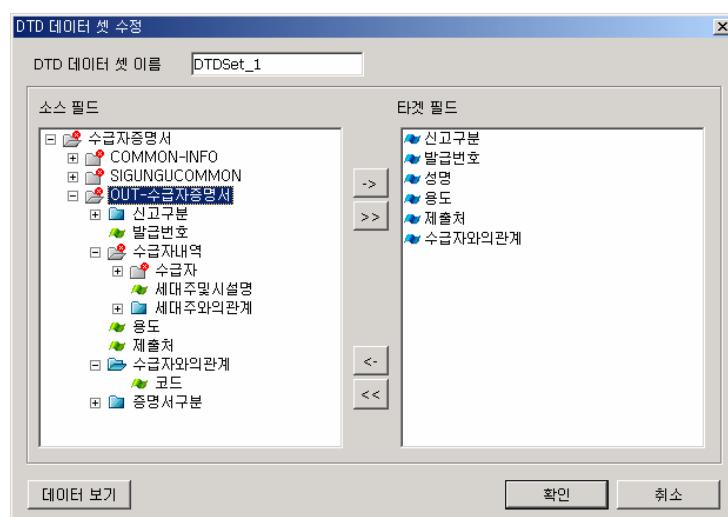
가





Step 4

DTD 가 DTD
가



| | |
|-----|-------|
| DTD | 가 |
| | DTD 가 |
| | 가 |

| | |
|--------|------------|
| 가 (->) | 가 . |
| 가 (>>) | 가 |
| (<-) | <Delete> 가 |
| (<<) | 가 |
| | |

Step 5

'DTD' 가 . 가 [] [XML]



. SAP

● SAP

● SAP

SAP

SAP

SAP

SAP R/3

SAP

SAP

SAP

SAP

SAP

SAP

RFC(Remote Function Call:

R/3

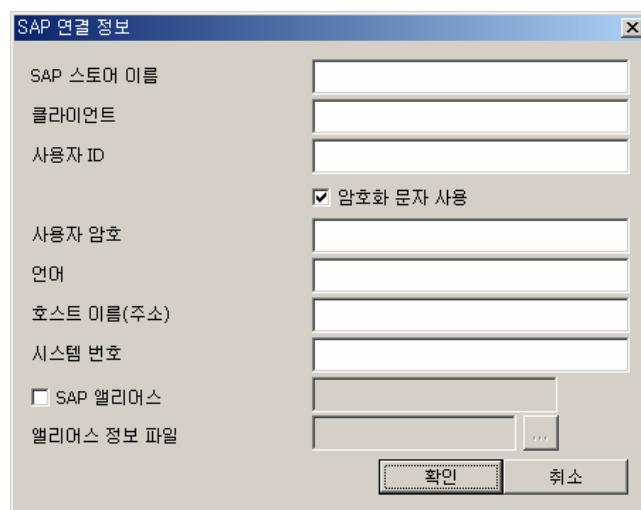
)

SAP

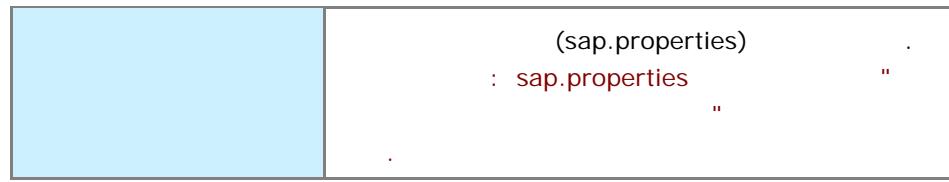
SAP

SAP

■ SAP



| SAP | |
|-----|----------------|
| ID | |
| () | SAP IP Address |
| | SAP |
| SAP | SAP |



SAP

SAP

Step 1

[SAP]

[SAP

가]



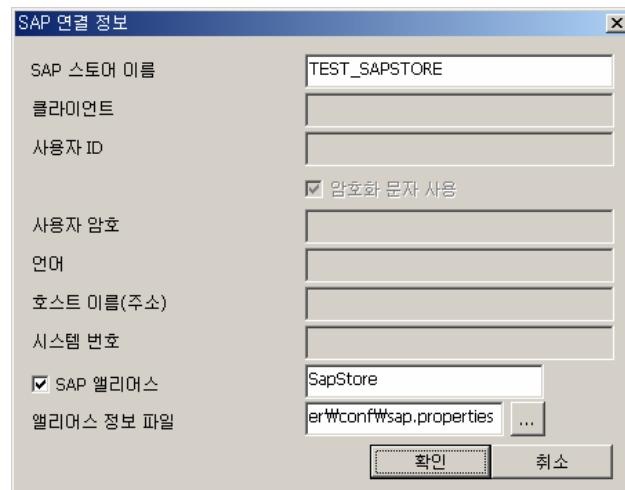
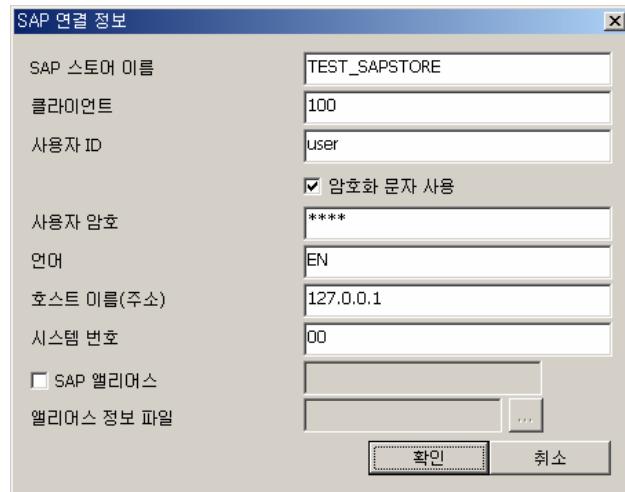
Step 2

[SAP

가]

'SAP

SAP



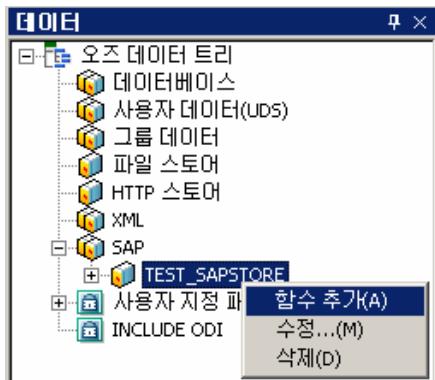
SAP []
가 'SAP' '가'



Step 3

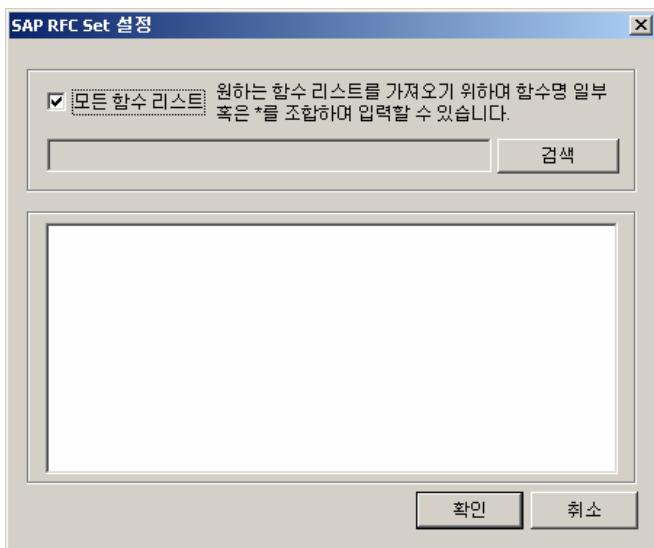
가 SAP
 [가] SAP 'SAP

RFC Set



RFC 가

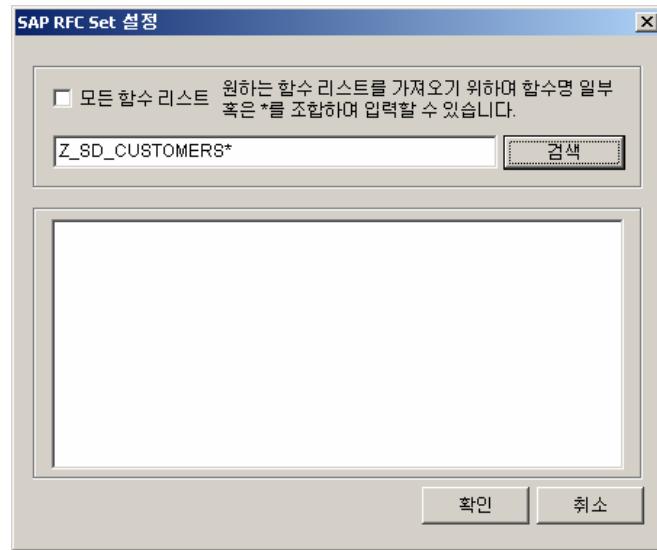
[]



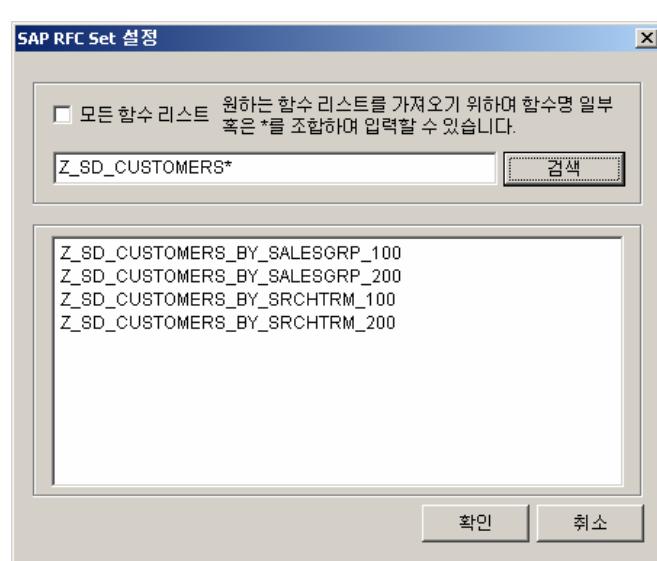
'*', '?'

[]

RFC



[]
(RFC)

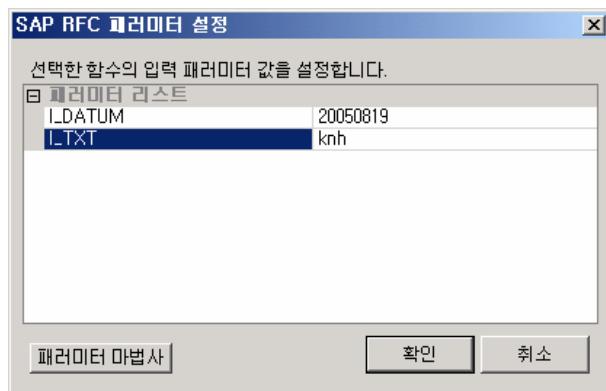


RFC []

Step 4

RFC []
RFC

가

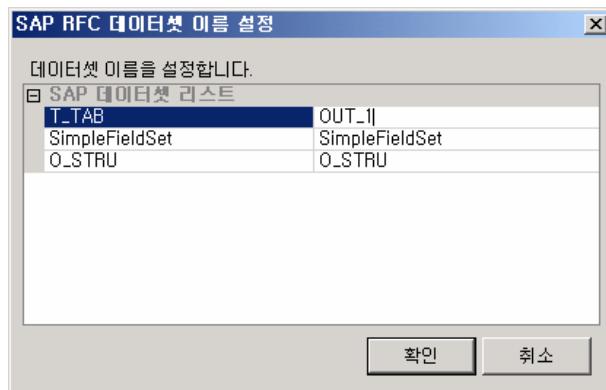


[]

가 . RFC

가

가

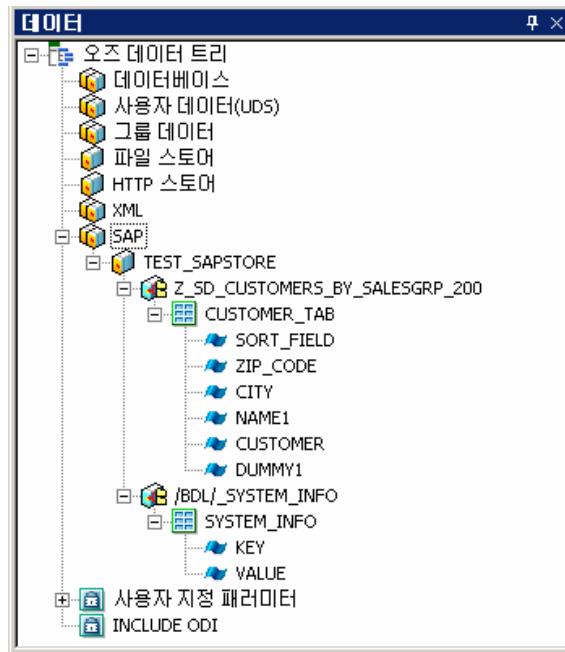


Step 5

[]

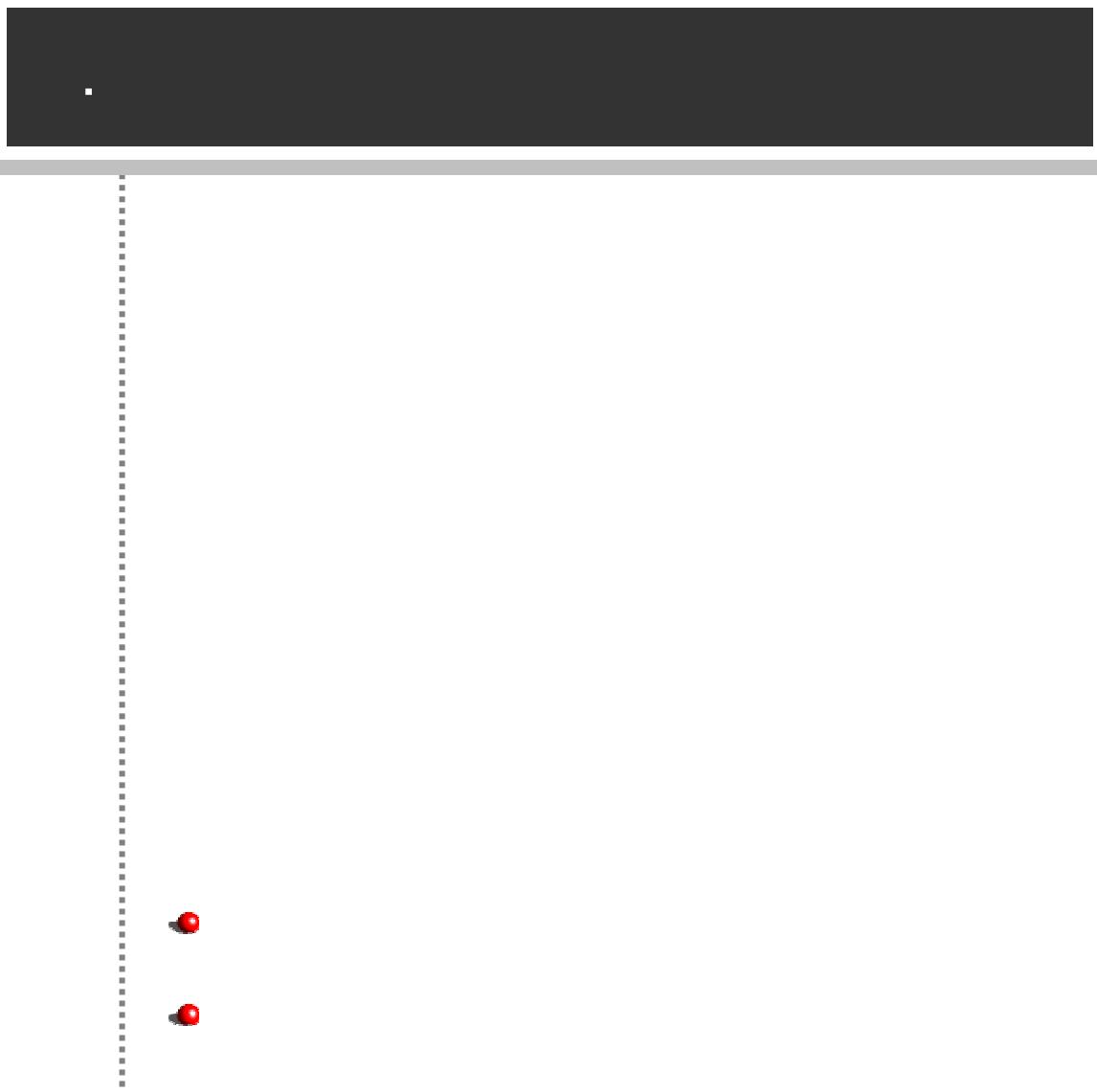
RFC

ODI



RFC

RFC





가 (, UDS, /HTTP , XML DTD
)
가 .

가 .
GDS

■ /
가 .

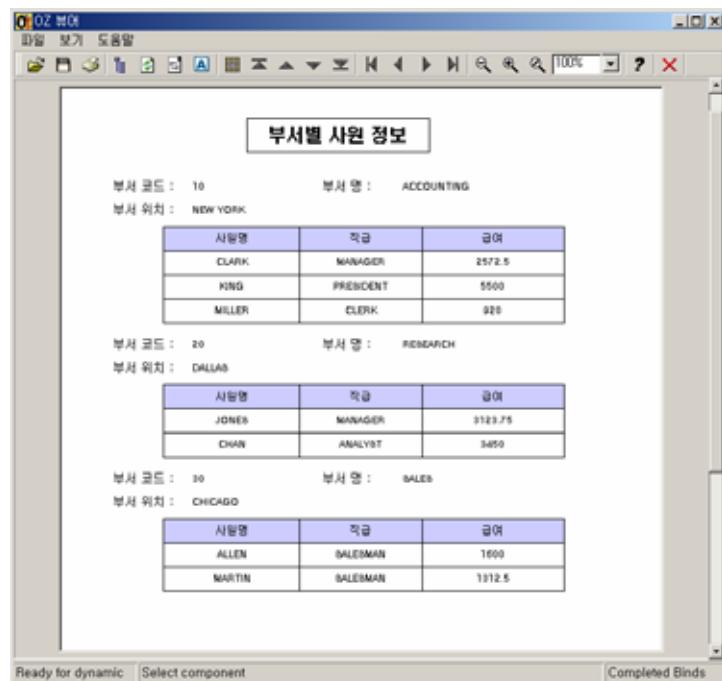
■ .

■ .

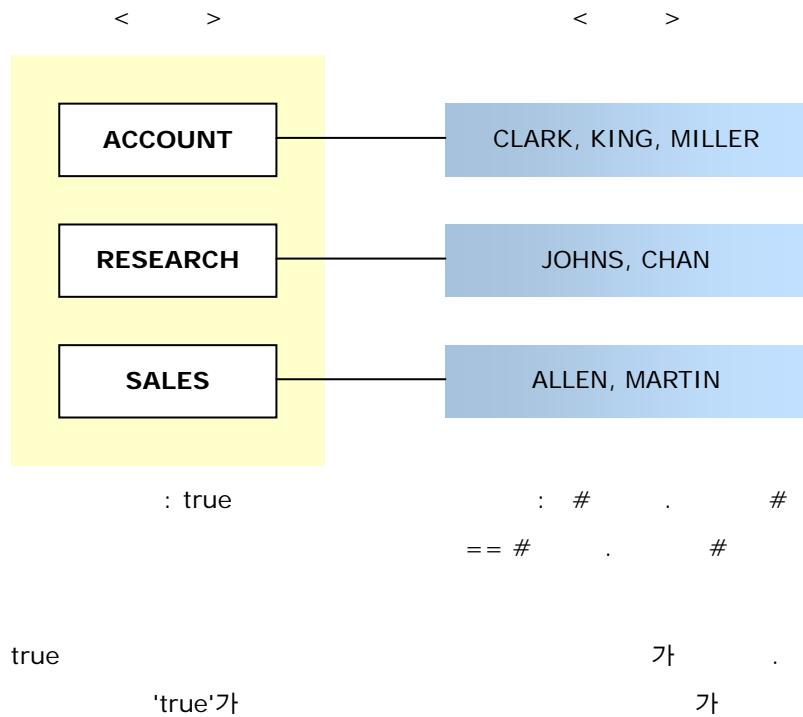
■ .

■ .

가



| 부서 코드 | 부서 명 | 부서 위치 | 사원명 | 직급 | 급여 |
|-------|------------|----------|--------|-----------|---------|
| 10 | ACCOUNTING | NEW YORK | CLARK | MANAGER | 2572.2 |
| 10 | ACCOUNTING | NEW YORK | KING | PRESIDENT | 5500 |
| 10 | ACCOUNTING | NEW YORK | MILLER | CLERK | 920 |
| 20 | RESEARCH | DALLAS | JONES | MANAGER | 3123.75 |
| 20 | RESEARCH | DALLAS | CHAN | ANALYST | 3450 |
| 30 | SALES | CHICAGO | ALLEN | SALESMAN | 1600 |
| 30 | SALES | CHICAGO | MARTIN | SALESMAN | 1312.5 |



| | | 가 | ... |
|---|-------------|-----------|-----|
| A | FLAT TV 19" | 500,000 | |
| A | FLAT TV 21" | 800,000 | |
| A | FLAT TV 25" | 1,500,000 | |
| B | | 100,000 | ... |
| B | V | 180,000 | |
| C | | 500 | |
| C | | 500 | |

| 가 | 가 | 가 |
|--------------------------|---|-------------|
| - < A > () # . # == "A" | A | FLAT TV 19" |

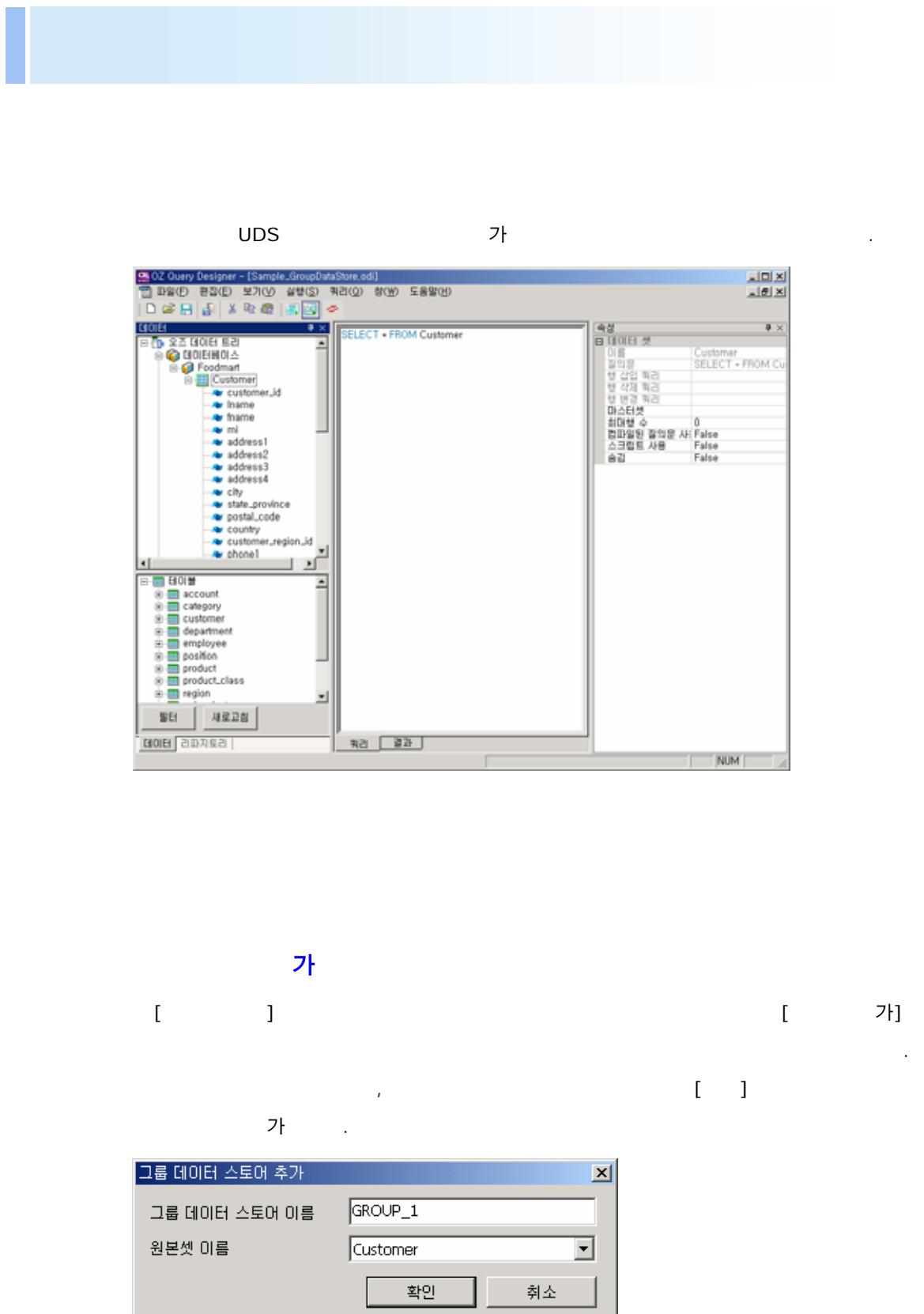
| | | |
|---|-------------|-----------|
| A | FLAT TV 21" | 800,000 |
| A | FLAT TV 25" | 1,500,000 |

- < B > () # . # == "B"

| | | |
|---|---------|---------|
| | 가 | ... |
| B | 100,000 | ... |
| B | V | 180,000 |

- < C > () # . # == "C"

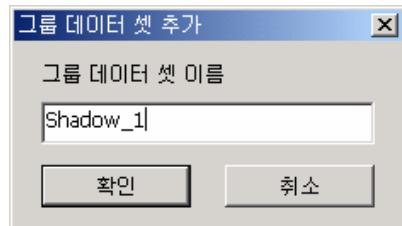
| | | |
|---|-----|-----|
| | 가 | ... |
| C | 500 | ... |
| C | | 500 |



가가

[가]

가



[]

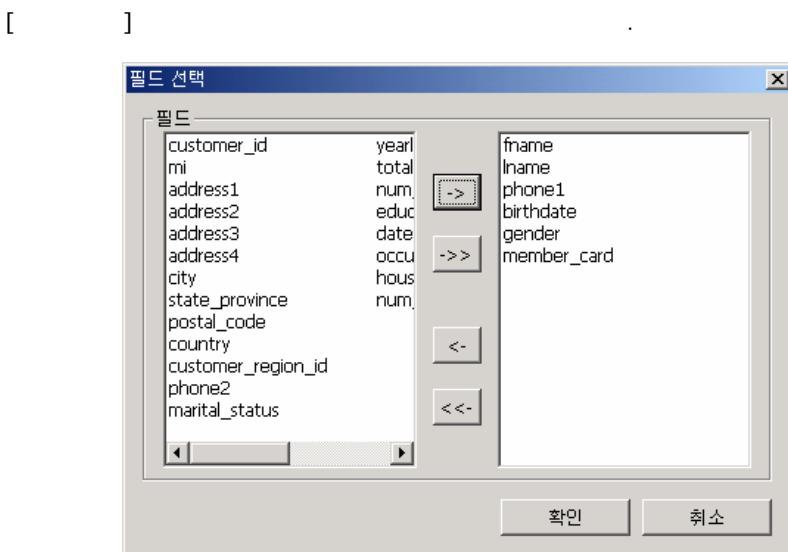
가

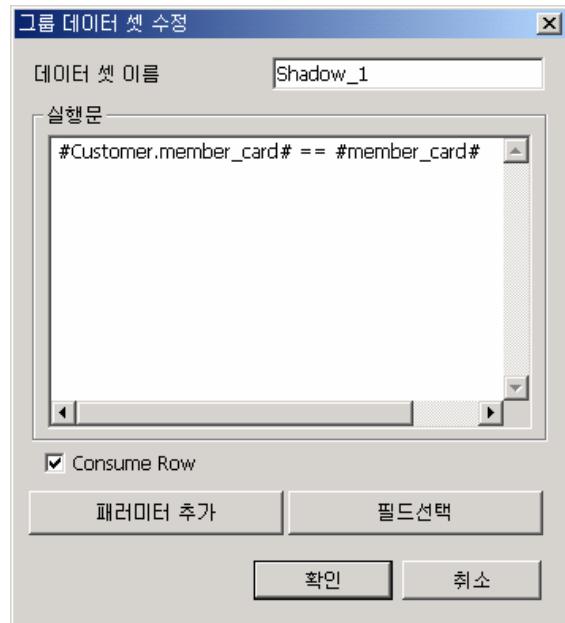
가



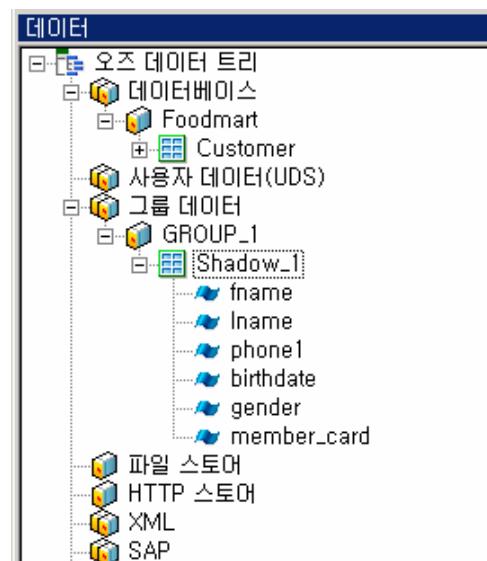
| | |
|--|---|
| | |
| | 가 |
| | |

| | |
|-------------|------------|
| | Comsum Row |
| Consume Row | 'True' |
| | 'True' |
| 가 | 가 |
| 가 | "V." |
| | "" |



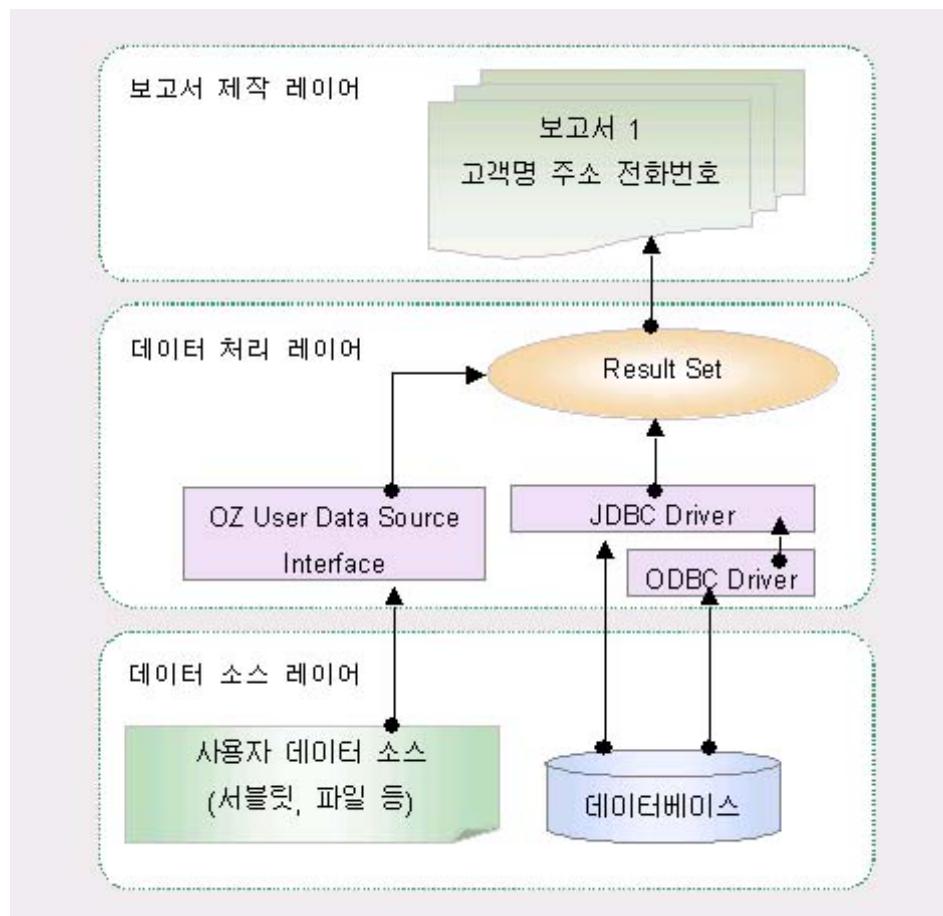
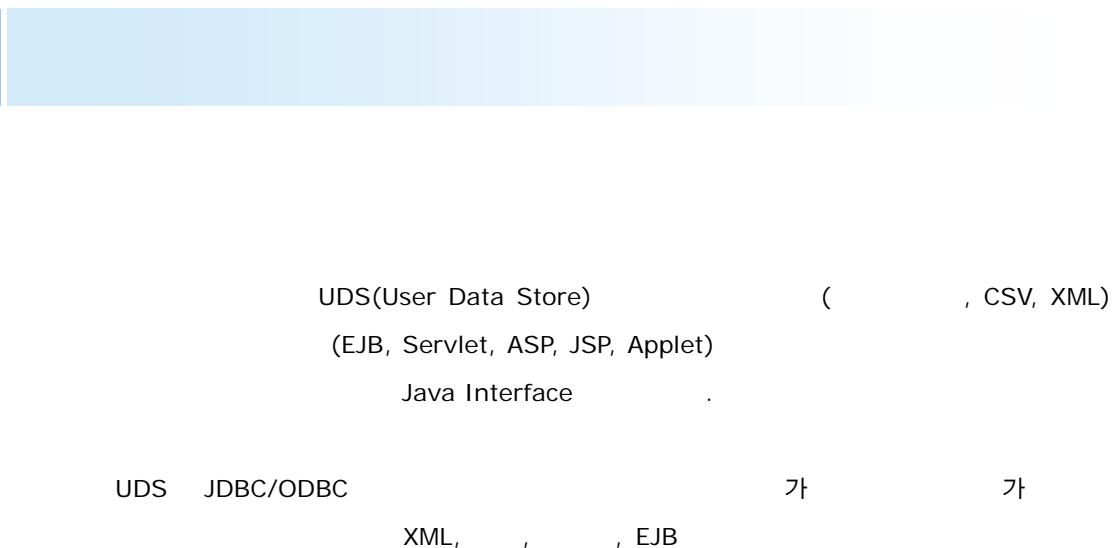


[] 가 , 가 []



XI.





UDS

UDS Java Interface

가

ResultSet

가

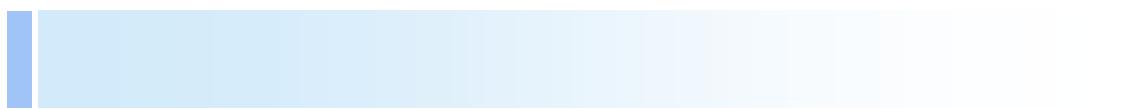
, UDS

UDS

UDS

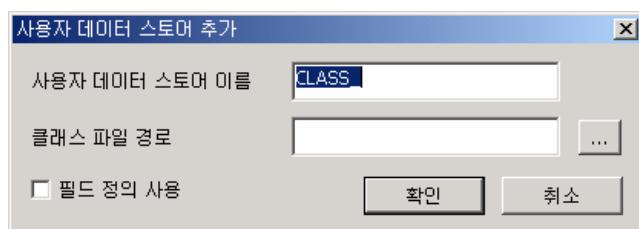
"API

"



가 UDS

가



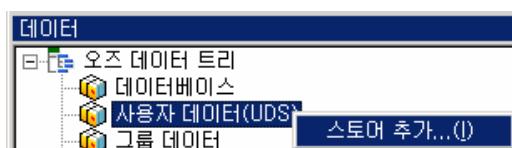
| | |
|-------|--------------------|
| | |
| | 가 |
| | UDS |
| | UDS 가 |
| [...] | |

UDS

Step 1

[(UDS)]

[가]



Step 2

[가]

[...]

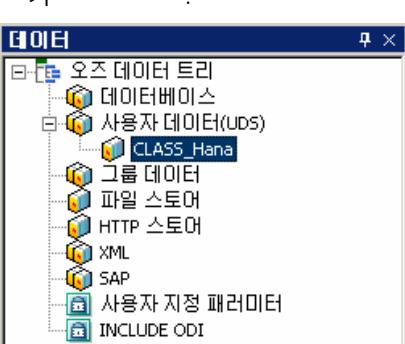


Step 3

[]

[]

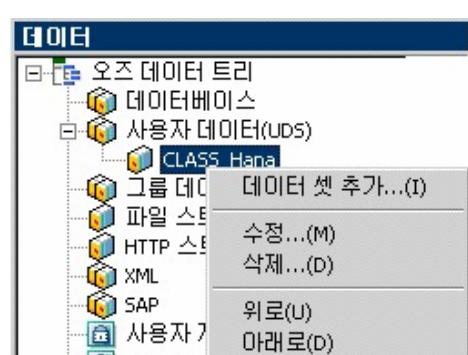
[가]



Step 4

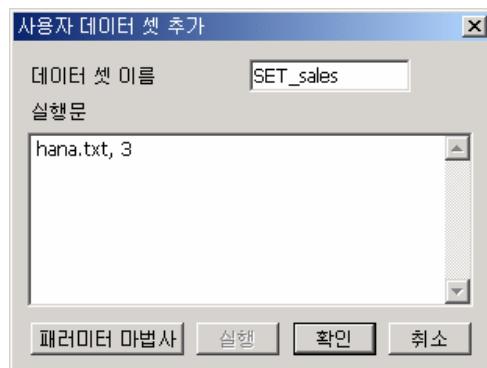
[가]

[가]



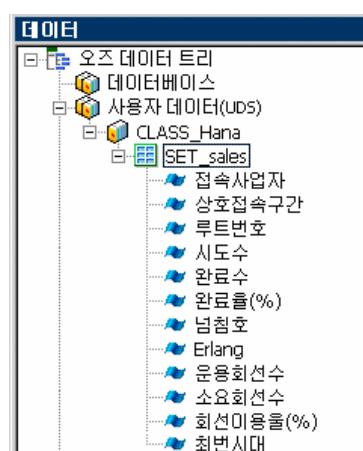
Step 5

[가]



| | 가 |
|-----|-----|
| | 가 |
| UDS | 가 |
| UDS | 가 |
| | 가 |
| | "V. |
| | " |
| | UDS |

[] , [] 가



가

가

·

가

·

가

가

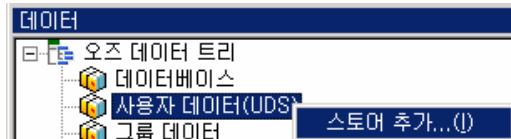
가

·

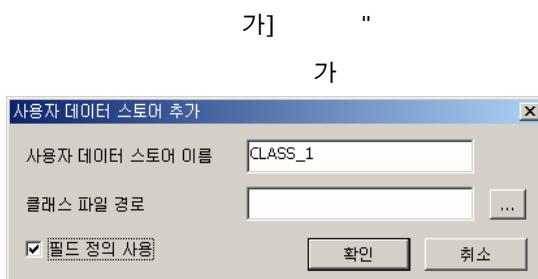
Step 1

[] (UDS)]

[] 가]



Step 2



Step 3

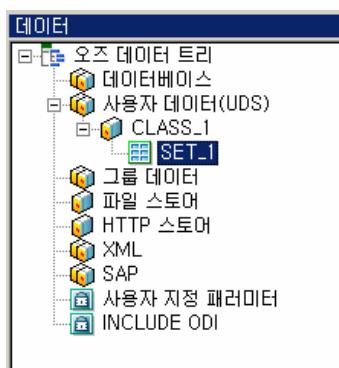
[]

가

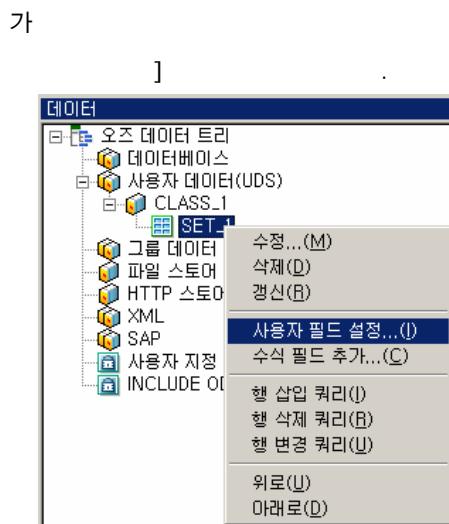
[] 가]

[] 가]

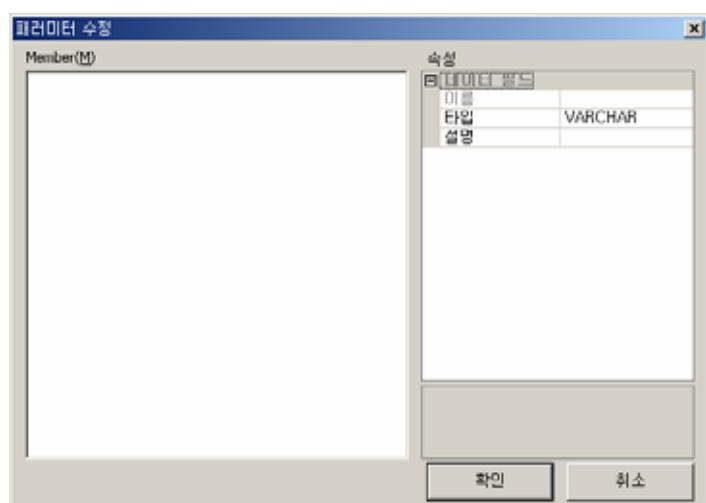
가

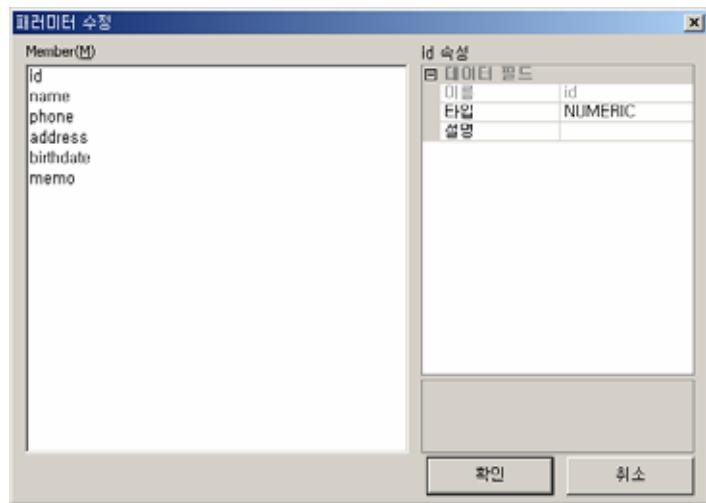


Step 4



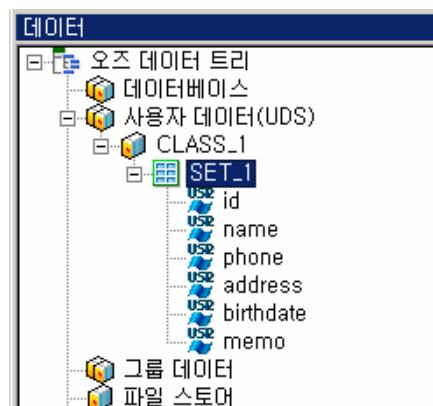
Step 5





[]

가 가 .



XII.





가

가 , /HTTP , XML DTD
2

ROWIDX, COLUMN, VALUE 가 , 가

가

가

- ROWIDX :
- COLUMN :
- VALUE :

1

2

ROWIDX, COLUMN, VALUE

, Row

Index

■ 1 -

| Region | Sales2000 | Sales2001 |
|--------|-----------|-----------|
| | 157000 | 890235 |
| | 5234991 | 5432123 |
| | 1234789 | 1123454 |
| | 4563300 | 4992100 |
| | 3551090 | 3901234 |

■ 2 -

| ROWIDX | COLUMN | VALUE |
|--------|-----------|---------|
| 0 | Region | |
| 0 | Sales2000 | 257000 |
| 0 | Sales2001 | 890235 |
| 1 | Region | |
| 1 | Sales2000 | 5234991 |
| 1 | Sales2001 | 5432123 |
| 2 | Region | |
| 2 | Sales2000 | 1234789 |
| 2 | Sales2001 | 1123454 |
| 3 | Region | |
| 3 | Sales2000 | 4563300 |
| 3 | Sales2001 | 4992100 |
| 4 | Region | |
| 4 | Sales2000 | 3551090 |
| 4 | Sales2002 | 3901234 |

Step 1

[]
[] 가]
가

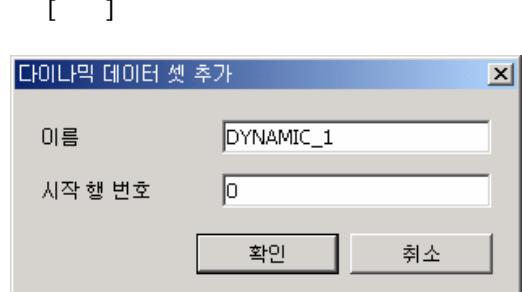


Step 2

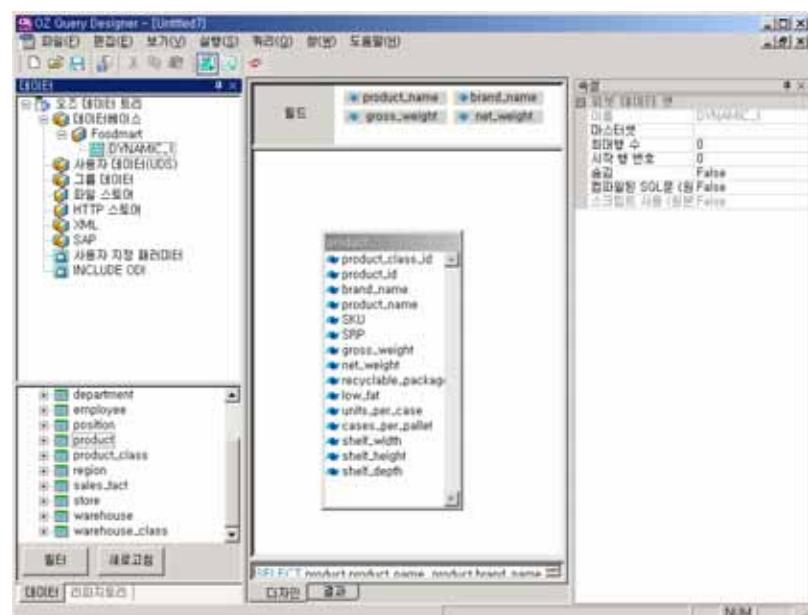
가
[] 가]



Step 3



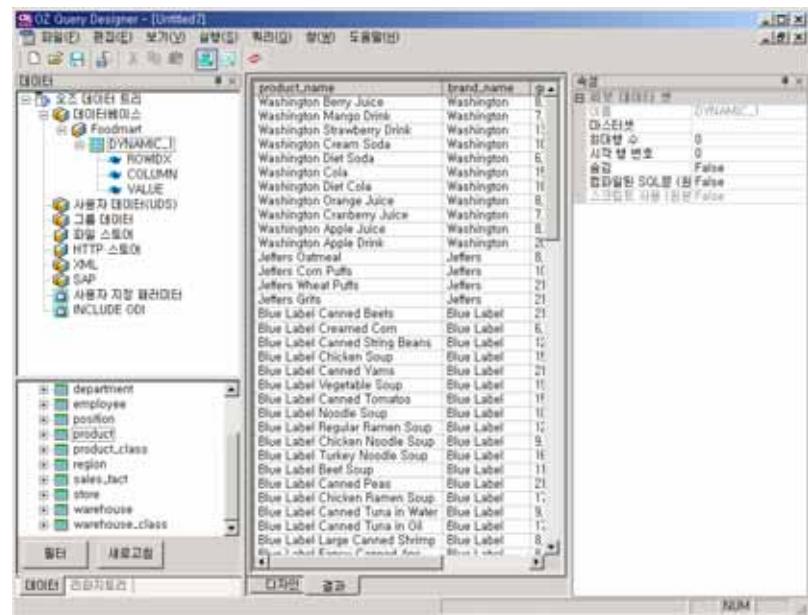
Step 4



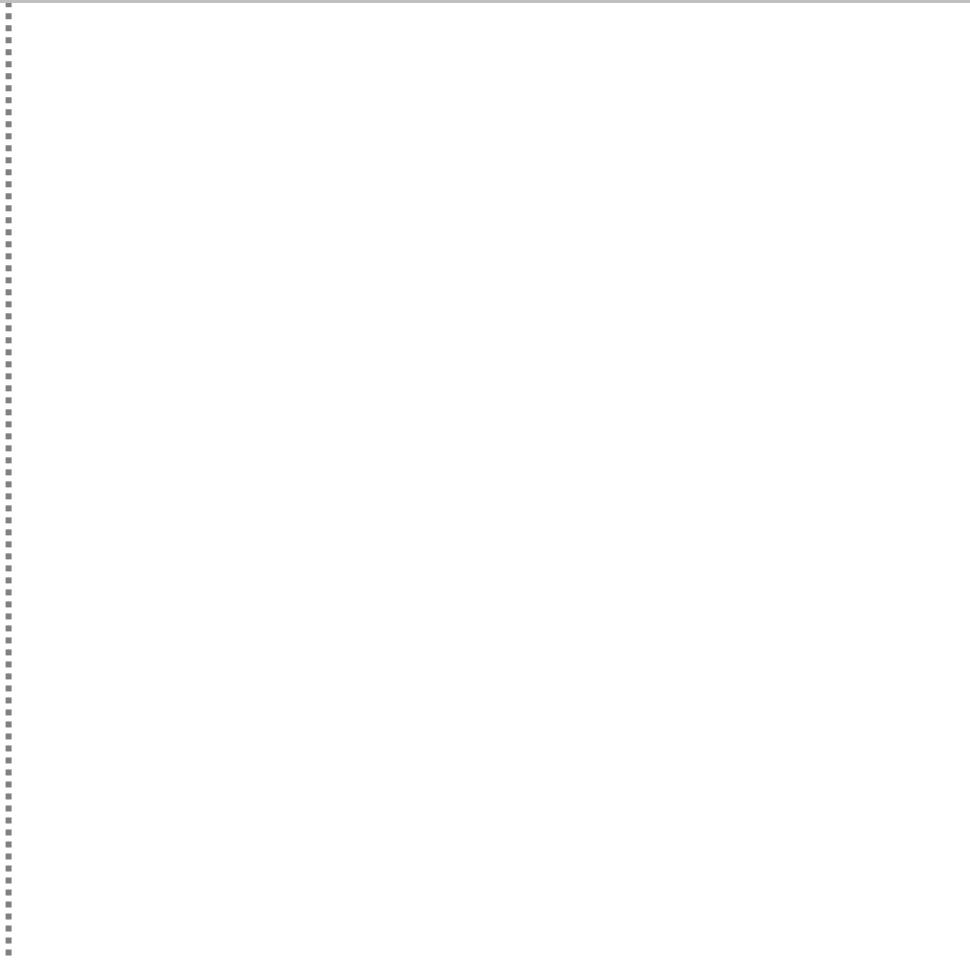
Step 5



ROWIDX, COLUMN, VALUE 가



Appendix.



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| | |
|---------------|--|
| | |
| ASCII | us-ascii, ascii, 646, iso646-us, default, ascii7 |
| Big5 | big5 |
| Cp037 | ibm037, ibm-037, cp037, 037 |
| Cp1006 | ibm1006, ibm-1006, cp1006, 1006 |
| Cp1025 | ibm1025, ibm-1025, cp1025, 1025 |
| Cp1026 | ibm1026, ibm-1026, cp1026, 1026 |
| Cp1046 | |
| Cp1097 | ibm1097, ibm-1097, cp1097, 1097 |
| Cp1098 | ibm1098, ibm-1098, cp1098, 1098 |
| Cp1112 | ibm1112, ibm-1112, cp1112, 1112 |
| Cp1122 | ibm1122, ibm-1122, cp1122, 1122 |
| Cp1123 | ibm1123, ibm-1123, cp1123, 1123 |
| Cp1124 | ibm1124, ibm-1124, cp1124, 1124 |
| Cp1140 | |
| Cp1141 | |
| Cp1142 | |
| Cp1143 | |
| Cp1144 | |
| Cp1145 | |
| Cp1146 | |
| Cp1147 | |
| Cp1148 | |
| Cp1149 | |
| Cp1250 | windows-1250 |
| Cp1251 | windows-1251 |

| | |
|----------------|--|
| | |
| Cp1252 | windows-1252 |
| Cp1253 | windows-1253 |
| Cp1254 | windows-1254 |
| Cp1255 | windows-1255 |
| Cp1256 | windows-1256 |
| Cp1257 | windows-1257 |
| Cp1258 | windows-1258 |
| Cp1381 | ibm1381, ibm-1381, cp1381, 1381 |
| Cp1383 | ibm1383, ibm-1383, cp1383, 1383 |
| Cp273 | ibm273, ibm-273, cp273, 273 |
| Cp277 | ibm277, ibm-277, cp277, 277 |
| Cp278 | ibm278, ibm-278, cp278, 278 |
| Cp280 | ibm280, ibm-280, cp280, 280 |
| Cp284 | ibm284, ibm-284, cp284, 284 |
| Cp285 | ibm285, ibm-285, cp285, 285 |
| Cp297 | ibm297, ibm-297, cp297, 297 |
| Cp33722 | Ibm33722, ibm-33722, cp33722, 33722 |
| Cp420 | ibm420, ibm-420, cp420, 420 |
| Cp424 | ibm424, ibm-424, cp424, 424 |
| Cp437 | ibm437, ibm-437, cp437, 437 |
| Cp500 | ibm500, ibm-500, cp500, 500 |
| Cp737 | ibm737, ibm-737, cp737, 737 |
| Cp775 | ibm775, ibm-775, cp775, 775 |
| Cp838 | ibm838, ibm-838, cp838, 838 |
| Cp850 | ibm850, ibm-850, cp850, 850, cspc850multilingual |
| Cp852 | ibm852, ibm-852, cp852, 852, cspcp852 |
| Cp855 | ibm855, ibm-855, cp855, 855, cspcp855 |
| Cp856 | ibm856 ibm-856, cp856 856 |
| Cp857 | ibm857, ibm-857, cp857, 857, csibm857 |
| Cp858 | |

| | |
|---------------|--|
| | |
| Cp860 | ibm860, ibm-860, cp860, 860, csibm860 |
| Cp861 | ibm861, ibm-861, cp861, cp-is, 861, csibm861 |
| Cp862 | ibm862, ibm-862, cp862, cp862, 862, cspc862latinhebrew |
| Cp863 | ibm863, ibm-863, cp863, 863, csibm863 |
| Cp864 | ibm864, ibm-864, cp864, csibm864 |
| Cp865 | ibm865, ibm-865, cp865, 865, csibm865 |
| Cp866 | ibm866, ibm-866, cp866, 866, csibm866 |
| Cp868 | ibm868, ibm-868, cp868, 868 |
| Cp869 | ibm869, ibm-869, cp869, 869, cp-gr, csibm869 |
| Cp870 | ibm870, ibm-870, cp870, 870 |
| Cp871 | ibm871, ibm-871, cp871, 871 |
| Cp874 | ibm874, ibm-874, cp874, 874 |
| Cp875 | ibm875, ibm-875, cp875, 875 |
| Cp918 | ibm918, ibm-918, cp918, 918 |
| Cp921 | ibm921, ibm-921, cp921, 921 |
| Cp922 | ibm922, ibm-922, cp922, 922 |
| Cp923 | |
| Cp930 | ibm930, ibm-930, cp930, 930 |
| Cp933 | ibm933, ibm-933, cp933, 933 |
| Cp935 | ibm935, ibm-935, cp935, 935 |
| Cp937 | ibm937, ibm-937, cp937, 937 |
| Cp939 | ibm939, ibm-939, cp939, 939 |
| Cp942 | ibm942, ibm-942, cp942, 942 |
| Cp942C | cp942c |
| Cp943 | ibm943, ibm-943, cp943, 943 |
| Cp943C | cp943c |
| Cp948 | ibm948, ibm-948, cp948, 948 |
| Cp949 | ibm949, ibm-949, cp949, 949 |
| Cp949C | cp949c |
| Cp950 | ibm950, ibm-950, cp950, 950 |

| | |
|------------------------|--|
| | |
| Cp964 | ibm964, ibm-964, cp964, 964 |
| Cp970 | ibm970, ibm-970, cp970, 970 |
| DBCS_ASCII | |
| DBCS_EBCDIC | |
| Default | |
| DoubleByte | |
| EUC | |
| EUC_CN | gb2312, gb2312-80, gb2312-1980, euc-cn, euccn |
| EUC_JP | eucjis, euc-jp, eucjp, extended_unix_code_packed_format_for_japanese, cseucpkdfmtjapanese, x-euc-jp, x-eucjp |
| EUC_KR | ksc5601, euc-kr, euckr, ks_c_5601-1987, ksc5601-1987, ksc5601_1987, ksc_5601, 5601 |
| EUC_TW | cns11643, euc-tw, euctw |
| GBK | |
| ISO2022 | |
| ISO2022CN | |
| ISO2022JP | jis, iso-2022-jp, csiso2022jp, jis_encoding, csjisencoding |
| ISO2022KR | |
| ISO8859_1 | 8859_1, iso_8859-1:1978, iso-ir-100, iso_8859-1, iso-8859-1, iso8859-1, latin1, I1, ibm819, ibm-819, cp819, 819, csisolatin1 |
| ISO8859_15_FDIS | 8859_15, iso-8859-15, iso_8859-15, iso8859-15, ibm923, ibm-923, cp923, 923, latin0, latin9, csisolatin0, csisolatin9 |
| ISO8859_2 | 8859_2, iso_8859-2:1987, iso-ir-101, iso_8859-2, iso-8859-2, iso8859-2, latin2, I2, ibm912, ibm-912, cp912, 912, csisolatin2, |
| ISO8859_3 | 8859_3, iso_8859-3:1988, iso-ir-109, iso_8859-3, iso-8859-3, iso8859-3, latin3, I3, ibm913, ibm-913, cp913, 913, csisolatin3 |
| ISO8859_4 | 8859_4, iso_8859-4:1988, iso-ir-110, iso_8859-4, iso-8859-4, iso8859-4, latin4, I4, ibm914, ibm-914, cp914, 914, csisolatin4 |

| | |
|-------------------------|---|
| | |
| ISO8859_5 | 8859_5, iso_8859-5:1988, iso-ir-144, iso_8859-5, iso-8859-5, iso8859-5, cyrillic, csisolatincyrillic, ibm915, ibm-915, cp915, 915, |
| ISO8859_6 | 8859_6, iso_8859-6:1987, iso-ir-127, iso_8859-6, iso-8859-6, iso8859-6, ecma-114, asmo-708, arabic, csisolatinarabic, ibm1089, ibm-1089, cp1089, 1089 |
| ISO8859_7 | 8859_7, iso_8859-7:1987, iso-ir-126, iso_8859-7, iso-8859-7, iso8859-7, elot_928, ecma-118, greek, greek8, csisolatingreek, ibm813, ibm-813, cp813, 813 |
| ISO8859_8 | 8859_8, iso_8859-8:1988, iso-ir-138, iso_8859-8, iso-8859-8, iso8859-8, hebrew, csisolatinhebrew, ibm916, ibm-916, cp916, 916 |
| ISO8859_9 | 8859_9, iso-ir-148, iso_8859-9, iso-8859-9, iso8859-9, latin5, l5, ibm920, ibm-920, cp920, 920, csisolatin5 |
| ISO8859_13 | 8859_13, iso_8859-13, iso-8859-13, iso8859-13, |
| JIS0201 | |
| JIS0208 | |
| JIS0212 | |
| JISAutoDetect | jis auto detect |
| Johab | ksc5601-1992, ksc5601_1992, ms1361 |
| KOI8_R | koi8-r, koi8, cskoi8r |
| MS874 | windows-874 |
| MS932 | shift_jis, ms_kanji, csshiftjis, windows-31j, cswindows31j, x-sjis |
| MS932DB | |
| MS936 | |
| MS949 | windows-949 |
| MS950 | |
| MacArabic | |
| MacCentralEurope | |
| MacCroatian | |

| MacCyrillic | |
|----------------------|--|
| MacDingbat | |
| MacGreek | |
| MacHebrew | |
| MacIceland | |
| MacRoman | |
| MacRomania | |
| MacSymbol | |
| MacThai | |
| MacTurkish | |
| MacUkraine | |
| SJIS | シフト符?現表化, pck |
| SingleByte | |
| TIS620 | tis620.2533 |
| UTF8 | utf-8, unicode-1-1-utf-8 |
| UTF16 | utf-16 |
| Unicode | unicode |
| UnicodeBig | unicode-1-1, iso-10646-ucs-2, utf-16be, x-utf-16be |
| UnicodeLittle | utf-16le, x-utf-16le |