

ff[]ff[] SQL

BDE[]iBorland Database Engine[], Å, í[]Cf[]ff[]ff[] SQL[]Structured Query Language[], ð'É, ¶, Åff[]ff[]ff[], ", æ, ÑfŠf, []fg, []ff[]f^fx[]fXfe[]fuf<, ÉfAfNfZfX, Å, «, Ü, []Bff[]ff[]ff[] SQL[]iufNf%ofCfAf"fgfx[]fX SQL[]v, Æ, àCEÀ, î, ê, Ü, []j, í ANSI •W[]€ SQL, []TfufZfbfg, Å[]CParadox, ", æ, Ñ dBASE, []fe[]fuf<, âftfB[]f-fh[]iSQL, Å, í[]u—ñ[]v, ÆCEÀ, î, ê, Ü, []j, ì-½-¼<K'¥, ðftf[][]fg, ·, é, æ, ¶, ÉŠg'£, ³, ê, Å, ç, Ü, []B

f[]ff[]ff[] SQL, Å, í[]CSQL, ðŽg, Å, Å[]ufŠf, []fg[]v, ì SQL fT[]fo[][, ¾, -, Å, È, - []Cff[]f^fx[]fXfT[]fo[][]ä, É, È, ç[]uf[]ff[]ff[]v, ì•W[]€ff[]f^fx[]fXfe[]fuf<[]i, ½, Æ, ¶, í, í Paradox, Æ dBASE, []fe[]fuf<[], É, à-â, ç[]#, í, ¹, ð[]s, ¶, ±, Æ, ², Å, «, Ü, []B, Ü, ½f[]ff[]ff[]ff[] SQL, í[]Cf[]ff[]ff[], ì•W[]€fe[]fuf<, ÆfŠf, []fg, ì SQL fT[]fo[][]ä, []fe[]fuf<, ì-¼•ù, É, Ü, ½, ², éf}f`fe[]fuf<-â, ç[]#, í, ¹, ð[]s, ¶, ½, ß, É, à•K—v, Å, []B

-½-¼<K'¥

, ±, []fgfsfbfN, Å, í[]Cf[]ff[]ff[] SQL, Å, []fe[]fuf<, Æ—ñ, ì-½-¼<K'¥[]C[]\•¶, ìŠg'£, Æ[]\$CEÀ, É, Å, ç, Å[]à-¾, µ, Ü, []B

SQL •¶, í[]Cff[]f^`è<`CE¾CEê[]iDDL[], Æff[]f^`€[]iCE¾CEê[]iDML[], ì, Q, Å, É•²—p, ³, ê, Ü, []B

ff[]f^`€[]

fe[]fuf<ff[]f^,)'¹'ð[]C'}`"ü[]C[]X[]V[]C, ", æ, Ñ[]í[]œ, ÉŽg, í, ê, éff[]f^`€[]iCE¾CEê[]iDML[], ì SQL •¶[]B, ±, []fgfsfbfN, Å, í[]C[]\•¶, ÆŽg—p—á, É, Å, ç, Å[]à-¾, µ, Ü, []B

ff[]f^`è<`

fe[]fuf<, ì[]i—[]C•í[]X[]C[]í[]œ[]C, ", æ, ÑfCf"fffbfNfX, ì[]i—, Æ[]í[]œ, ÉŽg, í, ê, éff[]f^`è<`CE¾CEê[]iDDL[], ì SQL •¶[]BDDL, í BDE[]iBorland Database Engine[], ìŠÖ[]"CEÀ, Ñ[]o, µ, É'¼[]Ú•İŠ, ³, ê, Ü, []B, ±, []fgfsfbfN, Å, í[]C[]\•¶, ÆŽg—p—á, É, Å, ç, Å[]à-¾, µ, Ü, []B

ANSI •W[]€ SQL, ì[]Ú[]x, É, Å, ç, Å, í[]CŽs"ì, ì SQL, ì%øð[]à[]', É, Ç, ðŽQ[]Æ, µ, Å, , ¾, ³, ç[]B

{button ,AL(` bdedocs')} BDE, ÉŠÖ, , éfgfsfbfN

-1/2-1/4<K'¥

ANSI •W€ SQL ,Å,Í□Cfe□[fuf<-1/4,â-ñ-1/4,É,Í
%op□"Žš,ÆfAf"f_□[fXfRfA□i_□j,©,ç,È,é,PCEê,μ,©Žg,!,Ü,¹,ñ□Bf□□[ffj< SQL
,Å,Í□C,æ,è,í,©,è,â,·,ç-1/4'O,ªŽg,!,é,æ,α,ÉŠg'£,³,ê,Ä,ç,Ü,·□B

fe□[fuf<

f□□[ffj< SQL ,Å,Í□Cfe□[fuf<-1/4,É,Ä,ç,Äftf@fCf<,ÆfpfX,ìŽw'è,ªŠ®'S,Éftf|□[fg,³,ê,Ä,ç
,Ü,·□B,½,¾,μfpfX,âftf@fCf<-1/4Šg'£Žq,ðŽ□,Åfe□[fuf<-1/4,Í□C'P^ê^ø-p•,,,Ü,½,Í"ñ□d^ø-
p•,,,Å^í,Ü,È,·,é,í,È,è,Ü,¹,ñ□B,½,Æ,!,Í□CŽŸ,!,æ,α,É,μ,Ü,·□B

```
SELECT * FROM 'PARTS.DBF'  
SELECT * FROM "C:\SAMPLE\PARTS.DBF"
```

f□□[ffj< SQL ,Å,Ífe□[fuf<-1/4,É,Ä,ç,Ä BDE ,!fGfŠfAfX,àftf|□[fg,³,ê,Ä,ç,Ü,·□B,½,Æ,!,Í□CŽŸ,!,æ,α
,É,μ,Ü,·□B

```
SELECT * FROM ":PDOX:TABLE1"
```

f□□[ffj<fe□[fuf<-1/4,ÌŠg'£Žq,ð□È-ª,·,é,Æ□CBDE
SÅ<<□'èft□[fefBfŠfefB,ìfVfXfef€fy□[fW,É, ,é□uDefault Driver□v,ì□Y'è,ÅŽw'è,³,ê,Ä,ç
,é,à,í,È,É,è,Ü,·□B, ,é,ç,í-â,ç□‡,í,¹,Ü,½,Ífe□[fuf<,ÉCE<,Ñ•t,·,ç,è,Ä,ç,é•W□€fGfŠfAfX,ìffftfHf<fgfhf
%ofCfo,Æ"- ,¶Ží-p,!,à,!,É,È,è,Ü,·□B

,Ü,½f□□[ffj< SQL ,Å,Í□C'P^ê^ø-p•,,,Ü,½,Í"ñ□d^ø-p•,,,Å^í,ß,Í□CSQL fL□[f□□[fh,Æ"- ,¶-
1/4'O,ðfe□[fuf<-1/4,Æ,μ,ÄŽg,!,Ü,·□B,½,Æ,!,Í□CŽŸ,!,æ,α,É,μ,Ü,·□B

```
SELECT PASSID FROM "PASSWORD"
```

-ñ

f□□[ffj< SQL ,Å,Í□C^È%º,ì□ðCE□,ð-ž,½,μ,Ä,ç,é,Í□CParadox ,!•i□",ìCEê,©,ç,È,é-ñ-1/4□C,·,æ,Ñ
SQL ,!fL□[f□□[fh,Æ"- ,¶-1/4'O,ì-ñ-1/4,ªŽg,!,Ü,·□B

- -ñ-1/4,ª'P^ê^ø-p•,,,Ü,½,Í"ñ□d^ø-p•,,,Å^í,Ü,è,Ä,ç,é
- -ñ-1/4,ì□æ"ª,É SQL fe□[fuf<-1/4,Ü,½,Ífe□[fuf<'ŠŠÖ-1/4,ª•t,·,ç,è,Ä,ç,é
,½,Æ,!,Í□CŽŸ,ì-ñ-1/4,í,QCEê,©,ç,È,Ä,Ä,ç,Ü,·□B

```
SELECT E."Emp Id" FROM EMPLOYEE E
```

ŽŸ,ì-á,Å,Í□C-ñ-1/4,í SQL ,! DATE fL□[f□□[fh,Æ"- ,¶,Ä,·□B

```
SELECT DATELOG."DATE" FROM DATELOG
```

ŽQ□Æ: -\-ñCEê

—\-ñĈÊ

^È%°º,í□Cf□□[fjf< SQL ,ì—\-ñĈÊ,ìfAf<ftf@fxfbfg□#,ì^ê—,Å,·□B

ACTIVE, ADD, AFTER, ALL, ALTER, AND, ANY, AS, ASC, ASCENDING, AT, AUTO, AUTOINC, AVG

BASE_NAME, BEFORE, BEGIN, BETWEEN, BLOB, BOOLEAN, BOTH, BY, BYTES

CACHE, CAST, CHAR, CHARACTER, CHECK, CHECK_POINT_LENGTH, COLLATE, COLUMN, COMMIT, COMMITTED, COMPUTED, CONDITIONAL, CONSTRAINT, CONTAINING, COUNT, CREATE, CSTRING, CURRENT, CURSOR

DATABASE, DATE, DAY, DEBUG, DEC, DECIMAL, DECLARE, DEFAULT, DELETE, DESC, DESCENDING, DISTINCT, DO, DOMAIN, DOUBLE, DROP

ELSE, END, ENTRY_POINT, ESCAPE, EXCEPTION, EXECUTE, EXISTS, EXIT, EXTERNAL, EXTRACT

FILE, FILTER, FLOAT, FOR, FOREIGN, FROM, FULL, FUNCTION

GDSCODE, GENERATOR, GEN_ID, GRANT, GROUP, GROUP_COMMIT_WAIT_TIME

HAVING, HOUR

IF, IN, INACTIVE, INDEX, INNER, INPUT_TYPE, INSERT, INT, INTEGER, INTO, IS, ISOLATION

JOIN

KEY

LEADING, LEFT, LENGTH, LEVEL, LIKE, LOG_BUFFER_SIZE, LOGFILE, LONG, LOWER

MANUAL, MAX, MAXIMUM_SEGMENT, MERGE, MESSAGE, MIN, MINUTE, MODULE_NAME, MONEY, MONTH

NAMES, NATIONAL, NATURAL, NCHAR, NO, NOT, NULL, NUM_LOG_BUFFERS, NUMERIC

OF, ON, ONLY, OPTION, OR, ORDER, OUTER, OUTPUT_TYPE, OVERFLOW

PAGE_SIZE, PAGE, PAGES, PARAMETER, PASSWORD, PIVOT, PLAN, POSITION, POST_EVENT, PRECISION, PRIMARY, PRIVILEGES, PROCEDURE, PROTECTED

RAW_PARTITIONS, RDB\$DB_KEY, READ, REAL, RECORD_VERSION, REFERENCES, RESERV, RESERVING, RETAIN, RETURNING_VALUES, RETURNS, REVOKE, RIGHT, ROLLBACK

SCHEMA, SECOND, SEGMENT, SELECT, SET, SHADOW, SHARED, SINGULAR, SIZE, SMALLINT, SNAPSHOT, SOME, SORT, SQLCODE, STABILITY, STARTING, STARTS, STATISTICS, SUB_TYPE, SUBSTRING, SUM, SUSPEND

TABLE, THEN, TIME, TIMESTAMP, TIMEZONE_HOUR, TIMEZONE_MINUTE, TO, TRAILING, TRANSACTION, TRIGGER, TRANSFORM, TRIM

UNCOMMITTED, UNION, UNIQUE, UPDATE, UPPER, USER, USING

VALUE, VALUES, VARCHAR, VARIABLE, VARYING, VIEW

WAIT, WHEN, WHERE, WHILE, WITH, WORK, WRITE

YEAR

%°%°žžžq:

||, +, -, *, /, <>, <, >, ,□[fjf“f”□j, =, <=, >=, ~=, !=, ^=, (,)

ff[]f^'€[]ì

,ç,,ç,©[]§-ñ,ª, ,è,Ü,.,ª[]Cf[][]fjfc SQL ,Íff[]f^'€[]ì,ì,½,ß,ìŽŸ,ì•¶,ðFTf[][]fg,µ,Ä,ç,Ü,·[]B

- SELECT[]iŠù'¶,ìff[]f^,ð"Ç,ÝŽæ,é[]j
- INSERT[]ife[]fuf<,É[]V<Kff[]f^,ð'Ç%oÁ,·,é[]j
- UPDATE[]iŠù'¶,ìff[]f^,ð•Í[]X,·,é[]j
- DELETE[]ife[]fuf<,©,çŠù'¶,ìff[]f^,ð[]œ<Ž,·,é[]j

^È%oº,ìfgfsfbfN,Á,Í[]Cf[][]fjfc SQL ,ì DML •¶,Á-~—p,Á,«,éŠÖ[]",É,Â,ç,Ä[]à-¾,µ,Ä,ç,Ü,·[]B

- DML•¶'t,ì^ø[]"uŠ·
- "[]ÆvŠÖ[]"
- •¶Žš-ñŠÖ[]"
- "ú•tŠÖ[]"
- %o%oZZZq
- -à,ç[]‡,í,¹,ì[]X[]V

<ì'ì—á,É,Â,ç,Ä,Í[]CŽŸ,ìfgfsfbfN,ðŽQ[]Æ,µ,Ä,,¾,³,ç[]B

- DML,ì—á

SELECT

SELECT •¶, í□C, P, Â^Èëä, ìfe□[fuf<, ©, çff□[f^, ð“Ç, ÝŽæ, é□Ü, ÉŽg, ç
, Ü, □B•;□”, ìfe□[fuf<, ©, çff□[f^, ð“Ç, ÝŽæ, é SELECT •¶, í□uCE<□#□v, ÆCEÄ, î, ê, Ü, □Bf□□[fjf< SQL
, íŽÝ, í□Ž®, ì SELECT •¶, ðfTfj□[fg, µ, Ä, ç, Ü, □B

```
SELECT [DISTINCT] column_list
FROM table_reference
[WHERE search_condition]
[ORDER BY order_list]
[GROUP BY group_list]
[HAVING having_condition]
[UNION select_expr]
```

‘□<L, ^a, , é□ê□# , ð□œ, ç, Ä□C□ß, í, ·, x, Ä ANSI •W□€ SQL , Æ“ - I, É^µ, í, ê, Ü, □B[]
“à, ì□ß, ífjvfjvfj” , Ä, □B

column_list , É, ìff□[f^, ì“Ç, ÝŽæ, èCE³, ì—ñ, ðŽw’è, µ, Ü, □B, ½, Æ, í, î□CŽÝ, ì•¶, í, Q, Ä, ì—
ñ, ©, çff□[f^, ð“Ç, ÝŽæ, è, Ü, □B

```
SELECT PART_NO, PART_NAME
FROM PARTS
```

SELECT •¶, ìŽg, ç•û, ì□Ú□×, É, Ä, ç, Ä, í□C^È%^o, ìfgfsfjN, ðŽQ□Æ, µ, Ä, , ³/₄, ³, ç□B

- FROM □ß
- WHERE □ß
- ORDER BY □ß
- GROUP BY □ß
- HAVING □ß
- UNION □ß
- ^ÚŽíCE<□#

FROM

FROM table_reference
, table_reference
, table_reference

```
SELECT PART_NO  
FROM "PARTS.DBF"
```

table_reference , table_reference

```
SELECT * FROM PARTS LEFT OUTER JOIN INVENTORY  
ON PARTS.PART_NO = INVENTORY.PART_NO
```

WHERE

WHERE search_condition
PART_NO > 543

```
SELECT * FROM PARTS  
WHERE PART_NO > 543
```

WHERE PART_NO IN (543, 544, 546, 547)

```
SELECT * FROM PARTS  
WHERE PART_NO IN (543, 544, 546, 547)
```

WHERE search_condition
PART_NO IN (543, 544, 546, 547)

ORDER BY

ORDER BY PART_NAME ASC

```
SELECT * FROM PARTS
ORDER BY PART_NAME ASC
```

ORDER BY PART_NO DESC

```
SELECT * FROM PARTS
ORDER BY PART_NO DESC
```

ORDER BY LAST_NAME || ', ' || FIRST_NAME AS FULL_NAME, PHONE

```
SELECT LAST_NAME || ', ' || FIRST_NAME AS FULL_NAME, PHONE
FROM CUSTOMER
ORDER BY FULL_NAME
```

GROUP BY PART_NAME

GROUP BY

GROUP BY, É, í, C, W, †, Š, Ö, É, Â, ç, Ä, ñ, ð, Ç, ì, æ, x, É, Of, [fv
%o», μ, Ä, Ç, Ý, Ž, æ, é, ©, ð, Ž, w, è, μ, Ü, ·, B

UNION

UNION SELECT

^ÙŽÍĚ<□‡

f□□[fj]f< SQL ,í^Ù,È,Á,½ff□[f^fx□[fXCE`Ž®,ìfe□[fuf<,ìĚ<□‡,đfTf|□[fg,μ,Ä,ç,Û,·□B,±,ì,æ,κ
,ĚĚ<□‡,đ□u^ÙŽÍĚ<□‡□v,ÆĚĚ,Ñ,Û,·□B

fe□[fuf<-¼,đŽw'è,·,é,É,í□CŽŸ,ì,æ,κ,É,μ,Û,·□B

- f□□[fj]f<fe□[fuf<,ì□ê□‡,í□CfGfŠfAfX,Û,½,ífpfX,đŽw'è,μ,Û,·□B
- fŠf,□[fgfe□[fuf<,ì□ê□‡,í□CfGfŠfAfX,đŽw'è,μ,Û,·□B

ŽŸ,ì•¶,í□CParadox fe□[fuf<,Æ dBASE fe□[fuf<,©,çff□[f^,đ“Ç,ÝŽæ,è,Û,·□B

```
SELECT DISTINCT C.CUST_NO, C.STATE, O.ORDER_NO  
FROM "CUSTOMER.DB" C, "ORDER.DBF" O  
WHERE C.CUST_NO = O.CUST_NO
```

BDE fgfŠfAfX,àfe□[fuf<-¼,Æ'g,Ý□‡,í,¹,ÄŽg—p,Å,«,Û,·□B

INSERT

SQL, VALUES, 'ü, ., é'lfšfXfg, 'è, ., é•û-@, ÆC-
â, ç, í, 'žw'è, 'žg, x•û-@, Ì, QŽí—þ, Ì INSERT •¶, 'žg, Ì, Ü, ·B

—á

ŽŸ, Ì•¶, ÍCfe[fuf<, É—ñ, 'ç%Á, µC, Q, Â, Ì—ñ, É'I, 'š,, è“-, Ä, Ä, ç, Ü, ·B

```
INSERT INTO EMPLOYEE_PROJECT (EMP_NO, PROJ_ID) VALUES (52, 'DGPII');
```

ŽŸ, Ì•¶, ÍCfe[fuf<, É' }“ü, ., é'I, 'š SELECT •¶, 'žg, Á, 'žw'è, µ, Ä, ç, Ü, ·B

```
INSERT INTO PROJECTS
```

```
  SELECT * FROM NEW_PROJECTS
```

```
    WHERE NEW_PROJECTS.START_DATE > '6-JUN-1994';
```

UPDATE

ANSI • W€ , ì UPDATE • ¶, É'Î, ·, é□s-ñ, âŠg'£, Í, , è, Ü, ¹, ñ□B

DELETE

ANSI • W € , Ì DELETE • ¶ , É ' Î , · , é □ § - ñ , â Š g ' £ , Í , , è , Û , ¹ , ñ □ B

DML • ¶'†, Ì^ø □''uŠ•

DML • ¶'†, Å'!, Ì, ©, í, è, É• Ì □, Ü, ½, Í^ø □"f} □[f □ □i?
□j, ðŽg, !, Ü, □B• Ì □, Ì □æ"ª, É, Í•K, , fRf □f" □i: □j,ª, È, -, ê, î, È, è, Ü, ¹, ñ □B, ½, Æ, !, Î □CŽŸ, Ì, æ, x, É, µ, Ü, □B

```
SELECT LAST_NAME, FIRST_NAME  
FROM "CUSTOMER.DB"  
WHERE LAST_NAME > :var1 AND FIRST_NAME < :var2
```


WŁŚÖ”

f SQL ,Á,ÍC^È%º,ì ANSI •WŁ€ SQL ,ìWŁŁŚÖ”,đff[f^,ì“Ç,ÝŽæ,è,ÉŽg,ì,Ü,·B

- SUM()i—ñ“à,ì,·,×,Ä,ì””l,ìŁŒv,đ<Ł,ß,éŁj
- AVG()i—ñ“à,ì,·,×,Ä,ì”ñ NULL Ł””l,ì•½<ì,đ<Ł,ß,éŁj
- MIN()i—ñ“à,ìÄŁ—’l,đ<Ł,ß,éŁj
- MAX()i—ñ“à,ìÄ’â’l,đ<Ł,ß,éŁj
- COUNT()iŽw’è,³,é,½đŒŁ,Æ^è’v,·,é—ñ“à,ì’l,ìŒÂŁ”,đŁ”,ì,éŁj

^È%º,ÉŽì,³,é,Ä,Ł,é,æ,Ł,ÉŁCŁWŁvŚÖŁ”“à,Á,ìŽ®,ìŽg—p,àfTf|Ł[fg,³,é,Ä,Ł,Ü,·B

SUM(Field * 10)
SUM(Field) * 10
SUM(Field1 + Field2)

• Ľžš—ňšÖ

f SQL, íC“Ç,ÝŽæ,èC’}“üC X V Žž,ÉC^È%º,ì ANSI •W€ SQL, ì•Ľžš—
ň‘€iSÖ”,đTf|f[fg,μ,Ä,ç,Û,·B

- UPPER()i•Ľžš—ň,đ’â•Ľžš,É•i,ı,éj
- LOWER()i•Ľžš—ň,đı•Ľžš,É•ı,ı,éj
- TRIM()i•Ľžš—ň,ìı’[C%oE[C,Û,½,ı—¼’[,ÅŽw’è,³,é,½•Ľžš,³ÆJ,è•Ô,³,é,Ä,ç,
é•”•³,đœ<Ž,ı,éj
- SUBSTRING()i•Ľžš—ň,©,ç•”•³•Ľžš—ň,đııı,ı,éj

“ú•tŠÖ”

f SQL, íC“ú•t,âžžŠÔ,ìftfB[f<fh,©,ç’P^è,ì”ìftfB[f<fh,ð•a—£,·,é EXTRACT() ŠÖ”,ðTfj
[fg,μ,Ä,ç,Ü,·BEXTRACT ,ì\•¶,í^É%º,ì,Æ,“,è,Å,·B

EXTRACT (extract_field FROM field_name)

,½,Æ,ì,ÎCŽŸ,ì•¶,í DATE ftB[f<fh,©,ç”N,ì’I,ð’Šo,μ,Ü,·B

SELECT EXTRACT(YEAR FROM HIRE_DATE)

FROM EMPLOYEE

,±,ìŠÖ”,ðŽg,Á,ÄCMONTHCDAYCHOURCMINUTEC,“,æ,Ñ SECOND ,à’Šo,Å,«,Ü,·B

fm[fg:EXTRACT ,Í TIMEZONE_HOUR ,“,æ,Ñ TIMEZONE_MINUTE [B,íTfj[fg,μ,Ä,ç,Ü,¹,ñB

%%ŽŽŽq

f[]fj SQL ,í^È%º,ì%%ŽŽŽq,đTf|[]fg,μ,Ä,ç,Ü,·B

Ží—p

%%ŽŽŽq

ŽZp

+ @-@ * /

"äŠr

< > = <> >= <=

IS NULL IS NOT NULL

~_—

AND OR NOT

•ŕŽš—ñ~ACE<

||

,éfe□[fuf<,ìj□[f\<fnf“fhf<,ì□é□‡,Æ,í^Ù,È,è□CfTf|□[fg,³,ê,Ä,ç,Ü,¹,ñ□B

DML, insert

^È%º, insert, C • W € f f f ^ f x f X, É í, , é DML • ¶, ð Ž, , µ, Ä, ç, Ü, • B

—á 1: UPDATE

```
update goods
  set city = 'Santa Cruz'
  where goods.city = 'Scotts Valley'
```

—á 2: INSERT

```
insert
  into goods ( part_no, city )
  values ( 'aa0094', 'San Jose' )
```

—á 3: DELETE

```
delete
  from goods
  where part_no = 'aa0093'
```

—á 4: SELECT

Ž Ÿ, insert, C JOIN, Æ “, ¶, «, ð, , é, à, ò, Ì, Æ, µ, Ä SELECT • ¶, º, Ç, ò, æ, º, É f T f f f f g, º, é, Ä, ç, é, ©, ð Ž, , µ, Ä, ç, Ü, • B

```
select distinct p.part_no, p.quantity, g.city
  from parts p, goods g
  where p.part_no = g.part_no
  and p.quantity > 20
  order by p.quantity, g.city, p.part_no
```

Œ < ¶, ð ¶ s, º SELECT • ¶, É, í WHERE ¶ ß, º, é, ¯, é, í, É, è, Ü, º, ñ B WHERE ¶ ß, É, í C “ %º
¿ f f f b f N, É, ¯, ç, Ä, É, , Æ, à, P, Ä, Ì f t f B f f f h, º Š Ü, Ü, é, Ü, • B

—á 5: insert

• > ' insert, ç, ¶, í, º, º f T f f f f g, º, é, Ä, ç, Ü, • B Ž Ÿ, insert, «, ð, ¶, ð Ž, , µ, Ä, ç, Ü, • B

```
select p.part_no
  from parts p
  where p.quantity in
  (select i.quantity
   from inventory i
   where i.part_no = 'aa9393')
```

—á 6: GROUP BY

Ž Ÿ, insert, C GROUP BY ¶ ß, ð Ž g, ç • ù, ð Ž, , µ, Ä, ç, Ü, • B

```
select part_no, sum(quantity) as PQTY
  from parts
  group by part_no
```

f m f g: SELECT ¶ ß, Ä W C E v, ð ¶ s, º é ¶, É, í C GROUP BY
¶ ß, ð Ž g, Ä, Ä W C E v í Ü, Æ, É, é f t f B f f f h, ð f O f < ¶ f v %º » , , é, æ, º, É, µ, Ü, • B

—á 7: ORDER BY

Ž Ÿ, insert, C DESCENDING ¶ ß, ð Ž g, Ä, ½ ORDER BY ¶ ß, ð Ž g, ç • ù, ð Ž, , µ, Ä, ç, Ü, • B


```
select distinct customer_no  
  from "c:\data\customer"  
  order by customer_no descending
```

ff [f^'è<

f [fjf< SQL

,lfe [fuf<,l [[- C • i X C , , æ, Ñ fhf [fbfv C, È, ç, Ñ, É f C f “ f f b f N f X, i [- , Æ f h f [fbfv, ð [s, x
, ½, ß, l f f [f^'è<` CE¾ CE ê i DDL [j, ð f T f [[fg, µ, Ä, ç, Ü, · B

frf... [[, ð f T f [[fg, ³, ê, Ä, ç, Ü, · B

f [fjf< SQL , Ä, í DDL • ¶ ' t, i • i [" , í ' l, É ' u Š , Ä, «, Ü, ¹, ñ B

^ È % ° , i DDL • ¶ , ð f T f [[fg, ³, ê, Ä, ç, Ü, · B

- CREATE TABLE
- ALTER TABLE
- DROP TABLE
- CREATE INDEX
- DROP INDEX
- CREATE VIEW

< i ' í — á, É, Ä, ç, Ä, í [C Ž Ÿ, l f g f s f b f N, ð Ž Q [Æ, µ, Ä, , ¾, ³, ç B

- DDL , í — á

CREATE TABLE

CREATE TABLE , í^È%º,ì[]\$CEÀ•t,«,ÁfTf|[][fg,³,ê,Ä,ç,Ü,·[]B

- fhf[]fCf“ ,ÉŠî,Ã,—ñ'è<` ,íftf|[][fg,³,ê,Ä,ç,Ü,¹,ñ[]B
 - []\$-ñ[]ðCE[],í[]CParadox ,É,Ä,ç,Ä,í^èŽŸfL[][,ì,Ý,É[]Ý'è,Ä,«,Ü,·[]BdBASE ,É,Ä,ç,Ä,íftf|[][fg,³,ê,Ä,ç,Ü,¹,ñ[]B
- ,½,Æ,ì,î[]CŽŸ,ì•¶,í LAST_NAME —ñ,Æ FIRST_NAME —ñ,É^èŽŸfL[][,ì,Ý,É[]Ý'è,Ä,«,Ü,·[]BdBASE ,É,Ä,ç,Ä,íftf|[][fg,³,ê,Ä,ç,Ü,¹,ñ[]B

```
CREATE TABLE "employee.db"
(
  LAST_NAME CHAR(20),
  FIRST_NAME CHAR(15),
  SALARY NUMERIC(10,2),
  DEPT_NO SMALLINT,
  PRIMARY KEY(LAST_NAME, FIRST_NAME)
)
```

,±,ì•¶,ð dBASE fe[][fuf<,É“K—p,·,é,É,í[]C^èŽŸfL[][,ì,Ý,É[]Ý'è,Ä,«,Ü,·[]BdBASE ,É,Ä,ç,Ä,íftf|[][fg,³,ê,Ä,ç,Ü,¹,ñ[]B

```
CREATE TABLE "employee.dbf"
(
  LAST_NAME CHAR(20),
  FIRST_NAME CHAR(15),
  SALARY NUMERIC(10,2),
  DEPT_NO SMALLINT
)
```

Paradox , ,æ,Ñ dBASE ,ìfe[][fuf<,ì[]ì—

f[][]fjff< SQL ,ðŽg,Ä,Ä Paradox , ,æ,Ñ dBASE ,ìfe[][fuf<,ð[]ì—,·,é,É,í[]Cfe[][fuf<,É-¼'º,ð•t,·,é,Æ,«,Éftf@fCf<Šg'£Žq,ðŽw'è,µ,Ü,·[]B

- ".DB"[]iParadox fe[][fuf<[]j
- ".DBF"[]idBASE fe[][fuf<[]j

f[][]fjff<fe[][fuf<-¼,É,Ä,ç,ÄŠg'£Žq,ð[]È—ª,·,é,Æ[]CBDE ŠÄ««[]Ý'èft[][fefBfŠfefB,ìfVfXfef€fy[][fW,ì Default Driver []Ý'è,ÄŽw'è,³,ê,Ä,ç,é,à,ì,Æ““ ,¶Ží—p,ìfe[][fuf<,ª[]ì—,³,ê,Ü,·[]B

CREATE TABLE ,Ä,ìff[][f^CE^f}fbfsf“fo

CREATE TABLE ,ÄŽg,í,è,éff[][f^CE^,ÉŠÖ,·,é SQL ,ì[]\•¶,Æ[]C,» ,ìSeCE^ ,ª BDE ,Ä Paradox , ,æ,Ñ dBASE ,ì,Ç,ìCE^ ,Éf}fbfsf“fo,³,ê,é,©,ðŽŸ,ì•\,ÄŽ!,µ,Ü,·[]B

| SQL []\•¶ | BDE ~ _—[]CE^ | Paradox | dBASE |
|--------------|---------------|--------------|------------------|
| SMALLINT | fldINT16 | []@[]“CE^ | []“[]ICE^ (6,0) |
| INTEGER | fldINT32 | “{·[]@[]“CE^ | []“[]ICE^ (11,0) |
| DECIMAL(x,y) | fldBCD | BCD CE^ | -ç'í%ºž |
| NUMERIC(x,y) | fldFLOAT | ŽÀ[]“CE^ | []“[]ICE^ (x,y) |
| FLOAT(x,y) | fldFLOAT | ŽÀ[]“CE^ | •,“@CE^ (x,y) |
| CHARACTER(n) | fldZSTRING | •¶ŽšCE^ | •¶ŽšCE^ |
| VARCHAR(n) | fldZSTRING | •¶ŽšCE^ | •¶ŽšCE^ |
| DATE | fldDATE | “ú•tCE^ | “ú•tCE^ |

| | | | |
|-----------|---------------------------|----------------------|-------------------|
| BOOLEAN | fldBOOL | ~_—□CE^ | ~_—□CE^ |
| BLOB(n,1) | fldstMEMO | f□f,CE^ | f□f,CE^ |
| BLOB(n,2) | fldstBINARY | fofCfifŠCE^ | fofCfifŠCE^ |
| BLOB(n,3) | fldstFMTMEMO | □'Ž®•t,«f□f,CE^ | -č'í%ž |
| BLOB(n,4) | fldstOLEOBJ | OLE CE^ | OLE CE^ |
| BLOB(n,5) | fldstGRAPHIC | fOf %oftfBfbfNCE^ | -č'í%ž |
| TIME | fldTIME | ŽžŠÔCE^ | -č'í%ž |
| TIMESTAMP | fldTIMESTAMP | "ú•tŽžŠÔCE^ | -č'í%ž |
| MONEY | fldFLOAT, fldstMONEY | <àŠzCE^ | •,"®CE^ (20,4) |
| AUTOINC | fldINT32, fldstAUTOINC | fjfEf"f^CE^ | -č'í%ž |
| BYTES(n) | fldBYTES(n) | fofCfgCE^ | -č'í%ž |

x = □, "x □iŠù'è'l,ífhf%ofCfoCEÅ—L□j

y = □-□"•" □iŠù'è'l,í 0□j

n = fofCfg'· □iŠù'è'l,í 0□j

1-5 = BLOB fTfuf^fCfv □iŠù'è'l,í 1□j

ALTER TABLE

ALTER TABLE *table* ADD *column_name* *data_type* [, ADD *column_name* *data_type* ...]

ALTER TABLE *table* DROP *column_name* [, DROP *column_name* ...]

ALTER TABLE *table* ADD *column_name* *data_type* [*options*]

ALTER TABLE "employee.dbf" ADD BUILDING_NO SMALLINT

ALTER TABLE *table* DROP *column_name* [, DROP *column_name* ...]

ALTER TABLE *table* DROP *column_name* [, DROP *column_name* ...]

ALTER TABLE *table* DROP *column_name* [, DROP *column_name* ...]

ALTER TABLE "employee.db" DROP LAST_NAME, DROP FIRST_NAME

ALTER TABLE *table* DROP *column_name* [, DROP *column_name* ...]

ALTER TABLE "employee.dbf" DROP LAST_NAME, DROP FIRST_NAME, ADD FULL_NAME CHAR[30]

DROP TABLE

DROP TABLE ,Í Paradox ,Ü,½,Í dBASE ,)fe[]fuf<,ð[]í[]œ,μ,Ü,·[]B,½,Æ,¡,î[]CŽŸ,ì•¶,Í Paradox fe[]fuf<,ð[]í[]œ,μ,Ü,·[]B

```
DROP TABLE "employee.db"
```

CREATE INDEX

```
CREATE INDEX index_name ON table_name (column [, column ...])
```

```
CREATE INDEX index_name ON table_name (column [, column ...])
```

```
CREATE INDEX NAMEX ON "employee.dbf" (LAST_NAME)
```

```
CREATE INDEX index_name ON table_name (column [, column ...])
```


CREATE VIEW

frf... [, í CSELECT • ¶, ©, ç%¼'zfe [fuf<, ð [] - , µ, Ü, · Bfe [fuf< ä, ì " ®, ~g, Ü, ½, í <, ð' Ê, µ, Ä C • K—
v, Èff [f ^, ¾, ¯, ð Ž Q ¶ Ä, Å, «, Ü, · Bft [f U [, í C • j Ž G, É C ¶³, ³, ê, ½ SELECT • ¶, ð "ü—
í, ·, é, ©, í, è, É frf... [, ð Ž g, x, ±, Ä, É, æ, Á, Ä Š È ' P, É ' í ð, Å, «, Ü, · B

CREATE VIEW , í Cff [f ^ f x [f X " à, ì fe [fuf<, ð Š í ' b, Ä, ·, éff [f ^, ì frf... [, ð < L ¶ q, µ, Ü, · B • Ö, · —
ñ, í CSELECT • ¶, Å f [f X fe [fuf<, ì — ñ, ð Ž w ' è, ·, é, ±, Ä, Ä ' è < , µ, Ü, · B frf... [, í C • " —
¶ " í, É Š í " [, ³, ê, Ä, ç, éff [f ^, » , ì, à, ì, Å, í , è, Ü, ¹, ñ Bfe [fuf<, ì è ¶ , Ä " , ¶, æ, x, É C frf...
[, É ' í, µ, Ä ' í ' ð C Ž È % e ¶ C C E < ¶ ¶ C ¶ # • ¹, ì Š e ' € ì, ð ¶ s, x, ±, Ä, ä, Å, «, Ü, · B

CREATE VIEW , Å, í C Ž Ÿ, ì ¶ • ¶, ð Ž g, Á, Ä fe [fuf<, É ' í, ·, é frf... [, ð [] - , µ, Ü, · B

CREATE VIEW view_name [(column_name [, column_name]...)]

CREATE VIEW , í C CDR ¶ if N f % of C f A f " f g f f [f ^ f Š f] f W f g f Š ¶ j, Ä ' g, Ý ¶ #, í, ¹, Ä f T f [f g, ³, ê, Ä, ç
, Ü, · B CDR , í C frf... [, ð ' è < , ·, é SELECT • ¶, ð Š í " [, µ, Ü, · B

¶ \$ C Ä • t, « frf... [, ð [] - , ·, é ¶ u WITH CHECK OPTION ¶ v, ¶ f T f [f g, ³, ê, Ä, ç, Ü, · B

frf... [, É ' í, ·, é frf... [, à f T f [f g, ³, ê, Ä, ç, Ü, · B, ½, ¾, µ ¶ C ¶ X ¶ V % o Ä " \, È frf... [, í, ·, x, Ä ¶ \$ C Ä Ž - ¶ €
, ð f f X f P [f h, ·, é, ì, Ä CASCADE / LOCAL frf... [[' ® ¶ < , ì f T f [f g, ³, ê, Ä, ç, Ü, ¹, ñ ¶ B

DDL ,ì—á

^È%º,ì—á,Í□C•W□€ff□[f^fx□[fX,É'í,·,é DDL •¶,ìŽg,ç•û,ðŽ!,µ,Ä,ç,Ü,·□B

—á 1a: DDL□iDROP TABLE□j

fe□[fuf<-¼,ÉfsfŠfjh□u.□v,ªŠÜ,Ü,ê,Ä,ç,é□ê□‡,Í-¼'O,ð^ø—p•,,,Ä^Í,Ý,Ü,·□B
drop table "c:\data\customer.db"

—á 1b: DDL□iDROP TABLE□j

fe□[fuf<-¼,ÉfsfŠfjh□u.□v,ªŠÜ,Ü,ê,Ä,ç,È,ç□ê□‡,Í^ø—p•,,,ðŽg,κ•K—v,Í, ,è,Ü,¹,ñ□B
drop table clients

—á 2: DDL□iCREATE INDEX□j

create index part on parts (part_no)

Paradox: Paradox

,ì^èŽŸfCf“ffbfNfX,Í□Cfe□[fuf<□ì□—,·,é,Æ,«,É,ì,Ý□ì□—,Á,«,Ü,·□B“ñŽŸfCf“ffbfNfX,Í□C'â•¶Žš,Æ
□—•¶Žš,ì<æ•É,É,□ì□—,³,ê,Ü,·□B

dBASE: dBASE

,ìfCf“ffbfNfX,Í□C•ÜŽç,³,ê,éfcf“ffbfNfX,Æ,µ,Ä□ì□—,³,ê,Ü,·□BŽw'è,³,ê,éfcf“ffbfNfX-¼,ìf^fo-
¼,Ä,·□B

□ã<L^ÈŠO,ìfCf“ffbfNfX,ì□Ú□×,É,Ä,ç,Ä,Í□CBDE API fìf“f%ofCf“fwf<fv,ì□uDbiAddIndex□v
ðŽQ□Æ,µ,Ä,,¼,³,ç□B

—á 3: DDL□iDROP INDEX□j

fCf“ffbfNfX,ð□í□œ,·,é□\•¶,Í□ufe□[fuf<-¼.fCf“ffbfNfX-¼□v,Ä,·□B
drop index parts.part_no

Paradox: Paradox ,ì□ê□‡,ì,Ý□ufe□[fuf<-¼.primary□v,ì^èŽŸfCf“ffbfNfX,ðŽ!,µ,Ü,·□B

drop index parts.primary

