



English User Manual

Copyright © (1990-2022) SW-Tools ApS
Duevej 23
DK-2680 Solrød Strand
Denmark
Phone: +45) 33 33 05 56
Mail: swtools@swtools.com
www: www.swtools.com

SW-Tools ODBC - Programmers Reference

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1. Preface

SW-Tools ODBC driver for Navision financials is compliant to ODBC 2.10, API-Level 1, SQL core level.

Most of the extended SQL instruction set is implemented as shown below.
The driver is delivered in 32 bit version only.

2. Installation

The driver is installed using the SETUP program on the CD.
By use of the ODBC Administrator setup function you can define multiple data sources to be used with the driver.

3. Principle of operation

The SW-Tools ODBC driver uses the TRIO Data Dictionary to access files using SQL on any implemented file system based on the Navision Financials Database.

The table, index and field definitions may automatically be imported from the Navision Financials Database into the SW-Tools Data Dictionary.

This opens access to a lot of Windows products as ACCESS, EXCEL, WORD etc.

This short example collection is intended for programmers reference merely as user handbook - the end user should focus on the application programs only.

4. ODBC.INI parameters

The following is a complete list of possible entries in ODBC.INI

Me=		Default path the drivers files
Basis=		Path for BASIS.SSV defining the file system interfaces
Dmf=		Path for the datadictionary FILES.SSV and xx.SSD
Isa=		Default path for the database files if needed
Com=		Company number
Based=		Normally blank, forces all files to a given BASIS filetype
Fixfil=	0	Forces the driver to read FILES.SSV whenever accessed
Upper=	0	Use upper/lowercase names instead of just uppercase
Fname=	0	Use File ID only as SQL tablenamees
Fnamelen=	n	Use max n characters in tablename length
Ftext	0	Usage of file text desctiption
Qualifier=	0	Return NULL instead of file ID as table qualifier
Owner=	0	Return NULL instead of filetype as table owner
Lan=	ENG	The language is fixed on the disk
Test=	1	Internal testflags producing a c:\wif testoutput
Update=	1	Data source is not readonly, requires full release

5. Functions

The following is a list of implemented functions, refer first to the ODBC manual SQL functions then to the SW-Tools TRIO calculations and subfunctions manual.

ABS, ACOS, ASCII, ASIN, ATAN, ATAN2, CEILING, CHAR, CONCAT, CONV, COS, COT, CURDATE, CURTIME, DATABASE, DATE, DAY, DAYNAME, DAYOFMONTH, DAYOFWEEK, DAYOFYEAR, DEGREES, EDIT, EXP, FIND, FLOOR, FNA, FNB, FND, FNE, FNF, FNH, FNO, FNR, FNU, FNV, FNY, FRA, HOUR, IN, INSERT, INT, ISNULL, LCASE, LEFT, LEN, LENGTH, LIKE, LOCATE, LOG, LOG10, LOWER, LTRIM, MATCHES, MINUTE, MOD, MONTH, MONTHNAME, NAME, NOT, NOW, NUMBER, NUMS, PI, POW, POWER, QUARTER, RADIANS, RAND, REPEAT, REPLACE, RIGTH, ROUND, RTRIM, RUN, RUND, SECOND, SGN, SIGN, SIN, SMAA, SOGE, SPACE, SPOFF, SQR, SQRT, SUBSTRING, TAN, TIME, TOCHAR, TODBL, TOLONG, TOSHORT, TRUNCATE, UCASE, UPPER, USER, VALCH, VALID, WDAY, WEEK, YEAR

6. Examples of various use of SQL in the SW-Tools ODBC driver

Simple SQL statements examples with access of one table

	Code	Due Date Calculation	Discount Date Calculati	Discount %	Description
1	CM	CM		0	Current month
2	COD	0D		0	Cash on delivery
3	1M(8D)	1M	8D	2	1 Month/2% 8 days
4	14DAYS	14D		0	Net 14 days
5	21DAYS	21D		0	Net 21 days
6	7DAYS	7D		0	Net 7 days

1. Simple SELECT

SELECT *
FROM 'Payment Terms'

ORDER BY may reference any column, field and DESC/ASC may be used.

	No_	Name	Search Name
1	44127904	WoodMart Supply Co.	WOODMART SUPPLY CO.
2	46635241	Viksjö Snickerifabrik AB	VIKSJÖ SNICKERIFABRIK AB
3	32665544	VELUX	VELUX
4	49454647	VAG - Jürgensen	VAG - JÜRGENSEN
5	42125678	UP Ostrov s.p.	UP OSTROV S.P.
6	34280789	Transporte Roas	TRANSPORTE ROAS
7	44729910	Tool Mart	TOOL MART
8	42784512	TON s.r.o.	TON S.R.O.
9	43258545	Sägewerk Mittersill	SÄGEWERK MITTERSILL
10	46895623	Svensk Möbeltextil AB	SVENSK MÖBELTEXTIL AB
11	34151086	Subacqua	SUBACQUA
12	47562214	Stilmøbler as	STILMØBLER AS
13	50000	Service Electronics Ltd.	SERVICE ELECTRONICS LTD.
14	41568934	Schreinerei Peter	SCHREINEREI PETER
15	45868686	Schmeichel Møbler A/S	SCHMEICHEL MØBLER A/S
16	01254796	Progressive Home Furnishings	PROGRESSIVE HOME FURNISHINGS
17	43589632	Paul Brettschneider KG	PAUL BRETTSCHEIDER KG
18	32554455	PURE-LOOK	PURE-LOOK
19	38654478	POIIORLES d.d.	POIIORLES D.D.
20	47521478	Møbelhuset AS	MØBELHUSET AS
21	44127914	Mortimor Car Company	MORTIMOR CAR COMPANY
22	41483124	Matter Transporte	MATTER TRANSPORTE
23	42895623	Mach & spol. v.o.s.	MACH & SPOL. V.O.S.
24	38521479	MASIVA d.o.o.	MASIVA D.O.O.
25	10000	London Postmaster	LONDON POSTMASTER
26	40000	Lewis Home Furniture	LEWIS HOME FURNITURE
27	31568974	Koekamp Leerindustrie	KOEKAMP LEERINDUSTRIE

28	46558855	Kinnareds Träindustri AB	KINNAREDS TRÄINDUSTRI AB
29	49494949	KKA Büromaschinen Gmbh	KKA BÜROMASCHINEN GMBH
30	49989898	JB-Spedition	JB-SPEDITION
31	34110257	Importaciones S.A.	IMPORTACIONES S.A.
32	38458653	IVERKA POHISTVO d.o.o.	IVERKA POHISTVO D.O.O.
33	35225588	Husplast HF	HUSPLAST HF
34	35741852	Huslagnir	HUSLAGNIR
35	35336699	Hurdir HF	HURDIR HF
36	31147896	Houtindustrie Bruynsma	HOUTINDUSTRIE BRUYNSMA
37	47586622	Furumøbler A/S	FURUMØBLER A/S
38	44756404	Furniture Industries	FURNITURE INDUSTRIES
39	45774477	Fredborg Lamper A/S	FREDBORG LAMPER A/S
40	41124089	Flückiger AG	FLÜCKIGER AG
41	45858585	Elvstrøm Træindustri A/S	ELVSTRØM TRÆINDUSTRI A/S
42	01587796	Custom Metals Incorporated	CUSTOM METALS INCORPORATED
43	30000	CoolWood Technologies	COOLWOOD TECHNOLOGIES
44	43698547	Beschläge Schacherhuber	BESCHLÄGE SCHACHERHUBER
45	31580305	Beekhuysen BV	BEEKHUYSEN BV
46	32456123	BATIMETAL	BATIMETAL
47	01963656	American Wood Exports	AMERICAN WOOD EXPORTS
48	20000	AR Day Property Management	AR DAY PROPERTY MANAGEMENT

2. Using ORDER BY

```
SELECT No_, Name, 'Search Name'
FROM Vendor
ORDER BY 2 DESC, 'Search Name'
```

	Code	Due Date Calculation	Discount Date Calculati	Discount %	Description
1	1M(8D)	1M	8D	2	1 Month/2% 8 days

3. Simple WHERE clause

```
SELECT *
FROM 'Payment Terms'
WHERE 'Discount %' = 2
```

6.1. Calculations

Calculations may be performed both for columns and in WHERE. If result columns are not named they become the name `EXPR-1,2,...`

	No_	Name	Balance	EXPR-1	calc	new
1	10000	The Cannon Group PLC	164262.53	1149837.71	164264.53	164271.53
2	20000	James Dailey Ltd.	96049.99	672349.93	96051.99	96058.99
3	30000	John Haddock Insurance Co.	348754.27	2441279.89	348756.27	348763.27
4	50000	Guildford Water Department	32788.4	229518.8	32790.4	32797.4
5	01445544	Progressive Home Furnishings	2310.38	16172.66	2312.38	2319.38
6	01454545	New Concepts Furniture	342529.44	2397706.08	342531.44	342538.44
7	32656565	ALLCOPY	155268	1086876	155270	155277
8	35451236	Nyform	88164	617148	88166	88173
9	35963852	Heimilisprydi	203417.25	1423920.75	203419.25	203426.25
10	42147258	BYT s.r.o.	60218.65	421530.55	60220.65	60227.65
11	43687129	Designstudio Gmunden	92557.38	647901.66	92559.38	92566.38
12	46897889	Englunds Kontorsmöbler AB	12253.79	85776.53	12255.79	12262.79
13	47563218	Klubben	114728.73	803101.11	114730.73	114737.73
14	49525252	Beef House	13700.01	95900.07	13702.01	13709.01
15	49633663	Auto-Günther KG	6000	42000	6002	6009

4. Using calculations

```
SELECT No_, Name, Balance, Balance * 7, Balance + 2 calc, calc + 7 new
FROM Customer
WHERE new + 1 NOT BETWEEN 8 + 1 AND 99
```

6.2. Special column names

Special column names must be enclosed in '...', optionally for legal names

	No_	Balance	Name
1	10000	164262.53	The Cannon Group PLC
2	20000	96049.99	James Dailey Ltd.
3	30000	348754.27	John Haddock Insurance Co.
4	50000	32788.4	Guildford Water Department
5	01445544	2310.38	Progressive Home Furnishings
6	01454545	342529.44	New Concepts Furniture
7	32656565	155268	ALLCOPY
8	35451236	88164	Nyform
9	35963852	203417.25	Heimilisprydi
10	42147258	60218.65	BYT s.r.o.
11	43687129	92557.38	Designstudio Gmunden
12	46897889	12253.79	Englunds Kontorsmöbler AB
13	47563218	114728.73	Klubben
14	49525252	13700.01	Beef House
15	49633663	6000	Auto-Günther KG

5. Special column names enclosed in quotes

```
SELECT No_,'Balance','Customer'.Name'  
FROM 'Customer'  
WHERE 'Balance' > 1000
```

The IN function may be used to select records:

6.3. Selecting using the IN clause

	No_	Description	Vendor No_
1	70100	Paint, black	20000
2	70101	Paint, yellow	20000
3	70102	Paint, blue	20000
4	70103	Paint, red	20000
5	70104	Paint, green	20000
6	1900-S	PARIS Guest Chair, black	20000
7	1920-S	ANTWERP Conference Table	20000
8	1924-W	CHAMONIX Base Storage Unit	20000
9	1936-S	BERLIN Guest Chair, yellow	20000
10	1960-S	ROME Guest Chair, green	20000
11	1964-S	TOKYO Guest Chair, blue	20000
12	1988-S	SEOUL Guest Chair, red	20000
13	1896-S	ATHENS Desk	30000
14	1906-S	ATHENS Mobile Pedestal	30000
15	1908-S	LONDON Swivel Chair, blue	30000
16	1968-S	MEXICO Swivel Chair, black	30000
17	1972-S	MUNICH Swivel Chair, yellow	30000
18	1980-S	MOSCOW Swivel Chair, red	30000
19	1996-S	ATLANTA Whiteboard, base	30000
20	2000-S	SIDNEY Swivel Chair, green	30000

6. The IN function

```
SELECT No_, Description, 'Vendor No_'
FROM Item
WHERE 'Vendor No_' IN ("20000", "30000")
```

6.4. Correlation names

Several files can be used (joined) in one select. Correlation names (AS a) for tables may be given, AS may be omitted. The correlation name does not have to be given if no duplicate column names exists.

	No_	Name	Unit Price	No_	Vendor No_	Description
1	20000	AR Day Property Management	420.4	1920-S	20000	ANTWERP Conference Table
2	30000	CoolWood Technologies	649.4	1896-S	30000	ATHENS Desk
3	30000	CoolWood Technologies	906.7	1996-S	30000	ATLANTA Whiteboard, base

7. Using AS clause for correlation name of table

```
SELECT No_, Name, 'Unit Price', a.No_, a.'Vendor No_', a.Description
FROM Vendor, Item AS a
WHERE No_ = a.'Vendor No_' AND 'Unit Price' > 400
```

6.5. OUTER JOIN

Tables may be joined using the OUTER JOIN facility, below also suppliers without articles are in the result set.

	No_	Unit Price	No_	Vendor No_	Name
1	10000	30.7	70000	10000	London Postmaster
2	10000	40.3	70001	10000	London Postmaster
3	10000	28.7	70002	10000	London Postmaster
4	10000	29.6	70003	10000	London Postmaster
5	10000	52.1	70010	10000	London Postmaster
6	10000	72.3	70011	10000	London Postmaster
7	10000	108.2	70040	10000	London Postmaster
8	10000	23.4	70041	10000	London Postmaster
9	10000	1.3	70200	10000	London Postmaster
10	10000	1.2	70201	10000	London Postmaster
11	10000	35.6	1928-S	10000	London Postmaster
12	20000	2.7	70100	20000	AR Day Property Management
13	20000	2.7	70101	20000	AR Day Property Management
14	20000	2.7	70102	20000	AR Day Property Management
15	20000	2.7	70103	20000	AR Day Property Management
16	20000	2.7	70104	20000	AR Day Property Management
17	20000	125.1	1900-S	20000	AR Day Property Management
18	20000	420.4	1920-S	20000	AR Day Property Management
19	20000	136.4	1924-W	20000	AR Day Property Management
20	20000	125.1	1936-S	20000	AR Day Property Management
21	20000	125.1	1960-S	20000	AR Day Property Management
22	20000	125.1	1964-S	20000	AR Day Property Management
23	20000	125.1	1988-S	20000	AR Day Property Management
24	30000	649.4	1896-S	30000	CoolWood Technologies
25	30000	281.4	1906-S	30000	CoolWood Technologies
26	30000	123.3	1908-S	30000	CoolWood Technologies
27	30000	123.3	1968-S	30000	CoolWood Technologies
28	30000	123.3	1972-S	30000	CoolWood Technologies
29	30000	123.3	1980-S	30000	CoolWood Technologies
30	30000	906.7	1996-S	30000	CoolWood Technologies
31	30000	123.3	2000-S	30000	CoolWood Technologies
32	40000	0			Lewis Home Furniture
33	50000	0			Service Electronics Ltd.
34	01254796	0			Progressive Home Furnishings
35	01587796	0			Custom Metals Incorporated
36	01963656	0			American Wood Exports
37	31147896	0			Houtindustrie Bruynsma
38	31568974	0			Koekamp Leerindustrie
39	31580305	0			Beekhuysen BV
40	32456123	13.1	70060	32456123	BATIMETAL
41	32554455	0			PURE-LOOK
42	32665544	0			VELUX
43	34110257	0			Importaciones S.A.
44	34151086	0			Subacqua
45	34280789	0			Transporte Roas
46	35225588	0			Husplast HF
47	35336699	0			Hurdir HF
48	35741852	0			Huslagnir

49	38458653	0			IVERKA POHISTVO d.o.o.
50	38521479	0			MASIVA d.o.o.
51	38654478	0			POIIORLES d.d.
52	41124089	0			Flückiger AG
53	41483124	0			Matter Transporte
54	41568934	0			Schreinerei Peter
55	42125678	0			UP Ostrov s.p.
56	42784512	0			TON s.r.o.
57	42895623	0			Mach & spol. v.o.s.
58	43258545	0			Sägewerk Mittersill
59	43589632	0			Paul Brettschneider KG
60	43698547	0			Beschläge Schacherhuber
61	44127904	0			WoodMart Supply Co.
62	44127914	0			Mortimor Car Company
63	44729910	0			Tool Mart
64	44756404	0			Furniture Industries
65	45774477	0			Fredborg Lamper A/S
66	45858585	0			Elvstrøm Træindustri A/S
67	45868686	0			Schmeichel Møbler A/S
68	46558855	5.7	80100	46558855	Kinnareds Träindustri AB
69	46635241	0			Viksjö Snickerifabrik AB
70	46895623	0			Svensk Möbeltextil AB
71	47521478	0			Möbelhuset AS
72	47562214	0			Stilmøbler as
73	47586622	0			Furumøbler A/S
74	49454647	0			VAG - Jürgensen
75	49494949	0			KKA Büromaschinen Gmbh
76	49989898	0			JB-Spedition

8. Using OUTER JOIN

```
SELECT No_, 'Unit Price', a.No_, 'Vendor No_', Vendor.Name
FROM Vendor, OUTER Item a
WHERE 'Vendor No_' = No_ AND 'Unit Price' > 0
```

The full ODBC extended escape clause for outer joins are supported, however *only LEFT OUTER JOINS* are implemented.

	No_	Unit Price	No_	Vendor No_	Name
1	30000	649.4	1896-S	30000	CoolWood Technologies
2	30000	281.4	1906-S	30000	CoolWood Technologies
3	30000	123.3	1908-S	30000	CoolWood Technologies
4	30000	123.3	1968-S	30000	CoolWood Technologies
5	30000	123.3	1972-S	30000	CoolWood Technologies
6	30000	123.3	1980-S	30000	CoolWood Technologies
7	30000	906.7	1996-S	30000	CoolWood Technologies
8	30000	123.3	2000-S	30000	CoolWood Technologies
9	40000	0			Lewis Home Furniture
10	50000	0			Service Electronics Ltd.
11	01254796	0			Progressive Home Furnishings
12	01587796	0			Custom Metals Incorporated
13	01963656	0			American Wood Exports
14	31147896	0			Houtindustrie Bruynsma

15	31568974	0				Koekamp Leerindustrie
16	31580305	0				Beekhuysen BV
17	32456123	13.1	70060	32456123		BATIMETAL
18	32554455	0				PURE-LOOK
19	32665544	0				VELUX
20	34110257	0				Importaciones S.A.
21	34151086	0				Subacqua
22	34280789	0				Transporte Roas
23	35225588	0				Husplast HF
24	35336699	0				Hurdir HF
25	35741852	0				Huslagnir
26	38458653	0				IVERKA POHISTVO d.o.o.
27	38521479	0				MASIVA d.o.o.
28	38654478	0				POIIORLES d.d.
29	41124089	0				Flückiger AG
30	41483124	0				Matter Transporte
31	41568934	0				Schreinerei Peter
32	42125678	0				UP Ostrov s.p.
33	42784512	0				TON s.r.o.
34	42895623	0				Mach & spol. v.o.s.
35	43258545	0				Sägewerk Mittersill
36	43589632	0				Paul Brettschneider KG
37	43698547	0				Beschläge Schacherhuber
38	44127904	0				WoodMart Supply Co.
39	44127914	0				Mortimor Car Company
40	44729910	0				Tool Mart
41	44756404	0				Furniture Industries
42	45774477	0				Fredborg Lamper A/S
43	45858585	0				Elvstrøm Træindustri A/S
44	45868686	0				Schmeichel Møbler A/S
45	46558855	5.7	80100	46558855		Kinnareds Träindustri AB
46	46635241	0				Viksjö Snickerifabrik AB
47	46895623	0				Svensk Möbeltexil AB
48	47521478	0				Möbelhuset AS
49	47562214	0				Stilmøbler as
50	47586622	0				Furumøbler A/S
51	49454647	0				VAG - Jürgensen
52	49494949	0				KKA Büromaschinen GmbH
53	49989898	0				JB-Spedition

9. Using LEFT OUTER JOIN

```
SELECT No_, 'Unit Price', a.No_, 'Vendor No_', Name
FROM { oj Vendor LEFT OUTER JOIN Item a ON 'Vendor No_'='No_' }
WHERE No_ > 20000 AND 'Unit Price' > 0
```


6.6. Subqueries

Subqueries can be performed.

	No_	Name
1	10000	London Postmaster
2	20000	AR Day Property Management
3	30000	CoolWood Technologies
4	32456123	BATIMETAL
5	46558855	Kinnareds Träindustri AB

10. Multiple *SELECT*s for subqueries

```
SELECT No_, Name
FROM Vendor a
WHERE EXISTS
(SELECT * FROM Item WHERE 'Vendor No_' = a.No_)
```

Comparison operators may be used for subqueries

	No_	Balance	Name
1	10000	114096.4	London Postmaster
2	20000	2904.53	AR Day Property Management
3	30000	93660.82	CoolWood Technologies
4	40000	0	Lewis Home Furniture
5	50000	0	Service Electronics Ltd.
6	01254796	163573.93	Progressive Home Furnishings
7	01587796	0	Custom Metals Incorporated
8	01963656	119898.98	American Wood Exports
9	31147896	0	Houtindustrie Bruynsma
10	31568974	0	Koekamp Leerindustrie
11	31580305	0	Beekhuysen BV
12	32554455	0	PURE-LOOK
13	32665544	0	VELUX
14	34110257	0	Importaciones S.A.
15	34151086	0	Subacqua
16	34280789	0	Transporte Roas
17	35225588	0	Husplast HF
18	35336699	0	Hurdir HF
19	35741852	0	Huslagnir
20	38458653	193536	IVERKA POHISTVO d.o.o.
21	38521479	0	MASIVA d.o.o.
22	38654478	0	POIIORLES d.d.
23	41124089	0	Flückiger AG
24	41483124	0	Matter Transporte
25	41568934	0	Schreinerei Peter
26	42125678	0	UP Ostrov s.p.
27	42784512	0	TON s.r.o.
28	42895623	0	Mach & spol. v.o.s.
29	43258545	0	Sägewerk Mittersill
30	43589632	0	Paul Brettschneider KG
31	43698547	0	Beschläge Schacherhuber

32	44127904	0	WoodMart Supply Co.
33	44127914	0	Mortimor Car Company
34	44729910	0	Tool Mart
35	44756404	0	Furniture Industries
36	45774477	0	Fredborg Lamper A/S
37	45858585	0	Elvstrøm Træindustri A/S
38	45868686	0	Schmeichel Møbler A/S
39	46558855	5820.24	Kinnarets Träindustri AB
40	46635241	0	Viksjo Snickerifabrik AB
41	46895623	0	Svensk Möbeltexil AB
42	47521478	0	Möbelhuset AS
43	47562214	0	Stilmøbler as
44	47586622	0	Furumøbler A/S
45	49454647	12500.01	VAG - Jürgensen
46	49494949	17100.03	KKA Büromaschinen Gmbh
47	49989898	0	JB-Spedition

11. Using comparision operators

```
SELECT No_, Balance, Name
FROM Vendor a
WHERE Balance > ALL
(SELECT 'Unit Price' + 7 FROM Item WHERE 'Vendor No_' = a.No_)
```

EXISTS, ALL, ANY, SOME may be used.

	No_	Balance	Name
1	32456123	0	BATIMETAL

12. Sample use of ANY comparision

```
SELECT No_, Balance, Name
FROM Vendor a
WHERE Balance < ANY
(SELECT 'Unit Price' + 7 FROM Item WHERE 'Vendor No_' = a.No_)
```

By use of IN a result set may be scanned for values

	No_	Name
1	10000	London Postmaster
2	20000	AR Day Property Management
3	30000	CoolWood Technologies
4	32456123	BATIMETAL
5	46558855	Kinnarets Träindustri AB

13. Scanning result set when using IN clause

```
SELECT No_, Name FROM Vendor
```

WHERE No_ IN (SELECT 'Vendor No_' FROM Item)

6.7. Aggregate functions

Aggregate functions are implemented. *Note that calculations as SUM(balance)+2 are not allowed.*

	EXPR-1	EXPR-2	EXPR-3	EXPR-4	EXPR-5
1	48	723090.94	193536	0	15064.39458

14. Aggregate functions COUNT, SUM, MAX, MIN, AVG

```
SELECT COUNT(*), SUM(Balance), MAX(Balance), MIN(Balance),
AVG(Balance)
FROM Vendor
```

More tables may be joined.

	No_	Name	Name
1	10000	London Postmaster	London Postmaster
2	20000	AR Day Property Management	AR Day Property Management
3	30000	CoolWood Technologies	CoolWood Technologies
4	40000	Lewis Home Furniture	Lewis Home Furniture
5	50000	Service Electronics Ltd.	Service Electronics Ltd.
6	01254796	Progressive Home Furnishings	Progressive Home Furnishings
7	01587796	Custom Metals Incorporated	Custom Metals Incorporated
8	01963656	American Wood Exports	American Wood Exports
9	31147896	Houtindustrie Bruynsma	Houtindustrie Bruynsma
10	31568974	Koekamp Leerindustrie	Koekamp Leerindustrie
11	31580305	Beekhuysen BV	Beekhuysen BV
12	32456123	BATIMETAL	BATIMETAL
13	32554455	PURE-LOOK	PURE-LOOK
14	32665544	VELUX	VELUX
15	34110257	Importaciones S.A.	Importaciones S.A.
16	34151086	Subacqua	Subacqua
17	34280789	Transporte Roas	Transporte Roas
18	35225588	Husplast HF	Husplast HF
19	35336699	Hurdir HF	Hurdir HF
20	35741852	Huslagnir	Huslagnir
21	38458653	IVERKA POHISTVO d.o.o.	IVERKA POHISTVO d.o.o.
22	38521479	MASIVA d.o.o.	MASIVA d.o.o.
23	38654478	POIIORLES d.d.	POIIORLES d.d.
24	41124089	Flückiger AG	Flückiger AG
25	41483124	Matter Transporte	Matter Transporte
26	41568934	Schreinerei Peter	Schreinerei Peter
27	42125678	UP Ostrov s.p.	UP Ostrov s.p.
28	42784512	TON s.r.o.	TON s.r.o.
29	42895623	Mach & spol. v.o.s.	Mach & spol. v.o.s.
30	43258545	Sägewerk Mittersill	Sägewerk Mittersill
31	43589632	Paul Brettschneider KG	Paul Brettschneider KG
32	43698547	Beschläge Schacherhuber	Beschläge Schacherhuber
33	44127904	WoodMart Supply Co.	WoodMart Supply Co.
34	44127914	Mortimor Car Company	Mortimor Car Company
35	44729910	Tool Mart	Tool Mart

36	44756404	Furniture Industries	Furniture Industries
37	45774477	Fredborg Lamper A/S	Fredborg Lamper A/S
38	45858585	Elvstrøm Træindustri A/S	Elvstrøm Træindustri A/S
39	45868686	Schmeichel Møbler A/S	Schmeichel Møbler A/S
40	46558855	Kinnareds Träindustri AB	Kinnareds Träindustri AB
41	46635241	Viksjo Snickerifabrik AB	Viksjo Snickerifabrik AB
42	46895623	Svensk Möbeltextil AB	Svensk Möbeltextil AB
43	47521478	Møbelhuset AS	Møbelhuset AS
44	47562214	Stilmøbler as	Stilmøbler as
45	47586622	Furumøbler A/S	Furumøbler A/S
46	49454647	VAG - Jürgensen	VAG - Jürgensen
47	49494949	KKA Büromaschinen Gmbh	KKA Büromaschinen Gmbh
48	49989898	JB-Spedition	JB-Spedition

15. Using the same table multiple times

```
SELECT No_, Name, b.Name  
FROM Vendor a, Vendor b  
WHERE a.No_ = b.No_
```

6.8. LIKE and MATCHES

Like may be used for search on sting patterns as "**a_b%c[^a-kp]**" The ODBC like escape clause is supported

	No_	Description
1	70000	Side Panel
2	70001	Base
3	70002	Top Panel
4	70003	Rear Panel
5	70010	Wooden Door
6	70011	Glass Door
7	70040	Drawer
8	70041	Shelf
9	70060	Mounting
10	70100	Paint, black
11	70101	Paint, yellow
12	70102	Paint, blue
13	70103	Paint, red
14	70104	Paint, green
15	70200	Hinge
16	70201	Doorknob
17	80100	Printing Paper
18	1896-S	ATHENS Desk
19	1900-S	PARIS Guest Chair, black
20	1906-S	ATHENS Mobile Pedestal
21	1920-S	ANTWERP Conference Table
22	1928-S	AMSTERDAM Lamp
23	1936-S	BERLIN Guest Chair, yellow
24	1964-W	INNSBRUCK Storage Unit/G.Door
25	1972-S	MUNICH Swivel Chair, yellow
26	1976-W	INNSBRUCK Storage Unit/W.Door
27	1988-W	CALGARY Whiteboard, yellow
28	1992-W	ALBERTVILLE Whiteboard, green
29	1996-S	ATLANTA Whiteboard, base
30	2000-S	SIDNEY Swivel Chair, green

16. Using the LIKE function

```
SELECT No_, Description
FROM Item
WHERE Description NOT LIKE "%O%" { escape 'x' }
```

Matches offers another search method with patterns as "a?b*c[^a-kp]"

	No_	Description
1	70010	Wooden Door
2	70011	Glass Door
3	70201	Doorknob
4	1964-W	INNSBRUCK Storage Unit/G.Door
5	1976-W	INNSBRUCK Storage Unit/W.Door

17. Using the MATCHES function

```
SELECT No_, Description  
FROM Item  
WHERE Description MATCHES "*Door*"
```

6.9. How to use functions within SELECT statements

Functions may be called directly or by use of the { fn ... } clause.

	No_	EXPR-1
1	10000	the cannon group plc
2	20000	james dailey ltd.
3	30000	john haddock insurance co.
4	40000	deerfield graphics company
5	50000	guildford water department
6	01121212	spotsmeyer's furnishings
7	01445544	progressive home furnishings
8	01454545	new concepts furniture
9	31505050	woonboulevard kuitenbrouwer
10	31669966	meersen meubelen
11	31987987	jean de bouvier
12	32124578	orangerie
13	32656565	allcopy
14	32789456	prestige
15	34010100	libros s.a.
16	34010199	corporación beta
17	34010602	diseño industrial
18	35122112	a g husgogn
19	35451236	nyform
20	35963852	heimilisprydi
21	38128456	mema ljubljana d.o.o.
22	38546552	exportles d.o.o.
23	38632147	centromerkur d.o.o.
24	41231215	miro design
25	41497647	pilatus ag
26	41597832	möbel scherrer ag
27	42147258	byt s.r.o.
28	42258258	j & v v.o.s.
29	42369147	universal a.s.
30	43687129	designstudio gmunden
31	43852147	michael feit - möbelhaus
32	43871144	möbel siegfried
33	44171511	zuni home crafts ltd.
34	44180220	latel corporation
35	44756404	london light company
36	45282828	kontorforsyningen a/s
37	45779977	ravel møbler
38	45979797	lauritzen kontormøbler a/s
39	46251425	möbelhuset idea
40	46525241	form & miljö ab
41	46897889	englunds kontorsmöbler ab
42	47523687	alléhjørnet as
43	47563218	klubben
44	47586954	sjøboden
45	49525252	beef house
46	49633663	auto-günther kg
47	49858585	hotel continental

18. Calling functions within SELECT

```
SELECT No_, { fn LCASE(Name) }  
FROM Customer
```

The full ODBC syntax for functions calls may also be used.

	No_	EXPR-1	Name
1	10000	10000	The Cannon Group PLC
2	20000	20000	James Dailey Ltd.
3	30000	30000	John Haddock Insurance Co.
4	40000	40000	Deerfield Graphics Company
5	50000	50000	Guildford Water Department
6	01121212	1121212	Spotsmeyer's Furnishings
7	01445544	1445544	Progressive Home Furnishings
8	01454545	1454545	New Concepts Furniture
9	31505050	31505050	Woonboulevard Kuitenbrouwer
10	31669966	31669966	Meersen Meubelen
11	31987987	31987987	Jean de Bouvier
12	32124578	32124578	ORANGERIE
13	32656565	32656565	ALLCOPY
14	32789456	32789456	PRESTIGE
15	34010100	34010100	Libros S.A.
16	34010199	34010199	Corporación Beta
17	34010602	34010602	Diseño industrial
18	35122112	35122112	A G Husgogn
19	35451236	35451236	Nyform
20	35963852	35963852	Heimilisprydi
21	38128456	38128456	MEMA Ljubljana d.o.o.
22	38546552	38546552	EXPORTLES d.o.o.
23	38632147	38632147	Centromerkur d.o.o.
24	41231215	41231215	Miro Design
25	41497647	41497647	Pilatus AG
26	41597832	41597832	Möbel Scherrer AG
27	42147258	42147258	BYT s.r.o.
28	42258258	42258258	J & V v.o.s.
29	42369147	42369147	UNIVERSAL a.s.
30	43687129	43687129	Designstudio Gmunden
31	43852147	43852147	Michael Feit - Möbelhaus
32	43871144	43871144	Möbel Siegfried
33	44171511	44171511	Zuni Home Crafts Ltd.
34	44180220	44180220	Latel Corporation
35	44756404	44756404	London Light Company
36	45282828	45282828	Kontorforsyningen A/S
37	45779977	45779977	Ravel Møbler
38	45979797	45979797	Lauritzen Kontormøbler A/S
39	46251425	46251425	Möbelhuset IDEA
40	46525241	46525241	Form & Miljö AB
41	46897889	46897889	Englunds Kontorsmöbler AB
42	47523687	47523687	Allébjørnet AS
43	47563218	47563218	Klubben
44	47586954	47586954	Sjøboden
45	49525252	49525252	Beef House
46	49633663	49633663	Auto-Günther KG

47 49858585 49858585 Hotel Continental

19. Calling functions within SELECT with full ODBC syntax

```
SELECT No_, --(*vendor(SWTools),product(ODBC) fn  
CONVERT(No_,SQL_INTEGER)*)--, Name  
FROM Customer
```

6.10. Date, Time and timestamp

Date, Time and Timestamp values may be stated by { d 'yyyy-mm-dd' }, { t 'hh:mm:ss' } and { ts 'yyyy-mm-dd hh:mm:ss' }

	No_	Order Date	Posting Description
1	101016	2001-01-25	Order 101016
2	101017	2001-01-26	Order 101017
3	101018	2001-01-26	Order 101018
4	101019	2001-01-22	Order 101019
5	101020	2001-01-26	Order 101020
6	101022	2001-02-04	Order 101022
7	101023	2001-02-21	Order 101023
8	1001	2001-01-25	Invoice 1001
9	104004	2001-01-26	Credit Memo 104004

20. Using Date, Time and Timestamp syntax

```
SELECT No_, 'Order Date', 'Posting Description'
FROM 'Sales Header'
WHERE 'Order Date' > { d '2001-01-21' }
```

Dates stored in the files as YYMMDD or DDMMYY will be turned to correct SQLDate YYYY-MM-DD when the format is given as ,6, or ,8,

Timestamp data are assumed to be stored as 14 digits numeric YYYYMMDDHHMMSS, fractions of seconds are not supported.

The standard SQL syntax may also be used:

	No_	Order Date
1	101016	2001-01-25
2	101017	2001-01-26
3	101018	2001-01-26
4	101019	2001-01-22
5	101020	2001-01-26
6	101022	2001-02-04
7	101023	2001-02-21
8	1001	2001-01-25
9	104004	2001-01-26

21. Using standard SQL syntax for dates

```
SELECT No_, 'Order Date'
FROM 'Sales Header'
WHERE 'Order Date' > #2001-01-21#
```

6.11. Using field numbers

As an extension to SQL fieldnumbers may be given instead of fieldnames.

	No_	Vendor No_	Unit Price	No_	Name
1	1928-S	10000	35.6	10000	London Postmaster
2	1900-S	20000	125.1	20000	AR Day Property Management
3	1964-S	20000	125.1	20000	AR Day Property Management
4	1920-S	20000	420.4	20000	AR Day Property Management
5	1924-W	20000	136.4	20000	AR Day Property Management
6	1936-S	20000	125.1	20000	AR Day Property Management
7	1960-S	20000	125.1	20000	AR Day Property Management
8	1988-S	20000	125.1	20000	AR Day Property Management
9	1908-S	30000	123.3	30000	CoolWood Technologies
10	1906-S	30000	281.4	30000	CoolWood Technologies
11	1972-S	30000	123.3	30000	CoolWood Technologies
12	1980-S	30000	123.3	30000	CoolWood Technologies
13	1968-S	30000	123.3	30000	CoolWood Technologies
14	1996-S	30000	906.7	30000	CoolWood Technologies

22. Using field numbers instead of field names

```
SELECT #1, #31, 'Unit Price', a.#1-2
FROM Item, Vendor a
WHERE #1 MATCHES("19*") AND a.#1 = #31
ORDER BY #31
```

Any calculations may be given, including operations on TABLE (subscripted) fields

6.12. Field subscriptions

	No_	Description	Budgeted Amoun	EXPR-1	Standard Cost
1	70000	Side Panel	0	0	0
2	70001	Base	0	0	0
3	70002	Top Panel	0	0	0
4	70003	Rear Panel	0	0	0
5	70010	Wooden Door	0	0	0
6	70011	Glass Door	0	0	0
7	70040	Drawer	0	0	0
8	70041	Shelf	0	0	0
9	70060	Mounting	0	0	0
10	70100	Paint, black	0	0	0
11	70101	Paint, yellow	0	0	0
12	70102	Paint, blue	0	0	0
13	70103	Paint, red	0	0	0
14	70104	Paint, green	0	0	0
15	70200	Hinge	0	0	0
16	70201	Doorknob	0	0	0
17	80100	Printing Paper	0	0	0
18	1896-S	ATHENS Desk	0	0	0
19	1900-S	PARIS Guest Chair, black	0	0	0
20	1906-S	ATHENS Mobile Pedestal	0	0	0
21	1908-S	LONDON Swivel Chair, blue	0	0	0
22	1920-S	ANTWERP Conference Table	0	0	0
23	1924-W	CHAMONIX Base Storage Unit	0	0	81.6
24	1928-S	AMSTERDAM Lamp	0	0	0
25	1928-W	ST.MORITZ Storage Unit/Drawers	0	0	192
26	1936-S	BERLIN Guest Chair, yellow	0	0	0
27	1952-W	OSLO Storage Unit/Shelf	0	0	93.6
28	1960-S	ROME Guest Chair, green	0	0	0
29	1964-S	TOKYO Guest Chair, blue	0	0	0
30	1964-W	INNSBRUCK Storage Unit/G.Door	0	0	171.2
31	1968-S	MEXICO Swivel Chair, black	0	0	0
32	1968-W	GRENOBLE Whiteboard, red	0	0	708.6
33	1972-S	MUNICH Swivel Chair, yellow	0	0	0
34	1972-W	SAPPORO Whiteboard, black	0	0	708.6
35	1976-W	INNSBRUCK Storage Unit/W.Door	0	0	150.6
36	1980-S	MOSCOW Swivel Chair, red	0	0	0
37	1984-W	SARAJEVO Whiteboard, blue	0	0	708.6

38	1988-S	SEOUL Guest Chair, red	0	0	0
39	1988-W	CALGARY Whiteboard, yellow	0	0	708.6
40	1992-W	ALBERTVILLE Whiteboard, green	0	0	708.6
41	1996-S	ATLANTA Whiteboard, base	0	0	0
42	2000-S	SIDNEY Swivel Chair, green	0	0	0
43	766BC-A	OLYMPIC Conference System	0	0	3519
44	766BC-B	OLYMPIC Office System	0	0	1245.8
45	766BC-C	OLYMPIC Storage System	0	0	614

23. Subscribed fields

```
SELECT No_, Description, 'Budgeted Amount', 'Budgeted Amount'(1),  
'Standard Cost'  
FROM Item
```

6.13. GROUP BY, HAVING, DISTINCT and UNION

The GROUP BY may be used to form groups of aggregate functions

	Vendor No_	EXPR-1	EXPR-2
1		12	14068.70022
2	10000	11	423.4
3	20000	12	1195.8
4	30000	8	2454
5	32456123	1	13.1
6	46558855	1	5.7

24. A simple GROUP BY sample

```
SELECT 'Vendor No_', COUNT(*), SUM('Unit Price')
FROM Item
GROUP BY 'Vendor No_'
```

Having is a selection after the grouping has been done

	Vendor No_	EXPR-1
1	32456123	13.1
2	46558855	5.7

25. A simple HAVING sample

```
SELECT 'Vendor No_', SUM('Unit Price')
FROM Item
GROUP BY 'Vendor No_'
HAVING COUNT(*) = 1
```

By use of DISTINCT all columns with the same contents are suppressed

	Vendor No_	Class
1	10000	
2	32456123	
3	20000	
4	46558855	
5	30000	
6		

26. SELECT using DISTINCT

```
SELECT DISTINCT 'Vendor No_', Class
FROM Item
```

The DISTINCT may also suppress values when used with the aggregate functions

1 **EXPR-1** **EXPR-2**
 1 13257.10022 6

27. SELECT using DISTINCT on aggregate functions

SELECT SUM(DISTINCT 'Unit Price'), COUNT(DISTINCT 'Vendor No_')
FROM Item

UNIONS of select statements may be formed, UNION ALL is supported.

	No_	Standard Cost
1	70000	0
2	70001	0
3	70002	0
4	70003	0
5	70010	0
6	70011	0
7	70040	0
8	70041	0
9	70060	0
10	70100	0
11	70101	0
12	70102	0
13	70103	0
14	70104	0
15	70200	0
16	70201	0
17	80100	0
18	1896-S	0
19	1900-S	0
20	1906-S	0
21	1908-S	0
22	1920-S	0
23	1968-S	0
24	1928-S	0
25	2000-S	0
26	1936-S	0
27	1964-S	0
28	1960-S	0
29	1972-S	0
30	1988-S	0
31	1996-S	0
32	1980-S	0
33	1924-W	81.6
34	1952-W	93.6
35	70040	108.2
36	2000-S	123.3
37	1980-S	123.3
38	1972-S	123.3
39	1968-S	123.3
40	1908-S	123.3
41	1936-S	125.1
42	1964-S	125.1

43	1960-S	125.1
44	1988-S	125.1
45	1900-S	125.1
46	1924-W	136.4
47	1976-W	150.6
48	1952-W	158.5
49	1964-W	171.2
50	1928-W	192
51	1976-W	256.1
52	1906-S	281.4
53	1964-W	292
54	1928-W	342.1
55	1920-S	420.4
56	766BC-C	614
57	1896-S	649.4
58	1984-W	708.6
59	1968-W	708.6
60	1972-W	708.6
61	1992-W	708.6
62	1988-W	708.6
63	1996-S	906.7
64	766BC-C	944.59998
65	1968-W	974.8
66	1992-W	974.8
67	1988-W	974.8
68	1972-W	974.8
69	1984-W	974.8
70	766BC-B	1787.5999
71	766BC-A	5413.80034

28. SELECT using UNIONS

```
SELECT No_, 'Unit Price'  
FROM Item  
WHERE 'Unit Price' > 100  
UNION ALL  
SELECT No_, 'Standard Cost' FROM Item WHERE 'Standard Cost' < 1000  
ORDER BY 2
```

Anywhere a SELECT statement can be used, the VALUES table constructor may be used.

6.14. VALUES constructor and SELECT from result set

	V1	V2	V3
1	4701	aa	65
2	4702	bb	8

29. VALUES constructor

```
SELECT *
FROM VALUES ("4701","aa",65),("4702","bb",8)
```

SELECT from a resultset is also possible.

	No_	Name
1	40000	Deerfield Graphics Company
2	34010602	Diseño industrial
3	43687129	Designstudio Gmunden

30. SELECT from result set

```
SELECT *
FROM (SELECT No_, Name FROM Customer)
WHERE Name MATCHES("D*")
```

Note by joining tables the WHERE becomes really important. If no where is stated, the joined table is read once for each element in the first table:

	Code	Due Date Calculation	Discount Date Calculation	Discount %	Description	Code	Due Date Calculation	Discount Date Calculation	Discount %	Description
1	CM	CM		0	Current month	CM	CM		0	Current month
2	CM	CM		0	Current month	COD	0D		0	Cash on delivery
3	CM	CM		0	Current month	1M(8D)	1M 8D		2	1 Month /2% 8 days
4	CM	CM		0	Current month	14DAY S	14D		0	Net 14 days
5	CM	CM		0	Current month	21DAY S	21D		0	Net 21 days

SW-Tools ODBC - Programmers Reference

6	CM	CM		0	Current month	7DAYS	7D		0	Net 7 days
7	COD	0D		0	Cash on delivery	CM	CM		0	Current month
8	COD	0D		0	Cash on delivery	COD	0D		0	Cash on delivery
9	COD	0D		0	Cash on delivery	1M(8D)	1M	8D	2	1 Month /2% 8 days
10	COD	0D		0	Cash on delivery	14DAY S	14D		0	Net 14 days
11	COD	0D		0	Cash on delivery	21DAY S	21D		0	Net 21 days
12	COD	0D		0	Cash on delivery	7DAYS	7D		0	Net 7 days
13	1M(8D)	1M	8D	2	1 Month /2% 8 days	CM	CM		0	Current month
14	1M(8D)	1M	8D	2	1 Month /2% 8 days	COD	0D		0	Cash on delivery
15	1M(8D)	1M	8D	2	1 Month /2% 8 days	1M(8D)	1M	8D	2	1 Month /2% 8 days
16	1M(8D)	1M	8D	2	1 Month /2% 8 days	14DAY S	14D		0	Net 14 days
17	1M(8D)	1M	8D	2	1 Month /2% 8 days	21DAY S	21D		0	Net 21 days
18	1M(8D)	1M	8D	2	1 Month /2% 8 days	7DAYS	7D		0	Net 7 days
19	14DAY S	14D		0	Net 14 days	CM	CM		0	Current month
20	14DAY	14D		0	Net 14	COD	0D		0	Cash

	S		days						on deliver y
21	14DAY S	14D	0	Net 14 days	1M(8D)	1M	8D	2	1 Month /2% 8 days
22	14DAY S	14D	0	Net 14 days	14DAY S	14D		0	Net 14 days
23	14DAY S	14D	0	Net 14 days	21DAY S	21D		0	Net 21 days
24	14DAY S	14D	0	Net 14 days	7DAYS	7D		0	Net 7 days
25	21DAY S	21D	0	Net 21 days	CM	CM		0	Curren t month
26	21DAY S	21D	0	Net 21 days	COD	0D		0	Cash on deliver y
27	21DAY S	21D	0	Net 21 days	1M(8D)	1M	8D	2	1 Month /2% 8 days
28	21DAY S	21D	0	Net 21 days	14DAY S	14D		0	Net 14 days
29	21DAY S	21D	0	Net 21 days	21DAY S	21D		0	Net 21 days
30	21DAY S	21D	0	Net 21 days	7DAYS	7D		0	Net 7 days
31	7DAYS	7D	0	Net 7 days	CM	CM		0	Curren t month
32	7DAYS	7D	0	Net 7 days	COD	0D		0	Cash on deliver y
33	7DAYS	7D	0	Net 7 days	1M(8D)	1M	8D	2	1 Month /2% 8 days
34	7DAYS	7D	0	Net 7 days	14DAY S	14D		0	Net 14 days
35	7DAYS	7D	0	Net 7 days	21DAY S	21D		0	Net 21 days
36	7DAYS	7D	0	Net 7 days	7DAYS	7D		0	Net 7 days

31. Joined tables without where

**SELECT *, a.*
FROM 'Payment Terms', 'Payment Terms' a**

7. Using Filter fields

Filter fields are supported within the WHERE clause.

	No_	Name	Net Change
1	2940	Giro Account	-28250
2	2990	Liquid Assets, Total	-28250
3	2995	Current Assets, Total	-28250
4	2999	TOTAL ASSETS	-28250
5	3195	Net Income for the Year	22600
6	3199	Total Stockholder's Equity	22600
7	5530	Purchase VAT 25 %	5650
8	5790	VAT, Total	5650
9	5995	Short-term Liabilities, Total	5650
10	5997	Total Liabilities	5650
11	5999	TOTAL LIABILITIES AND EQUITY	28250
12	8530	Repairs and Maintenance	20000
13	8590	Vehicle Expenses	20000
14	8640	Miscellaneous	2600
15	8690	Other Operating Exp., Total	2600
16	8695	Total Operating Expenses	22600
17	8995	Net Operating Income	22600
18	9395	NI BEFORE EXTR. ITEMS & TAXES	22600
19	9495	NET INCOME BEFORE TAXES	22600
20	9999	NET INCOME	22600

```
SELECT No_, Name, 'Net Change'
FROM 'G/L Account'
WHERE 'Date Filter' = "28-02-00" AND 'Net Change' <> 0
```

The **AND 'Net Change' <> 0** is used only to reduce the result.

The actual filter field may also be selected

	No_	Name	Net Change	Date Filter
1	1240	Accum. Depr., Oper. Equip.	-290	30-06-00
2	1290	Operating Equipment, Total	-290	30-06-00
3	1340	Accum. Depreciation, Vehicles	-1450	30-06-00
4	1390	Vehicles, Total	-1450	30-06-00
5	1395	Tangible Fixed Assets, Total	-1740	30-06-00
6	1999	Fixed Assets, Total	-1740	30-06-00
7	2940	Giro Account	-500	30-06-00
8	2990	Liquid Assets, Total	-500	30-06-00
9	2995	Current Assets, Total	-500	30-06-00
10	2999	TOTAL ASSETS	-2240	30-06-00
11	3195	Net Income for the Year	2140	30-06-00
12	3199	Total Stockholder's Equity	2140	30-06-00
13	5530	Purchase VAT 25 %	100	30-06-00
14	5790	VAT, Total	100	30-06-00
15	5995	Short-term Liabilities, Total	100	30-06-00
16	5997	Total Liabilities	100	30-06-00
17	5999	TOTAL LIABILITIES AND EQUITY	2240	30-06-00
18	8530	Repairs and Maintenance	400	30-06-00

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19	8590	Vehicle Expenses	400	30-06-00
20	8695	Total Operating Expenses	400	30-06-00
21	8820	Depreciation, Equipment	290	30-06-00
22	8830	Depreciation, Vehicles	1450	30-06-00
23	8890	Total Fixed Asset Depreciation	1740	30-06-00
24	8995	Net Operating Income	2140	30-06-00
25	9395	NI BEFORE EXTR. ITEMS & TAXES	2140	30-06-00
26	9495	NET INCOME BEFORE TAXES	2140	30-06-00
27	9999	NET INCOME	2140	30-06-00

```
SELECT No_, Name, 'Net Change', 'Date Filter'  
FROM 'G/L Account'  
WHERE 'Date Filter' = "30-06-00" AND 'Net Change' <> 0
```

8. Updating the database and datadictionary itself

The SW-Tools ODBC driver may be delivered for read-only or optionally with update for Navision Financials.

The INTO TEMP clause creates a file and file definition with the given name. This file exists until you manually delete it with DROP TABLE which makes INTO TEMP an easy way to export a file to another system.

The filename may be qualified by: xx\yyyy.name, where

xx = Desided file ID, if omitted or invalid the driver selects a free ID

yyyy = BASIS file interface name (owner), defaults to the first (SSV).

The file definition will be marked TEMP, any existing TEMP file is overwritten. The ORDER BY (or GROUP BY) is used to define the file index.If omitted an index as #1 is used.

8.1. Copying table INTO TEMP

	Code	Due Date Calculation	Discount Date Calculati	Discount %	Description
1	14DAYS	14D		0	Net 14 days
2	1M(8D)	1M	8D	2	1 Month/2% 8 days
3	21DAYS	21D		0	Net 21 days
4	7DAYS	7D		0	Net 7 days
5	CM	CM		0	Current month
6	COD	0D		0	Cash on delivery

```

SELECT *
FROM 'Payment Terms'
ORDER BY 1
INTO TEMP za\nf.mytable
    
```

	Code	Due Date Calculation	Discount Date Calculati	Discount %	Description
1	14DAYS	14D		0	Net 14 days
2	1M(8D)	1M	8D	2	1 Month/2% 8 days
3	21DAYS	21D		0	Net 21 days
4	7DAYS	7D		0	Net 7 days
5	CM	CM		0	Current month
6	COD	0D		0	Cash on delivery

```

SELECT *
FROM mytable
    
```


8.2. INSERT values INTO table

By use of INSERT...VALUES new records can be created
Query executed - No results returned.

**INSERT INTO mytable
VALUES (1,2,3)**

	Code	Due Date Calculation	Discount Date Calculati	Discount %	Description
1	1	2	3	0	
2	14DAYS	14D		0	Net 14 days
3	1M(8D)	1M	8D	2	1 Month/2% 8 days
4	21DAYS	21D		0	Net 21 days
5	7DAYS	7D		0	Net 7 days
6	CM	CM		0	Current month
7	COD	0D		0	Cash on delivery

SELECT * FROM mytable

Records from other tables can be copied with INSERT...SELECT

8.3. INSERT values from other tables

Query executed - No results returned.

**INSERT INTO mytable
(SELECT No_ FROM Item WHERE No_ < 70100)**

	Code	Due Date Calculation	Discount Date Calculati	Discount %	Description
1	1	2	3	0	
2	14DAYS	14D		0	Net 14 days
3	1M(8D)	1M	8D	2	1 Month/2% 8 days
4	21DAYS	21D		0	Net 21 days
5	70000			0	
6	70001			0	
7	70002			0	
8	70003			0	
9	70010			0	
10	70011			0	
11	70040			0	
12	70041			0	
13	70060			0	
14	7DAYS	7D		0	Net 7 days
15	CM	CM		0	Current month
16	COD	0D		0	Cash on delivery

**SELECT *
FROM mytable**

Insert columns may be given and the value table constructor may be used to form multiple records

Query executed - No results returned.

**INSERT INTO mytable
(Code,Description,'Discount %') VALUES ("4701","aa",65),("4702","bb",8)**

	Code	Due Date Calculation	Discount Date Calculati	Discount %	Description
1	1	2	3	0	
2	14DAYS	14D		0	Net 14 days
3	1M(8D)	1M	8D	2	1 Month/2% 8 days
4	21DAYS	21D		0	Net 21 days
5	4701			65	aa
6	4702			8	bb
7	70000			0	
8	70001			0	
9	70002			0	
10	70003			0	
11	70010			0	
12	70011			0	
13	70040			0	
14	70041			0	
15	70060			0	

16	7DAYS	7D	0	Net 7 days
17	CM	CM	0	Current month
18	COD	0D	0	Cash on delivery

SELECT *
FROM mytable

Together with the select specific columns can be moved
Query executed - No results returned.

INSERT INTO mytable
(Code,Description,'Discount %')
(SELECT No_, Description, 'Unit Price' FROM Item WHERE 'Unit Price' > 500)

	Code	Due Date Calculation	Discount Date Calculati	Discount %	Description
1	1	2	3	0	
2	14DAYS	14D		0	Net 14 days
3	1896-S			649.4	ATHENS Desk
4	1968-W			974.8	GRENOBLE Whiteboard, red
5	1972-W			974.8	SAPPORO Whiteboard, black
6	1984-W			974.8	SARAJEVO Whiteboard, blue
7	1988-W			974.8	CALGARY Whiteboard, yellow
8	1992-W			974.8	ALBERTVILLE Whiteboard, green
9	1996-S			906.7	ATLANTA Whiteboard, base
10	1M(8D)	1M	8D	2	1 Month/2% 8 days
11	21DAYS	21D		0	Net 21 days
12	4701			65	aa
13	4702			8	bb
14	70000			0	
15	70001			0	
16	70002			0	
17	70003			0	
18	70010			0	
19	70011			0	
20	70040			0	
21	70041			0	
22	70060			0	
23	766BC-A			5413.80034	OLYMPIC Conference System
24	766BC-B			1787.5999	OLYMPIC Office System
25	766BC-C			944.59998	OLYMPIC Storage System
26	7DAYS	7D		0	Net 7 days
27	CM	CM		0	Current month
28	COD	0D		0	Cash on delivery

```
SELECT *  
FROM mytable
```

8.4. Updating existing records

Existing records can be updated with the UPDATE searched statement

Query executed - No results returned.

```
UPDATE mytable
SET 'Discount %' = 10
WHERE 'Discount %' > 500
```

	Code	Due Date Calculation	Discount Date Calculati	Discount %	Description
1	1	2	3	0	
2	14DAYS	14D		0	Net 14 days
3	1896-S			10	ATHENS Desk
4	1968-W			10	GRENOBLE Whiteboard, red
5	1972-W			10	SAPPORO Whiteboard, black
6	1984-W			10	SARAJEVO Whiteboard, blue
7	1988-W			10	CALGARY Whiteboard, yellow
8	1992-W			10	ALBERTVILLE Whiteboard, green
9	1996-S			10	ATLANTA Whiteboard, base
10	1M(8D)	1M	8D	2	1 Month/2% 8 days
11	21DAYS	21D		0	Net 21 days
12	4701			65	aa
13	4702			8	bb
14	70000			0	
15	70001			0	
16	70002			0	
17	70003			0	
18	70010			0	
19	70011			0	
20	70040			0	
21	70041			0	
22	70060			0	
23	766BC-A			10	OLYMPIC Conference System
24	766BC-B			10	OLYMPIC Office System
25	766BC-C			10	OLYMPIC Storage System
26	7DAYS	7D		0	Net 7 days
27	CM	CM		0	Current month
28	COD	0D		0	Cash on delivery

```
SELECT *
FROM mytable
```

8.5. DELETE multiple records

The searched DELETE removes one or several records

Query executed - No results returned.

```
DELETE FROM mytable
WHERE 'Discount %' = 10
```

After the delete the function SQLRowCount delivers number of rows updated:

Rows

1 10

SQLRowCount(hstmt)

And the resulting table looks like:

	Code	Due Date Calculation	Discount Date Calculati	Discount %	Description
1	1	2	3	0	
2	14DAYS	14D		0	Net 14 days
3	1M(8D)	1M	8D	2	1 Month/2% 8 days
4	21DAYS	21D		0	Net 21 days
5	4701			65	aa
6	4702			8	bb
7	70000			0	
8	70001			0	
9	70002			0	
10	70003			0	
11	70010			0	
12	70011			0	
13	70040			0	
14	70041			0	
15	70060			0	
16	7DAYS	7D		0	Net 7 days
17	CM	CM		0	Current month
18	COD	0D		0	Cash on delivery

```
SELECT *
FROM mytable
```

8.6. DROP table

Using DROP TABLE a table and its definition can be removed.

Query executed - No results returned.

DROP TABLE mytable

9. Current of cursors

To avoid changes in the demo Navision Financials database we duplicate

- Item
- Vendor

into

- SWItem
- SWVendor

	No_	No 2	Description	Search Description	Description 2	Bill	Class	Base Unit of	Price Unit	Inventory Pos	She
1	1896-S		ATHENS Desk	ATHENS DESK		0		PCS	0	RESALE	
2	1900-S		PARIS Guest Chair, black	PARIS GUEST CHAIR		0		PCS	0	RESALE	
3	1906-S		ATHENS Mobile Pedestal	ATHENS MOBILE PEDESTAL		0		PCS	0	RESALE	
4	1908-S		LONDON Swivel Chair, blue	LONDON SWIVEL CHAIR		0		PCS	0	RESALE	
5	1920-S		ANTWERP Conference Table	ANTWERP CONFERENCE TABLE		0		PCS	0	RESALE	
6	1924-W		CHAMONIX Base Storage Unit	CHAMONIX BASE STORAGE UNIT		1		PCS	0	FINISHED	
7	1928-S		AMSTERDAM Lamp	AMSTERDAM LAMP		0		PCS	0	RESALE	
8	1928-		ST.M	ST.M		1		PCS	0	FINIS	

SW-Tools ODBC - Programmers Reference

	W	ORITZ Stora ge Unit/D rawer s	ORITZ STOR AGE UNIT/ DRAW ERS				HED
9	1936- S	BERLI N Guest Chair, yellow	BERLI N GUES T CHAIR , YELLO W	0	PCS	0	RESAL E
10	1952- W	OSLO Stora ge Unit/S helf	OSLO STOR AGE UNIT/ SHELF	1	PCS	0	FINIS HED
11	1960- S	ROME Guest Chair, green	ROME GUES T CHAIR , GREE N	0	PCS	0	RESAL E
12	1964- S	TOKY O Guest Chair, blue	TOKY O GUES T CHAIR , BLUE	0	PCS	0	RESAL E
13	1964- W	INNS BRUC K Stora ge Unit/G .Door	INNS BRUC K STOR AGE UNIT/ G.DO OR	1	PCS	0	FINIS HED
14	1968- S	MEXI CO Swivel Chair, black	MEXI CO SWIV EL CHAIR , BLAC K	0	PCS	0	RESAL E
15	1968- W	GREN OBLE White board, red	GREN OBLE WHIT EBOA RD, RED	1	PCS	0	FINIS HED

SW-Tools ODBC - Programmers Reference

16	1972-S	MUNI CH Swivel Chair, yellow	MUNI CH SWIV EL CHAIR / YELLO W	0	PCS	0	RESAL E
17	1972-W	SAPP ORO White board, black	SAPP ORO WHIT EBOA RD, BLAC K	1	PCS	0	FINIS HED
18	1976-W	INNS BRUC K Stora ge Unit/ W.Do or	INNS BRUC K STOR AGE UNIT/ W.DO OR	1	PCS	0	FINIS HED
19	1980-S	MOSC OW Swivel Chair, red	MOSC OW SWIV EL CHAIR , RED	0	PCS	0	RESAL E
20	1984-W	SARAJ EVO White board, blue	SARAJ EVO WHIT EBOA RD, BLUE	1	PCS	0	FINIS HED
21	1988-S	SEOU L Guest Chair, red	SEOU L GUES T CHAIR , RED	0	PCS	0	RESAL E
22	1988-W	CALG ARY White board, yellow	CALG ARY WHIT EBOA RD, YELLO W	1	PCS	0	FINIS HED
23	1992-W	ALBER TVILL E White board, green	ALBER TVILL E WHIT EBOA RD, GREE	1	PCS	0	FINIS HED

SW-Tools ODBC - Programmers Reference

24	1996-S	ATLAN TA White board, base	N ATLAN TA WHIT EBOA RD, BASE	0	PCS	0	RESAL E
25	2000-S	SIDNE Y Swivel Chair, green	SIDNE Y SWIV EL CHAIR , GREE N	0	PCS	0	RESAL E
26	70000	Side Panel	SIDE PANEL	0	PCS	0	RAW MAT
27	70001	Base	BASE	0	PCS	0	RAW MAT
28	70002	Top Panel	TOP PANEL	0	PCS	0	RAW MAT
29	70003	Rear Panel	REAR PANEL	0	PCS	0	RAW MAT
30	70010	Wood en Door	WOO DEN DOOR	0	PCS	0	RAW MAT
31	70011	Glass Door	GLAS S DOOR	0	PCS	0	RAW MAT
32	70040	Drawe r	DRAW ER	0	PCS	0	RAW MAT
33	70041	Shelf	SHELF	0	PCS	0	RAW MAT
34	70060	Mount ing	MOUN TING	0	PCS	0	RAW MAT
35	70100	Paint, black	PAINT , BLAC K	0	CAN	0	RAW MAT
36	70101	Paint, yellow	PAINT , YELLO W	0	CAN	0	RAW MAT
37	70102	Paint, blue	PAINT , BLUE	0	CAN	0	RAW MAT
38	70103	Paint, red	PAINT , RED	0	CAN	0	RAW MAT
39	70104	Paint, green	PAINT , GREE N	0	CAN	0	RAW MAT
40	70200	Hinge	HING E	0	PCS	0	RAW MAT
41	70201	Doork	DOOR	0	PCS	0	RAW

SW-Tools ODBC - Programmers Reference

42	766B C-A	nob OLYM PIC Confe rence Syste m	KNOB OLYM PIC CONF EREN CE SYSTE M	1	PCS	0	MAT FINIS HED
43	766B C-B	OLYM PIC Office Syste m	OLYM PIC OFFIC E SYSTE M	1	PCS	0	FINIS HED
44	766B C-C	OLYM PIC Stora ge Syste m	OLYM PIC STOR AGE SYSTE M	1	PCS	0	FINIS HED
45	80100	Printin g Paper	PRINT ING PAPER	0	BOX	0	RESAL E

SELECT *
FROM Item
ORDER BY 1
INTO TEMP zb\nf.SWItem

No_	Name	Search Name	Name 2	Address	Address 2	City
1	01254796	Progressiv e Home Furnishin g s	PROGRESS IVE HOME FURNISHI NGS	222 Reagan Drive		Columbia
2	01587796	Custom Metals Incorporat ed	CUSTOM METALS INCORPOR ATED	640 Nixon Blvd.		Birmingham
3	01963656	American Wood Exports	AMERICAN WOOD EXPORTS	723 North Hampton Drive		New York
4	10000	London Postmaster	LONDON POSTMAST ER	10 North Lake Avenue		London
5	20000	AR Day Property Managemen t	AR DAY PROPERTY MANAGEM ENT	100 Day Drive		Guildford
6	30000	CoolWood Technologi es	COOLWOO D TECHNOLO GIES	33 Hitech Drive		Portsmouth

SW-Tools ODBC - Programmers Reference

7	31147896	Houtindustrie Bruynsma Koekamp Leerindustrie	HOUTINDUSTRIE BRUYNSMA KOEKAMP LEERINDUSTRIE	Havenweg 92	Zaandam
8	31568974	Beekhuyzen BV	BEEKHUYSEN BV	Mergelland 4	Apeldoorn
9	31580305	BATIMETAL	BATIMETAL	Stationstraat 12	Humbeek
10	32456123	PURE-LOOK	PURE-LOOK	Parklaan 3	Mechelen
11	32554455	VELUX	VELUX	Boomgaardstraat 55	Kortrijk
12	32665544	Importaciones S.A.	IMPORTACIONES S.A.	Av. Palmeras 5	Alicante
13	34110257	Subacqua	SUBACQUA	c/ Neptuno 18	Salamanca
14	34151086	Transporte Roas	TRANSPORTE ROAS	Pol. Ind. 4	Palma Mallorca
15	34280789	Husplast HF	HUSPLAST HF	Dalvegi 24	Reykjavik
16	35225588	Hurdir HF	HURDIR HF	Skeifunni 13	Reykjavik
17	35336699	Huslagnir	HUSLAGNIR	Rangarseli 20	Reykjavik
18	35741852	IVERKA POHISTVO d.o.o.	IVERKA POHISTVO D.O.O.	Industrijska c.15	Kranj
19	38458653	MASIVA d.o.o.	MASIVA D.O.O.	Ferkova ulica4	Kranj
20	38521479	POIIORLES d.d.	POIIORLES D.D.	Cankarjeva 17	Maribor
21	38654478	Lewis Home Furniture	LEWIS HOME FURNITURE	51 Radcroft Road	Gainsborough
22	40000	Flückiger AG	FLÜCKIGER AG	Erlenstrasse 5	Immensee
23	41124089	Matter Transporte	MATTER TRANSPORTE	Industrie	Pratteln
24	41483124	Schreinerei Peter	SCHREINE REI PETER	Seedamm 18	Rotkreuz
25	41568934	UP Ostrov s.p.	UP OSTROV S.P.	Mayerova 12	Olomouch
26	42125678	TON s.r.o.	TON S.R.O.	Krausova 125	Kyjov
27	42784512	Mach & spol. v.o.s.	MACH & SPOL. V.O.S.	T.G. Masaryka 15	Blansko
28	42895623	Sägewerk Mittersill	SÄGEWERK	Ortstraße 12	Mittersill

SW-Tools ODBC - Programmers Reference

30	43589632	Paul Brettschneider KG	MITTERSIL L PAUL BRETTSC NEIDER KG	Am Bahndam m 68	Murau
31	43698547	Beschläge Schacherh uber	BESCHLÄG E SCHACHER HUBER	Fabrikstraß e 24	Wien
32	44127904	WoodMart Supply Co.	WOODMAR T SUPPLY CO.	12 Industrial Heights	Stratford
33	44127914	Mortimor Car Company	MORTIMOR CAR COMPANY	43 Industrial Heights	Stratford
34	44729910	Tool Mart	TOOL MART	8 Grovenors Park	London
35	44756404	Furniture Industries	FURNITUR E INDUSTRI ES	23 Charington Cresent	Edinburgh
36	45774477	Fredborg Lamper A/S	FREDBORG LAMPER A/S	Nyborgvej 566	Odense C
37	45858585	Elvstrøm Træindustr i A/S	ELVSTRØM TRÆINDUS TRI A/S	Havnevej 6	Køge
38	45868686	Schmeichel Møbler A/S	SCHMEICH EL MØBLER A/S	Ndr. Frihavns gade 45	København Ø
39	46558855	Kinnareds Träindustri AB	KINNARED S TRÄINDUS TRI AB	Stordal Torslunda	Kinnared
40	46635241	Viksjo Snickerifab rik AB	VIKSJÖ SNICKERIF ABRIK AB	Sjöhagsgat an 7	Sundsvall
41	46895623	Svensk Möbeltextil AB	SVENSK MÖBELTEX TIL AB	Nyängsväg en 14	Göteborg
42	47521478	Møbelhuse t AS	MØBELHUS ET AS	Vivendelve ien 17	Ski
43	47562214	Stilmøbler as	STILMØBL ER AS	Thv. Meyersgt. 34	Oslo
44	47586622	Furumøble r A/S	FURUMØBL ER A/S	Østensjøve ien 27	Oslo
45	49454647	VAG - Jürgensen	VAG - JÜRGENSE N	Süderweg 15	Hamburg
46	49494949	KKA Büromasch	KKA BÜROMAS	Immerman nstraße 92	Landsberg am Lech

47	49989898	inen Gmbh	CHINEN GMBH		
		JB- Spedition	JB- SPEDITION	Grünfahrts weg 20	München
48	50000	Service Electronics Ltd.	SERVICE ELECTRON ICS LTD.	172 Field Green	Watford

```
SELECT *  
FROM Vendor  
ORDER BY 1  
INTO TEMP zc\nf.SWVendor
```

9.1. Getting CURSOR name

Cursors are named, the name can be retrieved by SQLGetCursorName:

Cursorname

1 SQL_CUR00001

SQLGetCursorName(hstmt,cursorname,256,&len)

And the cursor name can be set by SQLSetCursorName before the SELECT is done.

9.2. Setting CURSOR name

Query executed - No results returned.

SQLSetCursorName(hstmt,"mycursor",SQL_NTS)

The select for UPDATE is implemented. Note both files may be updated.

9.3. SELECT for UPDATE

	No_	Description	Unit Price	Vendor No_	Ven
1	1896-S	ATHENS Desk	0	30000	30000
2	1900-S	PARIS Guest Chair, black	0	20000	20000
3	1906-S	ATHENS Mobile Pedestal	0	30000	30000
4	1908-S	LONDON Swivel Chair, blue	0	30000	30000
5	1920-S	ANTWERP Conference Table	0	20000	20000
6	1924-W	CHAMONIX Base Storage Unit	0	20000	20000
7	1928-S	AMSTERDAM Lamp	0	10000	10000
8	1928-W	ST.MORITZ Storage Unit/Drawers	0		
9	1936-S	BERLIN Guest Chair, yellow	0	20000	20000
10	1952-W	OSLO Storage Unit/Shelf	0		
11	1960-S	ROME Guest Chair, green	0	20000	20000
12	1964-S	TOKYO Guest Chair, blue	0	20000	20000
13	1964-W	INNSBRUCK Storage Unit/G.Door	0		
14	1968-S	MEXICO Swivel Chair, black	0	30000	30000
15	1968-W	GRENOBLE Whiteboard, red	0		
16	1972-S	MUNICH Swivel Chair, yellow	0	30000	30000
17	1972-W	SAPPORO Whiteboard, black	0		
18	1976-W	INNSBRUCK Storage Unit/W.Door	0		
19	1980-S	MOSCOW Swivel Chair, red	0	30000	30000
20	1984-W	SARAJEVO Whiteboard, blue	0		
21	1988-S	SEOUL Guest Chair, red	0	20000	20000
22	1988-W	CALGARY Whiteboard, yellow	0		
23	1992-W	ALBERTVILLE Whiteboard, green	0		
24	1996-S	ATLANTA Whiteboard, base	0	30000	30000
25	2000-S	SIDNEY Swivel Chair, green	0	30000	30000
26	70000	Side Panel	0	10000	10000
27	70001	Base	0	10000	10000
28	70002	Top Panel	0	10000	10000
29	70003	Rear Panel	0	10000	10000
30	70010	Wooden Door	0	10000	10000
31	70011	Glass Door	0	10000	10000
32	70040	Drawer	0	10000	10000
33	70041	Shelf	0	10000	10000
34	70060	Mounting	0	32456123	32456123
35	70100	Paint, black	0	20000	20000
36	70101	Paint, yellow	0	20000	20000
37	70102	Paint, blue	0	20000	20000
38	70103	Paint, red	0	20000	20000
39	70104	Paint, green	0	20000	20000
40	70200	Hinge	0	10000	10000
41	70201	Doorknob	0	10000	10000
42	766BC-A	OLYMPIC Conference System	0		
43	766BC-B	OLYMPIC Office System	0		
44	766BC-C	OLYMPIC Storage System	0		
45	80100	Printing Paper	0	46558855	46558855

**SELECT No_, Description, 'Unit Price', 'Vendor No_', a.No_ Ven
FROM SWItem, OUTER SWVendor a**

**WHERE a.No_ = 'Vendor No_'
FOR UPDATE OF 'Unit Price'**

As an extension to the SQL for these examples, the cursor can be positioned using **SELECT ...
WHERE CURRENT OF cursorname = rownumber**

	No_	Description	Unit Price	Vendor No_
1	1924-W	CHAMONIX Base Storage Unit	0	20000

**SELECT No_, Description, 'Unit Price', 'Vendor No_'
FROM SWItem
WHERE CURRENT OF mycursor=6**

Query executed - No results returned.

**UPDATE SWItem
SET 'Unit Price' = 'Unit Price' + 200
WHERE CURRENT OF mycursor**

9.4. SELECT from cursor

The result may be retrieved again by the extension select

	No_	Description	Unit Price	Vendor No_
1	1924-W	CHAMONIX Base Storage Unit	200	20000

```
SELECT No_, Description, 'Unit Price', 'Vendor No_'  
FROM SWItem  
WHERE CURRENT OF mycursor
```

Also rows from joined tables may be used in positioned update

	No_	Name	Balance
1	30000		0

```
SELECT No_, Name, Balance  
FROM SWVendor  
WHERE CURRENT OF mycursor=3  
FOR UPDATE
```

9.5. DELETE from cursor

The positioned delete can be done:

Query executed - No results returned.

DELETE FROM SWItem

WHERE CURRENT OF mycursor=3

The FOR UPDATE may be given without fields if only DELETE should follow

	No_	Vendor No_	Unit Price
1	1896-S	30000	0
2	1900-S	20000	0
3	1908-S	30000	0
4	1920-S	20000	0
5	1924-W	20000	200
6	1928-S	10000	0
7	1928-W		0
8	1936-S	20000	0
9	1952-W		0
10	1960-S	20000	0
11	1964-S	20000	0
12	1964-W		0
13	1968-S	30000	0
14	1968-W		0
15	1972-S	30000	0
16	1972-W		0
17	1976-W		0
18	1980-S	30000	0
19	1984-W		0
20	1988-S	20000	0
21	1988-W		0
22	1992-W		0
23	1996-S	30000	0
24	2000-S	30000	0
25	70000	10000	0
26	70001	10000	0
27	70002	10000	0
28	70003	10000	0
29	70010	10000	0
30	70011	10000	0
31	70040	10000	0
32	70041	10000	0
33	70060	32456123	0
34	70100	20000	0
35	70101	20000	0
36	70102	20000	0
37	70103	20000	0
38	70104	20000	0
39	70200	10000	0
40	70201	10000	0
41	766BC-A		0
42	766BC-B		0
43	766BC-C		0
44	80100	46558855	0

```
SELECT No_, 'Vendor No_', 'Unit Price'  
FROM SWItem  
FOR UPDATE
```

Query executed - No results returned.

```
DELETE FROM SWItem  
WHERE CURRENT OF mycursor
```

	No_	Description	Unit Price
1	1896-S	ATHENS Desk	0
2	1900-S	PARIS Guest Chair, black	0
3	1908-S	LONDON Swivel Chair, blue	0
4	1920-S	ANTWERP Conference Table	0
5	1924-W	CHAMONIX Base Storage Unit	200
6	1928-S	AMSTERDAM Lamp	0
7	1928-W	ST.MORITZ Storage Unit/Drawers	0
8	1936-S	BERLIN Guest Chair, yellow	0
9	1952-W	OSLO Storage Unit/Shelf	0
10	1960-S	ROME Guest Chair, green	0
11	1964-S	TOKYO Guest Chair, blue	0
12	1964-W	INNSBRUCK Storage Unit/G.Door	0
13	1968-S	MEXICO Swivel Chair, black	0
14	1968-W	GRENOBLE Whiteboard, red	0
15	1972-S	MUNICH Swivel Chair, yellow	0
16	1972-W	SAPPORO Whiteboard, black	0
17	1976-W	INNSBRUCK Storage Unit/W.Door	0
18	1980-S	MOSCOW Swivel Chair, red	0
19	1984-W	SARAJEVO Whiteboard, blue	0
20	1988-S	SEOUL Guest Chair, red	0
21	1988-W	CALGARY Whiteboard, yellow	0
22	1992-W	ALBERTVILLE Whiteboard, green	0
23	1996-S	ATLANTA Whiteboard, base	0
24	2000-S	SIDNEY Swivel Chair, green	0
25	70000	Side Panel	0
26	70001	Base	0
27	70002	Top Panel	0
28	70003	Rear Panel	0
29	70010	Wooden Door	0
30	70011	Glass Door	0
31	70040	Drawer	0
32	70041	Shelf	0
33	70060	Mounting	0
34	70100	Paint, black	0
35	70101	Paint, yellow	0
36	70102	Paint, blue	0
37	70103	Paint, red	0
38	70104	Paint, green	0
39	70200	Hinge	0
40	70201	Doorknob	0
41	766BC-A	OLYMPIC Conference System	0
42	766BC-B	OLYMPIC Office System	0
43	766BC-C	OLYMPIC Storage System	0

```
SELECT No_, Description, 'Unit Price'  
FROM SWItem
```

10. Views

A view may be created defining a select

Query executed - No results returned.

CREATE VIEW myview (A,B,C)

AS (SELECT No_, Description, 'Unit Price' FROM Item WHERE 'Unit Price' > 0)

Selecting fields from a view first executes the defined select. The table definition but not the table itself exists. A view cannot be updated.

	A	B	C
1	1896-S	ATHENS Desk	649.4
2	1906-S	ATHENS Mobile Pedestal	281.4
3	1920-S	ANTWERP Conference Table	420.4
4	1928-W	ST.MORITZ Storage Unit/Drawers	342.1
5	1964-W	INNSBRUCK Storage Unit/G.Door	292
6	1968-W	GRENOBLE Whiteboard, red	974.8
7	1972-W	SAPPORO Whiteboard, black	974.8
8	1976-W	INNSBRUCK Storage Unit/W.Door	256.1
9	1984-W	SARAJEVO Whiteboard, blue	974.8
10	1988-W	CALGARY Whiteboard, yellow	974.8
11	1992-W	ALBERTVILLE Whiteboard, green	974.8
12	1996-S	ATLANTA Whiteboard, base	906.7
13	766BC-A	OLYMPIC Conference System	5413.80034
14	766BC-B	OLYMPIC Office System	1787.5999
15	766BC-C	OLYMPIC Storage System	944.59998

SELECT *

FROM myview

WHERE C > 200

The view may be removed afterwards:

Query executed - No results returned.

DROP VIEW myview

11. Create / Alter and Rename tables

The CREATE/ALTER TABLE has the following extensions to the standard SQL:

- a. Table name can be given as described for SELECT...INTO**
- b. Field formats may be given including Pack options/Bytes etc.**
- c. PRIMARY KEY may specify SWTools key syntax using fieldnumbers**

11.1. How to create tables

Query executed - No results returned.

```
CREATE TABLE mytable (no SHORT(4),  
name CHAR(20),  
balance NUMERIC(8,2),  
PRIMARY KEY (name ASC,no DESC))
```

Query executed - No results returned.

```
CREATE TABLE 'yourtable' ('no a' SHORT ( 4 ) UNIQUE,  
'name b' CHAR ( 20 ),  
balance DECIMAL ( 8 , 2 ) )
```

Query executed - No results returned.

```
CREATE TABLE sometable (no LONG ,  
name CHAR(20),  
PRIMARY KEY(#1,#2,NP))
```

Index can be created and dropped again

Query executed - No results returned.

```
CREATE UNIQUE INDEX abcdef ON mytable (no ASC,name DESC)
```

Query executed - No results returned.

```
DROP INDEX mytable.abcdef
```

11.2. ALTER table definition

The ALTER TABLE supports ADD,DROP and MODIFY of columns

Query executed - No results returned.

```
ALTER TABLE mytable ADD (date NUMERIC(,8,2P7),code CHAR(13)),  
DROP COLUMN balance,name,  
MODIFY no NUMERIC
```

A table CANNOT BE RENAMED because C/Front does not support it!

```
RENAME TABLE mytable TO agoodtable
```

12. Data types

The below mentioned data types returned by SQLGetTypeInfo are valid. The use of NULL values are restricted due to the file systems involved.

	TY PE _N AM E	DA TA	PR ECI	LP RE	LS UF	CR EA TE _P AR AM S	NU L	CA S	SE A	UN S	MO	AU TO	LO C	MI N	MA X
1	CH AR	1	254	"	"	MA X LEN GT H	0	1	3	NU L	0	NU LL	NU L	NU L	NU L
2	NU ME RIC	8	15	NU LL	NU LL	PRE CIS ION ,SC ALE	0	0	2	0	0	0	NU L	0	9
3	DE CIM AL	8	15	NU LL	NU LL	PRE CIS ION ,SC ALE	0	0	2	0	0	0	NU L	0	9
4	LO NG	4	10	NU LL	NU LL	PRE CIS ION	0	0	2	0	0	0	NU L	0	0
5	SH OR T	5	5	NU LL	NU LL	PRE CIS ION	0	0	2	0	0	0	NU L	0	0
6	FLO AT	8	15	NU LL	NU LL	PRE CIS ION ,SC ALE	0	0	2	0	0	0	NU L	0	9
7	RE AL	8	15	NU LL	NU LL	PRE CIS ION ,SC ALE	0	0	2	0	0	0	NU L	0	9
8	DO UBL E	8	15	NU LL	NU LL	PRE CIS ION ,SC ALE	0	0	2	0	0	0	NU L	0	9
9	DA TE	9	10	#	#	NU LL	1	0	2	NU L	0	NU LL	NU L	NU L	NU L
10	TIM E	10	8	#	#	NU LL	1	0	2	NU L	0	NU LL	NU L	NU L	NU L
11	TIM	11	19	#	#	NU	1	0	2	NU	0	NU	NU	NU	NU

	EST					LL				L		LL	L	L	L
	AM														
	P														
12	VA	12	102	"	"	MA	0	1	3	NU	0	NU	NU	NU	NU
	RC		4			X				L		LL	L	L	L
	HA					LEN									
	R					GT									
						H									

SQLGetTypeInfo(hstmt,SQL_ALL_TYPES)

Fieldnames are taken from the Data-Dictionary SQLnames, if these are not present the normal fieldname is used, ' \ . and " will be replaced by space. In case of duplicate fieldnames 1 is added to the last character in the name. Fields without name or format definitions is omitted. A description for the **'Payment Terms'** table comes like:

	QUA	OWN	TAB	COL	TYPE	TYPE	PRE	LEN	SCA	RAD	NUL	REM
	LI	ER	LE_	UMN		_NA	C		LE	IX	L	ARK
			NAM	_NA		ME						S
			E	ME								
1	NULL	NULL	Paym	Code	12	VARC	10	10	0	NULL	0	NULL
			ent			HAR						
			Te									
2	NULL	NULL	Paym	Due	12	VARC	20	20	0	NULL	0	NULL
			ent	Date		HAR						
			Te	Ca								
3	NULL	NULL	Paym	Disco	12	VARC	20	20	0	NULL	0	NULL
			ent	unt		HAR						
			Te	Da								
4	NULL	NULL	Paym	Disco	8	DOU	11	8	2	10	0	NULL
			ent	unt		BLE						
			Te	%								
5	NULL	NULL	Paym	Descr	12	VARC	50	50	0	NULL	0	NULL
			ent	ption		HAR						
			Te									

SQLColumns(hstmt,NULL,0,NULL,0,"Payment Terms",SQL_NTS,NULL,0)

After a SELECT SQLDescribeCol may look like the following:

	Code	Due Date	Discount Date	Discount %	Description
		Calculation	Calculati		
1	CM	CM		0	Current month
2	COD	0D		0	Cash on delivery

SELECT *
FROM 'Payment Terms'
WHERE Description LIKE("C%")

	Name	SQL-Type	Precision	Scale	Nullable
1	Code	12 SQL_VARCHAR	10	0	0

2	Due Date Calculation	12	SQL_VARCHAR	20	0	0
3	Discount Date Calculatio	12	SQL_VARCHAR	20	0	0
4	Discount %	8	SQL_DOUBLE	11	2	0
5	Description	12	SQL_VARCHAR	50	0	0

SQLDescribeCol(hstmt,*,name,256,&len,&type,&precision,&scale,&nullable)

And the more detailed column attributes:

	A ut	C as	C o u	S i z e	L a b e l	L e n	M	N a m e	N u l l	O w n	P r e c	Q u a	S c a	S e a	T a b	T y p	T y p n a m e	U n s	U p d a t
1	0	1	5	10	Co de	10	0	Co de	0		10	0	3		12	VA RC H A R		1	1
2	0	1	5	20	D ue D	20	0	D ue D	0		20	0	3		12	VA RC H A R		1	1
3	0	1	5	20	Di sc o	20	0	Di sc o	0		20	0	3		12	VA RC H A R		1	1
4	0	0	5	15	Di sc o	8	0	Di sc o	0		11	2	2		8	D O U B L E		0	1
5	0	1	5	50	De sc r	50	0	De sc r	0		50	0	3		12	VA RC H A R		1	1

SQLColAttributes(hstmt,*,*,info,256,&len,&val)

The SQLSpecialColumns gives the best access key to the table

	SCOPE	COLUMN_ NAME	DATA_TYP E	TYPE_NAM E	PREC	LEN	SCALE	PSEUDO
1	1	Code	0	12	0	10	10	1

**SQLSpecialColumns(hstmt,SQL_BEST_ROWID,
NULL,0,NULL,0,"Payment Terms",SQL_NTS,
SQL_SCOPE_CURROW,SQL_NULLABLE)**

Whereas SQLStatistics provides information of the table and the single keyparts

QUA LI	OW NER	TAB LE_	UNI	XQU ALI	IND EX_	TYP	SEQ	COL UM	COL	CAR	PAG ES	FIL
-----------	-----------	------------	-----	------------	------------	-----	-----	-----------	-----	-----	-----------	-----

			NA ME			NA ME			N_N AME				
1	NUL L	NUL L	Pay men t Te	NUL	Pay men	NUL L	0	NUL	NUL L	NUL	0	0	NUL
2	NUL L	NUL L	Pay men t Te	0	Pay men	IND EX0 1	3	1	Code	A	0	0	NUL

**SQLStatistics(hstmt,NULL,0,NULL,0,"Payment
Terms",SQL_NTS,SQL_INDEX_ALL,SQL_ENSURE)**

Note: SQL_ENSURE is required to get the correct values of Cardinality and pages. For TABLE_STAT Cardinality is total number of records, Pages the files size in KB. For INDEX Cardinality is also total number of records, Pages the index size in KB.

13. Table types, names, Owners and Qualifiers

The table names is decided from the FNAME= and the FNAMELEN= parameters stated in ODBC.INI for the data source or given in the connection string to SQLDriverConnect. * marks the default.

```
FNAME=n    How to use table names
  0    File ID is always used
  1 *  If SID is filled, use the first 11 characters of this else same as
  2    Use reduced FILENAME according to following rules:
      a. Start from first alpha character in the name
      b. If spaces is present, start after the last space found
      c. If : \ or / is present, start after the last of these
      d. If name becomes XX.xxx, remove XX.
      e. If name ends with abc, remove abc.
  3    Use FILETEXT as tablename until first non-alphanumeric character.
  4    Use FILETEXT as tablename
```

```
FNAMELEN=n  Length of Table name
  0    No restrictions on tablename
  1 *  Tablename is delimited by the first occurrence of a space
  >2   Tablename will be of maximum this size.
```

The characters \ . ' and " in any file- or fieldname will be replaced by space as not all database programs is able to handle these.

If the tablename becomes invalid or if a duplicate name is found the ID is used.

The table informations also uses the following:

```
OWNER=n    Usage of owners
  0    No owners, NULL is returned
  1 *  Use file typename as owner
  2    Use file ID as owner
```

```
QUALIFIER=n Usage of file qualifiers
  0    No qualifiers, NULL is returned
  1*   Use file ID as qualifier
  2    Use file typename as qualifier
```

```
FTEXT=n    Usage of file text description
  0 *   The file text is used
  1    Filename
  2    Filename + File text
  3    File ID + Filename + File text
```

	TABLE_QUALIFIER	TABLE_OWNER	TABLE_NAME	TABLE_TYPE	REMARKS
1	NULL	NULL	Systemfields	SYSTEM TABLE	Systemfields
2	NULL	NULL	Acc Sched Cell V	TABLE	Acc. Sched. Cell Value
3	NULL	NULL	Acc Sched Column	TABLE	Acc. Sched. Column
4	NULL	NULL	Acc Sched Column	TABLE	Acc. Sched. Column Layout Name
5	NULL	NULL	Acc Schedule Lin	TABLE	Acc. Schedule Line
6	NULL	NULL	Acc Schedule Nam	TABLE	Acc. Schedule Name

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7	NULL	NULL	Accounting Perio	TABLE	Accounting Period
8	NULL	NULL	Activity	TABLE	Activity
9	NULL	NULL	Activity Type	TABLE	Activity Type
10	NULL	NULL	Adjust Exchange	TABLE	Adjust Exchange Rate Buffer
11	NULL	NULL	AllObj	TABLE	AllObj
12	NULL	NULL	Alternative Addr	TABLE	Alternative Address
13	NULL	NULL	Application Area	TABLE	Application Area Line
14	NULL	NULL	Area	TABLE	Area
15	NULL	NULL	Automation Serve	TABLE	Automation Servers
16	NULL	NULL	BOM Component	TABLE	BOM Component
17	NULL	NULL	BOM Journal Batc	TABLE	BOM Journal Batch
18	NULL	NULL	BOM Journal Line	TABLE	BOM Journal Line
19	NULL	NULL	BOM Journal Temp	TABLE	BOM Journal Template
20	NULL	NULL	BOM Ledger Entry	TABLE	BOM Ledger Entry
21	NULL	NULL	BOM Register	TABLE	BOM Register
22	NULL	NULL	Bank Acc Reconci	TABLE	Bank Acc. Reconciliation
23	NULL	NULL	Bank Acc Reconci	TABLE	Bank Acc. Reconciliation Line
24	NULL	NULL	Bank Account	TABLE	Bank Account
25	NULL	NULL	Bank Account Led	TABLE	Bank Account Ledger Entry
26	NULL	NULL	Bank Account Pos	TABLE	Bank Account Posting Group
27	NULL	NULL	Bank Account Sta	TABLE	Bank Account Statement
28	NULL	NULL	Bank Account Sta	TABLE	Bank Account Statement Line
29	NULL	NULL	Bin	TABLE	Bin
30	NULL	NULL	Business Unit	TABLE	Business Unit
31	NULL	NULL	Campaign	TABLE	Campaign
32	NULL	NULL	Campaign Line	TABLE	Campaign Line
33	NULL	NULL	Cause of Absence	TABLE	Cause of Absence
34	NULL	NULL	Cause of Inactiv	TABLE	Cause of Inactivity
35	NULL	NULL	Cheque Ledger En	TABLE	Cheque Ledger Entry
36	NULL	NULL	Close Income Sta	TABLE	Close Income Statement Buffer
37	NULL	NULL	Comment Line	TABLE	Comment Line
38	NULL	NULL	Commodity	TABLE	Commodity

			Code		Code
39	NULL	NULL	Company	TABLE	Company
40	NULL	NULL	Company	TABLE	Company
41	NULL	NULL	Informat		Information
42	NULL	NULL	Confidential	TABLE	Confidential
43	NULL	NULL	Confidential Inf	TABLE	Confidential
44	NULL	NULL	Cont Mgt	TABLE	Cont. Mgt.
45	NULL	NULL	Comment		Comment Line
46	NULL	NULL	Contact	TABLE	Contact
47	NULL	NULL	Contact Job	TABLE	Contact Job
48	NULL	NULL	Resp		Responsibility
49	NULL	NULL	Contact	TABLE	Contact
50	NULL	NULL	Manageme		Management
51	NULL	NULL	Country	TABLE	Country
52	NULL	NULL	Currency	TABLE	Currency
53	NULL	NULL	Currency	TABLE	Currency
54	NULL	NULL	Exchang		Exchange Rate
55	NULL	NULL	Currency Total	TABLE	Currency Total
56	NULL	NULL	B		Buffer
57	NULL	NULL	Currency for	TABLE	Currency for
58	NULL	NULL	Fin		Fin. Charge
59	NULL	NULL	Currency for	TABLE	Currency for
60	NULL	NULL	Rem		Reminder Level
61	NULL	NULL	Cust Invoice	TABLE	Cust. Invoice
62	NULL	NULL	Dis		Disc.
63	NULL	NULL	Cust Ledger	TABLE	Cust. Ledger
64	NULL	NULL	Entr		Entry
65	NULL	NULL	Cust/Item	TABLE	Cust./Item
66	NULL	NULL	Discou		Discount
67	NULL	NULL	Customer	TABLE	Customer
68	NULL	NULL	Customer	TABLE	Customer
69	NULL	NULL	Amount		Amount
70	NULL	NULL	Customer Bank	TABLE	Customer Bank
71	NULL	NULL	Ac		Account
72	NULL	NULL	Customer	TABLE	Customer
73	NULL	NULL	Discoun		Discount Group
74	NULL	NULL	Customer	TABLE	Customer
75	NULL	NULL	Posting		Posting Group
76	NULL	NULL	Database File	TABLE	Database File
77	NULL	NULL	Database Key	TABLE	Database Key
78	NULL	NULL	Gro		Groups
79	NULL	NULL	Date	TABLE	Date
80	NULL	NULL	Date Compr	TABLE	Date Compr.
81	NULL	NULL	Regis		Register
82	NULL	NULL	Department	TABLE	Department
83	NULL	NULL	Depreciation	TABLE	Depreciation
84	NULL	NULL	Boo		Book
85	NULL	NULL	Depreciation	TABLE	Depreciation
86	NULL	NULL	Tab		Table Buffer
87	NULL	NULL	Depreciation	TABLE	Depreciation
88	NULL	NULL	Tab		Table Header
89	NULL	NULL	Depreciation	TABLE	Depreciation

70	NULL	NULL	Tab Document	TABLE	Table Line Document
71	NULL	NULL	Entry Drive	TABLE	Entry Drive
72	NULL	NULL	Drop Shpt Post B	TABLE	Drop Shpt. Post. Buffer
73	NULL	NULL	Employee	TABLE	Employee
74	NULL	NULL	Employee Absence	TABLE	Employee Absence
75	NULL	NULL	Employee Qualifi	TABLE	Employee Qualification
76	NULL	NULL	Employee Relativ	TABLE	Employee Relative
77	NULL	NULL	Employee Statist	TABLE	Employee Statistics Group
78	NULL	NULL	Employment Contr	TABLE	Employment Contract
79	NULL	NULL	Entry Summary	TABLE	Entry Summary
80	NULL	NULL	Entry/Exit Point	TABLE	Entry/Exit Point
81	NULL	NULL	Exch Rate Adjmt	TABLE	Exch. Rate Adjmt. Reg.
82	NULL	NULL	Extended Text He	TABLE	Extended Text Header
83	NULL	NULL	Extended Text Li	TABLE	Extended Text Line
84	NULL	NULL	FA Allocation	TABLE	FA Allocation
85	NULL	NULL	FA Buffer Projec	TABLE	FA Buffer Projection
86	NULL	NULL	FA Class	TABLE	FA Class
87	NULL	NULL	FA Date Type	TABLE	FA Date Type
88	NULL	NULL	FA Depreciation	TABLE	FA Depreciation Book
89	NULL	NULL	FA G/L Posting B	TABLE	FA G/L Posting Buffer
90	NULL	NULL	FA Journal Batch	TABLE	FA Journal Batch
91	NULL	NULL	FA Journal Line	TABLE	FA Journal Line
92	NULL	NULL	FA Journal Setup	TABLE	FA Journal Setup
93	NULL	NULL	FA Journal Templ	TABLE	FA Journal Template
94	NULL	NULL	FA Ledger Entry	TABLE	FA Ledger Entry
95	NULL	NULL	FA Location	TABLE	FA Location
96	NULL	NULL	FA Matrix Postin	TABLE	FA Matrix Posting Type
97	NULL	NULL	FA Posting Group	TABLE	FA Posting Group
98	NULL	NULL	FA Posting Type	TABLE	FA Posting Type
99	NULL	NULL	FA Posting Type	TABLE	FA Posting Type Setup
100	NULL	NULL	FA Reclass Journ	TABLE	FA Reclass. Journal Batch
101	NULL	NULL	FA Reclass Journ	TABLE	FA Reclass. Journal Line
102	NULL	NULL	FA Reclass	TABLE	FA Reclass.

			Journ		Journal Template
103	NULL	NULL	FA Register	TABLE	FA Register
104	NULL	NULL	FA Setup	TABLE	FA Setup
105	NULL	NULL	FA Subclass	TABLE	FA Subclass
106	NULL	NULL	Field	TABLE	Field
107	NULL	NULL	File	TABLE	File
108	NULL	NULL	Fin Charge Comme	TABLE	Fin. Charge Comment Line
109	NULL	NULL	Finance Charge M	TABLE	Finance Charge Memo Header
110	NULL	NULL	Finance Charge M	TABLE	Finance Charge Memo Line
111	NULL	NULL	Finance Charge T	TABLE	Finance Charge Terms
112	NULL	NULL	Finance Charge T	TABLE	Finance Charge Text
113	NULL	NULL	Fixed Asset	TABLE	Fixed Asset
114	NULL	NULL	G/L Account	TABLE	G/L Account
115	NULL	NULL	G/L Account Net	TABLE	G/L Account Net Change
116	NULL	NULL	G/L Budget Entry	TABLE	G/L Budget Entry
117	NULL	NULL	G/L Budget Name	TABLE	G/L Budget Name
118	NULL	NULL	G/L Entry	TABLE	G/L Entry
119	NULL	NULL	G/L Register	TABLE	G/L Register
120	NULL	NULL	Gains and Losses	TABLE	Gains and Losses Post. Buffer
121	NULL	NULL	Gen Business Pos	TABLE	Gen. Business Posting Group
122	NULL	NULL	Gen Jnl Allocati	TABLE	Gen. Jnl. Allocation
123	NULL	NULL	Gen Journal Batc	TABLE	Gen. Journal Batch
124	NULL	NULL	Gen Journal Line	TABLE	Gen. Journal Line
125	NULL	NULL	Gen Journal Temp	TABLE	Gen. Journal Template
126	NULL	NULL	Gen Product Post	TABLE	Gen. Product Posting Group
127	NULL	NULL	General Ledger S	TABLE	General Ledger Setup
128	NULL	NULL	General Posting	TABLE	General Posting Setup
129	NULL	NULL	Grounds for Term	TABLE	Grounds for Termination
130	NULL	NULL	HR Confidential	TABLE	HR Confidential Comment Line
131	NULL	NULL	Human Resource C	TABLE	Human Resource Comment Line
132	NULL	NULL	Human Resources	TABLE	Human Resources

133	NULL	NULL	Ins Coverage Led	TABLE	Setup Ins. Coverage Ledger Entry
134	NULL	NULL	Insurance	TABLE	Insurance
135	NULL	NULL	Insurance	TABLE	Insurance
136	NULL	NULL	Journa	TABLE	Journal Batch
137	NULL	NULL	Insurance Journa	TABLE	Insurance Journal Line
138	NULL	NULL	Insurance Regist	TABLE	Insurance Register
139	NULL	NULL	Insurance Type	TABLE	Insurance Type
140	NULL	NULL	Integer	TABLE	Integer
141	NULL	NULL	Intrastat Jnl Ba	TABLE	Intrastat Jnl. Batch
142	NULL	NULL	Intrastat Jnl Li	TABLE	Intrastat Jnl. Line
143	NULL	NULL	Intrastat Jnl Te	TABLE	Intrastat Jnl. Template
144	NULL	NULL	Inventory Buffer	TABLE	Inventory Buffer
145	NULL	NULL	Inventory Postin	TABLE	Inventory Posting Group
146	NULL	NULL	Inventory Setup	TABLE	Inventory Setup
147	NULL	NULL	Invoice Post Buf	TABLE	Invoice Post. Buffer
148	NULL	NULL	Invt Posting Buf	TABLE	Invt. Posting Buffer
149	NULL	NULL	Issued Fin Charg	TABLE	Issued Fin. Charge Memo Header
150	NULL	NULL	Issued Fin Charg	TABLE	Issued Fin. Charge Memo Line
151	NULL	NULL	Issued Reminder	TABLE	Issued Reminder Header
152	NULL	NULL	Issued Reminder	TABLE	Issued Reminder Line
153	NULL	NULL	Item	TABLE	Item
154	NULL	NULL	Item Amount	TABLE	Item Amount
155	NULL	NULL	Item Application	TABLE	Item Application Entry
156	NULL	NULL	Item Discount Gr	TABLE	Item Discount Group
157	NULL	NULL	Item Journal Bat	TABLE	Item Journal Batch
158	NULL	NULL	Item Journal Lin	TABLE	Item Journal Line
159	NULL	NULL	Item Journal Tem	TABLE	Item Journal Template

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160	NULL	NULL	Item Ledger Entr	TABLE	Item Ledger Entry
161	NULL	NULL	Item Price	TABLE	Item Price
162	NULL	NULL	Item Price Chang	TABLE	Item Price Change
163	NULL	NULL	Item PurchQtyDis	TABLE	Item Purch.Qty.Disc.
164	NULL	NULL	Item Register	TABLE	Item Register
165	NULL	NULL	Item Sales Qty D	TABLE	Item Sales Qty. Disc.
166	NULL	NULL	Item Translation	TABLE	Item Translation
167	NULL	NULL	Item Unit of Mea	TABLE	Item Unit of Measure
168	NULL	NULL	Item Variant	TABLE	Item Variant
169	NULL	NULL	Item Vendor	TABLE	Item Vendor
170	NULL	NULL	Job	TABLE	Job
171	NULL	NULL	Job Budget Entry	TABLE	Job Budget Entry
172	NULL	NULL	Job Budget Line	TABLE	Job Budget Line
173	NULL	NULL	Job Journal Batc	TABLE	Job Journal Batch
174	NULL	NULL	Job Journal Line	TABLE	Job Journal Line
175	NULL	NULL	Job Journal Quan	TABLE	Job Journal Quantity
176	NULL	NULL	Job Journal Temp	TABLE	Job Journal Template
177	NULL	NULL	Job Ledger Entry	TABLE	Job Ledger Entry
178	NULL	NULL	Job Posting Buff	TABLE	Job Posting Buffer
179	NULL	NULL	Job Posting Grou	TABLE	Job Posting Group
180	NULL	NULL	Job Register	TABLE	Job Register
181	NULL	NULL	Jobs Setup	TABLE	Jobs Setup
182	NULL	NULL	Language	TABLE	Language
183	NULL	NULL	License Informat	TABLE	License Information
184	NULL	NULL	License Permissi	TABLE	License Permission
185	NULL	NULL	Line Number Buff	TABLE	Line Number Buffer
186	NULL	NULL	Location	TABLE	Location
187	NULL	NULL	Main Asset Compo	TABLE	Main Asset Component
188	NULL	NULL	Maintenance	TABLE	Maintenance
189	NULL	NULL	Maintenance Ledg	TABLE	Maintenance Ledger Entry
190	NULL	NULL	Maintenance Regi	TABLE	Maintenance Registration
191	NULL	NULL	Market Group Cod	TABLE	Market Group Code
192	NULL	NULL	Member Of	TABLE	Member Of
193	NULL	NULL	Misc Article	TABLE	Misc. Article
194	NULL	NULL	Misc Article Inf	TABLE	Misc. Article

195	NULL	NULL	Monitor	TABLE	Information Monitor
196	NULL	NULL	No Series	TABLE	No. Series
197	NULL	NULL	No Series Line	TABLE	No. Series Line
198	NULL	NULL	No Series Relati	TABLE	No. Series Relationship
199	NULL	NULL	OLE Control	TABLE	OLE Control
200	NULL	NULL	Object	TABLE	Object
201	NULL	NULL	Order Address	TABLE	Order Address
202	NULL	NULL	Payable Vendor	TABLE	Payable Vendor
203	NULL	NULL	L Payment Method	TABLE	L Payment Method
204	NULL	NULL	Payment Terms	TABLE	Payment Terms
205	NULL	NULL	Performance	TABLE	Performance
206	NULL	NULL	Permission	TABLE	Permission
207	NULL	NULL	Permission Range	TABLE	Permission Range
208	NULL	NULL	Phase	TABLE	Phase
209	NULL	NULL	Phys Inventory	TABLE	Phys. Inventory
210	NULL	NULL	L Price Group	TABLE	L Price Group
211	NULL	NULL	Printer	TABLE	Printer
212	NULL	NULL	Printer Selectio	TABLE	Printer Selection
213	NULL	NULL	Prod Order Compo	TABLE	Prod. Order Component
214	NULL	NULL	Prod Order Line	TABLE	Prod. Order Line
215	NULL	NULL	Project	TABLE	Project
216	NULL	NULL	Prospect	TABLE	Prospect
217	NULL	NULL	Prospect Status	TABLE	Prospect Status
218	NULL	NULL	Prospect Trade	TABLE	Prospect Trade
219	NULL	NULL	Prospect/Conta ct	TABLE	Prospect/Conta ct Market Group
220	NULL	NULL	Purch Comment Li	TABLE	Purch. Comment Line
221	NULL	NULL	Purch Cr Memo Hdr	TABLE	Purch. Cr. Memo Hdr.
222	NULL	NULL	Purch Cr Memo Li	TABLE	Purch. Cr. Memo Line
223	NULL	NULL	Purch Inv Header	TABLE	Purch. Inv. Header
224	NULL	NULL	Purch Inv Line	TABLE	Purch. Inv. Line
225	NULL	NULL	Purch Rcpt Heade	TABLE	Purch. Rcpt. Header
226	NULL	NULL	Purch Rcpt Line	TABLE	Purch. Rcpt. Line
227	NULL	NULL	Purchase Header	TABLE	Purchase Header
228	NULL	NULL	Purchase Line	TABLE	Purchase Line
229	NULL	NULL	Purchases & Paya	TABLE	Purchases & Payables Setup
230	NULL	NULL	Qualification	TABLE	Qualification

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231	NULL	NULL	Reason Code	TABLE	Reason Code
232	NULL	NULL	Relative	TABLE	Relative
233	NULL	NULL	Reminder Comment	TABLE	Reminder Comment Line
234	NULL	NULL	Reminder Header	TABLE	Reminder Header
235	NULL	NULL	Reminder Level	TABLE	Reminder Level
236	NULL	NULL	Reminder Line	TABLE	Reminder Line
237	NULL	NULL	Reminder Terms	TABLE	Reminder Terms
238	NULL	NULL	Reminder Text	TABLE	Reminder Text
239	NULL	NULL	Reminder/Fin Cha	TABLE	Reminder/Fin. Charge Entry
240	NULL	NULL	Report List	TABLE	Report List
241	NULL	NULL	Report Selection	TABLE	Report Selections
242	NULL	NULL	Req Wksh Templat	TABLE	Req. Wksh. Template
243	NULL	NULL	Requisition Line	TABLE	Requisition Line
244	NULL	NULL	Requisition Meth	TABLE	Requisition Method
245	NULL	NULL	Requisition Wksh	TABLE	Requisition Wksh. Name
246	NULL	NULL	Res Capacity Ent	TABLE	Res. Capacity Entry
247	NULL	NULL	Res Journal Batc	TABLE	Res. Journal Batch
248	NULL	NULL	Res Journal Line	TABLE	Res. Journal Line
249	NULL	NULL	Res Journal Temp	TABLE	Res. Journal Template
250	NULL	NULL	Res Ledger Entry	TABLE	Res. Ledger Entry
251	NULL	NULL	Reservation Entr	TABLE	Reservation Entry
252	NULL	NULL	Reservation Setu	TABLE	Reservation Setup
253	NULL	NULL	Resource	TABLE	Resource
254	NULL	NULL	Resource Cost	TABLE	Resource Cost
255	NULL	NULL	Resource Group	TABLE	Resource Group
256	NULL	NULL	Resource Price	TABLE	Resource Price
257	NULL	NULL	Resource Price C	TABLE	Resource Price Change
258	NULL	NULL	Resource Registe	TABLE	Resource Register
259	NULL	NULL	Resources Setup	TABLE	Resources Setup
260	NULL	NULL	Rounding Method	TABLE	Rounding Method
261	NULL	NULL	Sales & Receivab	TABLE	Sales & Receivables Setup
262	NULL	NULL	Sales Comment Li	TABLE	Sales Comment Line
263	NULL	NULL	Sales CrMemo	TABLE	Sales Cr.Memo

264	NULL	NULL	Header Sales CrMemo	TABLE	Header Sales Cr.Memo
265	NULL	NULL	Lin		Line
266	NULL	NULL	Sales Header	TABLE	Sales Header
267	NULL	NULL	Sales Invoice	TABLE	Sales Invoice
268	NULL	NULL	He		Header
269	NULL	NULL	Sales Invoice Li	TABLE	Sales Invoice Line
270	NULL	NULL	Sales Line	TABLE	Sales Line
271	NULL	NULL	Sales Shipment	TABLE	Sales Shipment
272	NULL	NULL	H		Header
273	NULL	NULL	Sales Shipment	TABLE	Sales Shipment
274	NULL	NULL	L		Line
275	NULL	NULL	Salesperson/Pu	TABLE	Salesperson/Pu
276	NULL	NULL	rc		rchaser
277	NULL	NULL	Session	TABLE	Session
278	NULL	NULL	Setup Checklist	TABLE	Setup Checklist
279	NULL	NULL			Comment
280	NULL	NULL	Setup Checklist	TABLE	Setup Checklist
281	NULL	NULL			Line
282	NULL	NULL	Ship-to Address	TABLE	Ship-to Address
283	NULL	NULL	Shipment	TABLE	Shipment
284	NULL	NULL	Method		Method
285	NULL	NULL	Shipping Agent	TABLE	Shipping Agent
286	NULL	NULL	Source Code	TABLE	Source Code
287	NULL	NULL	Source Code	TABLE	Source Code
288	NULL	NULL	Setu		Setup
289	NULL	NULL	Standard Text	TABLE	Standard Text
290	NULL	NULL	Step	TABLE	Step
291	NULL	NULL	System Object	TABLE	System Object
292	NULL	NULL	Table	TABLE	Table
293	NULL	NULL	Informatio		Information
294	NULL	NULL	Task	TABLE	Task
295	NULL	NULL	Tax Area	TABLE	Tax Area
296	NULL	NULL	Tax Area Line	TABLE	Tax Area Line
297	NULL	NULL	Tax Detail	TABLE	Tax Detail
298	NULL	NULL	Tax Group	TABLE	Tax Group
299	NULL	NULL	Tax Jurisdiction	TABLE	Tax Jurisdiction
300	NULL	NULL	Territory	TABLE	Territory
301	NULL	NULL	Trade Code	TABLE	Trade Code
302	NULL	NULL	Transaction	TABLE	Transaction
303	NULL	NULL	Natu		Nature
304	NULL	NULL	Transaction	TABLE	Transaction
305	NULL	NULL	Spec		Specification
306	NULL	NULL	Transport	TABLE	Transport
307	NULL	NULL	Method		Method
308	NULL	NULL	Type of Supply	TABLE	Type of Supply
309	NULL	NULL	Union	TABLE	Union
310	NULL	NULL	Unit of Measure	TABLE	Unit of Measure
311	NULL	NULL	Unit of Measure	TABLE	Unit of Measure
312	NULL	NULL			Translation
313	NULL	NULL	User	TABLE	User
314	NULL	NULL	User Group	TABLE	User Group
315	NULL	NULL	User Setup	TABLE	User Setup
316	NULL	NULL	User Time	TABLE	User Time

303	NULL	NULL	Regist VAT Amount	TABLE	Register VAT Amount
304	NULL	NULL	Line VAT Business	TABLE	Line VAT Business
305	NULL	NULL	Pos VAT Entry	TABLE	Posting Group VAT Entry
306	NULL	NULL	VAT Posting	TABLE	VAT Posting
307	NULL	NULL	Setu VAT Product	TABLE	Setup VAT Product
308	NULL	NULL	Post VAT Statement	TABLE	Posting Group VAT Statement
309	NULL	NULL	Li VAT Statement	TABLE	Line VAT Statement
310	NULL	NULL	Na VAT Statement	TABLE	Name VAT Statement
311	NULL	NULL	Te VAT Tolerance	TABLE	Template VAT Tolerance
312	NULL	NULL	Vendor	TABLE	Vendor
313	NULL	NULL	Vendor Amount	TABLE	Vendor Amount
314	NULL	NULL	Vendor Bank	TABLE	Vendor Bank
315	NULL	NULL	Acco Vendor Invoice	TABLE	Account Vendor Invoice
316	NULL	NULL	D Vendor Ledger	TABLE	Disc. Vendor Ledger
317	NULL	NULL	En Vendor Posting	TABLE	Entry Vendor Posting
318	NULL	NULL	G Windows	TABLE	Group Windows
319	NULL	NULL	Language Work Type	TABLE	Language Work Type

SQLTables(hstmt, NULL, 0, NULL, 0, NULL, 0, NULL, 0)

This may be modified in ODBC.INI or with the connection parameters:

Resulting connection string

- 1 DSN=SWNav32s,Fname=0,Owner=1,Qualifier=0,Ftext=3,,FNAME=4,UPPER=0,BASIS=d:\DEMODAN\,DMF=d:

SQLDriverConnect(henv, NULL, "DSN=SWNav32s;Fname=0;Owner=1;Qualifier=0;Ftext=3", SQL_NTS, constr, 256, &len, SQL_DRIVER_COMPLETE)

	TABLE_QUALIFIER	TABLE_OWNER	TABLE_NAME	TABLE_TYPE	REMARKS
1	NULL	SSV	SY	SYSTEM TABLE	SY Systemfields
2	NULL	Nav32	AA	TABLE	AA Payment Terms Payment
3	NULL	Nav32	AB	TABLE	Terms AB Currency Currency

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4	NULL	Nav32	AC	TABLE	AC Finance Charge Terms Finance
5	NULL	Nav32	AD	TABLE	AD Price Group Price Group
6	NULL	Nav32	AE	TABLE	AE Standard Text Standard Text
7	NULL	Nav32	AF	TABLE	AF Language Language
8	NULL	Nav32	AG	TABLE	AG Country Country
9	NULL	Nav32	AH	TABLE	AH Shipment Method Shipment Meth
10	NULL	Nav32	AI	TABLE	AI Department Department
11	NULL	Nav32	AJ	TABLE	AJ Project Project
12	NULL	Nav32	AK	TABLE	AK Salesperson/Pu rchaser Salespe
13	NULL	Nav32	AL	TABLE	AL Location Location
14	NULL	Nav32	AM	TABLE	AM G/L Account G/L Account
15	NULL	Nav32	AN	TABLE	AN G/L Entry G/L Entry
16	NULL	Nav32	AO	TABLE	AO Customer Customer
17	NULL	Nav32	AP	TABLE	AP Cust. Invoice Disc. Cust. Inv
18	NULL	Nav32	AQ	TABLE	AQ Cust./Item Discount Cust./Ite
19	NULL	Nav32	AR	TABLE	AR Cust. Ledger Entry Cust. Ledg
20	NULL	Nav32	AS	TABLE	AS Vendor Vendor
21	NULL	Nav32	AT	TABLE	AT Vendor Invoice Disc. Vendor I
22	NULL	Nav32	AU	TABLE	AU Vendor Ledger Entry Vendor Le
23	NULL	Nav32	AV	TABLE	AV Item Item
24	NULL	Nav32	AW	TABLE	AW Item Price Item Price
25	NULL	Nav32	AX	TABLE	AX Item Sales Qty. Disc. Item Sa
26	NULL	Nav32	AY	TABLE	AY Item Translation

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27	NULL	Nav32	AZ	TABLE	Item Transla AZ Item Ledger Entry Item Ledger
28	NULL	Nav32	BA	TABLE	BA Sales Header Sales Header
29	NULL	Nav32	BB	TABLE	BB Sales Line Sales Line
30	NULL	Nav32	BC	TABLE	BC Purchase Header Purchase Head
31	NULL	Nav32	BD	TABLE	BD Purchase Line Purchase Line
32	NULL	Nav32	BE	TABLE	BE Item Price Change Item Price
33	NULL	Nav32	BF	TABLE	BF Rounding Method Rounding Meth
34	NULL	Nav32	BG	TABLE	BG Purch. Comment Line Purch. Co
35	NULL	Nav32	BH	TABLE	BH Sales Comment Line Sales Comm
36	NULL	Nav32	BI	TABLE	BI G/L Register G/L Register
37	NULL	Nav32	BJ	TABLE	BJ Item Register Item Register
38	NULL	Nav32	BK	TABLE	BK Invt. Posting Buffer Invt. Po
39	NULL	Nav32	BL	TABLE	BL Invoice Post. Buffer Invoice
40	NULL	Nav32	BM	TABLE	BM Accounting Period Accounting
41	NULL	Nav32	BN	TABLE	BN User Time Register User Time
42	NULL	Nav32	BO	TABLE	BO Report Selections Report Sele
43	NULL	Nav32	BP	TABLE	BP Printer Selection Printer Sel
44	NULL	Nav32	BQ	TABLE	BQ Company Information Company I
45	NULL	Nav32	BR	TABLE	BR Gen. Journal Template Gen. Jo

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46	NULL	Nav32	BS	TABLE	BS Gen. Journal Line Gen.
47	NULL	Nav32	BT	TABLE	Journa BT Item Journal Template Item
48	NULL	Nav32	BU	TABLE	Jo BU Item Journal Line Item
49	NULL	Nav32	BV	TABLE	Journa BV Acc. Schedule Name
50	NULL	Nav32	BW	TABLE	Acc. Sched BW Acc. Schedule Line
51	NULL	Nav32	BX	TABLE	Acc. Sched BX Exch. Rate Adjmt. Reg.
52	NULL	Nav32	BY	TABLE	Exch. BY Date Compr. Register Date
53	NULL	Nav32	BZ	TABLE	Com BZ BOM Journal Template BOM
54	NULL	Nav32	CA	TABLE	Jour CA BOM Journal Line BOM
55	NULL	Nav32	CB	TABLE	Journal CB BOM Component
56	NULL	Nav32	CC	TABLE	BOM Component CC User Setup
57	NULL	Nav32	CD	TABLE	User Setup CD Customer Posting Group
58	NULL	Nav32	CE	TABLE	Custom CE Vendor Posting Group
59	NULL	Nav32	CF	TABLE	Vendor P CF Inventory Posting Group
60	NULL	Nav32	CG	TABLE	Inven CG G/L Budget Name G/L
61	NULL	Nav32	CH	TABLE	Budget Na CH G/L Budget Entry G/L
62	NULL	Nav32	CI	TABLE	Budget E CI Comment Line Comment
63	NULL	Nav32	CJ	TABLE	Line CJ General Ledger Setup
64	NULL	Nav32	CK	TABLE	General CK Item Vendor

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65	NULL	Nav32	CL	TABLE	Item Vendor CL Item Purch.Qty.Disc.
66	NULL	Nav32	CM	TABLE	Item Pur CM Sales Shipment
67	NULL	Nav32	CN	TABLE	Header Sales S CN Sales Shipment Line
68	NULL	Nav32	CO	TABLE	Sales Shi CO Sales Invoice Header
69	NULL	Nav32	CP	TABLE	Sales In CP Sales Invoice Line
70	NULL	Nav32	CQ	TABLE	Sales Invo CQ Sales Cr.Memo
71	NULL	Nav32	CR	TABLE	Header Sales Cr CR Sales Cr.Memo Line
72	NULL	Nav32	CS	TABLE	Sales Cr.M CS Purch. Rcpt. Header Purch.
73	NULL	Nav32	CT	TABLE	Rc CT Purch. Rcpt. Line Purch.
74	NULL	Nav32	CU	TABLE	Rcpt CU Purch. Inv. Header Purch.
75	NULL	Nav32	CV	TABLE	Inv CV Purch. Inv. Line Purch. Inv.
76	NULL	Nav32	CW	TABLE	CW Purch. Cr. Memo Hdr. Purch. C
77	NULL	Nav32	CX	TABLE	CX Purch. Cr. Memo Line Purch. C
78	NULL	Nav32	CY	TABLE	CY Resource Group Resource Group
79	NULL	Nav32	CZ	TABLE	CZ Resource Resource
80	NULL	Nav32	DA	TABLE	DA Res. Capacity Entry Res. Capa
81	NULL	Nav32	DB	TABLE	DB Phase Phase
82	NULL	Nav32	DC	TABLE	DC Task Task
83	NULL	Nav32	DD	TABLE	DD Step Step
84	NULL	Nav32	DE	TABLE	DE Job Job
85	NULL	Nav32	DF	TABLE	DF Job Budget Line Job Budget Li
86	NULL	Nav32	DG	TABLE	DG Job Ledger

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87	NULL	Nav32	DH	TABLE	Entry Job Ledger E DH Work Type
88	NULL	Nav32	DI	TABLE	Work Type DI Resource Price Resource Price
89	NULL	Nav32	DJ	TABLE	DJ Resource Cost Resource Cost
90	NULL	Nav32	DK	TABLE	DK Res. Ledger Entry Res. Ledger
91	NULL	Nav32	DL	TABLE	DL Unit of Measure Unit of Measu
92	NULL	Nav32	DM	TABLE	DM Res. Journal Template Res. Jo
93	NULL	Nav32	DN	TABLE	DN Res. Journal Line Res. Journa
94	NULL	Nav32	DO	TABLE	DO Job Posting Group Job Posting
95	NULL	Nav32	DP	TABLE	DP Job Journal Template Job Jour
96	NULL	Nav32	DQ	TABLE	DQ Job Journal Line Job Journal
97	NULL	Nav32	DR	TABLE	DR Job Budget Entry Job Budget E
98	NULL	Nav32	DS	TABLE	DS Job Posting Buffer Job Postin
99	NULL	Nav32	DT	TABLE	DT Business Unit Business Unit
100	NULL	Nav32	DU	TABLE	DU Gen. Jnl. Allocation Gen. Jnl
101	NULL	Nav32	DV	TABLE	DV Ship-to Address Ship-to Addre
102	NULL	Nav32	DW	TABLE	DW Drop Shpt. Post. Buffer Drop
103	NULL	Nav32	DX	TABLE	DX Order Address Order Address
104	NULL	Nav32	DZ	TABLE	DZ Source Code Source Code
105	NULL	Nav32	EA	TABLE	EA Reason

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					Code Reason Code
106	NULL	Nav32	EB	TABLE	EB Gen. Journal Batch Gen. Journ
107	NULL	Nav32	EC	TABLE	EC Item Journal Batch Item Journ
108	NULL	Nav32	ED	TABLE	ED BOM Journal Batch BOM Journal
109	NULL	Nav32	EE	TABLE	EE Res. Journal Batch Res. Journ
110	NULL	Nav32	EF	TABLE	EF Job Journal Batch Job Journal
111	NULL	Nav32	EG	TABLE	EG BOM Ledger Entry BOM Ledger E
112	NULL	Nav32	EH	TABLE	EH BOM Register BOM Register
113	NULL	Nav32	EI	TABLE	EI Resource Register Resource Re
114	NULL	Nav32	EJ	TABLE	EJ Job Register Job Register
115	NULL	Nav32	EK	TABLE	EK Source Code Setup Source Code
116	NULL	Nav32	EL	TABLE	EL Report List Report List
117	NULL	Nav32	EM	TABLE	EM Req. Wksh. Template Req. Wksh
118	NULL	Nav32	EN	TABLE	EN Requisition Wksh. Name Requis
119	NULL	Nav32	EO	TABLE	EO Requisition Line Requisition
120	NULL	Nav32	EP	TABLE	EP Gen. Business Posting Group G
121	NULL	Nav32	EQ	TABLE	EQ Gen. Product Posting Group Ge
122	NULL	Nav32	ER	TABLE	ER General Posting Setup General
123	NULL	Nav32	ES	TABLE	ES VAT Entry VAT Entry
124	NULL	Nav32	ET	TABLE	ET VAT Statement

125	NULL	Nav32	EU	TABLE	Template VAT St EU VAT Statement Line
126	NULL	Nav32	EV	TABLE	VAT Statem EV VAT Statement Name VAT Statem
127	NULL	Nav32	EW	TABLE	EW Transaction Nature Transactio
128	NULL	Nav32	EX	TABLE	EX Transport Method Transport Me
129	NULL	Nav32	EY	TABLE	EY Commodity Code Commodity Code
130	NULL	Nav32	EZ	TABLE	EZ Intrastat Jnl. Template Intra
131	NULL	Nav32	FA	TABLE	FA Intrastat Jnl. Batch Intrasta
132	NULL	Nav32	FB	TABLE	FB Intrastat Jnl. Line Intrastat
133	NULL	Nav32	FC	TABLE	FC Document Entry Document Entry
134	NULL	Nav32	FD	TABLE	FD Customer Amount Customer Amou
135	NULL	Nav32	FE	TABLE	FE Vendor Amount Vendor Amount
136	NULL	Nav32	FF	TABLE	FF Item Amount Item Amount
137	NULL	Nav32	FG	TABLE	FG G/L Account Net Change G/L Ac
138	NULL	Nav32	FH	TABLE	FH Bank Account Bank Account
139	NULL	Nav32	FI	TABLE	FI Bank Account Ledger Entry Ban
140	NULL	Nav32	FJ	TABLE	FJ Cheque Ledger Entry Cheque Le
141	NULL	Nav32	FK	TABLE	FK Bank Acc. Reconciliation Bank
142	NULL	Nav32	FL	TABLE	FL Bank Acc. Reconciliation

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143	NULL	Nav32	FM	TABLE	Line FM Bank Account Statement Bank A
144	NULL	Nav32	FN	TABLE	FN Bank Account Statement Line B
145	NULL	Nav32	FO	TABLE	FO Bank Account Posting Group Ba
146	NULL	Nav32	FP	TABLE	FP Job Journal Quantity Job Jour
147	NULL	Nav32	FQ	TABLE	FQ Extended Text Header Extended
148	NULL	Nav32	FR	TABLE	FR Extended Text Line Extended T
149	NULL	Nav32	FS	TABLE	FS Phys. Inventory Ledger Entry
150	NULL	Nav32	FT	TABLE	FT Entry/Exit Point Entry/Exit P
151	NULL	Nav32	FU	TABLE	FU Line Number Buffer Line Numbe
152	NULL	Nav32	FV	TABLE	FV Area Area
153	NULL	Nav32	FW	TABLE	FW Transaction Specification Tra
154	NULL	Nav32	FX	TABLE	FX Territory Territory
155	NULL	Nav32	FY	TABLE	FY Customer Bank Account Custome
156	NULL	Nav32	FZ	TABLE	FZ Vendor Bank Account Vendor Ba
157	NULL	Nav32	GA	TABLE	GA Payment Method Payment Method
158	NULL	Nav32	GB	TABLE	GB VAT Amount Line VAT Amount Li
159	NULL	Nav32	GC	TABLE	GC Shipping Agent Shipping Agent
160	NULL	Nav32	GD	TABLE	GD Reminder Terms Reminder

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161	NULL	Nav32	GE	TABLE	Terms GE Reminder Level Reminder Level
162	NULL	Nav32	GF	TABLE	GF Reminder Text Reminder Text
163	NULL	Nav32	GG	TABLE	GG Reminder Header
164	NULL	Nav32	GH	TABLE	Reminder Head GH Reminder Line Reminder Line
165	NULL	Nav32	GI	TABLE	GI Issued Reminder Header Issued
166	NULL	Nav32	GJ	TABLE	GJ Issued Reminder Line Issued R
167	NULL	Nav32	GK	TABLE	GK Reminder Comment Line Reminde
168	NULL	Nav32	GL	TABLE	GL Reminder/Fin. Charge Entry Re
169	NULL	Nav32	GM	TABLE	GM Finance Charge Text Finance C
170	NULL	Nav32	GN	TABLE	GN Finance Charge Memo Header Fi
171	NULL	Nav32	GO	TABLE	GO Finance Charge Memo Line Fina
172	NULL	Nav32	GP	TABLE	GP Issued Fin. Charge Memo Heade
173	NULL	Nav32	GQ	TABLE	GQ Issued Fin. Charge Memo Line
174	NULL	Nav32	GR	TABLE	GR Fin. Charge Comment Line Fin.
175	NULL	Nav32	GS	TABLE	GS Inventory Buffer Inventory Bu
176	NULL	Nav32	GT	TABLE	GT No. Series No. Series
177	NULL	Nav32	GU	TABLE	GU No. Series Line No. Series Li
178	NULL	Nav32	GV	TABLE	GV No. Series Relationship No. S

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179	NULL	Nav32	GW	TABLE	GW Sales & Receivables Setup Sal
180	NULL	Nav32	GX	TABLE	GX Purchases & Payables Setup Pu
181	NULL	Nav32	GY	TABLE	GY Inventory Setup Inventory Set
182	NULL	Nav32	GZ	TABLE	GZ Resources Setup Resources Set
183	NULL	Nav32	HA	TABLE	HA Jobs Setup Jobs Setup
184	NULL	Nav32	HB	TABLE	HB Payable Vendor Ledger Entry P
185	NULL	Nav32	HC	TABLE	HC Tax Area Tax Area
186	NULL	Nav32	HD	TABLE	HD Tax Area Line Tax Area Line
187	NULL	Nav32	HE	TABLE	HE Tax Jurisdiction Tax Jurisdic
188	NULL	Nav32	HF	TABLE	HF Tax Group Tax Group
189	NULL	Nav32	HG	TABLE	HG Tax Detail Tax Detail
190	NULL	Nav32	HH	TABLE	HH VAT Business Posting Group VA
191	NULL	Nav32	HI	TABLE	HI VAT Product Posting Group VAT
192	NULL	Nav32	HJ	TABLE	HJ VAT Posting Setup VAT Posting
193	NULL	Nav32	HK	TABLE	HK Currency for Fin. Charge Term
194	NULL	Nav32	HL	TABLE	HL Currency for Reminder Level C
195	NULL	Nav32	HM	TABLE	HM Currency Exchange Rate Curren
196	NULL	Nav32	HN	TABLE	HN Adjust Exchange Rate Buffer A
197	NULL	Nav32	HO	TABLE	HO Currency Total Buffer Currenc
198	NULL	Nav32	HP	TABLE	HP Acc. Sched.

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					Column Layout Nam
199	NULL	Nav32	HQ	TABLE	HQ Acc. Sched. Column Acc. Sched
200	NULL	Nav32	HR	TABLE	HR Resource Price Change Resourc
201	NULL	Nav32	HS	TABLE	HS Reservation Setup
202	NULL	Nav32	HT	TABLE	Reservation HT Reservation Entry
203	NULL	Nav32	HU	TABLE	Reservation HU Entry Summary Entry
204	NULL	Nav32	HV	TABLE	Summary HV Item Application
205	NULL	Nav32	HW	TABLE	Entry Item A HW Customer Discount Group
206	NULL	Nav32	HX	TABLE	Custo HX Item Discount Group
207	NULL	Nav32	HY	TABLE	Item Disc HY Acc. Sched. Cell Value Acc.
208	NULL	Nav32	HZ	TABLE	S HZ Gains and Losses Post. Buffer
209	NULL	Nav32	IA	TABLE	IA Setup Checklist Line Setup Ch
210	NULL	Nav32	IB	TABLE	IB Setup Checklist Comment Setup
211	NULL	Nav32	IC	TABLE	IC Application Area Line Applica
212	NULL	Nav32	ID	TABLE	ID Close Income Statement Buffer
213	NULL	Nav32	IE	TABLE	IE Prospect Prospect
214	NULL	Nav32	IF	TABLE	IF Prospect Status Prospect Stat
215	NULL	Nav32	IG	TABLE	IG Contact Contact
216	NULL	Nav32	IH	TABLE	IH Contact Job Responsibility

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217	NULL	Nav32	II	TABLE	Co II Campaign
218	NULL	Nav32	IJ	TABLE	Campaign IJ Campaign
219	NULL	Nav32	IK	TABLE	Line Campaign Line IK Cont. Mgt.
220	NULL	Nav32	IL	TABLE	Comment Line Cont. IL Contact
221	NULL	Nav32	IM	TABLE	Management Setup Cont IM Activity
222	NULL	Nav32	IN	TABLE	Activity IN Activity Type
223	NULL	Nav32	IO	TABLE	Activity Type IO Prospect/Conta
224	NULL	Nav32	IP	TABLE	ct Market Group IP Market
225	NULL	Nav32	IQ	TABLE	Group Code Market Grou
226	NULL	Nav32	IR	TABLE	IQ Prospect Trade Prospect
227	NULL	Nav32	IS	TABLE	Trade IR Trade Code
228	NULL	Nav32	IT	TABLE	Trade Code IS Employee
229	NULL	Nav32	IU	TABLE	Employee IT Alternative
230	NULL	Nav32	IV	TABLE	Address Alternati
231	NULL	Nav32	IW	TABLE	IU Qualification Qualification
232	NULL	Nav32	IX	TABLE	IV Employee Qualification
233	NULL	Nav32	IY	TABLE	Employ IW Relative
234	NULL	Nav32	IZ	TABLE	Relative IX Employee
235	NULL	Nav32	JA	TABLE	Relative Employee Re
236	NULL	Nav32	JB	TABLE	IY Cause of Absence Cause
237	NULL	Nav32	JC	TABLE	of Abs IZ Employee Absence Employee Abs
					JA Human Resource Comment Line H JB Union Union
					JC Cause of Inactivity Cause

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238	NULL	Nav32	JD	TABLE	of JD Employment Contract
239	NULL	Nav32	JE	TABLE	Employment JE Employee Statistics Group
240	NULL	Nav32	JF	TABLE	Emp JF Misc. Article Misc. Article
241	NULL	Nav32	JG	TABLE	JG Misc. Article Information Mis
242	NULL	Nav32	JH	TABLE	JH Confidential Confidential
243	NULL	Nav32	JI	TABLE	JI Confidential Information
244	NULL	Nav32	JJ	TABLE	Conf JJ Grounds for Termination
245	NULL	Nav32	JK	TABLE	Groun JK Human Resources
246	NULL	Nav32	JL	TABLE	Setup Human R JL HR
247	NULL	Nav32	JM	TABLE	Confidential Comment Line JM Bin Bin
248	NULL	Nav32	JN	TABLE	JN Item Variant Item Variant
249	NULL	Nav32	JO	TABLE	JO Unit of Measure
250	NULL	Nav32	JP	TABLE	Translation U JP Item Unit of Measure Item
251	NULL	Nav32	JQ	TABLE	Uni JQ Prod. Order Line Prod.
252	NULL	Nav32	JR	TABLE	Order JR Prod. Order Component
253	NULL	Nav32	JS	TABLE	Prod. O JS Requisition Method
254	NULL	Nav32	JT	TABLE	Requisitio JT Fixed Asset Fixed Asset
255	NULL	Nav32	JU	TABLE	JU FA Ledger Entry FA Ledger
256	NULL	Nav32	JV	TABLE	Ent JV FA Setup FA Setup
257	NULL	Nav32	JW	TABLE	JW FA Posting Type Setup FA
258	NULL	Nav32	JX	TABLE	Post JX FA Journal Setup FA

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259	NULL	Nav32	JY	TABLE	Journal S JY FA Posting Group FA Posting G
260	NULL	Nav32	JZ	TABLE	JZ FA Class FA Class
261	NULL	Nav32	KA	TABLE	KA FA Subclass FA Subclass
262	NULL	Nav32	KB	TABLE	KB FA Location FA Location
263	NULL	Nav32	KC	TABLE	KC Depreciation Book Depreciatio
264	NULL	Nav32	KD	TABLE	KD FA Depreciation Book FA Depre
265	NULL	Nav32	KE	TABLE	KE FA Allocation FA Allocation
266	NULL	Nav32	KF	TABLE	KF Maintenance Registration Main
267	NULL	Nav32	KG	TABLE	KG FA Register FA Register
268	NULL	Nav32	KH	TABLE	KH FA Journal Template FA Journa
269	NULL	Nav32	KI	TABLE	KI FA Journal Batch FA Journal B
270	NULL	Nav32	KJ	TABLE	KJ FA Journal Line FA Journal Li
271	NULL	Nav32	KK	TABLE	KK FA Reclass. Journal Template
272	NULL	Nav32	KL	TABLE	KL FA Reclass. Journal Batch FA
273	NULL	Nav32	KM	TABLE	KM FA Reclass. Journal Line FA R
274	NULL	Nav32	KN	TABLE	KN Maintenance Ledger Entry Main
275	NULL	Nav32	KO	TABLE	KO Maintenance Maintenance
276	NULL	Nav32	KP	TABLE	KP Insurance Insurance
277	NULL	Nav32	KQ	TABLE	KQ Ins. Coverage Ledger Entry In
278	NULL	Nav32	KR	TABLE	KR Insurance Type Insurance

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ID	Value	Code	Key	Type	Description
279	NULL	Nav32	KS	TABLE	Type KS Insurance Journal
280	NULL	Nav32	KT	TABLE	Template In KT Insurance Journal Batch
281	NULL	Nav32	KU	TABLE	Insur KU Insurance Journal Line
282	NULL	Nav32	KV	TABLE	Insura KV Insurance Register
283	NULL	Nav32	KW	TABLE	Insurance KW FA G/L Posting Buffer
284	NULL	Nav32	KX	TABLE	FA G/L KX Main Asset Component
285	NULL	Nav32	KY	TABLE	Main Ass KY FA Buffer Projection FA
286	NULL	Nav32	KZ	TABLE	BufFe KZ Depreciation Table Header
287	NULL	Nav32	LA	TABLE	Dep LA Depreciation Table Line
288	NULL	Nav32	LB	TABLE	Depre LB FA Posting Type FA Posting
289	NULL	Nav32	LC	TABLE	Ty LC FA Date Type FA Date
290	NULL	Nav32	LD	TABLE	Type LD Depreciation Table Buffer
291	NULL	Nav32	LE	TABLE	Dep LE FA Matrix Posting Type FA
292	NULL	Nav32	LF	TABLE	Mat LF Type of Supply Type of
293	NULL	Nav32	LG	TABLE	Supply LG VAT Tolerance VAT
294	NULL	Nav32	LH	TABLE	Tolerance LH Object Object
295	NULL	Nav32	LI	TABLE	LI User User
296	NULL	Nav32	LJ	TABLE	LJ Member Of
297	NULL	Nav32	LK	TABLE	Member Of LK User Group
298	NULL	Nav32	LL	TABLE	User Group LL Permission Permission

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299	NULL	Nav32	LM	TABLE	LM Company Company
300	NULL	Nav32	LN	TABLE	LN Date Date
301	NULL	Nav32	LO	TABLE	LO Session Session
302	NULL	Nav32	LP	TABLE	LP Database File Database File
303	NULL	Nav32	LQ	TABLE	LQ Drive Drive
304	NULL	Nav32	LR	TABLE	LR File File
305	NULL	Nav32	LS	TABLE	LS Monitor Monitor
306	NULL	Nav32	LT	TABLE	LT Integer Integer
307	NULL	Nav32	LU	TABLE	LU Table Information Table Infor
308	NULL	Nav32	LV	TABLE	LV System Object System Object
309	NULL	Nav32	LW	TABLE	LW Performance Performance
310	NULL	Nav32	LX	TABLE	LX AllObj AllObj
311	NULL	Nav32	LY	TABLE	LY Printer Printer
312	NULL	Nav32	LZ	TABLE	LZ License Information License I
313	NULL	Nav32	MA	TABLE	MA Field Field
314	NULL	Nav32	MB	TABLE	MB OLE Control OLE Control
315	NULL	Nav32	MC	TABLE	MC License Permission License Pe
316	NULL	Nav32	MD	TABLE	MD Permission Range Permission R
317	NULL	Nav32	ME	TABLE	ME Windows Language Windows Lang
318	NULL	Nav32	MF	TABLE	MF Automation Servers Automation
319	NULL	Nav32	MG	TABLE	MG Database Key Groups Database

SQLTables(hstmt,NULL,0,NULL,0,NULL,0,NULL,0)

The input parameters for SQLTables may use wildcards as for LIKE:

TABLE_QUALIFIER	TABLE_OWNER	TABLE_NAME	TABLE_TYPE	REMARKS
------------------------	--------------------	-------------------	-------------------	----------------

1	NULL	NULL	Item Sales Qty D	TABLE	Item Sales Qty. Disc.
2	NULL	NULL	Sales & Receivab	TABLE	Sales & Receivables Setup
3	NULL	NULL	Sales Comment Li	TABLE	Sales Comment Line
4	NULL	NULL	Sales CrMemo Hea	TABLE	Sales Cr.Memo Header
5	NULL	NULL	Sales CrMemo Lin	TABLE	Sales Cr.Memo Line
6	NULL	NULL	Sales Header	TABLE	Sales Header
7	NULL	NULL	Sales Invoice He	TABLE	Sales Invoice Header
8	NULL	NULL	Sales Invoice Li	TABLE	Sales Invoice Line
9	NULL	NULL	Sales Line	TABLE	Sales Line
10	NULL	NULL	Sales Shipment H	TABLE	Sales Shipment Header
11	NULL	NULL	Sales Shipment L	TABLE	Sales Shipment Line
12	NULL	NULL	Salesperson/Pur c	TABLE	Salesperson/Pur chaser

SQLTables(hstmt,NULL,0,NULL,0,"%Sale%",SQL_NTS,NULL,0)

If just the qualifier is specified with % a list of valid qualifiers is returned:

	TABLE_QUALIFIER	TABLE_OWNER	TABLE_NAME	TABLE_TYPE	REMARKS
1	NULL	NULL	NULL	NULL	NULL

SQLTables(hstmt,"%",SQL_NTS,"",0,"",0,NULL,0)

If just the owner is specified with % a list of all valid owners is returned:

	TABLE_QUALIFIER	TABLE_OWNER	TABLE_NAME	TABLE_TYPE	REMARKS
1	NULL	NULL	NULL	NULL	NULL

SQLTables(hstmt,"",0,"%",SQL_NTS,"",0,NULL,0)

If just the tabletype is specified with % a list of valid tabletypes is returned:

	TABLE_QUALIFIER	TABLE_OWNER	TABLE_NAME	TABLE_TYPE	REMARKS
1	NULL	NULL	NULL	SYSTEM TABLE	NULL
2	NULL	NULL	NULL	TABLE	NULL
3	NULL	NULL	NULL	TEMP	NULL
4	NULL	NULL	NULL	VIEW	NULL

SQLTables(hstmt,"",0,"",0,"",0,"%",SQL_NTS)

14. Parameters

By use of parameters in a SQL statement (?) the same select may be used for different values. SQLBindParameter assigns values for all ? in the statement.

```
SQLBindParameter(hstmt,1,1,SQL_C_CHAR,SQL_VARCHAR,20,0,"70000",20,&SQL_NTS)
```

```
SQLBindParameter(hstmt,2,1,SQL_C_CHAR,SQL_VARCHAR,20,0,"70100",20,&SQL_NTS)
```

	No_	Description
1	70000	Side Panel
2	70001	Base
3	70002	Top Panel
4	70003	Rear Panel
5	70010	Wooden Door
6	70011	Glass Door
7	70040	Drawer
8	70041	Shelf
9	70060	Mounting
10	70100	Paint, black

```
SELECT No_, Description  
FROM Item  
WHERE No_ >= ? AND No_ <= ?
```

The binding can be done before or after the statement is prepared. The number of parameters may be retrieved using:

Number of parameters

```
1 2
```

SQLNumParams(hstmt,¶ms)

And a description of the parameter types may be obtained by:

	Type	Precision	Scale	Nullable
1	12	20	0	0
2	12	20	0	0

```
SQLDescribeParam(hstmt,*,name,256,&len,&type,&precision,&scale,&nullabl  
e)
```

15. Parameters - Data at execution.

Parameters can be bound again with other options:

SQLBindParameter(hstmt,1,1,SQL_C_CHAR,SQL_VARCHAR,1,0,1,20,SQL_DATA_AT_EXEC)

The SQL_DATA_AT_EXEC causes the execution of the statement to return SQL_NEED DATA:

ERROR:SQL_NEED_DATA SELECT No_, Description

FROM Item

WHERE No_ <= ?

Whereafter these are transferred by repeated calls to ParamData and Putdata:

Parameter number

1 SQL_NEED_DATA: 1

SQLParamData(hstmt,&nr)

Query executed - No results returned.

SQLPutData(hstmt,"70000",SQL_NTS);

No_ Description

1 70000 Side Panel

SQLParamData(hstmt,&nr)

Unless this procedure is cancelled with SQL_CANCEL:

Query executed - No results returned.

SQLCancel(hstmt)

The parameters for a statement remains active until the statement is dropped or the parameters removed with:

Query executed - No results returned.

SQLFreeStmt(hstmt,SQL_RESET_PARAMS)

16. Options

The following CONNECT options is used: If SQL_ACCESS_MODE is SQL_MODE_READ_ONLY no update is possible.

	Name	Value	Description
1	SQL_ACCESS_MODE	0	SQL_MODE_READ_WRITE
2	SQL_AUTOCOMMIT	1	SQL_AUTOCOMMIT_ON
3	SQL_CURRENT_QUALIFIER		
4	SQL_LOGIN_TIMEOUT	15	
5	SQL_ODBC_CURSORS	2	SQL_CUR_USE_DRIVER
6	SQL_OPT_TRACE	0	SQL_OPT_TRACE_OFF
7	SQL_OPT_TRACEFILE	\\SQL.LOG	
8	SQL_PACKET_SIZE	1024	
9	SQL_QUIET_MODE	0	
10	SQL_TRANSLATE_DLL		
11	SQL_TRANSLATE_OPTION	0	
12	SQL_TXN_ISOLATION	0	

SQLGetConnectOption(hstmt,*,option)

The following is returned as default STATEMENT options:

	Name	Value	Description
1	SQL_ASYNC_ENABLE	0	SQL_ASYNC_ENABLE_OFF
2	SQL_BIND_TYPE	0	SQL_BIND_BY_COLUMN
3	SQL_CONCURRENCY	1	SQL_CONCUR_READ_ONLY
4	SQL_CURSOR_TYPE	0	SQL_CURSOR_FORWARD_ONLY
5	SQL_KEYSET_SIZE	0	
6	SQL_MAX_LENGTH	0	
7	SQL_MAX_ROWS	0	
8	SQL_NOSCAN	0	SQL_NOSCAN_OFF
9	SQL_QUERY_TIMEOUT	0	
10	SQL_RETRIEVE_DATA	1	SQL_RD_ON
11	SQL_ROWSET_SIZE	1	
12	SQL_SIMULATE_CURSOR	0	SQL_SC_NON_UNIQUE
13	SQL_USE_BOOKMARKS	0	SQL_UB_OFF
14	SQL_GET_BOOKMARK	0	* Invalid cursor state
15	SQL_ROW_NUMBER	0	* Invalid cursor state

SQLGetStmtOption(hstmt,*,option)

If SQL_ASYNC_ENABLE is SQL_ASYNC_ON, SQLFetch may return SQL_STILL_EXECUTING if more than 1000 records is read during the fetch operation. Below this count is reduced to 10 by the statement option 1000.

Query executed - No results returned.

SQLSetStmtOption(hstmt,SQL_ASYNC_ENABLE,SQL_ASYNC_ENABLE_ON)

Query executed - No results returned.

SQLSetStmtOption(hstmt,1000,10)

No_	Description
-----	-------------

1	70000	Side Panel
2	70001	Base
3	70002	Top Panel
4	70003	Rear Panel
5	70010	Wooden Door
6	70011	Glass Door
7	70040	Drawer
8	70041	Shelf
9	70060	Mounting
10	70100	Paint, black
11	80100	Printing Paper

2 * SQL_STILL_EXECUTING

SELECT No_, Description
FROM Item
WHERE (No_ >= 70000 AND No_ <= 70100) OR No_ = 80100

If SQL_MAX_ROWS is set a SELECT will try to not exceed this maximum.

Query executed - No results returned.

SQLSetStmtOption(hstmt,SQL_MAX_ROWS,3)

No_	Description
1	70000 Side Panel
2	70001 Base
3	70002 Top Panel

SELECT No_, Description
FROM Item

SQL_QUERY_TIMEOUT detemines maximum number of seconds for executing a query

Query executed - No results returned.

SQLSetStmtOption(hstmt,SQL_QUERY_TIMEOUT,1)

	No_	Name	Search Name	Name 2	Address	Address 2	City
1	10000	London Postmaster	LONDON POSTMASTER		10 North Lake Avenue		London
2	10000	London Postmaster	LONDON POSTMASTER		10 North Lake Avenue		London
3	10000	London Postmaster	LONDON POSTMASTER		10 North Lake Avenue		London

Query
timeout.

SELECT *
FROM Vendor, 'Sales Header'
WHERE 'Sales Header'. 'Order Date' > { d '2001-01-21' }

17. Functions

SQLGetFunctions returns the following values:

	Level	Supported	NOT Supported
1	Core	ALL	
2	Level 1	ALL	
3	Level 2		
4	Level 2		
5	Level 2 (DM)		
6	Level 2		
7	Level 2		
8	Level 2		
9	Level 2		
10	Level 2		
11	Level 2		
12	Level 2		
13	Level 2		
14	Level 2		
15	Level 2		
16	Level 2		
17	Level 2		
18	Level 2		
19	Level 2 (DM)		
20	Level 2		

SQLGetFunctions(hstmt,SQL_API_ALL_FUNCTIONS,array)

18. Option Fields

The Navision Financials option fields is by standard handled as numeric fields. Futhermore, the actual text may be retrieved using the function

OCODE(xxxx)

where xxxx is the field name.

	No_	Description	Price/	EXPR-1
1	70000	Side Panel	0	Profit=Price-Cost
2	70001	Base	0	Profit=Price-Cost
3	70002	Top Panel	0	Profit=Price-Cost
4	70003	Rear Panel	0	Profit=Price-Cost
5	70010	Wooden Door	0	Profit=Price-Cost
6	70011	Glass Door	0	Profit=Price-Cost
7	70040	Drawer	0	Profit=Price-Cost
8	70041	Shelf	0	Profit=Price-Cost
9	70060	Mounting	0	Profit=Price-Cost
10	70100	Paint, black	0	Profit=Price-Cost
11	70101	Paint, yellow	0	Profit=Price-Cost
12	70102	Paint, blue	0	Profit=Price-Cost
13	70103	Paint, red	0	Profit=Price-Cost
14	70104	Paint, green	0	Profit=Price-Cost
15	70200	Hinge	0	Profit=Price-Cost
16	70201	Doorknob	0	Profit=Price-Cost
17	80100	Printing Paper	0	Profit=Price-Cost
18	1896-S	ATHENS Desk	0	Profit=Price-Cost
19	1900-S	PARIS Guest Chair, black	0	Profit=Price-Cost
20	1906-S	ATHENS Mobile Pedestal	0	Profit=Price-Cost
21	1908-S	LONDON Swivel Chair, blue	0	Profit=Price-Cost
22	1920-S	ANTWERP Conference Table	0	Profit=Price-Cost
23	1924-W	CHAMONIX Base Storage Unit	0	Profit=Price-Cost
24	1928-S	AMSTERDAM Lamp	0	Profit=Price-Cost
25	1928-W	ST.MORITZ Storage Unit/Drawers	0	Profit=Price-Cost
26	1936-S	BERLIN Guest Chair, yellow	0	Profit=Price-Cost
27	1952-W	OSLO Storage Unit/Shelf	0	Profit=Price-Cost
28	1960-S	ROME Guest Chair, green	0	Profit=Price-Cost
29	1964-S	TOKYO Guest Chair, blue	0	Profit=Price-Cost
30	1964-W	INNSBRUCK Storage Unit/G.Door	0	Profit=Price-Cost
31	1968-S	MEXICO Swivel Chair, black	0	Profit=Price-Cost
32	1968-W	GRENOBLE Whiteboard, red	0	Profit=Price-Cost
33	1972-S	MUNICH Swivel Chair, yellow	0	Profit=Price-Cost
34	1972-W	SAPPORO Whiteboard, black	0	Profit=Price-Cost
35	1976-W	INNSBRUCK Storage Unit/W.Door	0	Profit=Price-Cost
36	1980-S	MOSCOW Swivel Chair, red	0	Profit=Price-Cost
37	1984-W	SARAJEVO Whiteboard, blue	0	Profit=Price-Cost
38	1988-S	SEOUL Guest Chair, red	0	Profit=Price-Cost
39	1988-W	CALGARY Whiteboard, yellow	0	Profit=Price-Cost
40	1992-W	ALBERTVILLE Whiteboard, green	0	Profit=Price-Cost
41	1996-S	ATLANTA Whiteboard, base	0	Profit=Price-Cost
42	2000-S	SIDNEY Swivel Chair, green	0	Profit=Price-Cost
43	766BC-A	OLYMPIC Conference System	1	Price=Cost+Profit
44	766BC-B	OLYMPIC Office System	1	Price=Cost+Profit
45	766BC-C	OLYMPIC Storage System	1	Price=Cost+Profit

```
SELECT No_, Description, 'Price/Profit Calculation', OCODE('Price/Profit  
Calculation')  
FROM Item
```

Even more simple you may use the calculated field named where ' - Text' is added to the name.

	No_	Description	Price/	Price/Profit Calculation - Text
1	70000	Side Panel	0	Profit=Price-Cost
2	70001	Base	0	Profit=Price-Cost
3	70002	Top Panel	0	Profit=Price-Cost
4	70003	Rear Panel	0	Profit=Price-Cost
5	70010	Wooden Door	0	Profit=Price-Cost
6	70011	Glass Door	0	Profit=Price-Cost
7	70040	Drawer	0	Profit=Price-Cost
8	70041	Shelf	0	Profit=Price-Cost
9	70060	Mounting	0	Profit=Price-Cost
10	70100	Paint, black	0	Profit=Price-Cost
11	70101	Paint, yellow	0	Profit=Price-Cost
12	70102	Paint, blue	0	Profit=Price-Cost
13	70103	Paint, red	0	Profit=Price-Cost
14	70104	Paint, green	0	Profit=Price-Cost
15	70200	Hinge	0	Profit=Price-Cost
16	70201	Doorknob	0	Profit=Price-Cost
17	80100	Printing Paper	0	Profit=Price-Cost
18	1896-S	ATHENS Desk	0	Profit=Price-Cost
19	1900-S	PARIS Guest Chair, black	0	Profit=Price-Cost
20	1906-S	ATHENS Mobile Pedestal	0	Profit=Price-Cost
21	1908-S	LONDON Swivel Chair, blue	0	Profit=Price-Cost
22	1920-S	ANTWERP Conference Table	0	Profit=Price-Cost
23	1924-W	CHAMONIX Base Storage Unit	0	Profit=Price-Cost
24	1928-S	AMSTERDAM Lamp	0	Profit=Price-Cost
25	1928-W	ST.MORITZ Storage Unit/Drawers	0	Profit=Price-Cost
26	1936-S	BERLIN Guest Chair, yellow	0	Profit=Price-Cost
27	1952-W	OSLO Storage Unit/Shelf	0	Profit=Price-Cost
28	1960-S	ROME Guest Chair, green	0	Profit=Price-Cost
29	1964-S	TOKYO Guest Chair, blue	0	Profit=Price-Cost
30	1964-W	INNSBRUCK Storage Unit/G.Door	0	Profit=Price-Cost
31	1968-S	MEXICO Swivel Chair, black	0	Profit=Price-Cost
32	1968-W	GRENOBLE Whiteboard, red	0	Profit=Price-Cost
33	1972-S	MUNICH Swivel Chair, yellow	0	Profit=Price-Cost
34	1972-W	SAPPORO Whiteboard, black	0	Profit=Price-Cost
35	1976-W	INNSBRUCK Storage Unit/W.Door	0	Profit=Price-Cost
36	1980-S	MOSCOW Swivel Chair, red	0	Profit=Price-Cost
37	1984-W	SARAJEVO Whiteboard, blue	0	Profit=Price-Cost
38	1988-S	SEOUL Guest Chair, red	0	Profit=Price-Cost
39	1988-W	CALGARY Whiteboard, yellow	0	Profit=Price-Cost
40	1992-W	ALBERTVILLE Whiteboard, green	0	Profit=Price-Cost
41	1996-S	ATLANTA Whiteboard, base	0	Profit=Price-Cost

42	2000-S	SIDNEY Swivel Chair, green	0	Profit=Price-Cost
43	766BC-A	OLYMPIC Conference System	1	Price=Cost+Profit
44	766BC-B	OLYMPIC Office System	1	Price=Cost+Profit
45	766BC-C	OLYMPIC Storage System	1	Price=Cost+Profit

```
SELECT No_, Description, 'Price/Profit Calculation', 'Price/Profit Calculation -  
Text'  
FROM Item
```

19. SQLInfo

SQLInfo returns the following:

	Name	Value	Description
1	SQL_ACCESSIBLE_PROCEDURES	N	May be procedures user cannot
2	SQL_ACCESSIBLE_TABLES	N	Not all tables may be accessed
3	SQL_ACTIVE_CONNECTIONS	0	No limit
4	SQL_ACTIVE_STATEMENTS	0	No limit
5	SQL_ALTER_TABLE	3	SQL_AT_ADD_COLUMN SQL_AT_DROP_COLUMN
6	SQL_BOOKMARK_PERSISTENCE	0	
7	SQL_COLUMN_ALIAS	N	Alias not supported
8	SQL_CONCAT_NULL_BEHAVIOR	1	SQL_CB_NON_NULL
9	SQL_CONVERT_BIGINT	0	
10	SQL_CONVERT_BINARY	0	
11	SQL_CONVERT_BIT	0	
12	SQL_CONVERT_CHAR	230399	SQL_CVT_CHAR SQL_CVT_NUMERIC SQL_CVT_DECIMAL SQL_CVT_INTEGER SQL_CVT_SMALLINT SQL_CVT_FLOAT SQL_CVT_REAL SQL_CVT_DOUBLE SQL_CVT_VARCHAR SQL_CVT_LONGVARCHAR SQL_CVT_DATE SQL_CVT_TIME SQL_CVT_TIMESTAMP
13	SQL_CONVERT_DATE	230399	SQL_CVT_CHAR SQL_CVT_NUMERIC SQL_CVT_DECIMAL SQL_CVT_INTEGER SQL_CVT_SMALLINT SQL_CVT_FLOAT SQL_CVT_REAL SQL_CVT_DOUBLE SQL_CVT_VARCHAR SQL_CVT_LONGVARCHAR SQL_CVT_DATE SQL_CVT_TIME SQL_CVT_TIMESTAMP
14	SQL_CONVERT_DECIMAL	230399	SQL_CVT_CHAR SQL_CVT_NUMERIC SQL_CVT_DECIMAL SQL_CVT_INTEGER SQL_CVT_SMALLINT SQL_CVT_FLOAT

			SQL_CVT_REAL
			SQL_CVT_DOUBLE
			SQL_CVT_VARCHAR
			SQL_CVT_LONGVARCHAR
			SQL_CVT_DATE
			SQL_CVT_TIME
			SQL_CVT_TIMESTAMP
15	SQL_CONVERT_DOUBLE	230399	SQL_CVT_CHAR
			SQL_CVT_NUMERIC
			SQL_CVT_DECIMAL
			SQL_CVT_INTEGER
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			SQL_CVT_TIMESTAMP
17	SQL_CONVERT_FUNCTIONS	1	SQL_FN_CVT_CONVERT
18	SQL_CONVERT_INTEGER	230399	SQL_CVT_CHAR
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19	SQL_CONVERT_LONGVARBIN ARY	0	
20	SQL_CONVERT_LONGVARCH AR	230399	SQL_CVT_CHAR
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			SQL_CVT_INTEGER
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			SQL_CVT_FLOAT
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21	SQL_CONVERT_NUMERIC	230399	SQL_CVT_CHAR
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			SQL_CVT_LONGVARCHAR
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22	SQL_CONVERT_REAL	230399	SQL_CVT_CHAR
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23	SQL_CONVERT_SMALLINT	230399	SQL_CVT_CHAR
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24	SQL_CONVERT_TIME	230399	SQL_CVT_CHAR
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26	SQL_CONVERT_TINYINT	0	
27	SQL_CONVERT_VARBINARY	0	
28	SQL_CONVERT_VARCHAR	230399	SQL_CVT_CHAR
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			SQL_CVT_TIMESTAMP
29	SQL_CORRELATION_NAME	2	SQL_CN_ANY
30	SQL_CURSOR_COMMIT_BEHAVIOR	2	SQL_CB_PRESERVE
31	SQL_CURSOR_ROLLBACK_BEHAVIOR	2	SQL_CB_PRESERVE
32	SQL_DATA_SOURCE_NAME	SWNav32s	
33	SQL_DATA_SOURCE_READ_ONLY	N	Read/Write
34	SQL_DATABASE_NAME		
35	SQL_DBMS_NAME	SW-Tools	
36	SQL_DBMS_VER	08.10.0009	
37	SQL_DEFAULT_TXN_ISOLATION	0	
38	SQL_DRIVER_HDBC	16699120	
39	SQL_DRIVER_HENV	17013692	
40	SQL_DRIVER_HLIB	79691776	
41	SQL_DRIVER_HSTMT	0	* Invalid argument value
42	SQL_DRIVER_NAME	SWODBC32.dll	
43	SQL_DRIVER_ODBC_VER	02.10	
44	SQL_DRIVER_VER	08.10.0009	
45	SQL_EXPRESSIONS_IN_ORDERBY	Y	Yes, Expressions in orderby

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46	SQL_FETCH_DIRECTION	1	SQL_FD_FETCH_NEXT
47	SQL_FILE_USAGE	0	SQL_FILE_NOT_SUPPORTED
48	SQL_GETDATA_EXTENSIONS	11	SQL_GD_ANY_COLUMN SQL_GD_ANY_ORDER SQL_GD_BOUND
49	SQL_GROUP_BY	3	SQL_GB_GROUP_BY_EQUALS_SELECT SQL_GB_GROUP_BY_CONTAINS_SELECT
50	SQL_IDENTIFIER_CASE	3	SQL_IC_UPPER SQL_IC_LOWER
51	SQL_IDENTIFIER_QUOTE_CHAR	'	
52	SQL_KEYWORDS	UPPER,EXPORT,IMPORT	
53	SQL_LIKE_ESCAPE_CLAUSE	Y	LIKE fully supported
54	SQL_LOCK_TYPES	0	
55	SQL_MAX_BINARY_LITERAL_LEN	64	
56	SQL_MAX_CHAR_LITERAL_LENGTH	64	
57	SQL_MAX_COLUMNS_IN_GROUP_BY	499	
58	SQL_MAX_COLUMNS_IN_INDEX	499	
59	SQL_MAX_COLUMNS_IN_ORDER_BY	499	
60	SQL_MAX_COLUMNS_IN_SELECT	499	
61	SQL_MAX_COLUMNS_IN_TABLE	499	
62	SQL_MAX_COLUMN_NAME_LENGTH	64	
63	SQL_MAX_CURSOR_NAME_LENGTH	18	
64	SQL_MAX_INDEX_SIZE	499	
65	SQL_MAX_OWNER_NAME_LENGTH	0	No limit
66	SQL_MAX_PROCEDURE_NAME_LENGTH	0	No limit
67	SQL_MAX_QUALIFIER_NAME_LENGTH	0	No limit
68	SQL_MAX_ROW_SIZE	0	No limit
69	SQL_MAX_ROW_SIZE_INCLUDES_LONG	Y	SQL_LONGVARCHAR included in MA
70	SQL_MAX_STATEMENT_LEN	0	No limit
71	SQL_MAX_TABLE_NAME_LEN	64	
72	SQL_MAX_TABLES_IN_SELECT	64	
73	SQL_MAX_USER_NAME_LEN	64	
74	SQL_MULT_RESULT_SETS	N	No support
75	SQL_MULTIPLE_ACTIVE_TXN	Y	More conn.with active trans
76	SQL_NEED_LONG_DATA_LEN	N	No need for long data length
77	SQL_NON_NULLABLE_COLUMNS	0	SQL_NCC_NULL
78	SQL_NULL_COLLATION	1	SQL_NC_LOW

79	SQL_NUMERIC_FUNCTIONS	16777215	SQL_FN_NUM_ABS SQL_FN_NUM_ACOS SQL_FN_NUM_ASIN SQL_FN_NUM_ATAN SQL_FN_NUM_ATAN2 SQL_FN_NUM_CEILING SQL_FN_NUM_COS SQL_FN_NUM_COT SQL_FN_NUM_EXP SQL_FN_NUM_FLOOR SQL_FN_NUM_LOG SQL_FN_NUM_MOD SQL_FN_NUM_SIGN SQL_FN_NUM_SIN SQL_FN_NUM_SQRT SQL_FN_NUM_TAN SQL_FN_NUM_PI SQL_FN_NUM_RAND SQL_FN_NUM_DEGREES SQL_FN_NUM_LOG10 SQL_FN_NUM_POWER SQL_FN_NUM_RADIANS SQL_FN_NUM_ROUND SQL_FN_NUM_TRUNCATE
80	SQL_ODBC_API_CONFORMANCE	1	SQL_OAC_LEVEL1
81	SQL_ODBC_SAG_CLI_CONFORMANCE	1	SQL_OSCC_COMPLIANT
82	SQL_ODBC_SQL_CONFORMANCE	1	SQL_OSC_CORE
83	SQL_ODBC_SQL_OPT_IEF	N	No Optional Integrity Enhancem
84	SQL_ODBC_VER	03.51.0000	
85	SQL_ORDER_BY_COLUMNS_IN_SELECT	N	ORDER BY free
86	SQL_OUTER_JOINS	Y	OUTER JOINS Supported
87	SQL_SQL_OJ_CAPABILITIES	1	SQL_OJ_LEFT
88	SQL_OWNER_TERM	OWNER	
89	SQL_OWNER_USAGE	0	
90	SQL_POS_OPERATIONS	0	
91	SQL_POSITIONED_STATEMENTS	7	SQL_PS_POSITIONED_DELETE SQL_PS_POSITIONED_UPDATE SQL_PS_SELECT_FOR_UPDATE
92	SQL_PROCEDURE_TERM	PROCEDURE	
93	SQL_PROCEDURES	N	Procedures NOT supported
94	SQL_QUALIFIER_LOCATION	1	SQL_QL_START
95	SQL_QUALIFIER_NAME_SEPARATOR	\	
96	SQL_QUALIFIER_TERM	DIRECTORY	
97	SQL_QUALIFIER_USAGE	0	
98	SQL_QUOTED_IDENTIFIER_CASE	3	SQL_IC_UPPER

			SQL_IC_LOWER
99	SQL_ROW_UPDATES	N	No
100	SQL_SCROLL_CONCURRENCY	0	
101	SQL_SCROLL_OPTIONS	0	
102	SQL_SEARCH_PATTERN_ESCAPE	\	
103	SQL_SERVER_NAME	SW-Tools	
104	SQL_SPECIAL_CHARACTERS	#ÆØÅæøåÄÖÜäöüß	
105	SQL_STATIC_SENSITIVITY	0	
106	SQL_STRING_FUNCTIONS	294911	SQL_FN_STR_CONCAT SQL_FN_STR_INSERT SQL_FN_STR_LEFT SQL_FN_STR_LTRIM SQL_FN_STR_LENGTH SQL_FN_STR_LOCATE SQL_FN_STR_LCASE SQL_FN_STR_REPEAT SQL_FN_STR_REPLACE SQL_FN_STR_RIGHT SQL_FN_STR_RTRIM SQL_FN_STR_SUBSTRING SQL_FN_STR_UCASE SQL_FN_STR_ASCII SQL_FN_STR_CHAR SQL_FN_STR_SPACE
107	SQL_SUBQUERIES	31	SQL_SQ_COMPARISON SQL_SQ_EXISTS SQL_SQ_IN SQL_SQ_QUANTIFIED SQL_SQ_CORRELATED_SUBQUERIES
108	SQL_SYSTEM_FUNCTIONS	7	SQL_FN_SYS_USERNAME SQL_FN_SYS_DBNAME SQL_FN_SYS_IFNULL
109	SQL_TABLE_TERM	TABLE	
110	SQL_TIMEDATE_ADD_INTERVALS	0	
111	SQL_TIMEDATE_DIFF_INTERVALS	0	
112	SQL_TIMEDATE_FUNCTIONS	106495	SQL_FN_TD_NOW SQL_FN_TD_CURDATE SQL_FN_TD_DAYOFMONTH SQL_FN_TD_DAYOFWEEK SQL_FN_TD_DAYOFYEAR SQL_FN_TD_MONTH SQL_FN_TD_QUARTER SQL_FN_TD_WEEK SQL_FN_TD_YEAR SQL_FN_TD_CURTIME SQL_FN_TD_HOUR SQL_FN_TD_MINUTE SQL_FN_TD_SECOND SQL_FN_TD_DAYNAME SQL_FN_TD_MONTHNAME
113	SQL_TXN_CAPABLE	0	SQL_TC_NONE

114	SQL_TXN_ISOLATION_OPTIO N	0	
115	SQL_UNION	3	SQL_U_UNION SQL_U_UNION_ALL
116	SQL_USER_NAME		

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