

English User Manual

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# IQ User Manual

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# Contents

Contents	
1. Preface	5
1.1. Starting IQ	
1.1.1. Licence information	7
1.2. About the user interface	8
1.3. Hardcopy function	10
2. Defining a query	11
2.1. Selecting table and fields	
2.2. Query on list form	17
2.3. Query with relationship between tables	18
2.4. Query on main and transaction table	
2.5. History on selected table fields	
2.6. Syntax of the query definition	
2.7. Special options in definition	
2.8. Preferences for new queries	
2.8.1. Add field numbers in front of names	
2.8.2. Omit field names	
2.8.3. Background colour	
3. Query search functions	
3.1. Data retrieval	
3.1.1. Next data record	
3.1.2. Previous data record	
3.1.3. Specific record	
3.1.4. First data record	
3.1.5. Last data record	
3.2. Superindex search	
3.2.1. Interrupting SUPERINDEX	20
3.2.2. Superindex fields	20
3.3. Selections.	
3.3.1. Selection on numeric values	
3.3.2. Selection on text	
3.3.3. Selection on field from secondary tables	44
3.3.4. Multiple selections and OR selections	
3.3.5. Selection on calculated values	
3.3.6. Using subfunctions in selections	
3.3.7. Selections as calculations	
3.3.8. Removing the selection	
3.3.9. Saving the selection	
3.4. The index menu	
3.4.1. Display current key	
3.4.2. Case sensitive search	
3.4.3. Index locked	
3.4.4. List must match input key	
3.4.5. Index names and definitions	
4. Transaction queries	
4.1. Next page	
4.2. Previous page	
4.3. First page	
4.4. Last page	61
4.5. Reverse display order	
4.6. Superindex on transaction lines	
4.7. Selection on transaction lines	64

4.7.1. Standard selection fields on transactions	65
4.7.1.1. Amount field	
4.7.1.2. Date field	
4.7.1.3. Code field	68
4.7.1.4. Refno. field	69
4.8. Sum of transactions	. 70
4.8.1. Brought forward amount	
4.9. Multiple screen lines / transaction	
5. Saving, Deleting and documenting queries	. 73
5.1. Saving a query	
5.1.1. Program number	. 76
5.1.2. Program name	
5.1.3. Save desktop of all programs	
5.2. Deleting a query	
5.2.1. Amending a program without file access	
5.3. Printing program documentation	
5.4. Help and check on fields	
5.4.1. Field documentation	
5.4.2. Valid values	-
6. Program parameters	
6.1. Created with the fields	
6.2. Number of free fields	
6.3. Global free field from number	
6.4. Number of transaction lines on form	
6.5. Background colour	
7. Amending form	
7.1. Inserting fields	
7.1.1. Insert with field heading	
7.1.1.1. Part of fields and tablefields	
7.2. Inserting font specific text	
7.3. Drawing rectangles, circles, lines and pictures	
7.4. Deleting elements	
7.5. Box sizing and field flags	
7.6. Changing colour, font and justification	
7.6.1. Pen	
7.6.2. Colour	
7.6.3. Text1	104
7.6.4. Font	
7.6.5. Justification	
7.6.6. Bring to front / back	107
7.7. Object type and attributes	108
7.8. Moving, deleting and changing group of elements	109
7.8.1. Moving the group	110
7.8.2. Deleting the group	111
7.8.3. Changing the group1	112
7.8.4. Blocks of lines	
8. Calculations	
8.1. Edit calculations	
8.2. View of translated calculations	
8.3. Picture fields	
8.4. Functions	
8.5. Entry points for calculations	
8.5.1. After read of main table	
8.5.2. By click on a field	
8.5.3. By start of program	
o.s.s. by start of program	-20

8.5.4. By end of program	126
8.5.5. After read of transaction table	127
8.5.6. Before DISPLAY of a field	128
8.5.7. OWN routines	
8.5.8. Before TRANSMIT to other programs	130
8.5.9. By select of a FUNCTION	131
8.5.9.1. DOFUNCTION messages	
8.5.10. By read of mainfile	133
8.6. Transaction queries and free fields	134
8.6.1. Sum of transactions	135
8.7. DEBUG in the calculations	136
9. Interaction between queries	137
9.1. Talk to other programs	138
9.2. Listen to other programs	139
9.3. Example of multiple queries	140
9.4. Interprogram communication	
9.4.1. Program number	
9.4.2. Fields from other programs	143
9.4.3. GOSUB common subroutines	144
9.4.4. GLOBAL variables A1,A2,	
9.5. <u>DIALOG</u> function for additional input	146
9.6. OLE 2.0 support	
10. Start parameters and standard programs	
10.1. IQ Start parameters	
10.2. Standard programs	
Figure list	
Index	153

#### 1. Preface

SW-Tools IQ is an intelligent query tool. After a very short introduction users are able to produce queries, simply selecting the required information's.

IQ is based on a Data Dictionary where all information of tables, fields, indices and relationships to other tables are predefined. The product offers a user interface where queries can search after text, calculate fields and automatically refresh the information in other opened query window's.

The system has access to many databases/filesystems and integration to ODBC that allows one query to access multiple databases of different types.

## 1.1. Starting IQ

When IQ is started for the very first time no programs has been defined. The system therefore starts with a view of fields from the first defined table in the Data Dictionary:

-	IQ	* *
<u>File</u>	<u>/</u> iew <u>W</u> indow <u>H</u> elp	
-	Database 🗾 🔺	1
gr	Article groups 🛃	
1	Group no	
2	Description Price factor	
	Vew	
	acm I	
SWTOO	1 4	-
L3W100.		144

1. IQ

### 1.1.1. Licence information

IQ is copyrighted SW-Tools and your licence information is shown briefly whenever the program is started.

Q	2			00
	Installation company:		Installation YYMM	
	99999999		9601	
- Ali	🖉 Company name:			
1	SW-Tools			1
Ø	🕴 Installation no :	Control	code	
	99999999	Ch/		
	-Tools	<b>* + 45 33 33</b>	05-56	

2. Licence screen

You are of course only allowed to use IQ according to your licence agreement.

#### 1.2. About the user interface

To access the functions in IQ you may use the menus or the related buttons on the toolbar.

<u>File Window H</u> el	p	
New program	Ctrl+N	
<u>Start program</u>	Ctrl+Z	
<u>I</u> mport program <u>D</u> elete program	Ctrl+Y	
Print documentation	n Ctrl+P	7
<u>P</u> references <u>S</u> ubsystem	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	To print the program documentation you may choose the function from
<u>C</u> lose	Ctrl+F4	the menu or by clicking on this button on the toolbar.
The toolbar	<b>(2)</b>	
	function	a short description attached to each button on the toolbar. It will be d whenever the mouse cursor is over n area.

#### 3. Accessing the functions using menus or the toolbar

Because the toolbar does not have room for all the functions in IQ, it will vary from function area to function area, as for the pulldown menus. For example you will view this toolbar when a query is active:

Image: Contract record (PgDn)         Image: Contract record (PgDn) </th <th></th> <th></th> <th>IQ</th> <th></th>			IQ	
Get next record (PgDn)           OU5 Article/Picture           Article no         Picture of article           Article no         Picture of article           Description         D-CARD         Picture of article           Selling price         25.00         Picture of article           Cost price         10.00         Picture of article           Date of last purchase         94.06.30         SW - To ols           Supplier no         205         SW - To ols	<u>E</u> dit <u>M</u> ainfile <u>I</u> nd	dex <u>O</u> thers <u>V</u> iew <u>W</u> indow	Help	
Get next record (PgDn)         Get next record (PgDn)         Article no         Article no         Picture of article         Description       ID-CARD         Selling price       25.00         Cost price       10.00         Date of last purchase       94.06.30         Supplier no       205         Group no       9				
Article no       Picture of article         Article no       2002         Description       ID-CARD         Selling price       25.00         Cost price       10.00         Date of last purchase       94.06.30         Supplier no       205         Group no       9	Get next record	PgDn)		_
Article no     2002       Description     ID-CARD       Selling price     25.00       Cost price     10.00       Date of last purchase     94.06.30       Supplier no     205       Group no     9	9	005 Arti	cle/Picture	
Description     ID-CARD       Selling price     25.00       Cost price     10.00       Date of last purchase     94.06.30       Supplier no     205       Group no     9	Article no			
Description     ID-CARD       Selling price     25.00       Cost price     10.00       Date of last purchase     94.06.30       Supplier no     205       Group no     9	Article no	2002 F	Picture of article	
Cost price 10.00 Date of last purchase 94.06.30 Supplier no 205 Group no 9	Description			
Supplier no 205 Group no 9	Selling price	25.00		
Supplier no 205 Group no 9	Cost price	10.00	CW-LOOIC	
Supplier no 205 Group no 9	Date of last purchase	94.06.30	2 W - 10012	
	Supplier no	205		
Stock balance 200 Gradower Tay / Placer. (+45)33 33 05 56	Group no			
	Stock balance	200	Brazarowske Torv I Poszar, (+45) 33 33 05 56 DK-IIS4 Cogredoaged K Fas, (+45) 48 35 59 35	
	10 m			
			SW SW	
	6			-
	ls			

4. The toolbar during a query

Even though the menus and toolbar buttons changes between functions, IQ have some general functions attached on the toolbar. It is functions to arrange windows, closing the active window and access to the on-line manual. Because these functions are attached to the toolbar they will of course also be accessible from the pulldown menus:

dit	Window <u>H</u> elp		
	Tile	Ctrl+T	┣━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━
	<u>C</u> ascade	Ctrl+0	H
	Arrange <u>I</u> cons	Ctrl+l	
	<u>Close active window</u>	Ctrl+F4	+
	Close <u>A</u> ll	Ctrl+A	
	√Tool <u>b</u> ar	Ctrl+B	1
	√ <u>S</u> tatusbar	Ctrl+S	

5. Generel menus and buttons

## 1.3. Hardcopy function

Due to problems with the text hardcopy font on different printers IQ will deliver a bitmap hardcopy of the screen instead if possible.

The menu has functions for a hardcopy of the active window only or of the full screen.

-							IQ
File	<u>E</u> dit	<u>M</u> ainfile	Index	Others	⊻iew	Window	Help
<u>S</u> av	′е	Ctrl	+S 🛛		<b>R</b>	8	
Prir	nt setu	p		فكنا لنشيا			
	and the second second	indow Ctrl	+P				
Prir	nt of sc	ree <u>n</u>	15				
Clo	se	Ctrl	+F4				

6. Hardcopy

# 2. Defining a query

### 2.1. Selecting table and fields

A query must be related to a table. Therefore the first selection necessary is the table id. It can be done by entering the id or selecting it from the following list:

IQ	-
ile ⊻iew Window <u>H</u> elp	2011 2027
😑 Database 💌 🔺	
gr Article groups	
gr Article groups	
ku Currency file	
le Supplier file	
sy Systemfelter va Article file	
New	
TOOLS	<i>5</i> 2

#### 7. Selecting table id

When the table id is selected the fields will be displayed:

	IQ	
e <u>V</u> iew <u>W</u> indow <u>H</u> elp		
	Database 🗖	
va Article file	*	
<ol> <li>Article no</li> <li>Description</li> <li>Selling price</li> <li>Cost price</li> <li>Date of last purchase</li> <li>Supplier no</li> <li>Group no</li> <li>Stock balance</li> <li>Alternative supplier</li> </ol>	10 Free GR Article==>Group LE Article==>Supplier	
<u>N</u> ew		
FOOLS		

8. Table fields

Select fields required in the query by clicking on the fields in the listbox. For example, to define a query on the article table with information about

- Article number
- Description
- Selling price
- Cost price
- Date of last purchase
- Supplier no
- Stock balance

click on each field as shown here:

8	Database	<b>•</b>
va Article file 1 Article no	10 Free	
2 Description 3 Selling price 4 Cost price 5 Date of last purcha 6 Supplier no 7 Group no	GR Article==>Group LE Article==>Supplier	
8 Stock balance 9 Alternative supplie	r 🕅	
<u>N</u> ew va#1-6,8		

#### 9. Example of an article query

Instead of using the mouse it is possible to enter the field sequence as: **va#1-6,8** 

When entering the fields instead of using the mouse, please remember the #

after the table id, and then the field sequence.

The database window will automatically update the view of selected fields for the current table, in this case the article table.

When finished selecting the query information the query will be generated when choosing the following function:



10. Generating the query

The query is automatically generated with a standard form. All fields are inserted with the field names as leading text and a data entry box where the actual value will be displayed.

IQ generates maximum 20 fields in a column. If many fields are selected it will generate a number of columns.

All fields are placed with correct justification, depending on the field format and type, e.g. numeric fields are right justified and text fields left justified.

The new article query uses one table only and the form looks like this:

-				IQ						-	*
<u>F</u> ile	<u>E</u> dit <u>M</u> ainfile	<u>l</u> ndex	Others		<u>W</u> indow	<u>H</u> elp					
	3 🖬 🖬 🔍 🛩 🕨 😫 🛤 🕅 😵										
			Da	atabase							
F	-		v	a Article	file			-			
	Article no	<u> </u>									
2 3 4 5 6 7 8 9	Article no Description Selling price Cost price Date of last purchas Supplier no Stock balance	;e									
SWTO	OLS										

11. Query on one table

Fields marked in red is index fields for search, see later.

### 2.2. Query on list form

Normally an IQ query generates a form with the fields selected setup in columns. This provides a form with information on one record at a time. However, it is possible to define forms where multiple records can be displayed, as a list of records.

The definition for a list form query is the exact same as already described, with one exception. The last character entered in the syntax must be the letter

This letter stands for 'list form' and may be entered in upper or lower case. If defining the query as

#### va#1-6,8l

the following query form will be generated:

				Database				
a	Article f Article no	_						
	Descript Selling p				va Article	file		
	Cost pric	Artic	le no			0.00164		
	Date of I Supplier	Article	Description	Selling price	Cost price	Date of lasSupp S	Stock bak	
		0101	CHOCOLATE	2.00	1.50	95.01.01 271	100	
	Group no Stock ba	0102	LARGE MACHINE	20000.00	10000.00	93.01.01 100		
	Alternativ	0110	BUS	100000.00	60000.00	93.12.15123	1	
	Free	1001	MONEY	1000.00	500.00	94.12.31 205	100	
	Article==	1005	MACHINE	2000.00	1500.00	94.06.01 100	10	
	Article==	2001	CREDITCARD	20.00		95.01.01 205	10	
	AIGLIC	2002	ID-CARD	25.00	10.00	94.06.30 205	200	
			in					
			-					

#### 12. Query on list form

The form is generated with the selected field names as headings and then multiple field entry's beneath the headings, used to display the record contents.

The appearance order of the records depends of which search index are used, see later.

### 2.3. Query with relationship between tables

In many databases the defined tables are related in some way. An article table does not contain all information on the supplier, but it contains the supplier number which is the direct access to the supplier table. In other words, the article table is related to the supplier table, and therefore the supplier information may be retrieved for each article.

Because the relations may be defined in the SW-Tools Data Dictionary it is possible to define the query simply by selecting fields from both tables. The first step is to select the article fields as in the previously defined query and then add the requested supplier fields to the selection.

Apart from the fields defined, the database window also displays the defined relationships to other tables, and are always displayed in red. By click on the relation to the supplier table 'le':



13. Relationship to other tables

the supplier fields can be added by clicking on the required fields:

e View Win	dow <u>H</u> elp ] ?	
-	Database	
le Supplie	file	±
1 Supplier 2 Name 3 Address 4 Town 5 Currency 6 Balance KU Supplier= VA Supplier=	code	
<u>N</u> ew va	#1-6,8,1e#1-4	

14. Selecting fields from a related table

The query form is generated with fields from both tables:

-					Q				-			
File	<u>E</u> dit <u>M</u> ainfile	Index	Others	⊻iew	Window	<u>H</u> elp						
	1		Da	atabase				-				
				a Article				-	ŝ			
1	Article no	1										
234 56×>	Article no Description Selling price Cost price Date of last purchas Supplier no Stock balance Supplier no Name Address Town	38										
SWTO	OLS											

15. Query with relationship between tables

### 2.4. Query on main and transaction table

Queries on one table or more tables, where the relationship between the tables are 1 to 1, may be defined using the mouse. However, if a query is to be defined where the main table is related to a transaction table, e.g. each record in the main table has one or more transaction records, the definition has to be entered.

An example could be to query the supplier information and then all articles for each supplier. The first step is to select the fields to query from the supplier table:

#### le#1-6

Next it is required to define the transaction fields. To define that the fields are related to the transaction table the first part of the definition has to be separated by

#### / (Division character)

giving the complete definition as:

#### le#1-6/va#1-6,8

The query on main and transaction table information will be generated in two steps. First the main table fields are inserted as normal in columns, then the fields from the transaction table are insert in a number of columns and rows. The example will generate the following query form:

	IQ 🔽
ile l	<u>E</u> dit <u>M</u> ainfile <u>T</u> ransfile <u>I</u> nde× <u>O</u> thers ⊻iew <u>W</u> indow <u>H</u> elp
3	\$ ▋ ़≪ ▶◀ ▲▼ ▲▼ ♀ №₽₽₩₩ ?
	Database 🔹 🔺
	le Supplier file 💽 🔺
	Supplier no
3 4 5 6 7 8 9	Supplier no         Name         Address         Town         Currency code         Balance         Articl Description       Selling price       Cost price       Date of la Suppl       Stock bal         Image: Selling price       Image: Selling price       Image: Stock bal       Image: Stock bal         Image: Selling price       Image: Stock bal       Image: Stock bal       Image: Stock bal         Image: Selling price       Image: Stock bal       Image: Stock bal       Image: Stock bal         Image: Selling price       Image: Stock bal       Image: Stock bal       Image: Stock bal         Image: Selling price       Image: Stock bal       Image: Stock bal       Image: Stock bal         Image: Selling price       Image: Stock bal       Image: Stock bal       Image: Stock bal         Image: Selling price       Image: Stock bal       Image: Stock bal       Image: Stock bal         Image: Selling price       Image: Stock bal       Image: Stock bal       Image: Stock bal         Image: Selling price       Image: Stock bal       Image: Stock bal       Image: Stock bal         Image: Selling price       Image: Stock bal       Image: Stock bal       Image: Stock bal         Image: Selling price       Image: Stock bal       Image: Stock
- VTOO	LS

#### 16. Query on main and transaction table

Fields marked in blue on the transaction line are selection fields, see later.

#### 2.5. History on selected table fields

When queries has been defined IQ always remember the fields selected from each table. This means, if a query has been defined as

va#1-6,8

IQ remembers

#1-6,8

for the table 'va'. Later it is then possible to recall the selected fields just by entering  $\ensuremath{\mathbf{va}}$ 

va vod by th

followed by the [ENTER] key. IQ then recalls the latest used definition which you then may amend:

#### va#1-6,8

## 2.6. Syntax of the query definition

As described queries can be entered as a definition. The following gives a number of examples on how the definition may be:

Definition	Description
va#1-6,8	Query on article table field 1 to 6 and 8
va#1-6,8l	Query on article table field 1 to 6 and 8 on list form
va#1-6,8,le#1-4	Query on articles including the supplier information
le#1-6/va#1-6,8	Query on suppliers. Articles attached to the supplier are also listed
le#1-6/va#1-6,gr#2	Query on suppliers. Articles attached to the supplier are also listed including the article group information

## 2.7. Special options in definition

A query definition may contain some special options to control how the form is generated. The options controls when to change to a new column how many lines to generate on the form, if field numbers has to be displayed together with the field names etc. The special options are:

Option	<b>Description</b> Add field numbers in front of names
0	Omit field names
t99	Set maximum number of transaction lines to 99. The value 99 may be set to any value between 1 and 99
h99	Set maximum number of main table lines to 99. The value 99 may be set to any value between 1 and 99
m999	Set maximum column width. The value 99 represents characters and may be set to any value between 1 and 999. The real width of the fields are calculated using the font average character width.
:1	End the current column and start a new one
	For list or transactions :1 defines a query with multiple lines.
c=0	Set check flag
	0 = No check, just display field
	1 = Combobox
	2 = Display field check as text
	3 = Display field value + checktext
n=10	Limit fieldnames to max 10 characters

To define a query on articles with field numbers in front of the field names, define the query as **va#1-6,8,f** 

The form will be generated as:

IQ	•
<u>File Edit Mainfile Index Others Yiew Window H</u> elp	
Database 🔹 🔺	
va Article file	
Article no	
2       01 Article no         02 Description         03 Selling price         04 Cost price         05 Date of last purchase         06 Supplier no         08 Stock balance	
SWTOOLS	

#### 17. Query form with field numbers

Field numbers may be useful if you want to make selections. Please refer to 'Selections'.

### **2.8. Preferences for new queries**

IQ provides you with a preferences dialog where some general parameters can be controlled for query programs.

The dialog contains the following:

-	Preferences	
🗆 <u>A</u> dd field	I numbers in front of names	
🗆 Omit fie	ld <u>n</u> ames	<u>0</u> K
	Background color	Cancel

18. Preferences

### 2.8.1. Add field numbers in front of names

If you checkmark this option IQ will add field numbers in front of the field names when generating the program form. Please refer to 'Special options in definition'.

#### 2.8.2. Omit field names

If you checkmark this option IQ will omit field names when generating the program form. Please refer to chapter 'Special options in definition'.

### 2.8.3. Background colour

You may select a background colour that will be the standard colour for all defined programs. The function activates the Windows standard colour selection dialog.

Previously defines programs will also use this colour as long as the program specific background colour hasn't been changed. Please refer to chapter 'Program parameters'.

# **3. Query search functions**

## 3.1. Data retrieval

When a query has been defined it supports a number of functions to retrieve information from the tables used. The functions allows retrieval of one record at a time, going forward or backwards in the index defined for the main table. For example, the article table is defined with article number as index, and therefore it is possible to retrieve the first, next, previous and last article information. It is also possible to get an exact article directly by entering the article number.

If no record is found IQ will display an error message and afterwards clear the entry fields in the query.

### 3.1.1. Next data record

To retrieve the next record in the query use the following function:

#### · Click on this button or press [PgDn]

][	٩	661			ଜୁ	]
Ge	et n	extre	ecord	Pg	Dn)	

19. Next data record

## 3.1.2. Previous data record

To retrieve the previous record in the query use the following function:

#### · Click on this button or press [PgUp]



#### 20. Previous data record

Note that not all database systems have got functions for retrieving previous record.

### **3.1.3. Specific record**

When you enter a key IQ will find and display the record if possible.

IQ will automatically search all index defined for the table matching the enter input. For example, if the key value is entered as 205, which is not an article number but a supplier number, IQ searches the secondary index of the article table first. The article table has a secondary index defined, where the supplier number (3 digits) is the first entry in the definition, and therefore IQ will find the first article where the supplier number is 205.

IQ determines which index to use by matching the input key against the index definition. Each index is given a search priority calculated based on the entered value. If you enters 3 digits index with first field of length 3 is searched first, a numeric index is tried before an alphanumeric.

If you enters a match code containing letters a numeric index will not be tried. If not found IQ also try to search the entered value in uppercase (if you have not checked the 'case sensitive' option in the index menu).

#### 3.1.4. First data record

You use this function to get the first record in the file. You may also just enter a space as search key followed by [ENTER].

#### 3.1.5. Last data record

You use this function to get the last record in the file. Note that not all database systems have got functions for retrieving the last record.

## **3.2. Superindex search**

Apart from the retrieval functions that uses the indices, IQ also has a super index function, searching freely in all records to find a text.

You may activate the search by entering the text to find and press [Shift+PgDn] or by click on the superindex icon.

-		IQ						<b>*</b>
<u>File E</u> dit <u>M</u> ainfile <u>I</u> nd	ex <u>O</u> thers <u>V</u> iew	Window Help	)					
		X ?						
Superin	dex (Shift+PgDn)				5E.			
-	F	<sup>o</sup> rograms						
©001 Suppliers			002 Artic	les		10	-	
003 Article groups 004 Currency	Superindex	card						
12005 Article/Picture	Articl Description		Selling price	Cost price	Date of la Suppl	Grou	Stock bal	
98006 Supplier/Articles	2001 CREDITCARD		20.00	10.00	95.01.01 205	9	10	
	2002 ID-CARD		25.00	10.00	94.06.30 205	9	200	
Programno.: 2								
					2it			
32 34			A. M	)	1			
	<u>E 24</u>						210	
SW-Tools								
D W-10012								10-10

#### 21. Superindex search

Superindex searches the complete file for any occurrence of the entered search key in any alphanumeric fields displayed on the screen with no regards to case and independent of where the text is placed in the fields.

Superindex does not search in numeric fields - for this you should use the selections described later.

For very large files this may of course take a moment but the search is extremely optimised and is carried out on the server only without transmitting all data to the client.

# **3.2.1. Interrupting SUPERINDEX**

During the search for records the ESCAPE cursor is shown

2

#### 22. The ESCAPE cursor

and you may interrupt the search by pressing escape (maybe a couple of times).

# **3.2.2. Superindex fields**

By default IQ searches all main table alphanumeric fields displayed to find the requested text. You can use the following function to define which fields to search in:

6		IQ 🔽
<u>F</u> ile <u>E</u> dit <u>Mainfile</u> Index	c <u>O</u> thers ⊻iew	<u>W</u> indow <u>H</u> elp
Mext	PgDn	1 2
Previous	PgUp	N 8
This	Enter	ams 🔽 🔺
Eirst	Ctrl+PgDn	
002 Arti Last	Ctrl+PgUp	
003 Arti Superindex	Shift+PgDn	005 Article/Picture
1 004 Cur Selections	Shift+PgUp	399 B
III RENOS Artic	100000 00000 00000 0000 00000 000000000	Picture of article
Cool Superindex fre	ID-CARD	
Selling price	25.00	
Cost price	10.00	SW-Tools
Date of last purch	nase 94.06.30	2 M - 10012
Supplier no	205	
Programno.: Group no	9	Graakrowdw Tovy I Popow. (+45) 33 33 05 56
Stock balance	200	Graziarovski v l         Planov         (4+35) 33 33 05 56           DK-1154 Copreduzymu K         Planov         (4+35) 48 35 50 35
30 <del>00000000000000000000000000000000000</del>		
SW-Tools		

#### 23. Function for superindex fields

You do not have to display the field on the screen in order to use superindex search on this. The superindex fields may be entered in the following dialog:

Superindex fields on Main file							
<u>0</u> K	<u>Cancel</u>						
	<u></u> K						

24. Editing superindex fields

Next time, when activating the superindex search function, IQ will only search in the field 2 (Supplier name) and 4 (Town).

## 3.3. Selections.

When retrieving data in the query program you may want to exclude some records depending on one or more field values. This can be done by entering a selection criteria. If you for example have defined a query on articles, as:

#### va#1-6,le#2,f,l

where the option 'f' adds field numbers to the generated heading on the form. The normal list of articles contains the following:

-							IQ					-	
<u>F</u> ile	<u>E</u> dit	Mainfile	<u>I</u> nd	ex <u>O</u> thers	s <u>V</u> iew	Window	Help						
	3	<u>N</u> ext	11	-11001-0	Dn	3 7							
		Previo	us		Up					_			
-		This		00000	ter	ams					<b>T</b>		
<b>1 2</b> 00		<u> </u>		Ctr	l+PgDn	Dat	abase				* *	1	
00:		Last		Ctr	l+PgUp		abaoo						
1 100:		Superi	index	Sh	ift+PgDn			1997 av	100		+		
2004	4	Select	ions	Sh	ift+PgUp		N N	va Article	file			•	-
· 28 00	2	Superi	index t	fields	4	1				_			
100	3	Address	1	ii 02 Descriptio	e								-
	4	Town	01 An	102 Descriptio	2	03 S	T 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Cost price					
	5		0101	CHOCOLATE	internet.		2.00		and the second se		DANDY INC.		
	L C	Dalanas	0102	LARGE MACH	IINE	2	00.000	- interaction production and the second	were a state of the second	address and	HUMBER LTD.		
	0	Balance	0110	BUS		10	00.000	60000.00	93.12.151	123	BRAUN GMBH		
	KU	Supplier	1001	MONEY		1.1	1000.00	500.00	94.12.31	205	SCHIERMACHER LTD.		
Progra	AVA	Supplier	1005	MACHINE		1.1	2000.00	1500.00	94.06.01	100	HUMBER LTD.	1	
			2001	CREDITCARD			20.00	10.00	95.01.01	205	SCHIERMACHER LTD.		
		Vew V	2002	ID-CARD		1	25.00	10.00	94.06.30	205	SCHIERMACHER LTD.	0	
												- 0	
							1					6)	
				16									
			2 230	T.).		· · ·					7. ·		
										_			
SW-To	nle												
N 11 1 U	212												-

25. Normal article list query

If you only want to view the articles where the selling price is greater than 100 select the 'Selections...' function from the 'Mainfile' menu. In the selection dialog you may enter the selection as:

Selection on Main file						
#3>100						
	<u>K</u>	<u>C</u> ancel				

26. Selection on selling price greater than 100

The selection has been defined when you select [OK]. You may now enter a blank followed by the [ENTER] key to perform the query with the defined selection. The result is as follows:

	F	<sup>o</sup> rograms			<b>* *</b>
-		Database			•
le Suppli	er file		va Article fil		+
1 Supplie 2 Name	Article no	)	Va Annue III	6	
3 Address	01 Arti 02 Description	03 Selling pr 4	Cost price 05 I	Date of <mark>06</mark> S	LO2 Name
4 10WII	0400 LADOS MACHINE	20000.00	CONTRACTOR AND A POST		HUMBER LTD.
5 Currenc	0110 BUS	100000.00	60000.00 93	3.12.15123	BRAUN GMBH
6 Balance	1001 MONEY	1000.00	500.00 94	1.12.31 205	SCHIERMACHER LTD.
KU Supplie VA Supplie	1005 MACHINE	2000.00	1500.00 94	1.06.01 100	HUMBER LTD.
					т
New	4				
-	=				

#### 27. Result of query with selection

In general all selections are entered as one calculation line, where you may use operators and fields references. The field references may be entered as

#### va#3

to access the article table field 3 (Selling price). If the field is a main table field you need only to enter

#### #3

Because field references are used to access the field values it is recommended that the field number is present on the form, because the selection dialog doesn't display a field overview.

### **3.3.1. Selection on numeric values**

Selection on numeric values is simply entered as:

**#3 > 100** or if the value has decimals

#4 > 1.5

where the numeric constant has to be entered with a dot as decimal point. If entered as comma the selection is incorrect.

### **3.3.2. Selection on text**

Selection on text is simply entered as:

```
#2 = "BUS"
```

to retrieve the articles where the description is BUS.

You may also enter selections on part of text fields by entering #2(1,1) = "M"

to retrieve articles where the description start with the letter M.

### 3.3.3. Selection on field from secondary tables

If the query consists of more tables, for example the query definition

va#1-6,le#2,f,l

where the supplier name is listed for each article you may also select on the fields from the 

22/11/01 / 2022-09-01 008.384

### 3.3.4. Multiple selections and OR selections

If the selection needed consists of more than one criteria you may use the logical operators **AND** 

OR

to construct the selection line. For example, to select the articles where the selling and cost price is greater than or equal to 1000:

#3 >= 1000 and #4 >= 1000

#### 3.3.5. Selection on calculated values

If the query contains calculated free fields, for example the stock value calculated in free field 20 as

#### #20 = #4 \* #8 /\* stock value = cost price \* stock balance

you may select the articles where the stock value is greater than zero by entering: **#20 > 0** 

It is however also possible to define the same selection without using the free field, because IQ supports calculations in the selection. To define the selection on Stockvalue you may enter **#4 \* #8 > 0** 

thus first calculating the stock value as #4 \* #8 and then selecting the calculated value greater than zero.

#### **3.3.6. Using subfunctions in selections**

Subfunctions can also be used in the selection line. For example, the selection on the article description

#2 = "BUS"

will only find articles where the description equals "BUS" in capital letters. If the article table contains articles with the description "BUS" and "bus" you may find both using the subfunction **lower(#2) = "bus"** 

where the subfunction 'lower' convert the value in field 2 to lower case letters before testing the value.

Please refer to subfunctions described in the manual part 2 - CALCULATIONS AND SUBFUNCTIONS.

## 3.3.7. Selections as calculations

You can make the selections as calculations also (see later), if the calculations after read of the main file has a RETURN(-1) this will cause the record to be skipped.

# 3.3.8. Removing the selection

You may remove the defined selection by activating the selection function and delete the entered line from the dialog.

# 3.3.9. Saving the selection

If you want to save the defined selection permanently for the query, you may save the query when the selection has been defined. The selection will then remain active the next time you start the query.

## **3.4.** The index menu

The index menu contains a number of options you can check on/off to control the way  $\ensuremath{\mathrm{IQ}}$  searches.

# 3.4.1. Display current key

If you check this option the current key of the mainfile is displayed in the keyfield overwriting your input key.

# 3.4.2. Case sensitive search

IQ searches when you enters a matchcode by default first for the value you have entered and if not found then for the value in uppercase (if it was not uppercase already). If you check this option exact match regarding to the case you enter is required.

# 3.4.3. Index locked

IQ determines how to find a record by comparing your input against the index definitions (see above). If you check the index locked option only the index checked below in the listbox are searched.

# 3.4.4. List must match input key

This option is active only for LIST queries.

On the article list query when you enter a supplier number 205 all articles starting with this supplier number are displayed. The list continues displaying the next articles also for the next supplier numbers.

If you just want one supplier check this option.

#### 3.4.5. Index names and definitions

All index of the main table will be displayed in this menu with both the index name and the definition.

When you have completed a search the index IQ selected will be checked and the index name will be shown on the screen in front of the input key field. In this way only one index can be checked at one time.

You may yourself check any number of index and IQ will only search between these. When you check the first index, the option 'index lock' will also be checked. If you turn off index lock all the checked index are turned off also.

# 4. Transaction queries

#### When you have defined a query as le#1-6/va#1-8

you can use all the functions on the main table supplier as described earlier plus the specific transaction functions described below.

When reading transactions IQ reads as many as needed for the current display into a transaction buffer. Only the number of transactions needed are read and only once for the query. When you go to previous page in transactions the records are just retrieved from the buffer.

# 4.1. Next page

You use this function [CURSOR DOWN] to get the next page of transactions. Used together with an entered value you may define temporary selections, see later.

# 4.2. Previous page

You use this function [CURSOR UP] to get the previous page of transactions. When going to a previous page of transactions the records will not be read from the table again but just retrieved from the internal transaction buffer.

# 4.3. First page

You use this function [CTRL+CURSOR UP] to get the first page of transactions.

# 4.4. Last page

You use this function [CTRL+CURSOR DOWN] to get the last page of transactions.

#### 4.5. Reverse display order

You use this function [CTRL+HOME] to change the display order of the transactions. If a general ledger account is normally sorted ascending on date reversing the display order gives you the last booked transaction first.

The display order does not influence your calculations. All transactions are read into the transaction buffer and calculations performed in the sequence as they are stored in the table. After this the display is reversed.

# 4.6. Superindex on transaction lines

You can use superindex on transaction lines just as for the main file (see this) and you may also define which fields should be included in the superindex search. IQ will normally search in all textfields displayed on the screen.

You can activate the superindex on transactions by just entering the key value to search for followed by [CURSOR DOWN] for next page.

## 4.7. Selection on transaction lines

The selection function for transactions is activated by selecting the 'Selections...' function from the 'Transfile' menu and you can use these exactly as for the main file. For transaction queries IQ also generates some 'quick use' selection fields:

### 4.7.1. Standard selection fields on transactions

When the transaction lines contains amount fields, date fields or code fields they will be inserted on the form with a blue heading. IQ generates these selection fields if the field is of the type:

- Amount, first numeric field with 2 decimals
- Date, first date field
- Code, first numeric value with maximum 4 digits

- Refno, first numeric value with more than 4 digits, no decimals

When the following supplier is selected the query displays the following articles:

	10	¥ 🔺
<u>F</u> ile <u>E</u> dit <u>M</u> ainfile <u>T</u>	[ransfile <u>I</u> ndex <u>O</u> thers <u>V</u> iew <u>W</u> indow <u>H</u> elp	_
0	Programs 🗸 🔺	
OO1 Suppliers     OO2 Articles	😑 006 Supplier/Articles 💌 🔺	
1003 Article groups	Supplier no	
Currency Cost Article/Picture Cost Supplier/Articles	Supplier no       205         Name       SCHIERMACHER LTD.         Address       BOULEVARD ROYAL 63         Town       LUXEMBOURG         Currency code       1         Balance       20,000.00         Articl       Description       Selling price       Cost price       Date Supplier       Group       Stock balance         1001       MONEY       1000.00       94.12.31 205       100	
Programno.: 6	2001 CREDITCARD 20.00 10.00 95.01.01 205 9 10	
	2007 OLEARD 25.00 10.00 94.06.30 205 9 200	
SW-Tools		

28. View of all articles for supplier 205

It is possible to make selections on the following fields displayed with a blue heading:

- Selling price (va#3)
- Date of last purchase (va#5)
- Group (va#7)
- Stock balance (va#8)

The selection is entered as a constant value and performed when pressing the [CURSOR DOWN] key.

If you want to cancel the selection and view all the transaction from the start once more, enter a blank followed by the [CURSOR DOWN] key.

IQ determines from the value you enters which selection should be performed. Entering 12,34 will select on amount, 12 selects on the code field. If amount only is present both will select on amount. Entering a text triggers the superindex search.

Depending on what you want to select the constant value must be entered according to the following rules on the selection fields:

#### 4.7.1.1. Amount field

If required to select on the amount field you must enter the constant value as a numeric value with decimals. For example, you must enter

#### 1000,00

followed by pressing the [CURSOR DOWN] key to select articles where the amount field (Selling price) equals the value 1000.

Normally the selection only retrieves transactions where the amount field equals the entered value. However, you may enter

#### > 1000,00

to retrieve transactions greater than 1000,00. You may of course use all of the following operators:

#### **Operator Description**

- = equals
- > greater than
- < less than
- >= greater than or equal to
- <= less than or equal to
- <> not equal to

# 4.7.1.2. Date field

If required to select on the date field you must enter the constant value as a numeric value with 6 digits and being a valid date. For example, you must enter

010187

#### or

#### 870101

in order to select transactions where the date field (Date of last purchase) is greater than or equal to the date 010187.

## 4.7.1.3. Code field

If required to select on the code field you must enter the constant value as a numeric value with maximum 4 digits. For example, you must enter **9** 

or

09

in order to select transactions where the code field (Article group) equals the value 9.

## 4.7.1.4. Refno. field

If required to select on the refno. field you must enter the constant value as a numeric value with more than 4 digits. For example, you must enter

00010

in order to select transactions where the refno. field (Stock balance) equals the value 10.

### 4.8. Sum of transactions

If the last field you select to display on a transaction line is an amount field (2 decimals) IQ will automatically generate a column adding up this amount.

The appropriate calculations for calculating the total in a free field (WW#21) and placing these on the display line using the first free field (WW#1) is generated. You may of course modify or remove this as required.

# 4.8.1. Brought forward amount

If the last field you select to display from the MAIN file is an amount field this will be used as a starting value for the sum of transactions instead of 0. This is also placed as a calculation which you can modify.

## 4.9. Multiple screen lines / transaction

When you edit the form layout of your query program you will just see the first transaction line layout, IQ duplicates this by itself the number of times needed.

Just place a transaction field on a new line to make each transaction split over more lines. You may also use the :1 option by defining the query, see this.

# 5. Saving, Deleting and documenting queries

Queries can be defined and used temporary or can be saved as programs so that it can be started later on without having to define the query once more.

# 5.1. Saving a query

The query can be saved when the query is active, by selecting the following function:

-	IQ	<b>* *</b>
File		
Save p	program(Ctrl+S)	
-	Database	
	va Article file	
	Article no	
2 3 4 5 6 7 8 9 11 6 1	02 Description         03 Selling price         04 Cost price         05 Date of last purchase         06 Supplier no         08 Stock balance	
SWTO	OOLS	

29. The save function

When the function is selected the following dialog appears:

	Save pr	ogram							
Progra	m no	9							
	Suppliers	11							
12003 Article groups 12004 Currency									
The second se	Article/Picture	P							
1006									
0.225.000.000	Article Mainte								
<b>B</b> 008	Supplier/Artic	les Maintenanc							
Progra	m name	des Maintenand							
Progra va Art	m name icle file	cles Maintenanc							
Progra va Art	m name								

30. The save dialog

# 5.1.1. Program number

The program number can be selected from 1 to 999, allowing a maximum of 999 queries in one IQ system. If the selected program number already contains a defined query, the previously saved program will be overwritten.

# 5.1.2. Program name

The program name can be entered using any letters, digits, blanks and special characters. It is displayed in the IQ program overview and used as window title when the program has been started.

### 5.1.3. Save desktop of all programs

Normally one query is saved as one program. When the program is saved it also stores information about the position and size of the query form.

When working with more than one active query on screen, you would want to get the same queries active the next time IQ is used. For example, if the suppliers, articles, currency and article group queries are active, you would want to save all the queries as one program, to avoid having to start each and every program the next time.

By selecting this option IQ saves all active programs in one, and by starting this program the next time IQ defines or opens the queries saved.

For example, the program 1 - suppliers has been saved with this option marked, and opens the following queries when started:

-				10			
Eile <u>E</u> dit <u>M</u> ai	infile <u>I</u> ndex <u>(</u>	<u>)</u> thers <u>V</u> iew	<u>W</u> inda	w <u>H</u> elp			
i 🛛 🖓 🖓	. 🛩 🕨 📢	/ 26.	100 🕅	]			
Supplier no 20 Name SC Address BC	CHIERMACHER LTD: DULEVARD ROYAL 63 IXEMBOURG	3	Curre	004 Curre rency no ency code 1 ency name DEM ange rate 34	ncy		Image: Orgen of the second
0		002 Articl	es			•	J
Supplier no							
Articl Description 1001 MONEY 2001 CREDITCARE 2002 ID-CARD	5	Selling price 1000.00 20.00 25.00	Cost price 500.00 10.00 10.00	Date of la Suppl 94.12.31 205 95.01.01 205 94.06.30 205	Grou 9 9	Stock bal 100 10 200	
W-Tools							

31. Multiple queries saved in one program

# 5.2. Deleting a query

Before a query can be deleted, the program has to be selected from the program overview. Then select the following function:

File       Window       Help         Delete       programs       Programs         Delete       programs       Programs         001       Suppliers       002         002       Articles       Programs         003       Article groups       Programs         004       Currency       Programs         005       Article/Picture       Programs	
Delete program(Ctt1+Y)  Programs  Total Suppliers  Control Supplier	
Programs 2001 Suppliers 2002 Articles 2003 Article groups 2004 Currency	•
©001 Suppliers ©002 Articles ©003 Article groups ©004 Currency	
©001 Suppliers ©002 Articles ©003 Article groups ©004 Currency	
Programno.:	

#### 32. Deleting a query

When a program is deleted it cannot later be restored.

### 5.2.1. Amending a program without file access

When IQ cannot open all files properly you may continue after the error message by choosing Yes below:



33. Not all files could be opened in an IQ program

# **5.3.** Printing program documentation

To print IQ program documentation select the following function:

	IQ	<b>T</b>
<u>F</u> ile <u>W</u> indow <u>H</u> elp		
Print documentation (Ctrl+P)		
	Programs	× *
💶001 Suppliers		
Control of the second s		
1003 Article groups		
Value Article/Picture		
12006 Supplier/Articles		
Programno.: 1		1-
SW-Tools		

#### 34. Documentation function

In this dialog you may select one or more programs to print documentation on. Use the left mouse button to click on the program to print or if selecting several programs, keep the [CONTROL] or [SHIFT] key pressed down while clicking on the programs:

	Print IQ definitions	A 100
Printer		
Select programs	Printer: Screen	Ŧ
2001 Suppliers	24	Select all
92002 Articles 92003 Article groups 92004 Currency		Deselect all
₩005 Article/Picture ₩006 Supplier/Articles	the second se	
		<u>Q</u> K <u>C</u> ancel

#### 35. Selecting programs to print

The documentation of an IQ programs may look like this:

Q (006.006)		SH	-Tools	Page
5 - Article	e/Picture			
		Date	Time	
		Created 95.12.08 Modified 97.09.08	15:08:46 09:29:29	
		Maillea 51.05.00		
<b>File</b> 1 va	<b>File name</b> Article file		<b>Vsed fields</b> 1-10	
Article no	#1	8	Picture of article	
Description	#2		#16	
Selling price		#3'		
Cost price		#4'		
Date of last p	urchase	#5'		
Supplier no	#6			
Group no	#7'			
Stock balance	e	#8'		
Parameters				
1Created w	ith the fields		= 5.	
	free fields		= 60	
3 Backgroun	d color reefield forma	+	= 192,192,192	
i Delauit I	reerieiu iolma	<b>5</b> 7	0.0000	
	of Article file			
1 # 16 = #1,			<pre>#pPicture = Article no,"</pre>	
2 #17 = #4	* #8		Stockvalue = Cost price *	Stock balance
By clic	ck on a field #1	Article no	Kva001	
1 read(le)			read(le)	
2 #12 = "Th	e supplier for	this article is : "	Message text = "The suppl. : "	ier for this article
3 #12 = #12	,le#2,"."		Message text = Message tex	xt,Name,"."
4 mess (#12)			mess(Message text)	

36. Example of IQ program documentation

# 5.4. Help and check on fields

In the VIEW menu you finds the possibilities to switch on more or less help display for the database fields on screen. When you are moving the mouse over a field with helptext and the help option is on this text will be displayed.

	IQ	<b>▼ </b>
<u>F</u> ile <u>E</u> dit <u>M</u> ainfile <u>T</u> ransfile <u>I</u> ndex <u>O</u> thers	<u>⊻iew</u> indow <u>H</u> elp	

37. The VIEW menu

# 5.4.1. Field documentation

In the EDIT menu you will find a new entry point for writing documentation for each field on the screen.

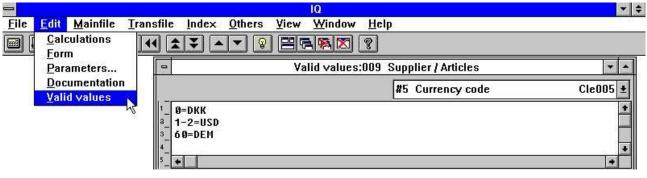
-		11-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1				IQ		× \$
<u>F</u> ile	Edit <u>M</u> ainfile	Transfile	Index	Others	⊻iew	<u>W</u> indow <u>H</u> elp		
	<u>Calculations</u> <u>F</u> orm	••	¥ 🔺	<b>– ?</b>		<b>N</b> ?		
	Parameters Documentation		•			Documentation:00	Supplier / Articles	
	<u>V</u> alid values	-Jrs					Generel	HIe000 生
			1 2 3 4 5					*
			6_+					•

#### 38. Field documentation

This enables you to document the workfields in a program just like a fixed database field or to extend the database documentation with specific points on this program.

## 5.4.2. Valid values

As with documentation you may define valid values on workfields also.



#### 39. Valid values

You must follow the syntax: <values> = Text where values may be single values or ranges.

# 6. Program parameters

Before the parameters can be changed for a query, it has to be saved. If not saved IQ will ask to save before activating the function. Please refer to 'Saving queries'. The dialog for program parameters contains the following:

Param	eters
Created with the fields	le#1-6/va#1-8 💽
Number of free fields	40
Global freefield from no	20
No.of lines on screen	6
Background color	
Selection Refno	va#8
Selection Date	va#5
Selection Code	va#7
Selection Amount	va#3 🔹
le#1-6/va#1-8	
The value cannot be changed	
<u>0</u> K	<u>C</u> ancel

40. Program parameters

# 6.1. Created with the fields

The value displays the fields used to define the query program. It cannot be changed.

# **6.2.** Number of free fields

Normally a programs has 40 free fields available. By changing this value you may increase the number of free fields to max. 499.

### **6.3. Global free field from number**

Determines which free fields are common for all lines on a query and which are local to the single transaction. See 'calculations on transaction queries'.

### **6.4.** Number of transaction lines on form

The value is used to control how many (transaction) lines to display on the query form. The standard value is 6.

The value is only available for queries that are defined on list form or with main and transaction tables.

# 6.5. Background colour

You may select a background colour specific for this program. The function activates the Windows standard colour selection dialog.

# 7. Amending form

Before the form can be amended for a query, it has to be saved. If not saved IQ will ask to save before activating the function. Please refer to 'Saving queries'.

A query allows amendment of the generated form. It is possible to insert and remove fields, add calculated free fields, insert pictures and much more.

— Fili	e <u>E</u> dit <u>T</u> ools <u>I</u> tem <u>(</u>	aroup <u>V</u> iew <u>W</u> indow <u>H</u>	l( lein	1					* *
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3	Description   Selling price	\$0000000000000000000000000000000000000		Pen ► Color	cococo <u>Fore</u> (	oooooooooooooooooooooooooooooooooooooo	×		
5	Cost price Date of last purchase Supplier no	9999999.99 99.99.99 iooc		<u>T</u> ext <u>S</u> elect font Justify ▶		ground ackground 😽			
7	Group no Stock balance	99		Bring to <u>f</u> ront Bring to <u>b</u> ack					
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1 2	Article no Description	4 Cost price 5 Date of last purchase	7 8	Black border	10 11	Free Sum		13 14	@F
3	Selling price	6 Supplier no	9	Field settings	12	Message te	×t	15	@F
SW-	Tools			Object type					

41. Amending the form

# 7.1. Inserting fields

By clicking on a field in the database window it is possible to insert a new field on the form:

Supplier no	box	x			
Group no	- 99	T		****	
Stock balance	<mark>-</mark> 9	99999	0.0.0.0.0	22222	
	2.2.2.2		2.2.2.2.2		
2		Database:005 Arti	icle/Pi	cture	*
/a Article file					
Article no	6	Supplier no	11	Sum	16 #pPicture
Description	7	Group no	12	@Free	17 Stockvalve
Selling price	8	Stock balance	13	@Free	18 @Free 15
Cost price	9	Alternative supplier	14	@Free	Click on the field to
Date of last purchase	10	Free	15	@Free	insert.
				2002	
WTOOLS					2. <b>.</b>

#### 42. Selecting field to insert on form

When the field has been selected the layout window will automatically select the Database field function. It is now possible to insert the field:

— <u>F</u> ile	Edit Tools Item	lQ Group <u>V</u> iew <u>W</u> indow <u>H</u> elj	
	○ \ T <sub>T</sub> ∰ f #		, 8
9		Form:005 Article/Pi	cture 🔽
			(522,504,788,562) Stockvalue
and the second second second	<u></u>	1 <u>513                                      </u>	153
1 Arti	cle no	2000X	122213
Des	scription	200000000000000000000000000000000000000	000000000000000000000000000000000000000
3 Sell	ling price	999999.99	
Cos	st price	999999.99	2222222
Dat	e of last purchase	99.99.99	
Sup	oplier no	<u> </u>	
Gro	pup no	99	
* Sto	ck balance	-999999	
9		R9999999.99	
		Move the cursor to where t	he field is to be
		inserted and click on the le	

43. Inserting the field on the form

I

# 7.1.1. Insert with field heading

If the field heading is required it can be inserted along with the actual field. Double click on the field to insert will display the following dialog:

#17 WW#7 Stockvalue
WW#7 Stockvalue
🗌 No <u>h</u> eading
From character: 1 To: 10 View of output format

44. Selecting field with heading to insert on form

It is now possible to change the field heading or exclude it. It is also possible only to display a part of the field changing the from/to character position.

If the field is numeric you may select one of three options:

- 1. Leading zeroes
- 2. Zero suppress
- 3. Normal

The Normal option displays zero values as 0,00.

### 7.1.1.1. Part of fields and tablefields

Part of fields #5(2,13) and tablefields #7(2) may also be included directly in layout for an IQ program.

# 7.2. Inserting font specific text

To insert font specific text select the following function:

-							IQ
File	<u>E</u> dit	Tools	<u>l</u> tem	Group	⊻iew	Window	Help
	$ \circ $	Tr	f #	J X (	Q 60°		2
-		Insert for	t specifi	c text		Form:00	5 Article/Pictu

45. Selecting the font specific text function

Then move the cursor arrow to the point where the text is to be inserted and click on the left mouse button. The function will display the following dialog:

	Te>	đ	<b>^</b>
Picture of arti	cle		<u>+</u>
			*
		<u>0</u> K	<u>Cancel</u>

46. Dialog for font specific text

The text will then be inserted and the size of the element calculated according to the last used font. If the font is to be changed it can be done after insertion of the text by using the RIGHT mouse buttom and then selecting one of the following menu items:

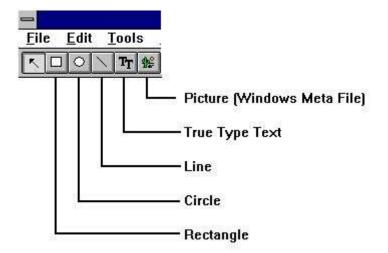
Form:005 Article/Picture         Xeeo:       task       With       ges       (1245,63,2208,507)       #16 #pPicture       #         Article no       boox       1245,63,2208,507)       #16 #pPicture       #         Article no       boox       Picture of article       #	ile		<u>G</u> roup <u>V</u> iew		10 <u>H</u> elp										-	1
Xepon       1245       Web       960       11       1245,63,2208,507       # 16       # 17       18       19       20       20         Article no       5       6       7       6       9       10       11       13       14       15       16       17       18       19       20       20       2         Article no       50000       999999       99       99       99       99       99       90       10       11       21       13       14       15       16       17       16       19       20       20       2         Article no       50000       50000       9999999       90       90       18       19       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10	$\leq$	□ ○ \ T <sub>T</sub> ∰ f #	* ~ ~			-										F
Verses       63       Verses       644       IT (245, 63, 2206, 307)       # 16 #pPrcure       It         Price       9       1	= 524	lar lara		Form											-	ľ
Article no       cox       Picture of article         Description       000000000000000000000000000000000000	24 10				l	(1245,	63,2208	,507)	#16 #	pPictu	ure				*	ł
Description       xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	1.1		1 <sup>5</sup> 1 <sup>6</sup> 1 <sup>7</sup>	8	9  10	111					17	118	19	120	21	İ
Selling price       9999999.99         Cost price       9999999.99         Date of last purchase       99.99.99         Supplier no       ox         Group no       99         Stock balance       -999999         Stock balance       -999999         Bring to front         Background item         Shadow         Database:005 Article/Picture         3D down effect         3D up effect         Black border         Article file         Article no       6         Supplier no       11         Description       7         Group no       12         Message text         Selling price       8         Stock balance       13 @Free         Cost price       9         Alternative supplier       14 @Free         Object type       23 @         Object type       25 @			<u>20000</u>	1		Ì	Pictur	re of	article		19	1				
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Supplier no       Image: Supplier no       Pen         Group no       99       Image: Select font       Justify         Stock balance       -9999999       Image: Select font       Justify         Stock balance       -9999999       Image: Select font       Justify         Bring to front       Bring to front       Bring to back         Bring to back       Background item       Shadow         Image: Database:005 Article/Picture       3D down effect       Image: Select font         Image: Database:005 Article/Picture       3D down effect       Image: Select font         Image: Database:005 Article/Picture       Background item       Shadow         Image: Database:005 Article/Picture       Box       Image: Database         Image: Database:005 Article/Picture       Image: Database       Image: Database         Image: Databa		Cost price	9999999.99			1									1	
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Justify       ↓         Justify       ↓         Bring to front       Bring to back         Bring to back       Background item         Shadow       3D down effect         3D up effect       Black border         Black border       21 @         Article file       Box       22 @         Article no       6 Supplier no       11 Sum         Description       7 Group no       12 Message text         Selling price       8 Stock balance       13 @Free         Cost price       9 Alternative supplier       14 @Free         Date of last purchase       10 Free       15 @Free		Stock balance	-999999		1	1			_			-			1	
Bring to front         Bring to back         Bring to back         Bring to front         Background item         Shadow         3D down effect         3D up effect         Black border         Black border         Black border         21 @         Selling price       8 Stock balance         Stock balance       13 @Free         Cost price       9 Alternative supplier         Date of last purchase       10 Free         15 @Free       Object type         Object type         25 @	ľ			;;	<u> </u>				the second s	· · · · · · · · · · · · · · · · · · ·		Ś 🕨		ł	0	
Bring to back         Bring to back         Background item         Shadow         3D down effect         3D down effect         3D up effect         Black border         Article file         Article file         Article file         Background item         Shadow         3D up effect         Black border         Black border         Black border         Box       22 @         Selling price       8 Stock balance       13 @Free         Cost price       9 Alternative supplier       14 @Free         Date of last purchase       10 Free       15 @Free       Object type       25 @	Î					1	11			1990. 		04 98 P	1	1	1	
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Database:005 Article/Picture       3D down effect         3D up effect       3D up effect         3D up effect       Black border         Article no       6 Supplier no       11 Sum         Description       7 Group no       12 Message text         Selling price       8 Stock balance       13 @Free         Cost price       9 Alternative supplier       14 @Free         Date of last purchase       10 Free       15 @Free			100 100 101	hi uh	dar.	nde,	<u>ta</u> 11				a iten			<i>bi</i>	+	ĺ
a Article file       3D up effect         Article no       6 Supplier no       11 Sum         Description       7 Group no       12 Message text         Selling price       8 Stock balance       13 @Free         Cost price       9 Alternative supplier       14 @Free         Date of last purchase       10 Free       15 @Free	f			Databa	se:005	Article	/Picture		100000000	2021	ffect	=			+	
Article no       6       Supplier no       11       Sum       Black border         Article no       6       Supplier no       12       Message text       Box       22       0         Description       7       Group no       12       Message text       Box       22       0         Selling price       8       Stock balance       13       @Free       Field settings       23       0         Cost price       9       Alternative supplier       14       @Free       Diject type       24       0         Date of last purchase       10       Free       15       @Free       Diject type       25       0	1	Article file					, iotare		1000							
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Selling price       8       Stock balance       13       @Free       Field settings       23       @         Cost price       9       Alternative supplier       14       @Free       24       @         Date of last purchase       10       Free       15       @Free       Object type       25       @									Box			•				
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Date of last purchase 10 Free 15 @Free Object type 25 @									den arrese	BURNESS CONTRACTOR		_			0	
Ubject attributes									52/07/28 B. HON	C		. >		25		
	Ī					.ef:			Ubjec	a attri	Dutes					i

### 47. Function to change font of an element

The function activated is the Windows standard font selection dialog.

### 7.3. Drawing rectangles, circles, lines and pictures

Other drawing functions include rectangles, circles, lines, true type text and picture elements. The functions can be selected from the menu or the toolbar:



48. Toolbar buttons for draw functions

For example, to draw a rectangle click on the tool button for rectangle. Move the mouse arrow to the top- leftmost position and click on the left mouse button. While keeping the left mouse button pressed, move the arrow to the ending point of the rectangle and release the left mouse button. The element is now inserted and the style, colour etc. may be changed activating the right mouse button.

You may continue inserting draw elements of the selected type until the 'Change element or mark group' function is selected.

## 7.4. Deleting elements

To delete an element make sure the function 'Change element or mark group' is selected. Click on the element to delete or mark a group of elements. When the elements are selected press [Ctrl+Y] or click on the following button:



49. Deleting the current selected element or the marked group

# 7.5. Box sizing and field flags

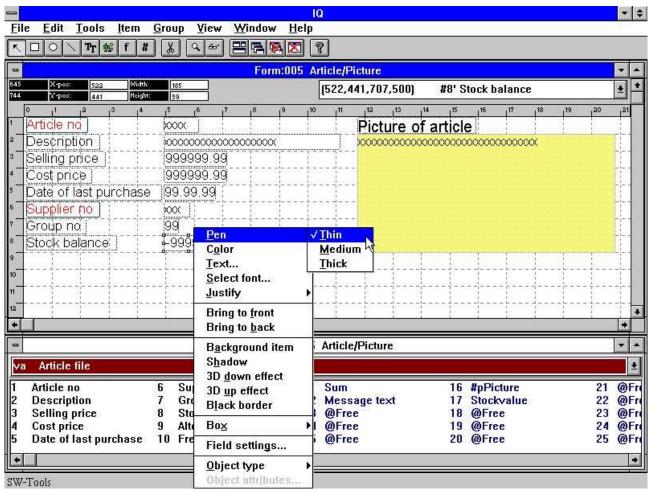
The BOX entry may be used to size the field boxes automatically and the new FIELD SETTINGS may be used in DATAMASTER to control field input, see also the SETFLAG and CLRFLAG functions.

Pen Color Text Select font Justify Bring to front	<b>&gt;</b>		
Bring to <u>b</u> ack			
B <u>a</u> ckground item S <u>h</u> adow 3D <u>d</u> own effect 3D <u>u</u> p effect B <u>l</u> ack border			
Box	Autosize width and height	Field settings	
Field settings	Autosize <u>w</u> idth Autosize <u>h</u> eight	Input of field does not set record change flag Field is displayed before record is read	<u>0</u> K
<u>O</u> bject type Object attr <u>i</u> butes	• · · · · · · · · · · · · · · · · · · ·	Field may be entered before record is read	Cancel

#### 50. Edit Box size and Field settings

# 7.6. Changing colour, font and justification

Each element may have different colours, fonts etc. To amend the settings for each field or a group of fields first ensure the function 'Change element or mark group' is selected and press the right mouse button. It activates a floating menu with the following options:



51. Changing colour, font and justification

# 7.6.1. Pen

The pen width is normally used for elements of type box, circle or line. It can be:

Thin (1 dot) Medium (2 dots) Thick (4 dots)

# 7.6.2. Colour

The colour of an element is divided in two categories:

Foreground and background colour

If no background colour is required please checkmark the menuitem

No background

When selecting to define the for- or background colour IQ will activate the Windows standard colour selection dialog.

# 7.6.3. Text

If the element contains text it is possible to edit the text using the function.

### 7.6.4. Font

When changing the font for an element IQ will activate the Windows standard font selection dialog. You may then select the font type, style, size etc.

Please note that the size of the element is not changed. This must be done manually after ending this function.

# 7.6.5. Justification

An element may be justified three ways Left justified Centred Right justified

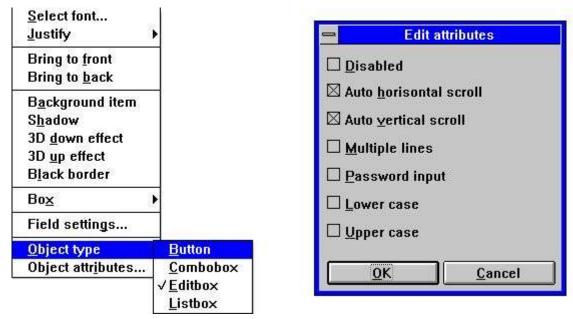
Normally numeric fields are right justified.

# 7.6.6. Bring to front / back

An IQ form supports display of field on top of each other. E.g. you may display field on top of a picture or drawn boxes and lines. If you select to bring an element to the top it is displayed on top of all other elements. If send to back all other elements are displayed on top of it.

# 7.7. Object type and attributes

You can control the field behaviour with the object type and attribute entries:



#### 52. Object type and attributes

# 7.8. Moving, deleting and changing group of elements

If you need to move, delete or change a group of elements it can be done following these instructions:

Make sure the 'Change element or mark group' function is selected. Move the mouse arrow to the top-left position of the group of elements and click the left mouse button. Continue to hold the left mouse button down while moving the mouse arrow to the bottom-right position of the group. When the dotted rectangle marks the group of elements release the left mouse button.

Article no ł	1 <sup>5</sup> 13                   <sup>7</sup> 83                       <sup>1</sup>	053               1323               1593	11
Description	000000000000000000000000000000000000000	000000000000000000000000000000000000000	
Selling price	999999.99		
Cost price	999999.99		
Date of last purchase	99.99.99		
Supplier no	000		
Group no	99		
Stock balance	-999999		
		k	
		12	1
		When the group of elements is marked release the left mouse button.	

#### 53. Marking a group of elements

The selected group is now marked.

# 7.8.1. Moving the group

Moving the group is done by pressing the left mouse button when the arrow is pointing to an element in the marked group. While moving the mouse the left mouse button must be held down. When released the group is moved.

# 7.8.2. Deleting the group

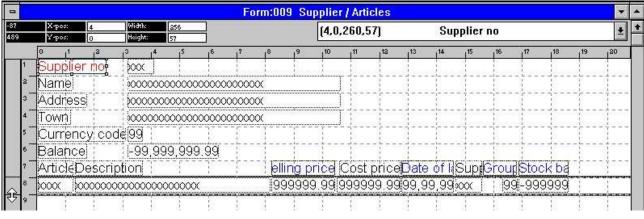
Select the delete function when the group has been marked.

# 7.8.3. Changing the group

When the group is marked you may perform the same action as described in 'Changing colour, font and justification' on a single element.

# **7.8.4. Blocks of lines**

When lines are defined on a query the complete line block may now be moved or resized by dragging the markers in the left margin.



54. Editing the layout of a transaction query

# 8. Calculations

Before the calculations can be edited the query has to be saved. If not saved IQ will ask to save before activating the function. Please refer to 'Saving queries'.

With this function, you may calculate results which may or may not be displayed on the form. The syntax of calculations and installed subfunctions is described in the manual part 2 - CALCULATIONS AND SUBFUNCTIONS.

# **8.1. Edit calculations**

When selecting this function the following screen is displayed:

-		IQ			
<u>File Edit View Window</u>	<u>H</u> elp				ek. ne
× Name Yalue Field reference Field reference Sglname 1 _ #16 = #1 2 _ #17 = #4 4	hand a state of the second	Stockval	cture e = Article no,".wm ue = Cost price * S The default w display the t beside the li be changed s menuitem.	Stock baland vindow setu ranslated lin nes entered	p is to nes but may
	Database:00	15 Article/Pic	ture		· ·
va Article file					
1 Article no 2 Description 3 Selling price 4 Cost price 5 Date of last purchase	6 Supplier no 7 Group no 8 Stock balance 9 Alternative su 10 Free	Ipplier 14	@Free @Free	16 17 18 19 20	#pPicture Stockvalu @Free @Free @Free
SWTOOLS					<u>}</u>
	23 4ol21		r		ornosserve - <sup>Dr</sup>

Here you may enter the calculations

The calculations are translated and displayed here. Hereby meaning that the field references are converted

#### 55. Calculations

In the 'Amend form' function, you have edited the form and have chosen to display a free field with a related format and name. If you make the query before you defined the calculation, you will get the value 0 in the field. You may enter, for example:

#17 = #8 \* #4
This means that Fieldnumber 17 (Stockvalue) is to be calculated as
#8 (Stockbalance) \* #4 (Costprice)

		IQ	(				-
<u>F</u> ile <u>E</u> dit ⊻iew	<u>W</u> indow <u>I</u>	<u>t</u> elp					
	<b>x</b> ?						
-		Calculations:005	Arti	cle/Picture			<b>*</b>
After read of Article	e file	±					
1#16 = #1,".wm <sup>p</sup> 2#17 = #4 * #8 4 5	5	•		Picture = Article no,".wn ockvalue = Cost price *		balance	
0		Database:005	Artic	le/Picture			<b>*</b>
vaArticle file1Article no2Description3Selling price							±
1 Article no	4	Cost price	7	Group no	10	Free	
2 Description	5	Date of last purchase	8	Stock balance	11	Sum	
3 Selling price	6	Supplier no	9	Alternative supplier	12	@Free	
+							+
SWTOOLS							

56. Refering to picture filename and calculating the Stockvalue

The example above shows how the field numbers used in calculations are translated into fieldnames, it is now easy to read the calculation of stock value. We will discuss the picture calculation below.

Now you may proceed with more calculations or close the calculation window and test the inquiry.

### 8.2. View of translated calculations

Normally the translated calculations are displayed in colours and all field references are translated into fieldnames.

In the calculations (and in the form layout) you may change the translation mode of fields as shown here:

	IQ 🔽
<u>File Edit View W</u> indow <u>H</u> elp	
X B C	
√ <u>V</u> alue	pps:005_Article/Picture
	pns:005 Article/Picture
After read o Sglname	±
1_#16 = #1. Format	+ 0101.wmf = 0101,".wmf"
<sup>2</sup> _ #17 = #4 Layout	150.00 = 1.50 * 100
<sup>3</sup> - <sup>4</sup> √ Split vertical Ctrl+W	
s	1 I
6	-
After read o 1_ #16 = #1 3_ #17 = #4 5 6 7 8 8 • • • • • • • • • • • • • • • • • • •	
	se:005 Article/Picture
va Article file	
1 Article as 2 Description	
1 Article no 2 Description	3 Selling price 4 Cost price
SWTOOLS	

57. Changing view of translated calculations

# 8.3. Picture fields

You may define free fields for pictures. First you have to define the free field as an alphanumeric field to hold a physical filename equal to the picture filename.

So that IQ knows that the field is a picture field the name must be entered as:

#### #p<name>

where the *#*p defines the field as a picture field.

The field can then be inserted on the form and the field sized to fit the size of the picture. To calculate the picture filename you can enter the following calculation:

The free field 16 is then calculated as 'Article number' plus the extension ".wmf"

resulting in the picture filename 0101.wmf if the article number is 0101. Please note that only 'Windows Meta File' (wmf) is supported in this version.

# 8.4. Functions

IQ has a number of built in functions for rounding, date calculations etc., which you can use in the calculations. Part 2 - CALCULATIONS AND SUBFUNCTIONS describes all these.

### 8.5. Entry points for calculations

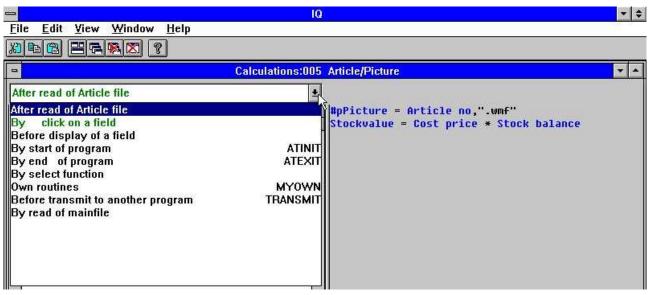
IQ programs allows you to define calculations at different entry points in the standard program. The entry points are:

- After read of main table
- By click on a field
- By start of program
- By end of program

I the program is defined with main- and transaction table you may also define calculations at the following entry points:

#### - After read of transaction table

The entry points may be selected from the following combo-box:



58. Entry points for calculations

# 8.5.1. After read of main table

The calculations are performed each time a record is read from the main table. This entry point could for example be used to calculate the Stockvalue in a free field if the main table is 'Articles'.

# 8.5.2. By click on a field

You may define calculations here that are only activated if the user clicks on the field. When the entry point is selected another combo-box becomes available:

	IQ	* *
<u>F</u> ile <u>E</u> dit <u>V</u> iew <u>W</u> indow <u>H</u> elp		0— 14 x
Calculations	s:005 Article/Picture	▼ ▲
By click on field	± #1 Article no	*
<pre>1_ #12 = "The supplier for this article is : " #12 = #12,le#2,"." 4_ mess(#12) 5_ 6_ 7_ 8_ 9 10 11 1. </pre>	<ul> <li>#1 Article no</li> <li>#2 Description</li> <li>#3 Selling price</li> <li>#4 Cost price</li> <li>#5 Date of last purchase</li> <li>#6 Supplier no</li> <li>#7 Group no</li> <li>#8 Stock balance</li> <li>#16 #pPicture</li> </ul>	

#### 59. Field entry points for calculations

An example could be to display a message with the supplier name if the user clicks on the article number:

-			IQ					•
<u>F</u> ile			elp					
83		<b>X</b> ?						
-			Calculations:005	Article/	Picture			
B	y click on field		*	#1 Artic	le no			±
_   ຜ່ ຜ່ 4 <sup>1</sup> 5 <sup>1</sup> 6   <sub>2</sub> <sup>1</sup> ໝ່ ຫ່ 12 <sup>1</sup> 12 <sup>1</sup> 12 <sup>1</sup> 12 <sup>1</sup> 12	read(le) #12 = "The sup #12 = #12,le#2, mess(#12) 		article is : "	Messa Messa	) ge text = "The supplier ge text = Message text dessage text)			·:"
			Database:005	Article/Pi	cture			-
1 2 3	a Article file							ŧ
1	Article no	4	Cost price	7	Group no		Free	
2	Description	5	Date of last purcha		Stock balance		Sum	
3	Selling price	6	Supplier no	9	Alternative supplier	12	Message	text
•								+
SW	TOOLS							

60. Calculations by click on a field

The result of the calculations is:

-	*****		•
<u>F</u> ile	e <u>E</u> dit <u>M</u> ainfile <u>I</u>	<u>Index O</u> thers <u>V</u> iew <u>W</u> indow <u>H</u> elp	_
-		Programs 🗾	
00	8	005 Article/Picture	•
llooli	Article no		
00 00 00	Article no	2002 Picture of article	1
00	Description	ID-CARD	
	Selling price	25.00	
	Cost price		
	Date of last purch	hase 005 Article/Picture	
	Supplier no Group no	The supplier for this article is : SCHIERMACHER LTD	
	Stock balance	me: (+45) 33 33 05 56 (+45) 48 35 59 35	
Pr			22
		<u> </u>	
CITWE	2001 8		
2M1	TOOLS		

61. Result of calculations when click on field

# 8.5.3. By start of program

The calculations at this entry point will only be performed by start of the program.

# 8.5.4. By end of program

The calculations at this entry point will only be performed by end of the program.

### 8.5.5. After read of transaction table

The calculations are performed each time a record is read from the transaction table. This entry point could for example be used to calculate the Stockvalue in a free field if the main table is 'Supplier' and the transaction table 'Articles'.

# 8.5.6. Before DISPLAY of a field

The calculations placed here are carried out just before a field is displayed the first time.

### 8.5.7. OWN routines

A subroutine may be placed in any calculation area using first RETURN and then LABEL: calculations  $\ensuremath{\mathsf{RETURN}}$ 

The area of MYOWN calculations is just a good place for such common routines.

### 8.5.8. Before TRANSMIT to other programs

When this program decides to update other programs it will first call the before transmit calculations. Here you can read the programnumber which will be updated and information about this:

#IQSendto = This program number will be updated #IQSendsub = The program is placed in this subsystem number #IQSendfile = This is the ID of the programs mainfile Update will carry on if you return 0 and will be skipped by a RETURN(-1)

# 8.5.9. By select of a FUNCTION

When a function is selected IQ will make the corresponding action to this. But before this is done you have the possibility to check if the function is allowed at the given place.

Save	FU0502 🚹
Read next record	FU0503
Read previus record	FU0504
Read this record	FU0505
Read first record	FU0506
Read last record	FU0507
Superindex	FU0510
Selection	FU0511
Superindex fields	FU0512
Display key	FU0596
Case sensitive	FU0598
Index locked	FU0600
Zoom in	FU0550
Zoom out	FU0551 🖡

#### 62. Function calculations

All the menu functions can be found here and you will note that the calculation LABEL is named as FUnnnn, nnnn being the function number as 551 for ZOOM OUT.

### **8.5.9.1. DOFUNCTION messages**

What Windows does when a function is selected is to send a MESSAGE to the given program with the function number (e.g. 551 for ZOOM OUT) whereafter the program takes action on this.

With DOFUNCTION(551) you can send such a message yourself and this will be threaten exactly as if the user had activated the ZOOM OUT button.

You may even tell the DOFUNCTION to send the message to another active program and you may pass a key also, for example will

#### **DOFUNCTION(505,#1,20)**

ask program number 20 to read the record with the key given in field 1.

# 8.5.10. By read of mainfile

With these calculations you can influence the reading of the mainfile.

MAINREAD
MAINNEXT
MAINTHIS
FINDTHIS
MAINMESS

#### 63. Mainfile calculations

Each of the calculations may set #OK and RETURN(-1) to tell the file is read. You may build your own searchroutine here but some programming knowledge would be required for this.

### 8.6. Transaction queries and free fields

Transaction queries works with a transaction buffer. When a transaction is read and the calculations performed the transaction is placed in the buffer together with any other table read with a connection to the transaction.

Only the number of transactions needed for the actual display are read and calculated and only once. Going forward/backward in the display will take the values from the buffer.

Also the result of the calculations for each line is placed in this buffer in form of free fields. The free fields acts as a separate table but are logically divided into two parts, one connected to the transaction file and so buffered and one connected to the main file and kept away from the buffer.

How many free fields are kept for each transaction is determined by the parameter 'GLOBAL FREE FIELD FROM' which as standard connects the first 20 free fields to the transactions and the rest to the main file.

### 8.6.1. Sum of transactions

The best way to illustrate how the free fields is used in a transaction query is to look at the sum made when defining a query like:

#### le#1-5/va#1-3

The sum is calculated in the first 'global' free field connected to the mainfile which becomes #27 (LE has 6 fields and first global free field is 6+21=27).

After reading of the main table the sum is initiated as brought-forward: #27=0

And for each transaction line the sum is added up with: #27=#27+va#3

We could stop here and then just display the field on the transaction line. This will work fine when just going forward in transactions but if you try to go to 'previous page' the sum becomes the same all over. The last calculated value is displayed for all transaction lines.

We needs something which 'sticks' to the single transaction line and that is exactly what the first free field (#7) is doing:

For each transaction line we set: #7=#27

and display field 7 instead of field 27 for each line. Now the result is buffered together with the transaction line and correct independent of how we move in the transactions.

You could say why is not all free fields kept in the buffer together with the single transactions. If you decide just to have on field displayed together with the main file fields as 'sum of transactions' this would then be dependent on which transaction was currently displayed on screen. We really need to have two separate types of free fields.

### 8.7. DEBUG in the calculations

As the number of possibilities to make calculations in IQ/DATAMASTER grows the possibility to make mistakes grows also.

You may now switch on a DEBUG window by placing a calculation line

DEBUG(1)

which when executed will open a debug window which shows like:

-		IQ		-	\$
<u>F</u> ile <u>E</u> dit <u>M</u> ain	ifile <u>I</u> ndex <u>O</u> thers	: <u>V</u> iew <u>W</u> indow <u>H</u> elp		8 - 20	
	8 >> << 😵 🗮			-	_
ل ک ک ک	كالشا لشلشا لعد		SW-Tools DEBUG	*	•
_			005 WW#7 = va#4 * va#8	12 14	+
	005 A	Article/Picture	005 read(le)		
Article no			005 read(ku),le#5 005 WW#8 = WW#7 *ku#3/1(	n	
Article no	2002	Picture of article	005 WW#6 = va#1,".wmf'		
Description	ID-CARD		005 WW#7 = va#4 * va#8		
Selling price	25.00		005 read(le)		
Cost price	10.00	SW-lools	005 read(ku),le#5		-
Date of last purchase	94.06.30	2 W - 10012	005 WW#8 = WW#7 *ku#3/10	00	2
Supplier no	205		005 WW#6 = va#1,".wmf"		
Group no	9		005 WW#7 = va#4 * va#8		
Stock balance	200	Graabrowdw Torv I Posow. (445) 33 33 05 56 DK-1154 Cogwabagwa K Fau. (445) 48 35 59 35	005 read(le)		
			005 read(ku),le#5		
			005 WW#8 = WW#7 *ku#3/10	00	
			помоние и произволовите и онист таке 4041/8522.83/885 — 1976/8.29/98/86/86.11.0. 27 — 17 — 170	-	÷
			+	+	

64. The DEBUG window

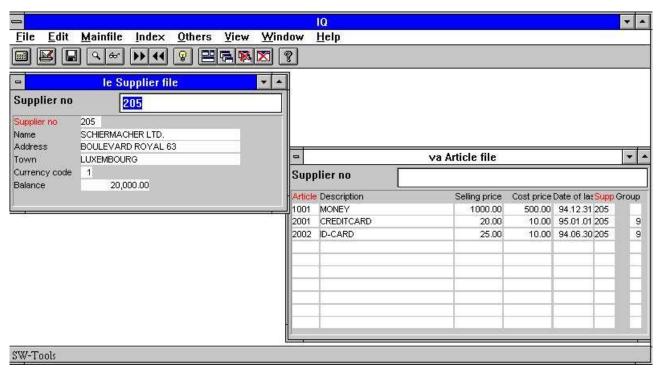
When opened the DEBUG window displays informations of all calculations being done in all programs. All sections of all open programs will be shown in this but any flow control such as IF...THEN will display only the expression itself.

The debug window remains open until you close IQ or a DEBUG(0) is met.

### 9. Interaction between queries

IQ provides interaction between queries, where a supplier query can update the view of an article list automatically based on the relation defined in the Data Dictionary between the supplier- and article table.

If you make a query on supplier number 205 in the supplier query:



65. Query on supplier 205 automatically updates the article list

it will update the view of the article list query so that it displays the articles where the supplier equals 205.

You may control if the program should try to update other queries and if it should be updated itself if other queries changes its view. The control can be set individually in each program by marking or removing the following menu items in the menu 'Others':

-	IQ	A 🖸
<u>File E</u> dit	<u>Mainfile</u> Index Others View Window Help	
-	le Supplier file	
Supplier no Supplier no Name Address Town Currency code	205	
Supplier no	205	
Name	SCHIERMACHER LTD.	
Address	BOULEVARD ROYAL 63	
Town	LUXEMBOURG	
Currency code	1	
	00.000.00	

66. Control talk and listen mode

# 9.1. Talk to other programs

If the menuitem is check marked this query will try to update all other opened queries if a relation exists.

# 9.2. Listen to other programs

If the menuitem is check marked this query will be updated if another opened query changes its view and a relations exists between the queries.

# 9.3. Example of multiple queries

In the demo system you have a program 1 available. The program was saved with the desktop option when the programs 1 to 4 was active. Therefore, when starting this program IQ start 4 queries automatically.

By retrieving supplier number 205 IQ will update the view in the other three programs based on the relations defined in the Data Dictionary.

ile <u>E</u> dit <u>M</u> ainfile <u>I</u> nde:	× Others View	<u>w</u> indo	IQ Iw <u>H</u> elp			▼ ▲
			-			
OD1     Supplier no       Supplier no     205       Name     SCHIERMACHER L       Address     BOULEVARD ROY       Town     LUXEMBOURG       Currency code     1       Balance     20,000.00	.TD.	Curre Curre	004 Curre rency no ancy code 1 ancy name DEM ange rate 36	ncy		O03 Article groups     O
0	002 Artic	les			<b>*</b>	
Supplier no						
Articl Description 1001 MONEY 2001 CREDITCARD 2002 ID-CARD	Selling price 1000.00 20.00 25.00	Cost price 500.00 10.00 10.00	Date of la Suppl 94.12.31 205 95.01.01 205 94.06.30 205	Grou 9 9	Stock bai 100 10 200	
						<u></u>

#### 67. Demo program where one query updates the view of others

First it updates the article query, only displaying the articles where the supplier number matches. This is because the relation between the supplier table and the article table is supplier number.

Then IQ updates the article group query, because the article table has a relation to the article group table, and because the supplier query resulted in a changed article query. Due to the changed view in the article query this programs updates the article group query.

The last program updated is the currency query. It is updated because the supplier table has a relation to the currency table using the currency code field.

# 9.4. Interprogram communication

Above the DOFUNCTION could be used to send a message to another open program. This is one way of communicating between two programs.

### 9.4.1. Program number

#### In general functions using program number as parameter accepts one of the following:

<program> parameter for IQ functions may be given as 47 or 1047.

47  $\,$  means first instance of the running program number 47 whereas

1047 means first instance of the running program number 47 in subsystem 1.

0 means current program number.

### 9.4.2. Fields from other programs

By use of the LET command you may read/modify variables in another program: LET (20.#1-3=#1-3) Sets field 1-3 for program 20 = this program #1-3 LET (#1-3=20.#4-6) Sets field 1-3 in this program to #4-6 from program 20 LET (#10=#3.4) Sets field 10 equal to field 3 from line 4

### **9.4.3. GOSUB common subroutines**

A label for GOSUB may be preceded by the program number as **GOSUB 20longjump** which causes the routine LONGJUMP in the open program 20 to be executed.

# 9.4.4. GLOBAL variables A1,A2,...

The Basic-like variables A1,A2,... you may use as global data for all programs as setting A1=#1 in one program and reading this value in another. Also A\$,B\$,... may be used.

# 9.5. DIALOG function for additional input

The DIALOG function enables the user to pop up dialogboxes with a selected set of fields at any point of a report execution or in an IQ program for example by click on a field.

📲 va Artikeldate	ei	
<u>F</u> ile		
Article no	0101	
Group no	0	
Stock balance	100	
Address		
	ок	Cancel

68. DIALOG("#1,7-8,le#3") in an article query

DIALOG("#1,7-8,le#3") defines a dialog with the given fields. The fields documentation is used if present as floating online help when the mouse cursor is moved over the leading text. A number of options may be stated together with the fields such as C for Combobox, L for Listbox with valid values, W for field width and so on. These are described in the subfunction reference part of this manual. In fact are many of the new dialogs in TRIO made with the same function.

### 9.6. OLE 2.0 support

Support of OLE 2.0 Object Linking and Embedding gives the user possibility of integrating other Windows applications in the report or query defined in TRIO.

For example Microsoft Word may be used when defining a customer letter and a video sequence may be played on an article query.

The interface is simple to use as the OLE object is just defined as a field in TRIO marked as OLE and placed on the report form / IQ query just like a picturefield. Display and amendment of the contents will then be carried out by the selected OLE server program. Optionally a link to an existing document may be used or an object embedded and stored within the TRIO program can be created.

The TRIO OLE manual describes these functions in details.

# 10. Start parameters and standard programs

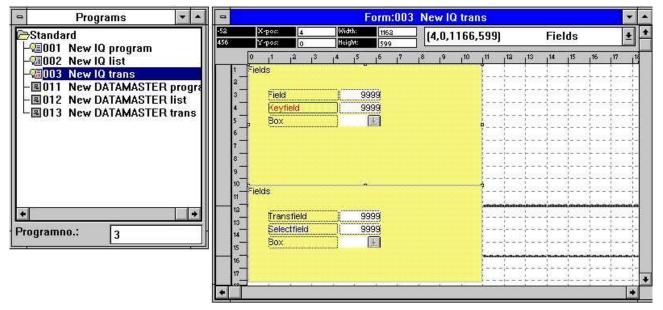
### **10.1. IQ Start parameters**

#### IQ may be selected from WINDOWS using the following parameters:

IQWIN ssppp	Start program ppp in subsystem ss
IQWIN -e	EXIT IQ when the current program finishes
IQWIN -M	Restrict menu, see the MENUS function
IQWIN -D	DATAMASTER maintenance programs may be defined
IQWIN -nl	No Logo by start, Runtime only.
	Programs cannot be defined or changed

### 10.2. Standard programs

In the standard subsystem (see RAPGEN) you will find the standards for the IQ and DATAMASTER programs. When a new program is made not only the layout but also the parameters and calculations are taken from here so any changes done to these are reflected in all new programs.



69. A standard program for IQ

In the layout for the transaction program above you note two blocks, one for the main file and one for the transactions. Both the attributes for the fields and their leading text may be changed.

Note that the DISTANCE between the fields defines the line distance in the new program.

NOTE: If you reinstall or upgrade TRIO the standard programs must be adjusted again !

# **Figure list**

1. IQ	. 6
2. Licence screen	. 7
3. Accessing the functions using menus or the toolbar	. 8
4. The toolbar during a query	
5. Generel menus and buttons	
6. Hardcopy	10
7. Selecting table id	
8. Table fields	13
9. Example of an article query	14
10. Generating the query	15
11. Query on one table	16
12. Query on list form	17
13. Relationship to other tables	18
14. Selecting fields from a related table	19
15. Query with relationship between tables	
16. Query on main and transaction table	21
17. Query form with field numbers	25
18. Preferences	26
19. Next data record	32
20. Previous data record	
21. Superindex search	37
22. The ESCAPE cursor	
23. Function for superindex fields	39
24. Editing superindex fields	39
25. Normal article list query	
26. Selection on selling price greater than 100	
27. Result of query with selection	41
28. View of all articles for supplier 205	65
29. The save function	74
30. The save dialog	
31. Multiple queries saved in one program	
32. Deleting a query	
33. Not all files could be opened in an IQ program	
34. Documentation function	81
35. Selecting programs to print	
36. Example of IQ program documentation	82
37. The VIEW menu	
38. Field documentation	
39. Valid values	
40. Program parameters	
41. Amending the form	
42. Selecting field to insert on form	
43. Inserting the field on the form	
44. Selecting field with heading to insert on form	
45. Selecting the font specific text function	
46. Dialog for font specific text	
47. Function to change font of an element	
48. Toolbar buttons for draw functions	
49. Deleting the current selected element or the marked group	
50. Edit Box size and Field settings1	
51. Changing colour, font and justification1	
52. Object type and attributes1	08

53. Marking a group of elements	
54. Editing the layout of a transaction query	
55. Calculations.	
56. Refering to picture filename and calculating the Stockvalue	116
57. Changing view of translated calculations	117
58. Entry points for calculations	
59. Field entry points for calculations	
60. Calculations by click on a field	123
61. Result of calculations when click on field	124
62. Function calculations	131
63. Mainfile calculations	
64. The DEBUG window	136
65. Query on supplier 205 automatically updates the article list	
66. Control talk and listen mode	
67. Demo program where one query updates the view of others	140
68. DIALOG("#1,7-8,le#3") in an article query	
69. A standard program for IQ	

# Index

Α
AND43;45;112;117
В
Background27;89
С
Calculations 112;113;121;150
CALCULATIONS 45;112;117
D
Definition21
Deleting71;77;97;109;149
Dictionary 3;4;16;135;138
Division19
Documentation79;149
Drawing96
F
Fieldnumber113
Foreground101
Н
History20
I
Interaction135

J
Justification104
L
Licence5;149
M
Mainfile 38;131;150
<b>O</b> ODBC3
P
Preferences24;149 Printing
S
Saving48;71;72;84;90;112
Selection
Subfunctions
SUBFUNCTIONS 45;112;117 Superindex 35;37;61;149
<b>T</b>
Toolbar96;149
Transfile
U
Update