English User Manual

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TRIO Release Information (008.000)

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Contents

1. Introduction

The release 008 of TRIO contains the following enhancements:

Users
- User maintenance and login (also without user administration)
- Report start statistics (also without user administration)

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Print
- PIP Print archiving
- Formulary print on reports
- Support of different picture formats (GIF/TIF/PCX etc)

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Runtime
- ZIP and UNZIP functions for packed file handling
- RUNTIME package and license handling

.

IQ
- GRID listboxes
- DGRID data selection input listboxes
- Scrollbar type objects

.

Datadictionary
- Search facilities on files and fields
- Extension of file ID from 2 to 8 characters
- Extension of fieldnumbers from maximum 999 to 999999999
- Raising of different limits (fieldlength/recordlength etc)
- Integration of different database definitions in one program
- Datadictionary calculations
- Datadictionary standard field formats (like AMOUNT and DATE)

.

Languages and installation
- Language support of French, Spanish, Swedish
- Installation programme updated to 32 bits long pathnames

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Manuals
- Now online on the CD together with a print program

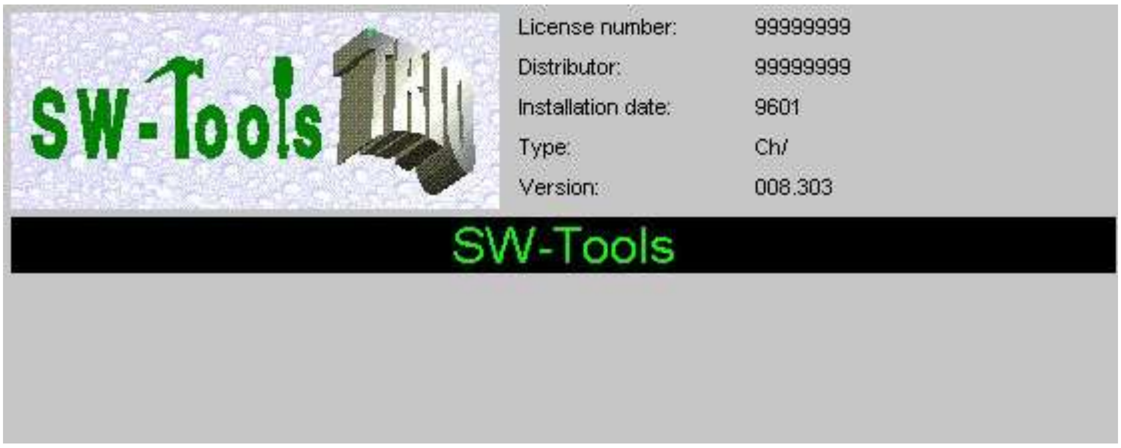
.

For customers with maintenance contract the additional functions will be free of charge, these customers will receive an update when the test period has ended.

2. Start and installation of TRIO

2.1. Start of TRIO

The startscreen for TRIO has been changed as follows:

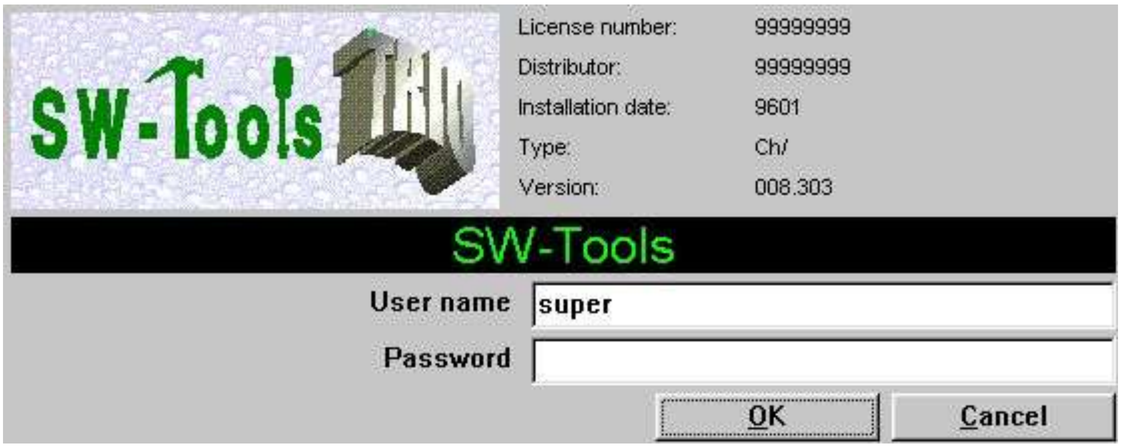


License number:	99999999
Distributor:	99999999
Installation date:	9601
Type:	Ch/
Version:	008.303

1. Start of TRIO

2.1.1. User login

TRIO without user administration has been opened to start with a username in order to take advantage of the HOMEPATH, which may be given for each user.



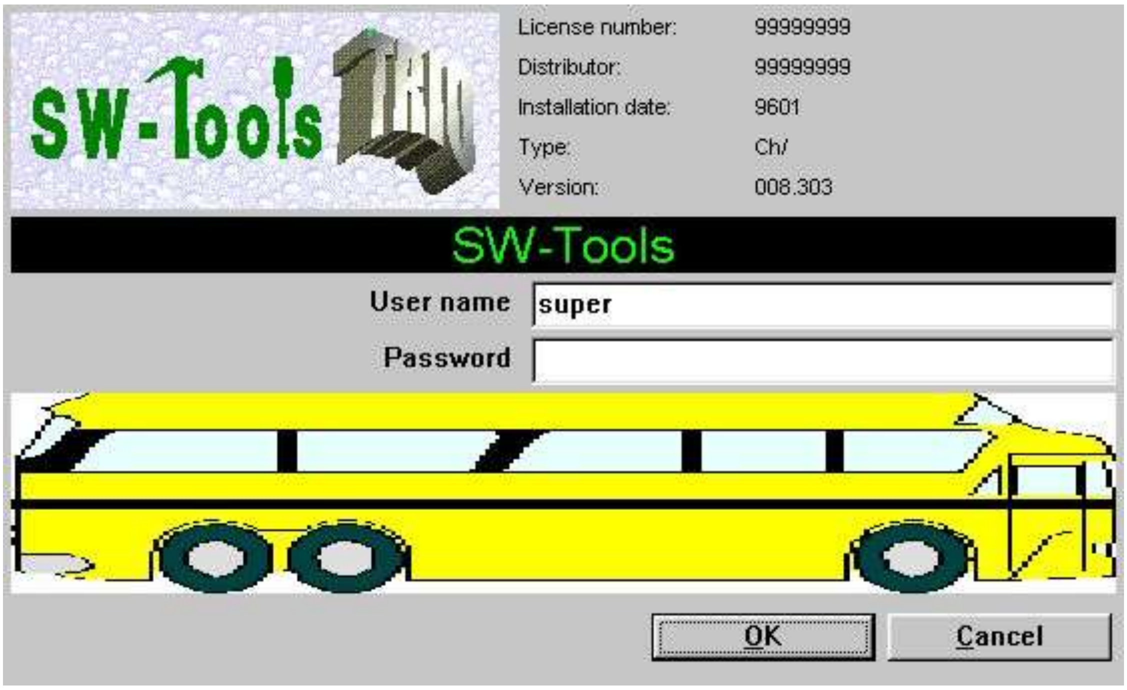
License number: 99999999
Distributor: 99999999
Installation date: 9601
Type: Ch/
Version: 008.303

User name super
Password

2. Start of TRIO when more users are activated

2.1.2. Logo

You may design your own logo, store this in the file SWTRIOLL.BMP which will display as:



License number: 99999999

Distributor: 99999999

Installation date: 9601

Type: Ch/

Version: 008.303

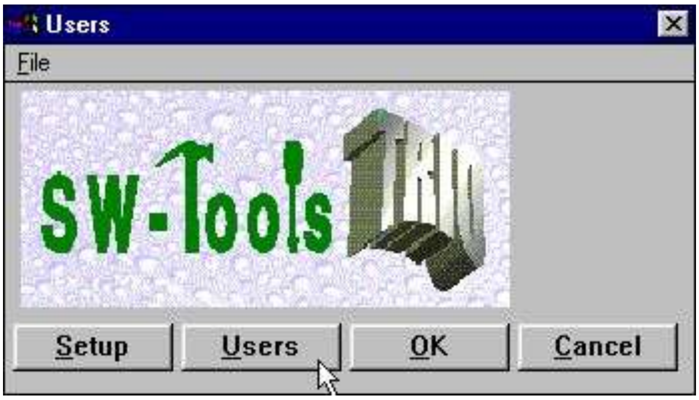
User name: super

Password:

3. Start of TRIO with own logo activated

2.1.3. User maintenance

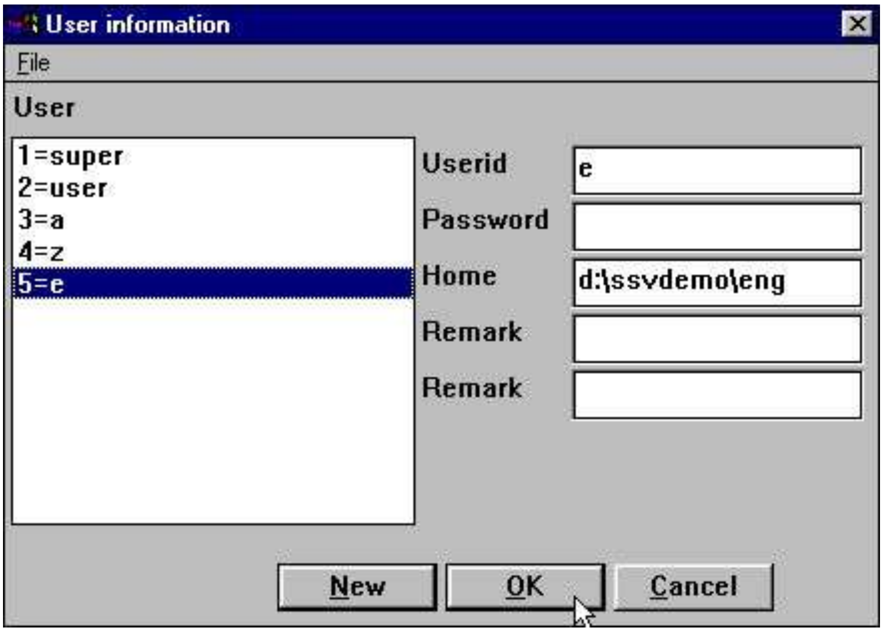
Users may be defined even if the user administration is not activated, however no individual user privileges can be made.
This means the User administration may be selected and setup, but the definition screen is without the privilege definitions:



4. The reduced user menu

2.1.3.1. Creating the users

On the user maintenance screen the fields for user group and grant/revoke are omitted as all users becomes superusers when the user administration license is not present.



User

1=super
2=user
3=a
4=z
5=e

Userid: e
Password:
Home: d:\ssvdemo\eng
Remark:
Remark:

5. The reduced user maintenance screen

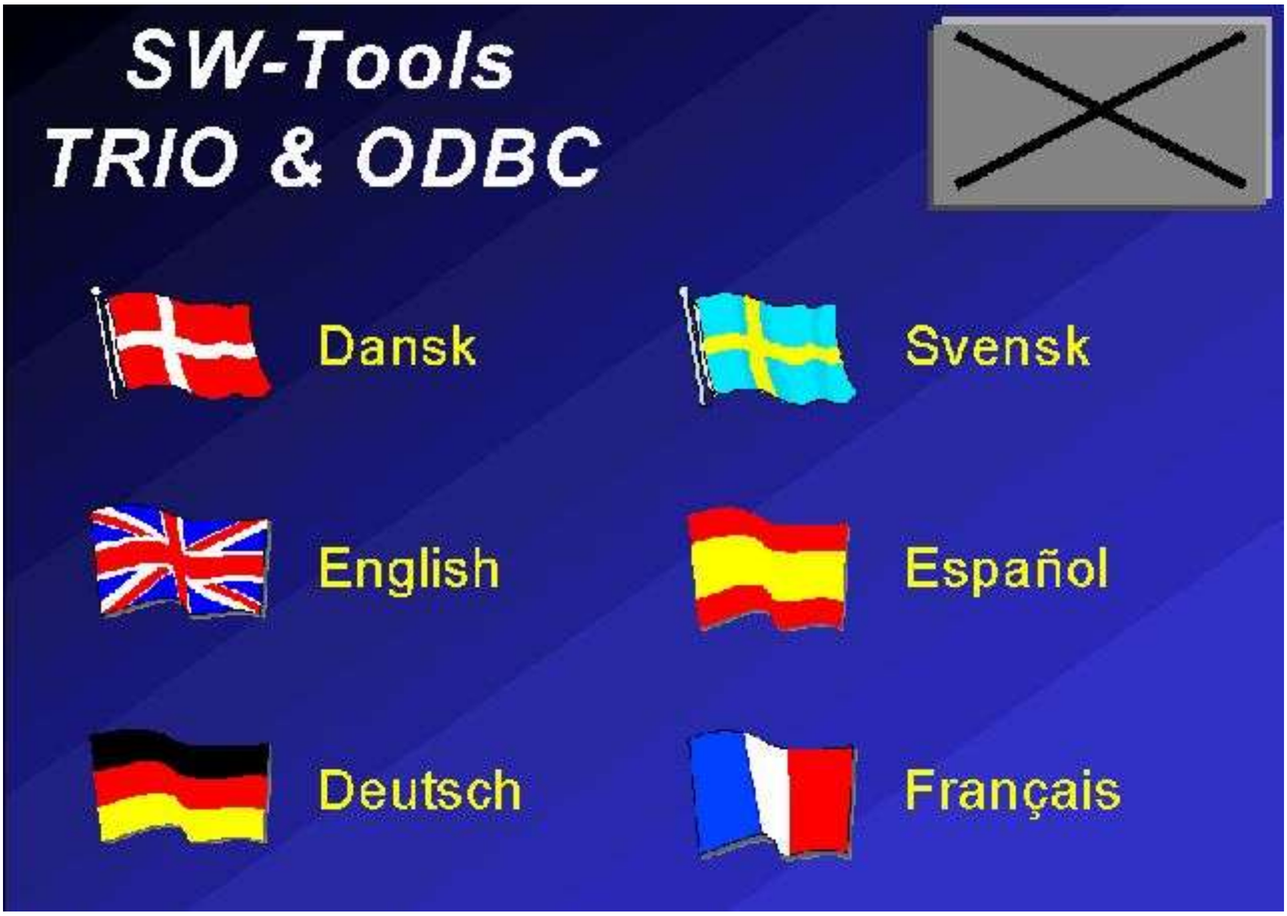
Apart from these reductions the user maintenance follows the procedure as described in the user administration manual, and you gain the advantage of the HOMEPATH enabling you to split different applications on one system dependent on login instead of using subsystems or different Windows icons.

2.1.3.2. Upgrading with real user administration license

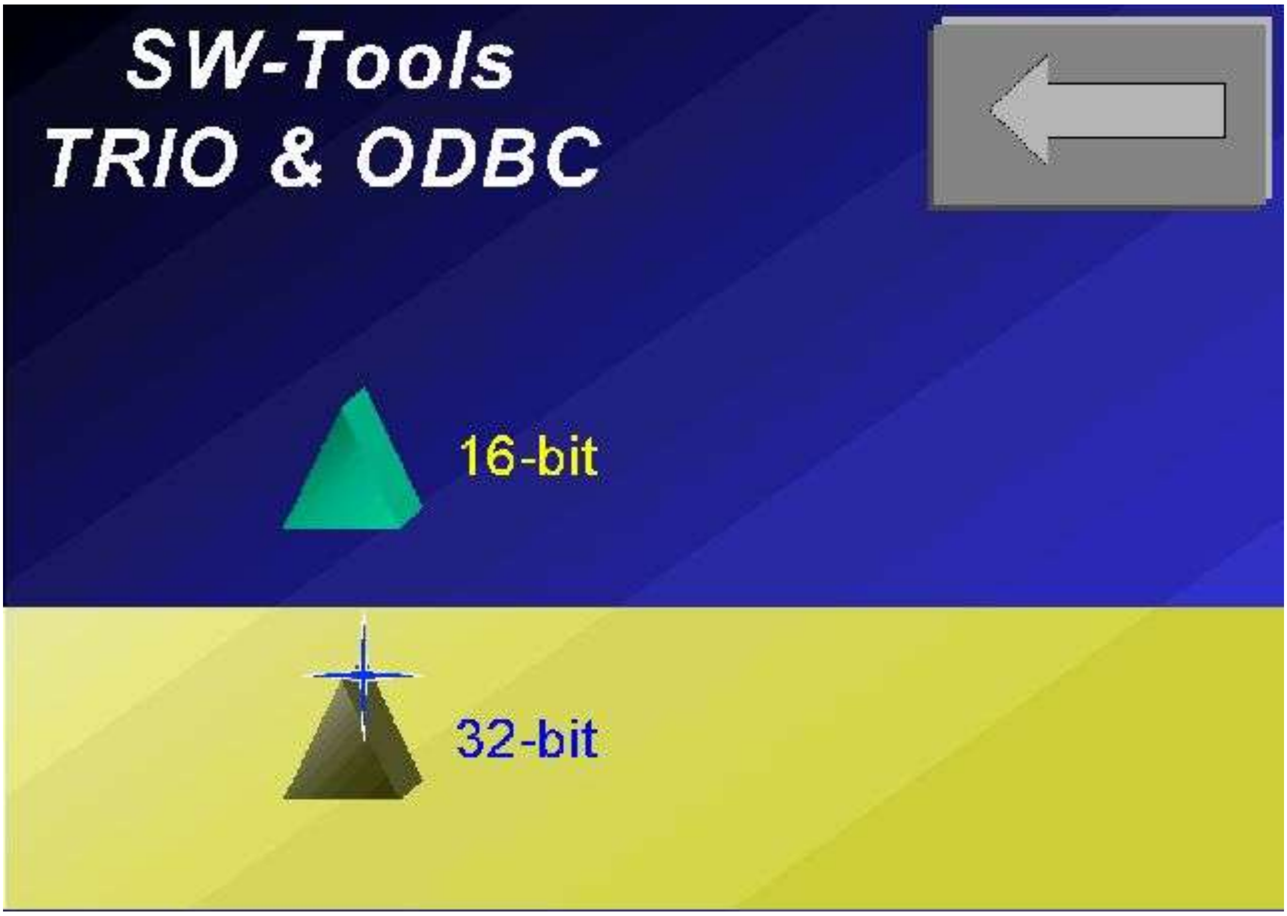
Without the module user administration is present on the license, the main user SUPER will be created as superuser (usergroup 1-Revoke), all other users as USER (usergroup 2-Grant), but all threaded as superusers with all rights including right to create other users.
If user administration later is added to the license, even without being X-Marked for the specific PC, the treatment of all users as superusers is terminated, and the first user (SUPER) only may create other users.
For security reasons, a user password file created with user administration license activated, cannot be used directly on a PC without this license, as this would violate the protection system.

2.2. Installation and upgrading

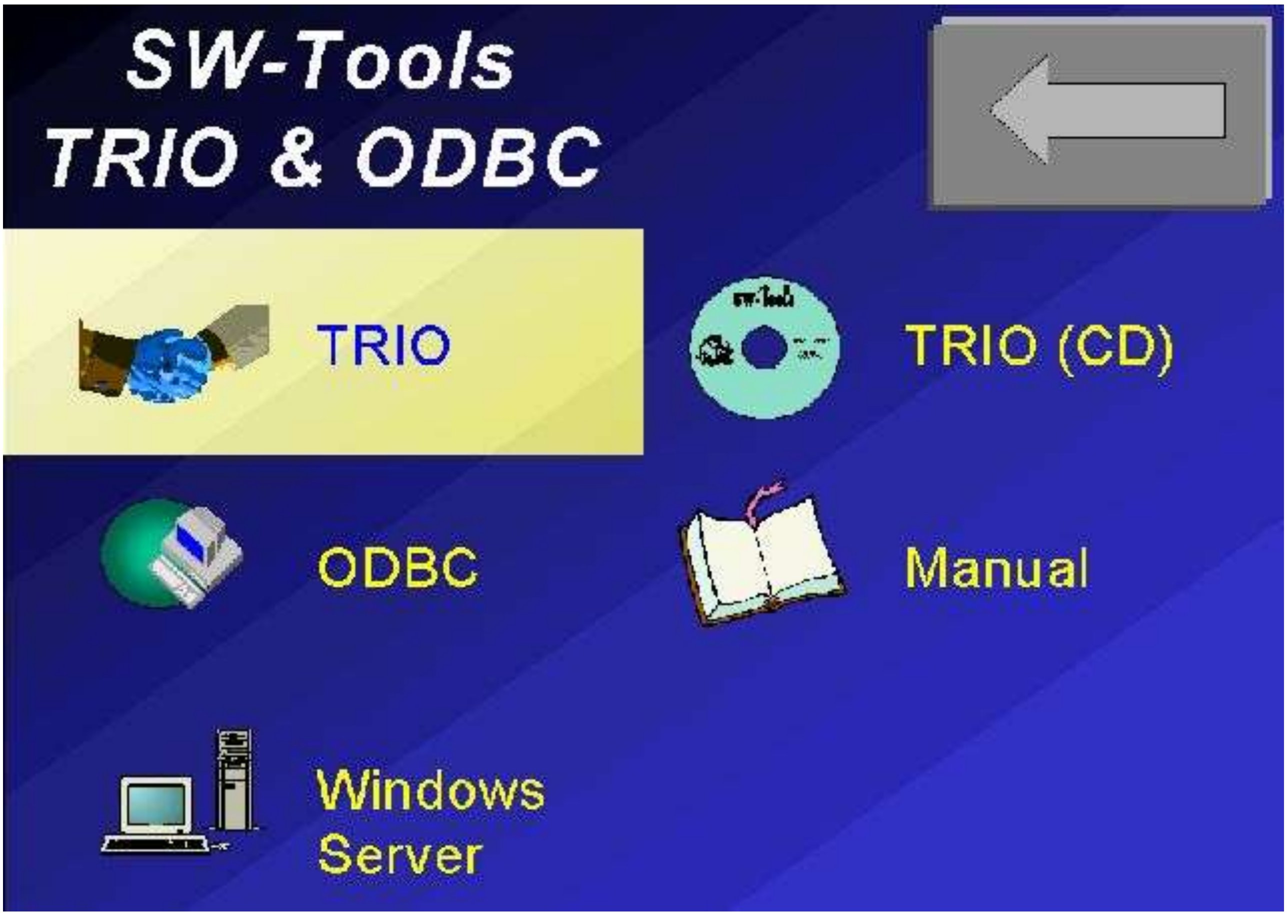
Due to support of more languages the installation screen has been changed to:



6. The language screen



7. The 16/32 bit screen

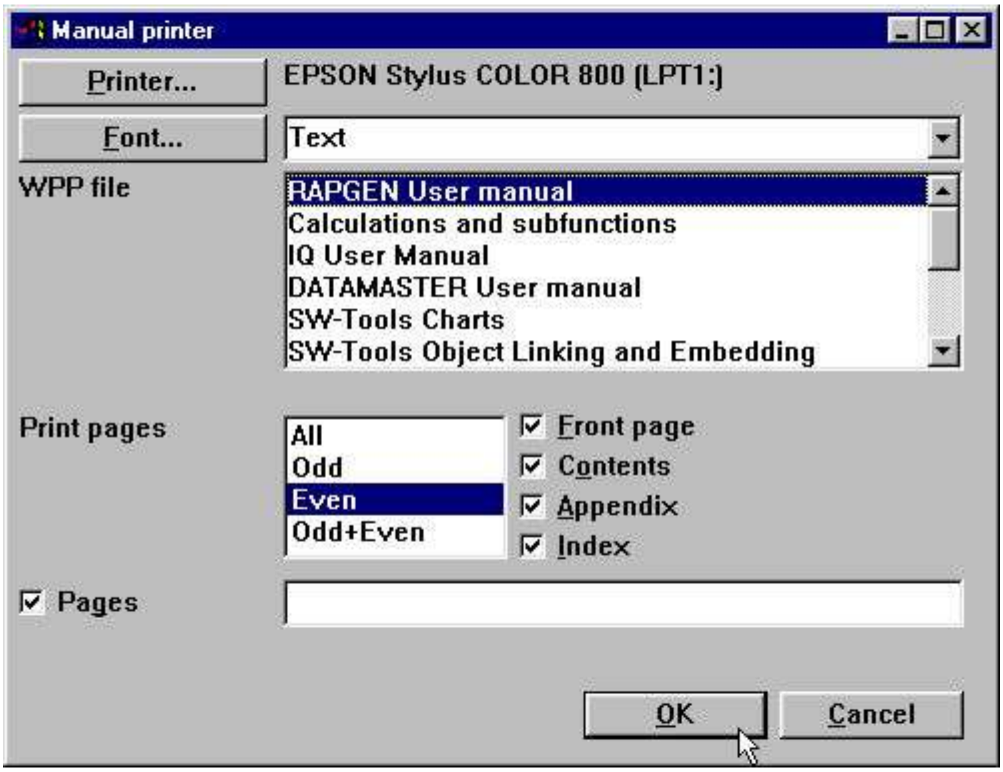


8. The product screen

The installation programme for the 32 bit version is now running 32 bits, which allows the use of long filenames already by installation. TRIO version 008 if fully compatible with version 007, but you should note that the opposite is not the case. If you use fileID's of more than 2 characters no reverse compatibility is possible, file definitions cannot be exported to previous versions or to the VIEW basic report generator.
Also the use of database interaction, external packages, GRID functions or PIP print collection will not be moveable to TRIO versions below 008.
By upgrading, it is possible to use any persistent 007 server module, but we recommend upgrading the server to version 008, which will be able to service a mix of clients on newest or older versions. It is not possible to use long fileIDs, fieldnumber modifications or the like with a 007 server.

2.3. Manuals

Manuals will from version 008 be distributed on CD only, together with a programme enabling the user himself to print as many copies as needed:



Manual printer

Printer... EPSON Stylus COLOR 800 (LPT1:)

Font... Text

WPP file

- RAPGEN User manual
- Calculations and subfunctions
- IQ User Manual
- DATAMASTER User manual
- SW-Tools Charts
- SW-Tools Object Linking and Embedding

Print pages

- All
- Odd
- Even
- Odd+Even

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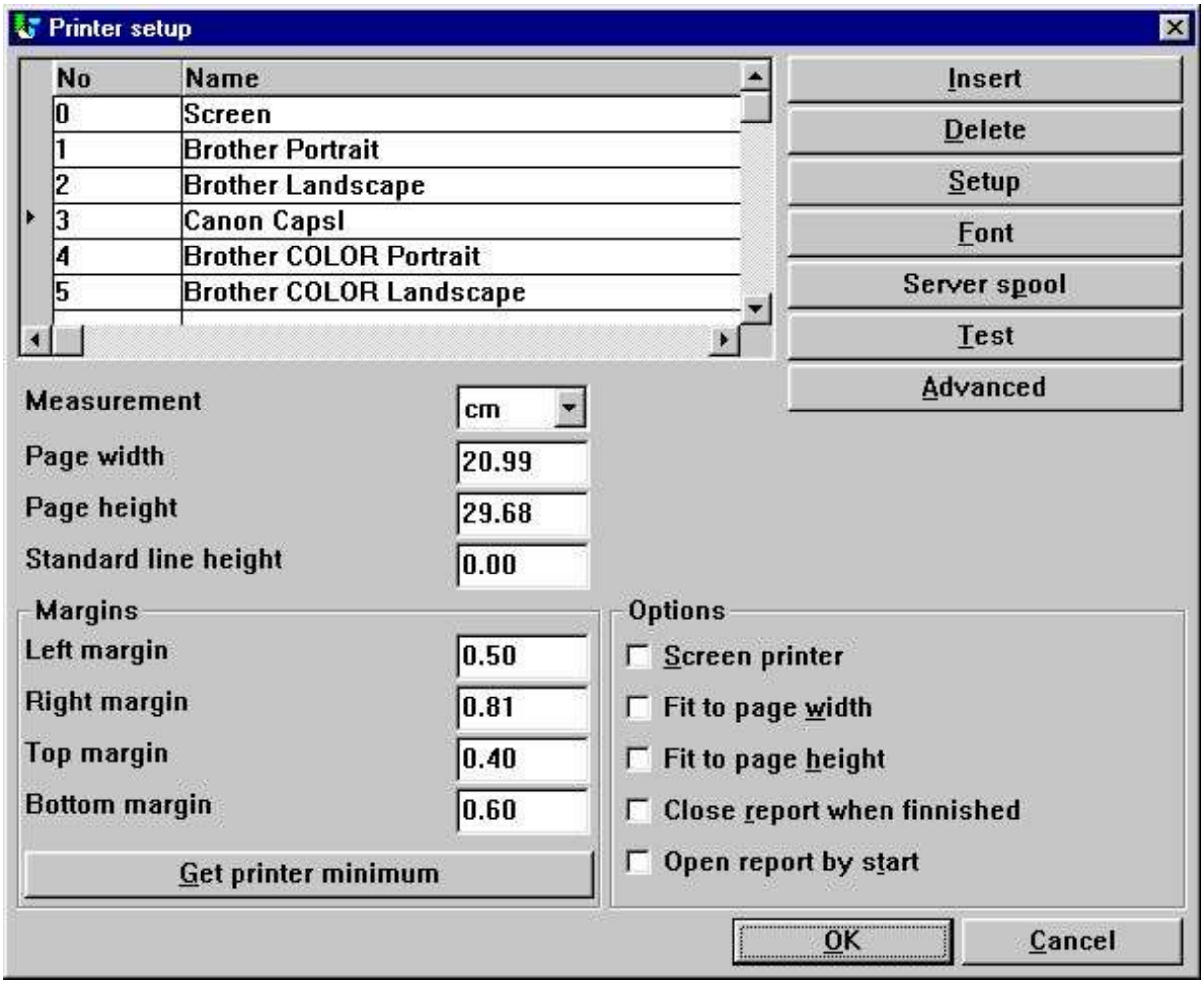
9. Printout of manuals

3. Printing from TRIO

In order to make easy distribution of reports in package form, where change of printers is most likely when the package is installed, field boxes in the layout will now be set to automatic resizing by default, as has some of the printroutines been reworked.
However you should note that when inserting a field in a report, the selected font may be a PRINTER font, which varies with the printer used. Note when developing reports to be used on different printers use a general font only, such as times new roman or the like, and force the printer driver in windows to download TrueType fonts, not using any hardwired fonts in the printer.
Also new facilities for print archiving and form print have been added.

3.1. Printer setup

The printer setup has been extended with a TEST and an ADVANCED button:



Printer setup

No	Name
0	Screen
1	Brother Portrait
2	Brother Landscape
3	Canon Capsl
4	Brother COLOR Portrait
5	Brother COLOR Landscape

Measurement: cm

Page width: 20.99

Page height: 29.68

Standard line height: 0.00

Margins

Left margin: 0.50

Right margin: 0.81

Top margin: 0.40

Bottom margin: 0.60

Options

□ Screen printer

□ Fit to page width

□ Fit to page height

□ Close report when finnished

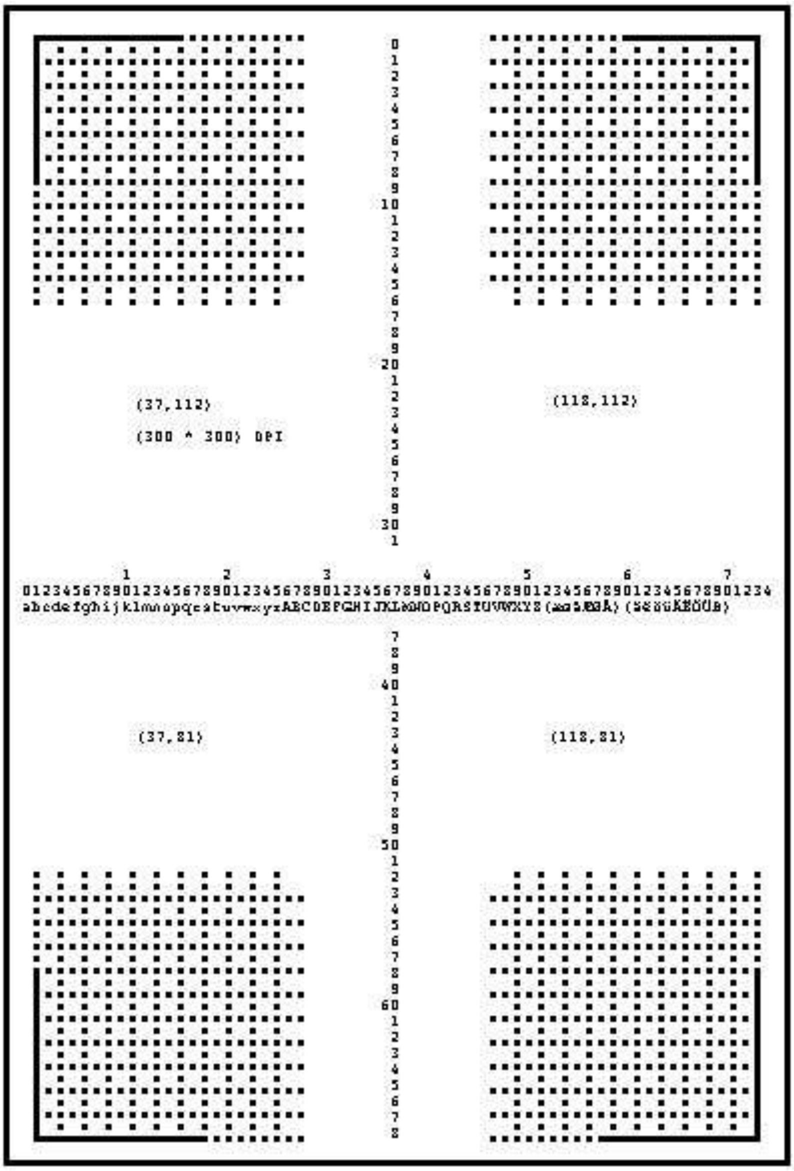
□ Open report by start

10. The printer setup

3.1.1. The TEST button

When TEST is pressed one page is printed on the selected printer showing the margins and resolution used.

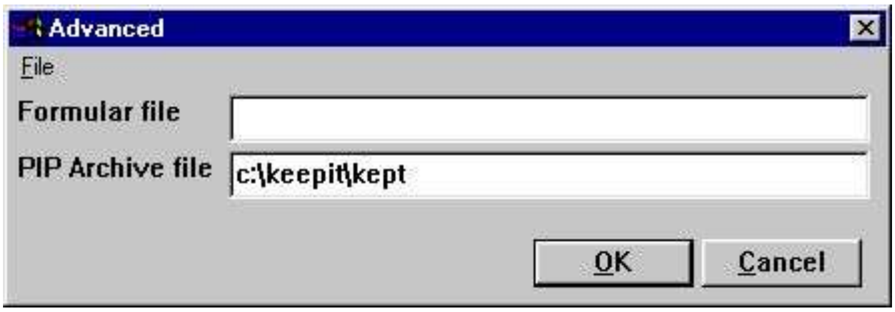
The corners on this testprint are marked with a grid where the margins should be shown as a solid line. As printers seems to behave differently you should check the following before trusting the driver settings:



11. Test button, CAVE before trusting printer

3.1.2. The ADVANCED Button

The ADVANCED button is used to setup the new facilities for form print and print archiving.



Formular file

PIP Archive file c:\keepit\kept

12. The advanced button in the printer setup

3.2. Forms

The formula file should contain a picture in WMF format, which then will be extended to full paper size (without respect of margins and with the image stretched to fit in both directions) and printed transparent behind all other texts on all pages.
For example: you may try to enter one of the picture files from the TRIO demo system, which may be stored as

c:\swtools\demo\wmf\0101.wmf

You should note, that the form is output to the printer for each page, and this may considerably reduce the speed of printing on some printers.
If possible, for production runs, use any macro language for the printer to download the form fixed into the printer memory as described in the individual printer drivers manuals.

3.2.1. Creation of forms

To create a form you may use any picture programme which is able to save in WMF format, e.g. Microsoft PowerPoint.

The reason for using the WMF format is because it is based on vectors, e.g. the drawing may be scaled without loosing its resolution. However, it is also possible to use any of the other supported pictures format, such as BMP, GIF, JPG etc.

3.2.2. Controlling the form print from the calculations

It is also possible to control the form printout from the calculations. This means a report may use different forms on the pages printed.

PRINT(FORM=c:/swtools/demo/wmf/0101.wmf)

will change the form to be taken from the WMF filename given.

The PRINT(FORM= should be placed in the FIRST section if the form is to be used from the very start. If placed in the NORMAL section, the form change will take effect, when the first line on the following page is printed.

3.2.3. Handling of forms during the layout definition

As soon as a form has been setup for a printer you may select this printer in the layout function which will then show the form in background according to the printer page size.

3.3. PIP Print archiving

Setting a PIP (Print zIP) archive filename causes all printouts to be archived into filename.zip and a printoverview file filename.ssv to be builded. An example may be:

c:\keepit\kept

If the directory c:\keepit is not present, this will be created. Note that the first character of the filename must be a letter. You should omit the file extension as this is set to zip/ssv

If you omit the path from the filename, the database path from the setup preferences will be used.

If the filename is 4 characters or less, YYMM will be added when archiving to keep filesizes low and ease deletion of old print. The above example will produce the files

c:\keepit\kept9908.zip
c:\keepit\kept9909.zip
c:\keepit\kept.ssv

The print archiving may also be controlled from within the calculations of a report without defining this on the printer setup. (see the PIP function later)

Print archiving may be defined for a screen printer also, so a physical print is produced only as a reprint from the archive.

3.3.1. Screen printer display when using PIP

When you are using PIP print archiving for a report printout, the VIEW button will be activated even if the output is not printed on a screenprinter, as the screenprinter files have to be made anyway for the print archiving.

This means you get the double function of printing and viewing the output on screen at the same time

3.3.1.1. Screen printer display without using PIP

You may specify the making of screen printer files for a printer without actually archiving the print by entering the

PIP Filename as just -

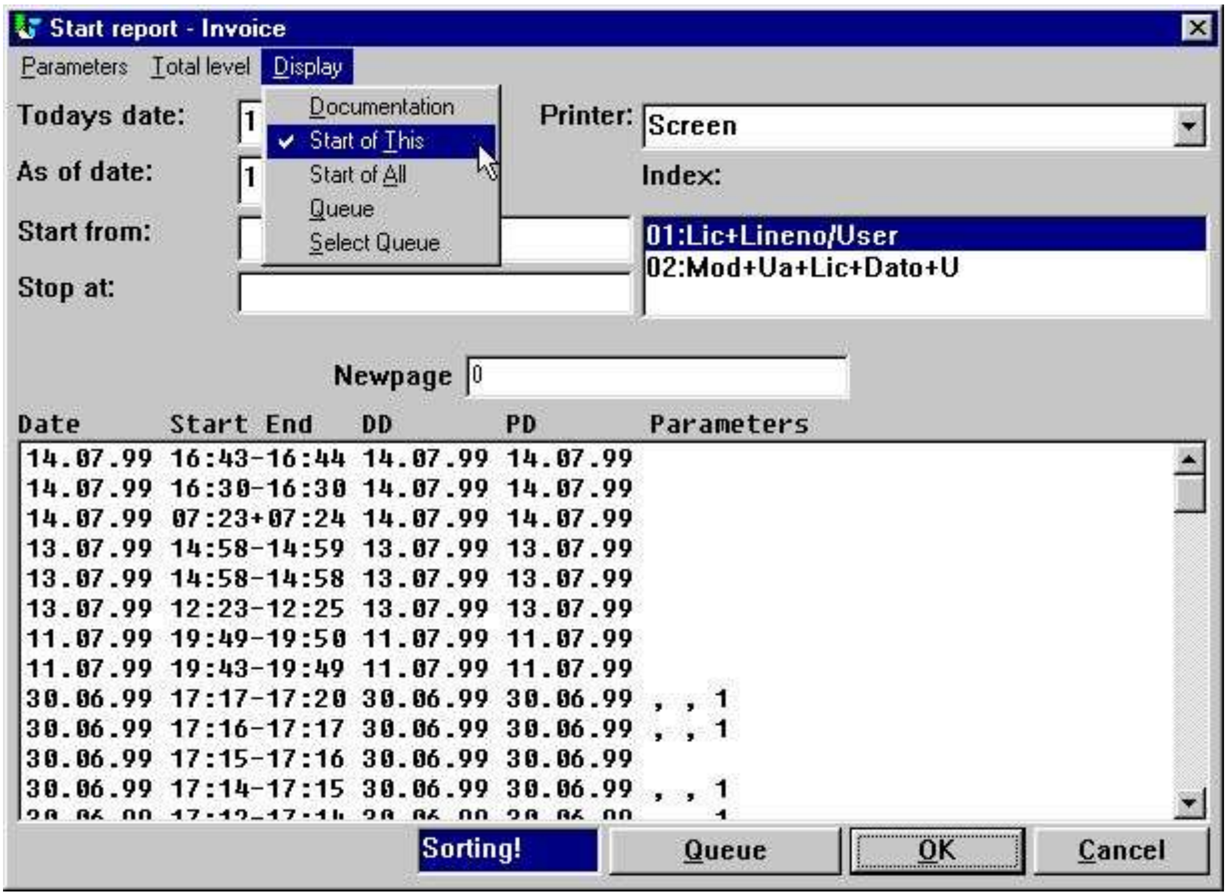
the print is not archived but you get the VIEW possibility.

3.3.2. Recalling an archived print

The report statistics startlog will show start-endtime for a run, if print has been collected the - is replaced by + as start+endtime, by clicking at the endtime you will get the print on screen and may reprint all or selected pages. The reprint may be done on a different printer type as the print will then be resized, but please observe that differences in page setup and field scaling may heavyly influence the print.
Note that the + mark indicates only that a print was collected, and not necessarily that the print is still present: Somebody may have made a periodically cleanup of the zipfile in which case the print of course cannot be displayed.
As the startlog holds the last 100 starts only the recall possibility will be pushed out after more than this number. This recall is restricted to report start and not other print such as data dictionary definitions.
However you may define the SSV file made by the print archiving for an IQ program, use this for searching a specific print and display it with the calculation function SCRPRT, see later.

3.3.3. Report start statistics

The report start statistics are now included as a part of TRIO without the necessity of a licence for user administration to be present. For a full description you should refer to the last chapter in the user administration manual.



Todays date: 1
As of date: 1
Start from:
Stop at:
Printer: Screen
Index:
01:Lic+Lineno/User
02:Mod+Ua+Lic+Dato+U
Newpage 0

```
Date      Start End   DD       PD       Parameters
14.07.99 16:43-16:44 14.07.99 14.07.99
14.07.99 16:30-16:30 14.07.99 14.07.99
14.07.99 07:23+07:24 14.07.99 14.07.99
13.07.99 14:58-14:59 13.07.99 13.07.99
13.07.99 14:58-14:58 13.07.99 13.07.99
13.07.99 12:23-12:25 13.07.99 13.07.99
11.07.99 19:49-19:50 11.07.99 11.07.99
11.07.99 19:43-19:49 11.07.99 11.07.99
30.06.99 17:17-17:20 30.06.99 30.06.99 , , 1
30.06.99 17:16-17:17 30.06.99 30.06.99 , , 1
30.06.99 17:15-17:16 30.06.99 30.06.99
30.06.99 17:14-17:15 30.06.99 30.06.99 , , 1
30.06.99 17:13-17:14 30.06.99 30.06.99 , , 1
```

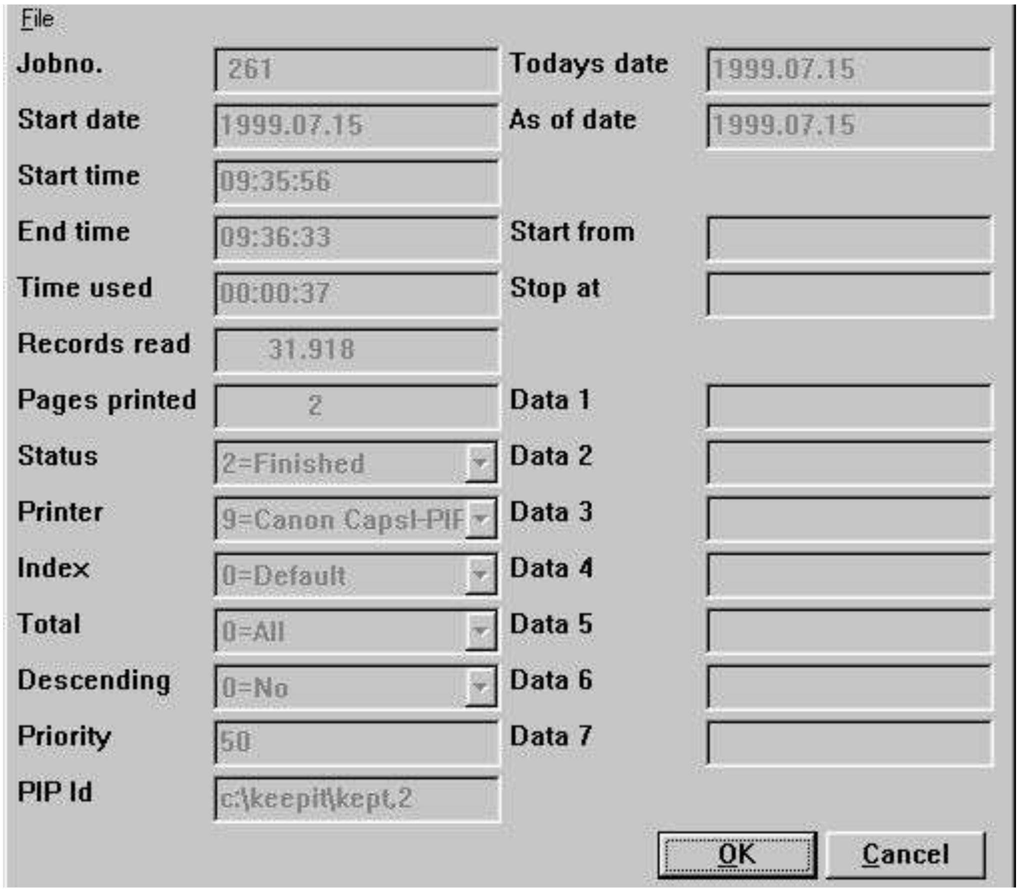
13. Start of a report showing the report statistics

3.3.3.1. Use of the report start statistics

By clicking at one of the statistic lines, different functions are achieved depending on where the click is made:

- **Startdate gives details of this report**
- **Starttime gives run statistics for this start**
- **Endtime displays the archived print if present (marked with a +)**
- **Anywhere else duplicates the parameters with or without the dates**

The PIP print archive file/number is shown on the report detail information you get by click at the date field:



Jobno.	261	Todays date	1999.07.15
Start date	1999.07.15	As of date	1999.07.15
Start time	09:35:56		
End time	09:36:33	Start from	
Time used	00:00:37	Stop at	
Records read	31.918		
Pages printed	2	Data 1	
Status	2=Finished	Data 2	
Printer	9=Canon Capsl-PIF	Data 3	
Index	0=Default	Data 4	
Total	0=All	Data 5	
Descending	0=No	Data 6	
Priority	50	Data 7	
PIP Id	c:\keepit\kept.2		

14. Display of report details with the PIP id

3.3.4. Structure of the PIP files

The print will be stored in the same way as the screen printers output in one or more compressed ZIP-files. Each print session is numbered by taking the next free number from the zipfile, the printsession number nnnnn may range from 00000 to 32000.
Each printpage will be stored as a file nnnnn-NN.NNN in the zipfile, nnnnn being the printsession number, NN.NNN being the print page number within the printsession. These filenames are 16/32 bit compatible.
Any chart on the report will be also included in the print archiving, but you must note, that pictures and OLE objects may be stored as references to an external file, and not packed into the print archive itself.
To get a proper display of the archived print, such external files must be accessible, also when the print is recalled. However to enable moving of the print archive files between different machines, when no file is present, TRIO will search the following paths:

- **The database path as given in the preferences**
- **The TMP path**
- **The current path given when the programme was started**
- **The report definition path**
- **The path of the TRIO programs itself**

If not found, the display will just be left out without warning.

3.3.5. The SSV Printindex file

A printindex SSV textfile will be built with one line for each printsession and the following fields:

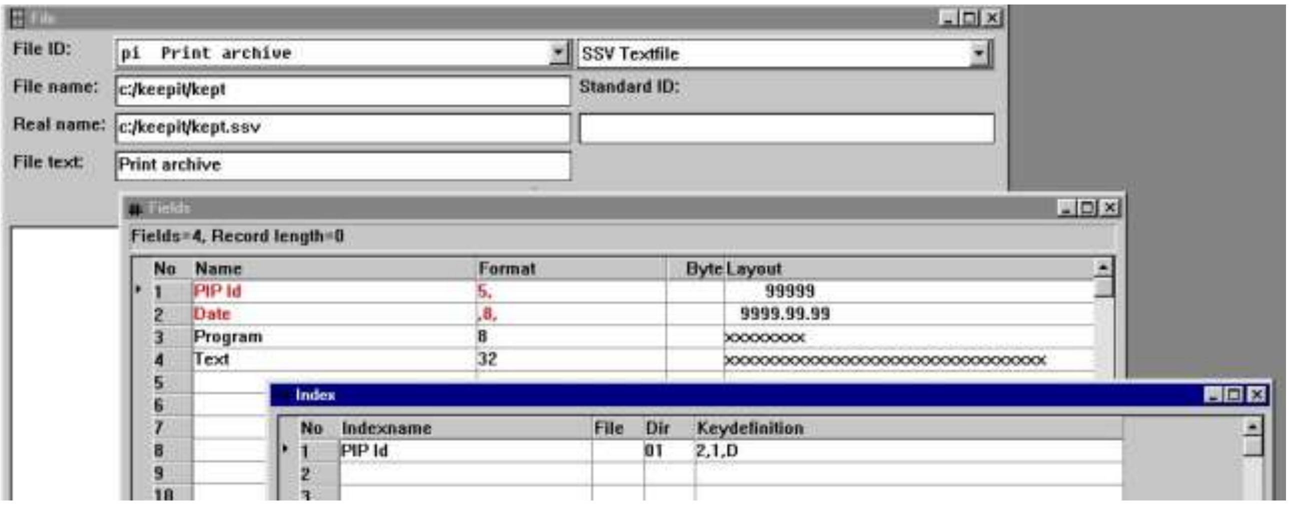
- Printsession number within the zipfile
- Date printed
- Report number
- Report name
- Additional user-controlled informations given in calculations
(as customer number, name, invoice number, date)

For example the ssv file could contain:

```
SW-Tools
1;19990715;dm1001;Article report
2;19990715;dm1008;Invoice
```

3.3.5.1. Defining the printindex for individual print recall

If you want to use such a printindex file for searching and display with IQ, you must first make a file definition like:



File ID:	pi Print archive	SSV Textfile	
File name:	c:/keepit/kept	Standard ID:	
Real name:	c:/keepit/kept.ssv		
File text:	Print archive		

Fields=4, Record length=0

No	Name	Format	Byte	Layout
1	PIP Id	5,		99999
2	Date	,8,		9999.99.99
3	Program	8		xxxxxxxx
4	Text	32		xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
5				
6				
7				
8				
9				
10				

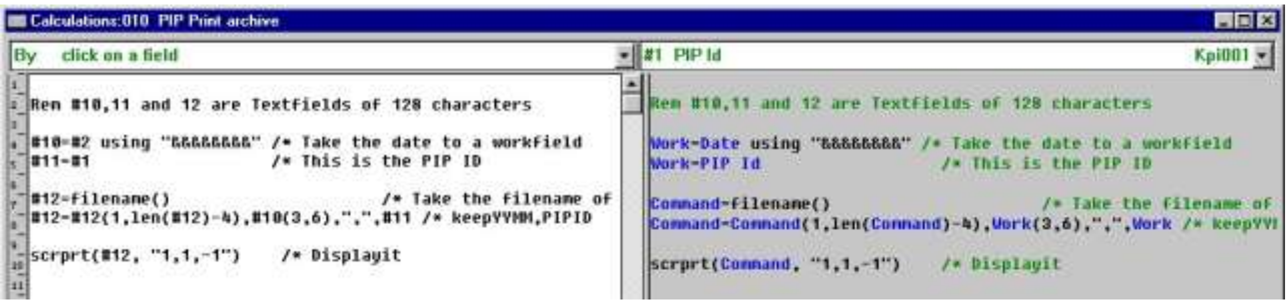
No	Indexname	File	Dir	Keydefinition
1	PIP Id		01	2,1,D
2				
3				

15. A standard definition for a PIP file

Note the index definition of 2,1,D causes the print to come in date order, the newest print first.

3.3.5.2. Calculations in IQ for individual print recall

Define an IQ programme on this file as pi#1-99L on listform and add the following calculations:



```
Rem #10,11 and 12 are Textfields of 128 characters

#10=#2 using "&&&&&&&&" /* Take the date to a workfield
#11=#1                  /* This is the PIP ID

#12=filename()                    /* Take the filename of
#12=#12(1,len(#12)-4),#10(3,6),",",#11 /* keepYYMM,PIPID

scrprt(#12, "1,1,-1")    /* Displayit
```

```
Rem #10,11 and 12 are Textfields of 128 characters

Work-Date using "&&&&&&&&" /* Take the date to a workfield
Work-PIP Id                /* This is the PIP ID

Command=filename()                    /* Take the filename of
Command=Command(1,len(Command)-4),Work(3,6),",",Work /* keepYYI

scrprt(Command, "1,1,-1")    /* Displayit
```

16. Calculations for PIP print recall

The SCRPRT function gets the first parameter as PIP id

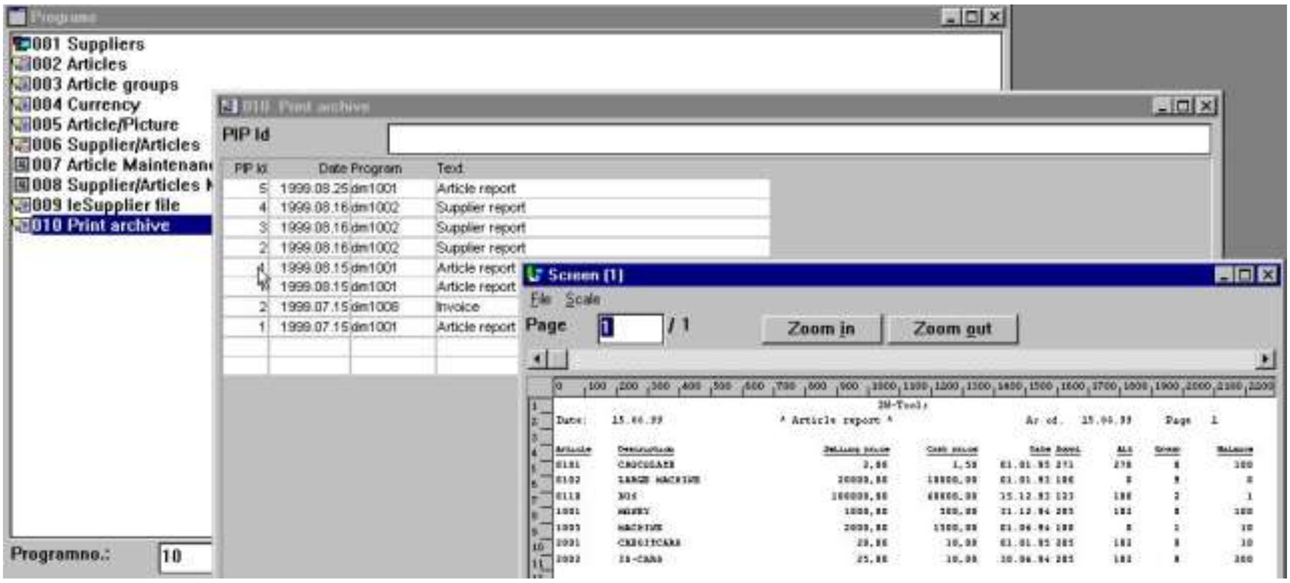
c:/keepit/kept9908,1

and the second parameter controlling the display (see functions later) as:

1 = Start display on page 1
1 = Display in window
-1 = Zoom factor (zoom out once to reduce size)

which gives the result:

3.3.5.3. The IQ programme for PIP print recall



001 Suppliers
002 Articles
003 Article groups
004 Currency
005 Article/Picture
006 Supplier/Articles
007 Article Maintenan
008 Supplier/Articles M
009 IeSupplier file
010 Print archive

Programno.: 10

PIP Id

PIP Id	Date	Program	Text
5	1999.08.25	dm1001	Article report
4	1999.08.16	dm1002	Supplier report
3	1999.08.16	dm1002	Supplier report
2	1999.08.16	dm1002	Supplier report
4	1999.08.15	dm1001	Article report
[illegible]	1999.08.15	dm1001	Article report
2	1999.07.15	dm1008	Invoice
1	1999.07.15	dm1001	Article report

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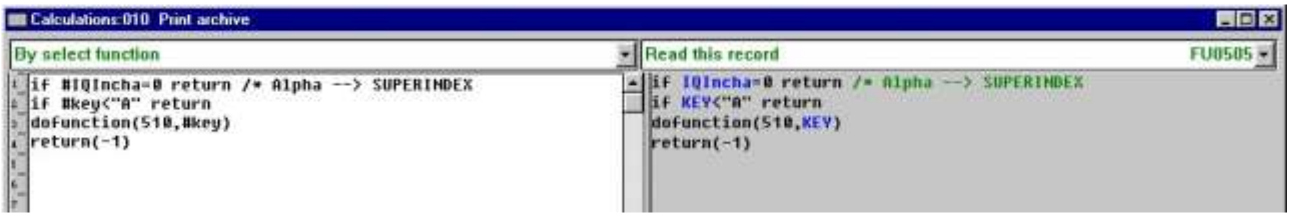
```
                                             IM-Tools
Date:    15.06.99                    * Article report *                   As of.  15.06.99    Page  1

Article   Description               Selling price   Cost price    Date  Supp.   Alt   Group   Balance
0101      CHOCOLATE                          2,00         1,50  01.01.95 271    278       8       100
0102      LARGE MACHINE                  20000,00     18000,00  01.01.93 106      0       8         0
0113      BOX                           100000,00     60000,00  15.12.93 133    188       2         1
1001      MONEY                           1000,00       500,00  31.12.94 285    182       8       100
1003      MACHINE                         2000,00      1500,00  01.06.94 180      0       1        10
2001      CREDITCARD                        20,00        10,00  01.01.95 285    182       8        10
2002      ID-CARD                           25,00        10,00  30.06.94 285    182       8       300
```

17. The IQ programme for PIP print recall

3.3.5.4. Calculations in IQ to ease searching

You may add the following lines to the IQ program



```
if #IQIncha=0 return /* Alpha --> SUPERINDEX
if #key<"A" return
dofunction(510,#key)
return(-1)
```

```
if IQIncha=0 return /* Alpha --> SUPERINDEX
if KEY<"A" return
dofunction(510,KEY)
return(-1)
```

18. Calculations in IQ programme for PIP print recall

IQ will switch to SUPERINDEX automatically when a letter is entered as searchkey, whereas a number input goes to index search. Such routine generally may be used in IQ programs.

3.3.6. PIP Print archiving controlled from within the calculations

The calculation function PIP for print archiving has been introduced as:

PIP (fields, filename [,optional pages])

In a report you may use this function to switch on the print archiving for a report instead of for a printer. The PIP filename does not have to be set on the printer, if set, the calculation specification will overrule this. For example:

LAST
PIP("#1-3", "c:/keepit/kept")

will archive the print and place the contents of field 1,2 and 3 in the printindex file (kept.ssv).

The first field in the printindex file will always be the PIPID or printsession number as to retrieve the print. If the filename given is 4 characters or less so that YYMM is added, the date YYYYMMDD is inserted as the next field. After this follows the fields you state for the PIP function or, if nothing stated, the report number and name.

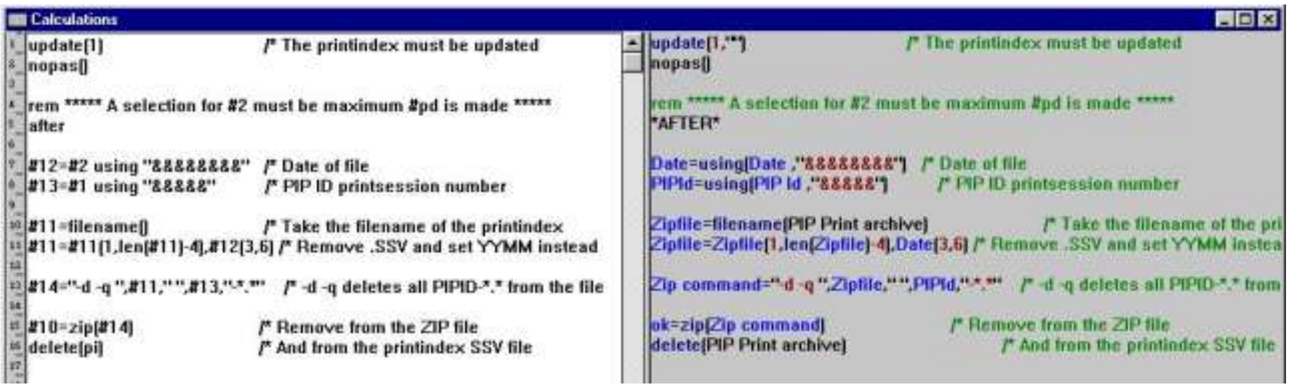
The PIP function may be used in the NORMAL section of a report to archive all pages printed since the last call of PIP. This means you may call PIP after finishing printing an invoice to get the invoices separated in the print index by searching with the print recall.

The last PAGES parameter of the PIP function may be used for further control of what to archive, could be totals only from a huge report, but should normally be left blank. See the PIP function description for details of this.

If a report results in more separate entries in the print archive, like one for each invoice, the last one of these will be displayed by clicking on the endtime in the start log.

3.3.7. Cleanup of old print

In our example above the zipfiles were named keptYYMM.zip. If you need space quickly just delete the unnecessary old files from the disk.
However the correct method of course is to make a report on the printindex file deleting all old records and at the same time removing these from the print archive ZIP file. For this we need the ZIP function which we pass the zip filename and PIPID, together with the mode -d for delete and -q for quiet operation to ignore all error messages:



```
update[1]                      /* The printindex must be updated
nopas[]

rem ***** A selection for #2 must be maximum #pd is made *****
after

#12=#2 using "&&&&&&&&"   /* Date of file
#13=#1 using "&&&&&"       /* PIP ID printsession number

#11=filename[]                 /* Take the filename of the printindex
#11=#11[1,len[#11]-4],#12[3,6] /* Remove .SSV and set YYMM instead

#14="-d -q ",#11," ",#13,"-*.*"   /* -d -q deletes all PIPID-*.* from the file

#10=zip[#14]                   /* Remove from the ZIP file
delete[pi]                     /* And from the printindex SSV file
```

```
update[1,""]                   /* The printindex must be updated
nopas[]

rem ***** A selection for #2 must be maximum #pd is made *****
*AFTER*

Date=using[Date ,"&&&&&&&&"]   /* Date of file
PIPId=using[PIP Id ,"&&&&&"]      /* PIP ID printsession number

Zipfile=filename[PIP Print archive]              /* Take the filename of the pri
Zipfile=Zipfile[1,len[Zipfile]-4],Date[3,6] /* Remove .SSV and set YYMM instea

Zip command="-d -q ",Zipfile," ",PIPId,"-*.*"   /* -d -q deletes all PIPID-*.* from

ok=zip[Zip command]                  /* Remove from the ZIP file
delete[PIP Print archive]                   /* And from the printindex SSV file
```

19. Calculations for a PIP cleanup report

The freefields 11,12,13 and 14 used above are all textfields of 128 chars. The field #10 will be 0 if the zip entry was deleted or 1 if not deleted.

3.3.8. PIP Locking and error handling

During the print archiving the printindex SSV file is of course locked. If more users try to archive at the same time to the same file the last one will receive a warning and will have to wait until the first is completed.
To speed up the archiving, control is not handled back to Windows during the ZIP packing which may cause a short pause during the archiving.
The ZIP function itself may give error messages as disk full or report problems with the zip file.

4. Report layout definition and tuning

4.1. The layout function

The layout function has been modified at several levels. Of most importance, the rulers and alignments now support use of centimetres, inches and points.

4.1.1. New layout when report is defined

In previous versions it was almost impossible to select the same starting position of a field on the next line as on the line previously defined. This problem is now solved.
The box size calculated by the new report layout will now match the box size calculated later on in the layout function.
Please refer to the new preference for further details.

4.1.2. Autosize of fields

All TRIO standard reports will as standard insert fields with the option 'Autosize box' width and height (both included).

4.1.3. Alignment

When inserting or moving fields in the layout it is automatically aligned horizontally. If this is not required the checkmark of the new option in menu

File, Edit, Align to column

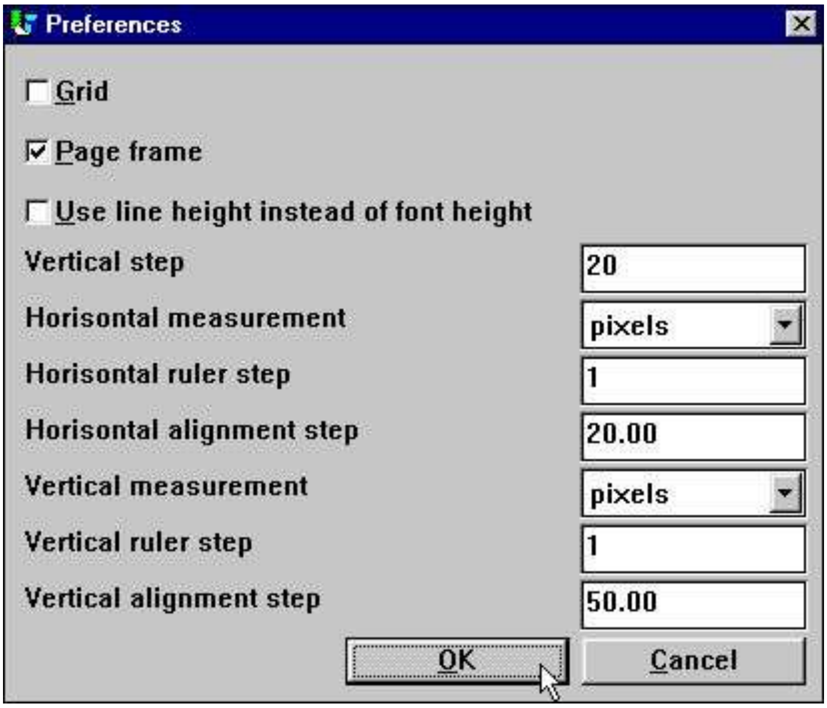
may be removed.

4.1.4. Auto scroll when moving, inserting items in layout

The layout function will automatically scroll the layout when the mouse cursor reaches the edges of the layout window during the movement or insertion of items.

4.2. Layout preferences

The layout function contains a preference dialog. It is activated through the menu
File, Preferences…
and allows you to setup how you need to work with the layout. The changed settings will be saved individually on each report.



□ Grid

☑ Page frame

□ Use line height instead of font height

Vertical step	20
Horisontal measurement	pixels
Horisontal ruler step	1
Horisontal alignment step	20.00
Vertical measurement	pixels
Vertical ruler step	1
Vertical alignment step	50.00

20. The preferences in the layout function

4.2.1. Display options

4.2.1.1. Grid

The layout grid is provided as a guideline. This option may be turned on or off. How the lines are displayed depends on the horizontal and vertical ruler step.

4.2.1.2. Page frame

The page frame is provided as a guideline. It will display the size of the page depending on the printer currently selected in the layout. It will NOT limit you from exceeding the page when inserting and moving items.

4.2.1.3. Use line height instead of font height

This option is only used in connection with a report. Normally, inserting a field uses the standard font height to set the box size of the field. However, if you want to use the normal line height of a report you may turn this option on.

4.2.2. Vertical position step

The vertical step is only used in connection with the layout of a new report. When you create a new report and click on the horizontal measurement bar you change the starting position of the next field to be inserted. This position will be aligned according to the vertical position step. Doing this makes it easier to keep the same starting position of fields when creating reports with more than one print line.

4.2.3. Horizontal/vertical measurement, ruler and alignment

The measurement may selected as

- **pixels**
- **cm**
- **in**
- **points**

The preference dialog will automatically convert the existing alignment value according to the selected measurement.

The alignment value is used when inserting and moving items within the layout. An item will be aligned according to the value setup here.

BE AWARE that changing the vertical ruler and alignment step to anything other than pixels/50 may cause you to insert or move items to positions that DO NOT correspond to the correct print line used by the report generator.

4.3. Additional picture formats

TRIO supports display and print of the following picture formats

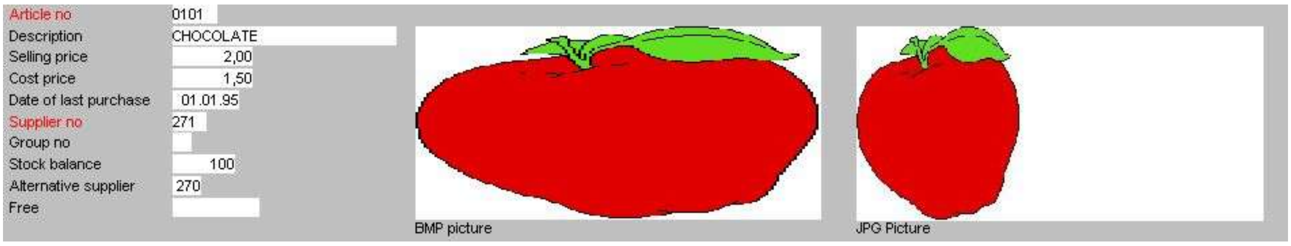
BMP - Microsoft Windows bitmaps
CUT - Dr. Halo
DIB - Microsoft Windows Device Independent Bitmaps
GIF - Compuserve Graphics Interchange Format
IFF - Interchange File Format (Amiga Electronic Arts Deluxe Paint)
IMG - GEM Raster files (Digital Research)
JPG/JPE/JPEG - Joint Photograpics Experts Group
LBM - Interchange File Format (Amiga Electronic Arts Deluxe Paint)
MAC - Macintosh Paint
MSP - Microsoft Paint
PCX - ZSoft PC Paintbrush
PIC - Pictor PC Paint
RAS - Sun Raster files
TGA - Targa TrueVision Files
TIF - Tagged Image File Format
WMF - Windows Meta-files

However as there may be different variants of these picture formats, it is impossible to test and support all formats in all variants, especially with respect to different types of compression. In case you experience problems with any type it may be necessary to convert into one of the other types or save with different compression level.

You should note that display of pictures may be faster and of better quality in the 32 bit version than in the 16 bit version.

4.3.1. Scaling of pictures

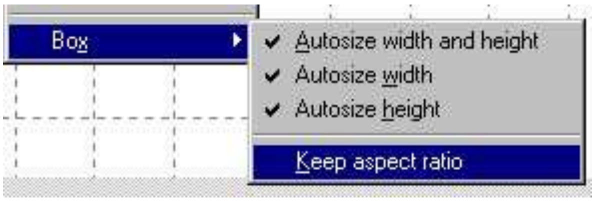
Pictures may be displayed in two ways:
A. Filling out the box given in the layout (the picture is stretched in both directions)
B. Sizing inside the box as much as possible, but keeping the aspect ratio of the image, this may cause either the left side or the bottom of the box to be left blank.



Article no	0101
Description	CHOCOLATE
Selling price	2,00
Cost price	1,50
Date of last purchase	01.01.95
Supplier no	271
Group no	
Stock balance	100
Alternative supplier	270
Free	

21. Picture displayed with or without maintainance of the aspect ratio

For the time being, the WMF is always displayed according to way A, all other according to A or B.



✓ Autosize width and height
✓ Autosize width
✓ Autosize height
Keep aspect ratio

22. Keeping aspect ratio

4.3.2. Animation of pictures

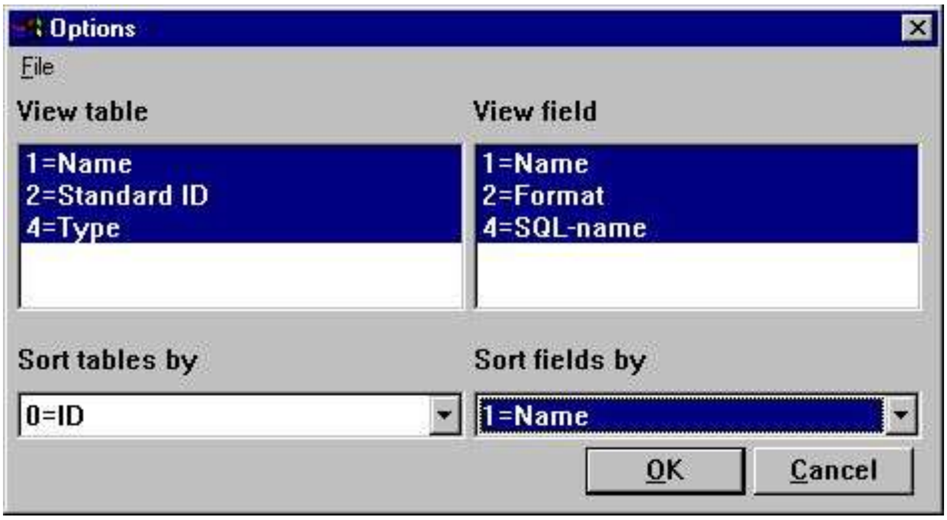
You may create an animated picture in IQ just by displaying the same picture field multiple times with different contents. N.B. This requires a fast PC.
The DISP function to redisplay one or more fields as DISP(#30) ensures that a field is redisplayed after the calculations are done, before any change of input is made. For picture animation you will have to add the U option as DISP(#30U) to get the screen updated immediately without waiting until the next input.

4.4. The database window, display and search

The database window include settings how to sort and display information within the window. Furthermore, it is possible to search the entire data dictionary for fields or tables.

4.4.1. The display and sort of the database window

The options you may setup for the database window is found in the menu
View - Options...
when the database window is active.



View table
1=Name
2=Standard ID
4=Type

View field
1=Name
2=Format
4=SQL-name

Sort tables by: 0=ID

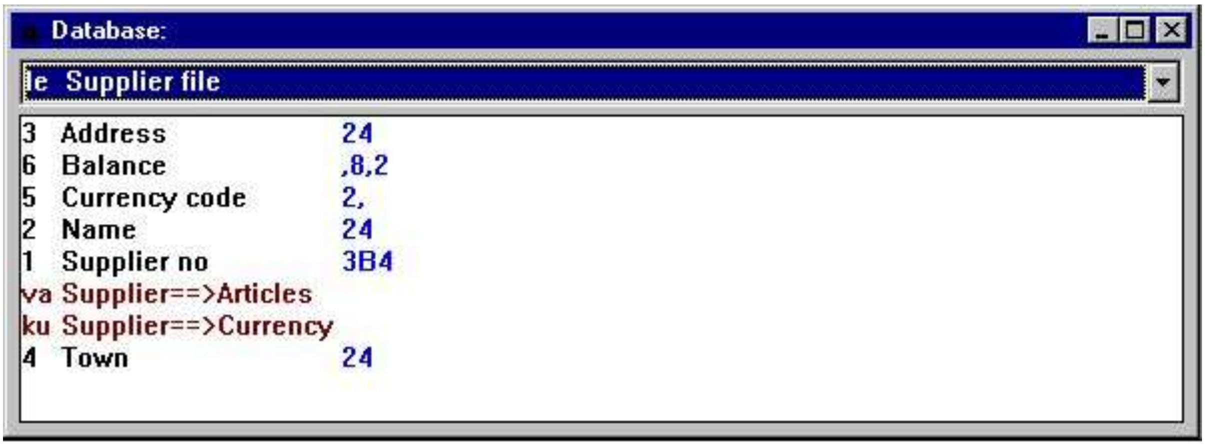
Sort fields by: 1=Name

23. View and sort options of the database window

Apart from always including the table id, the view/and sort of tables include
- **Name**
- **Text**
- **Standard ID**

Field always includes field numbers, but may also view and sort
- **Name**
- **Format**
- **SQL name**

If the option of viewing fields includes field format, the database window will display the following:



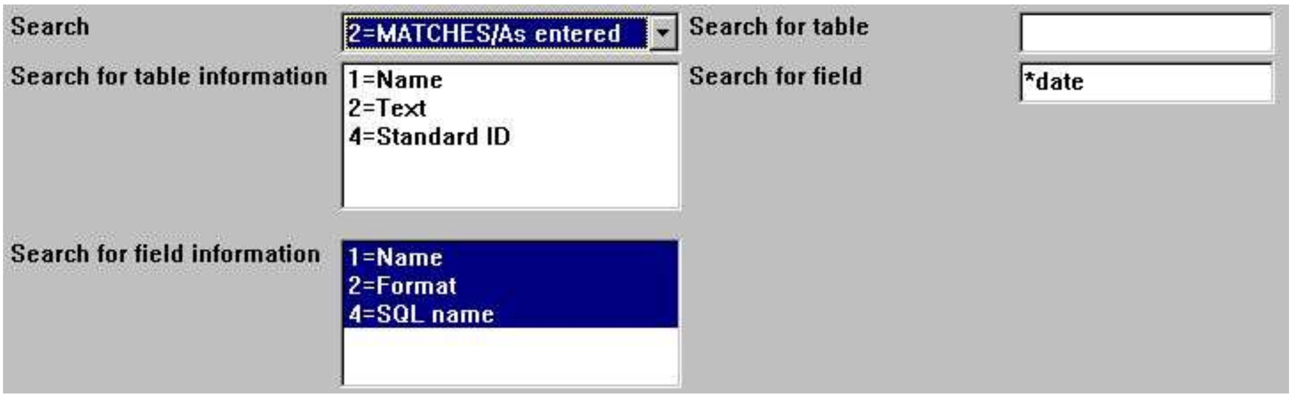
```
le  Supplier file
3  Address        24
6  Balance        ,8,2
5  Currency code  2,
2  Name           24
1  Supplier no    3B4
va Supplier==>Articles
ku Supplier==>Currency
4  Town           24
```

24. Database window including field format

4.4.2. Searching the database

When searching the database definitions, it is possible to find tables and/or fields. The search option is selected when the database window is active in the menu

Edit - Search



Search: 2=MATCHES/As entered

Search for table:

Search for table information:
1=Name
2=Text
4=Standard ID

Search for field: *date

Search for field information:
1=Name
2=Format
4=SQL name

25. Entering the search criteria

The search is performed according to the search method selected, which may be

- As entered
- Case-sensitive
- MATCHES/As entered
- MATCHES/Case-sensitive

The MATCHES allows you to work with part of the text following a specific syntax. The syntax is based on the use of some special characters

*** = any text**
? = any one character

For example, the database definitions may have several tables, where fields are defined as dates. However, only searching after the text

date

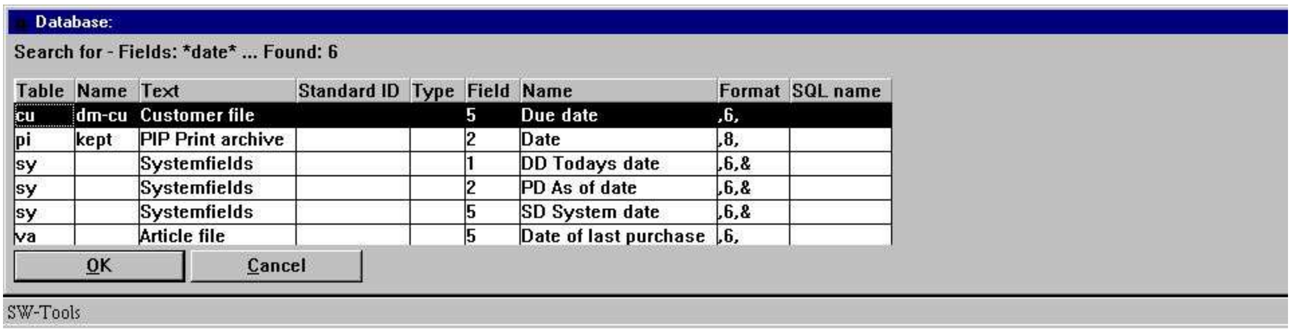
will not find a field in upper case if the method is as entered. It will not find a field

date of last purchase

If using the method MATCHES/As entered and searching for

date

it will find any field having date within the field name, e.g. any text followed by the text date and ending with any text.



Database:

Search for - Fields: *date* ... Found: 6

Table	Name	Text	Standard ID	Type	Field	Name	Format	SQL name
cu	dm-cu	Customer file			5	Due date	,6,	
pi	kept	PIP Print archive			2	Date	,8,	
sy		Systemfields			1	DD Todays date	,6,&	
sy		Systemfields			2	PD As of date	,6,&	
sy		Systemfields			5	SD System date	,6,&	
va		Article file			5	Date of last purchase	,6,	

26. The search result shown in the database window

4.4.3. Display of used files only

This option is activated from the file menu when the database window is active.
You may select to show used files only for the programme in order to get the overview of needed files as short as possible.

4.4.4. Actions by click on a field in the database window

When defining selections or calculations you may click on any field in the database window to get the full field definition shown. By selections the field will be inserted in the current selected box on screen also.

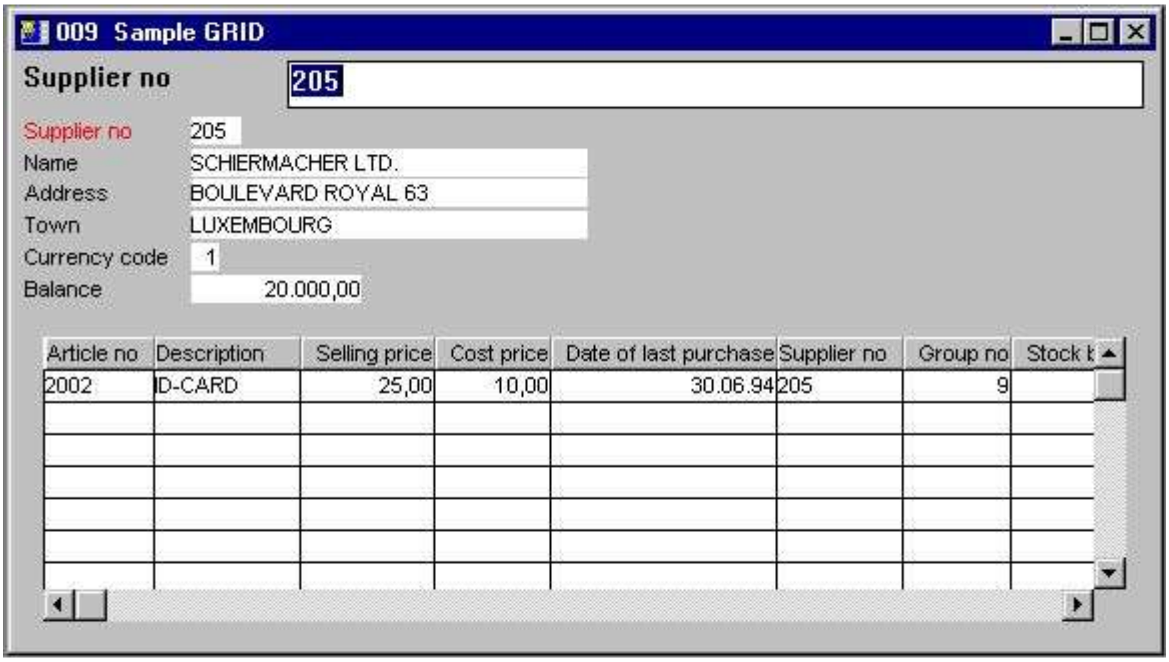
4.4.5. The function parameter wizard help

By using the function parameter wizard by calculations (ctrl.Q), you may go directly to the windows manual section for this function by selecting HELP (F1).

5. IQ

5.1. GRID listboxes

The GRIDHDR and GRIDFLD function has been added.

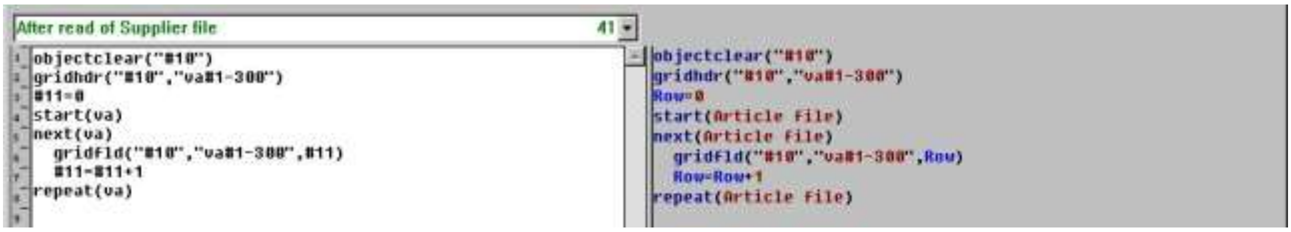


009 Sample GRID

Supplier no	205
Supplier no	205
Name	SCHIERMACHER LTD.
Address	BOULEVARD ROYAL 63
Town	LUXEMBOURG
Currency code	1
Balance	20.000,00

Article no	Description	Selling price	Cost price	Date of last purchase	Supplier no	Group no	Stock k
2002	ID-CARD	25,00	10,00	30.06.94	205	9	

27. Sample use of GRID

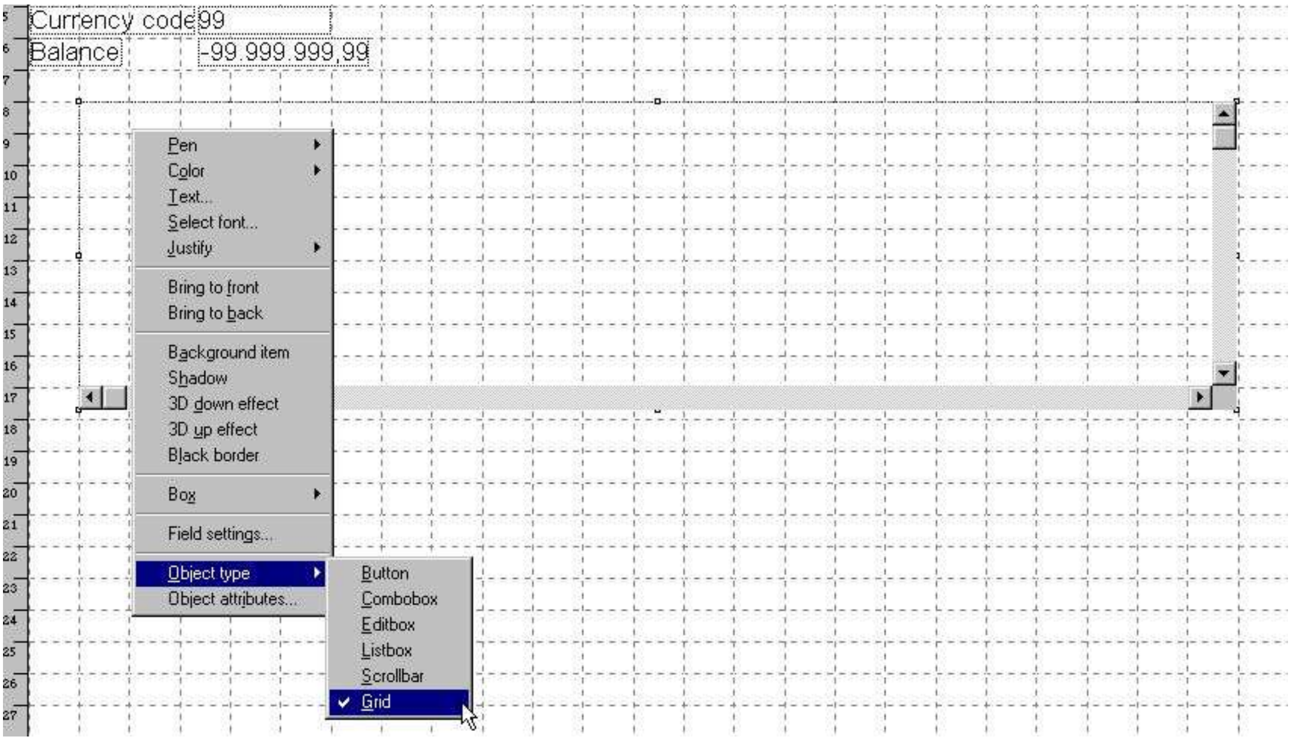


After read of Supplier file 41

```
objectclear("#10")
gridhdr("#10","va#1-300")
#11=0
start(va)
next(va)
  gridfld("#10","va#1-300",#11)
  #11=#11+1
repeat(va)
```

```
objectclear("#10")
gridhdr("#10","va#1-300")
Row=0
start(Article file)
next(Article file)
  gridfld("#10","va#1-300",Row)
  Row=Row+1
repeat(Article file)
```

28. The GRID calculations



29. The GRID field in the layout

5.2. DGRID for simple data selection

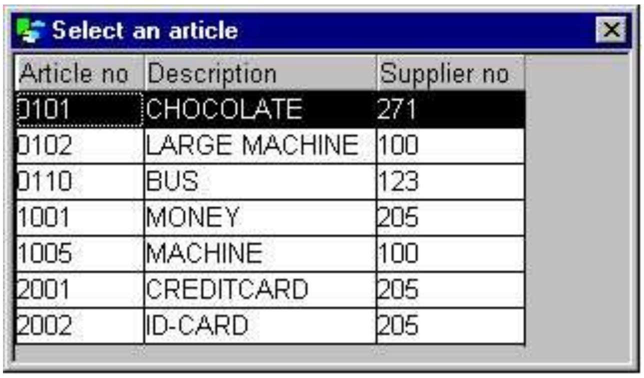
The subfunction DGRID may be used to select a record from a dialog box which will block the current application until selection has been made.
For example, by entering the following calculation by click on a field in a IQ query

DGRID("va!1!1-2,6!0!Select an article",#50)

will read records from the article file 'va' which are sorted according to the index number '1' and display the fields '1-3'.
The function will return the value of the displayed field '0', e.g. field number 1 because

Displayed field	**Field**
0	1
1	2
2	6

which is stored in field #50.
Finally the dialog title is set to 'Select an article'.



Select an article

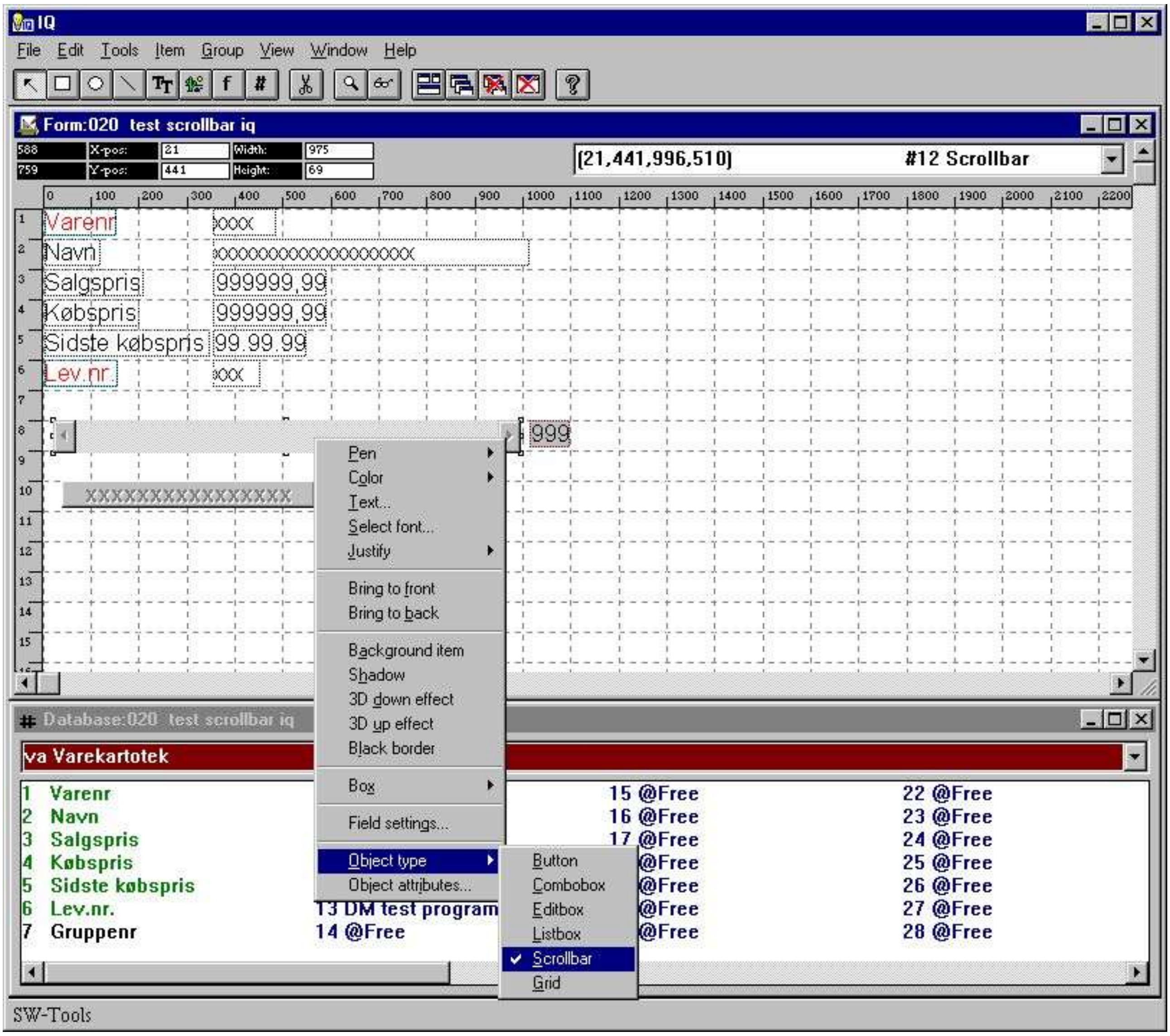
Article no	Description	Supplier no
0101	CHOCOLATE	271
0102	LARGE MACHINE	100
0110	BUS	123
1001	MONEY	205
1005	MACHINE	100
2001	CREDITCARD	205
2002	ID-CARD	205

30. DGRID dialog

For more information please refer to the DGRID subfunction.

5.3. SCROLLBAR object

The scrollbar object may be used to display numeric values from 0 to 32767.
To make a scrollbar field you may define a work field named 'Scrollbar' with format '6,' and change the object type in the IQ form to 'Scrollbar' when inserted.



Form:020 test scrollbar iq

588 X-pos: 21 Width: 975
759 Y-pos: 441 Height: 69

(21,441,996,510) #12 Scrollbar

Varenr xxxx
Navn xxxxxxxxxxxxxxxxxxxxx
Salgspris 999999,99
Købspris 999999,99
Sidste købspris 99.99.99
Lev.nr. xxx
999
XXXXXXXXXXXXXXXXXX

Database:020 test scrollbar iq

va Varekartotek

1 Varenr
2 Navn
3 Salgspris
4 Købspris
5 Sidste købspris
6 Lev.nr.
7 Gruppenr
13 DM test program
14 @Free
15 @Free
16 @Free
17 @Free
@Free
@Free
@Free
@Free
22 @Free
23 @Free
24 @Free
25 @Free
26 @Free
27 @Free
28 @Free

SW-Tools

31. Scrollbar inserted in a IQ/DM form

When using a scrollbar in IQ the following calculations are required:

- Setting the maximum value using ObjectAddString()

- Getting the current position of the scrollbar using ObjectGetString()

For example: You may define the work field #12 as 'Scrollbar' with format '3,' and add the following calculation by start of program

ObjectAddString("#12","100","")

which will set the maximum position of the scrollbar to 100. Then a calculation by clicking on field #12

#12=ObjectGetString("#12")

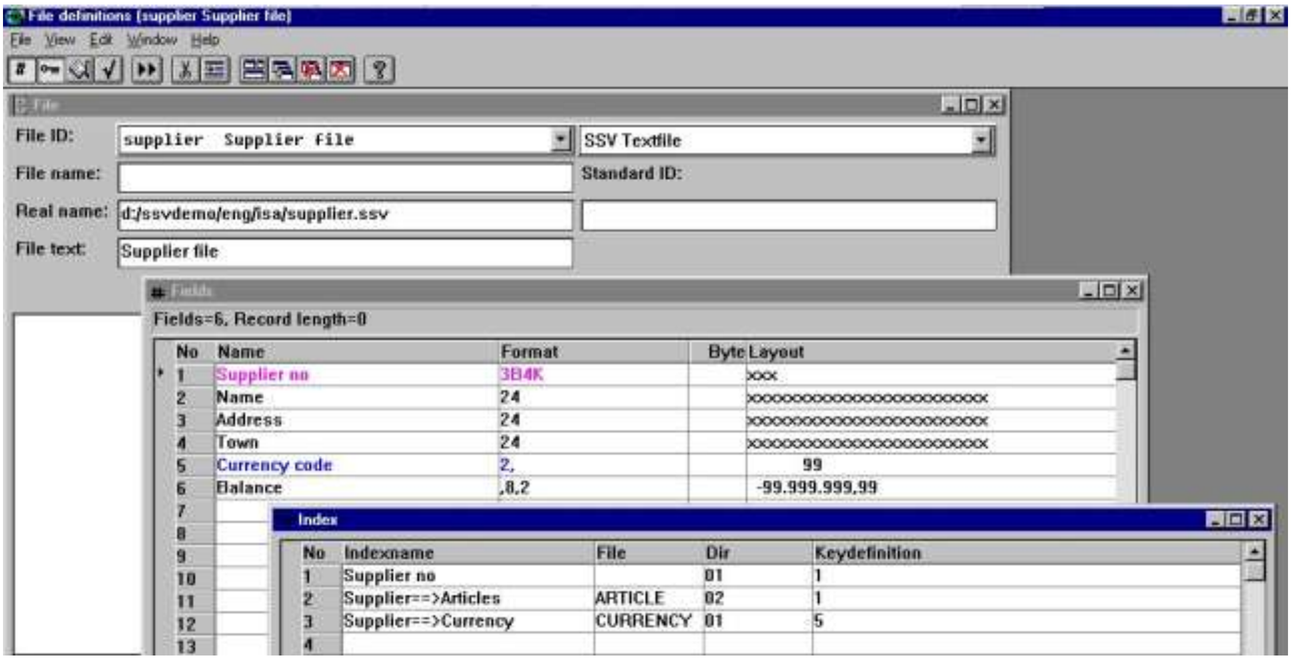
in order to retrieve the current scroll position.

When using the scrollbar object in DATAMASTER you do not require to use the ObjectGetString() to retrieve the current position, because DATAMASTER does this automatically by setting the value into field #12.

6. The datadictionary

6.1. Long datadictionary file ID

The 2 character file ID has been extended to a maximum of 8 characters.



File ID: supplier Supplier file

SSV Textfile

File name:

Standard ID:

Real name: d:/ssvdemo/eng/isa/supplier.ssv

File text: Supplier file

Fields=6, Record length=0

No	Name	Format	Byte	Layout
1	Supplier no	3B4K		xxx
2	Name	24		xxxxxxxxxxxxxxxxxxxxxxxx
3	Address	24		xxxxxxxxxxxxxxxxxxxxxxxx
4	Town	24		xxxxxxxxxxxxxxxxxxxxxxxx
5	Currency code	2,		99
6	Balance	,8,2		-99.999.999,99
7				
8				
9				
10				
11				
12				
13				

No	Indexname	File	Dir	Keydefinition
1	Supplier no		01	1
2	Supplier==>Articles	ARTICLE	02	1
3	Supplier==>Currency	CURRENCY	01	5
4				

32. The demo supplier file with long file ID

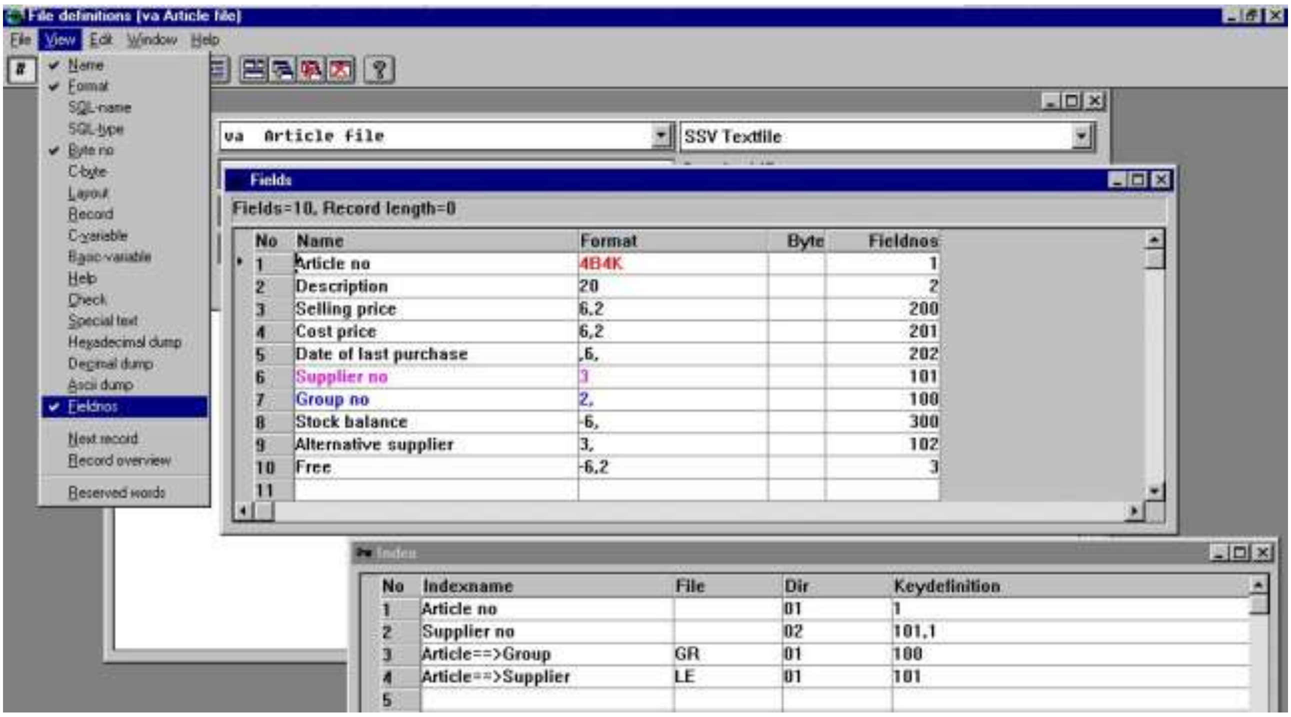
Note that connections, READ(....) and all file/field access in general are extended in this way, and use of fileIDs longer than 2 characters is in no way backward compatible with previous versions, also in respect to any Unix server.
In calculations you may then give fields as:

```
va#47=1
customer#47=1
invoice#47=1
invoice#statcode=1
```

The use of upper/lower case letters for the same file multiple times in a single programme is limited to the 2 first characters only, (auftrag/AUFTRAG/Auftrag/aUFTRAG), more than 4 times the same file is not considered relevant.
On 32 bit systems you may even create fileIDs with up to 32 characters, but this is not recommended as all the compatibility with the 16 bit version will be lost.
A conflict with old TRIO programs and long filenames exists in the syntax in read of files, where the connection is stated explicitly, as READ(va.le), the old syntax READ(vale) without point is still supported unless a long fileID 'vale' really is present.

6.2. Datadictionary fieldnumbers

Each fieldnumber in a file may be stated separately independent of the real sequence, as a new column in the FDF has been added for user-defined fieldnumbers:



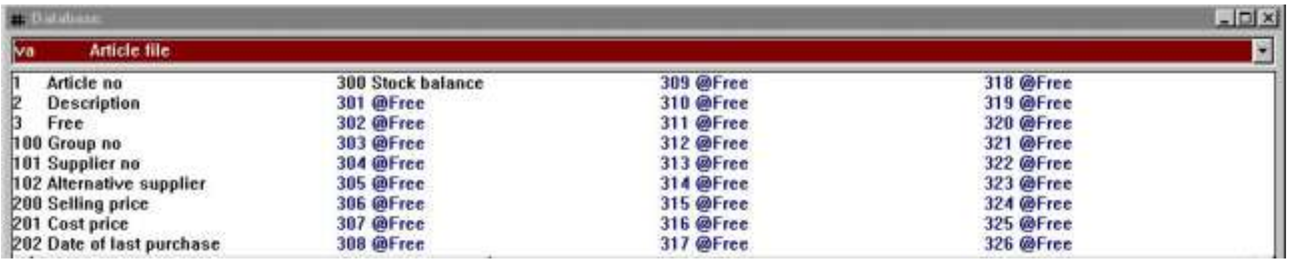
Fields=10, Record length=0

No	Name	Format	Byte	Fieldnos
1	Article no	4B4K		1
2	Description	20		2
3	Selling price	6,2		200
4	Cost price	6,2		201
5	Date of last purchase	,6,		202
6	Supplier no	3		101
7	Group no	2,		100
8	Stock balance	-6,		300
9	Alternative supplier	3,		102
10	Free	-6,2		3
11				

No	Indexname	File	Dir	Keydefinition
1	Article no		01	1
2	Supplier no		02	101,1
3	Article==>Group	GR	01	100
4	Article==>Supplier	LE	01	101
5				

33. Amending the fieldnumbers in the datadictionary

In the database window the fields are shown sorted by the new sequence and all references go to the new fieldnumber, for example should the db now be calculated as #310=#201-#200



```
1   Article no               300 Stock balance     309 @Free     318 @Free
2   Description              301 @Free             310 @Free     319 @Free
3   Free                     302 @Free             311 @Free     320 @Free
100 Group no                 303 @Free             312 @Free     321 @Free
101 Supplier no              304 @Free             313 @Free     322 @Free
102 Alternative supplier     305 @Free             314 @Free     323 @Free
200 Selling price            306 @Free             315 @Free     324 @Free
201 Cost price               307 @Free             316 @Free     325 @Free
202 Date of last purchase    308 @Free             317 @Free     326 @Free
```

34. The database window after fieldnumbers has been amended

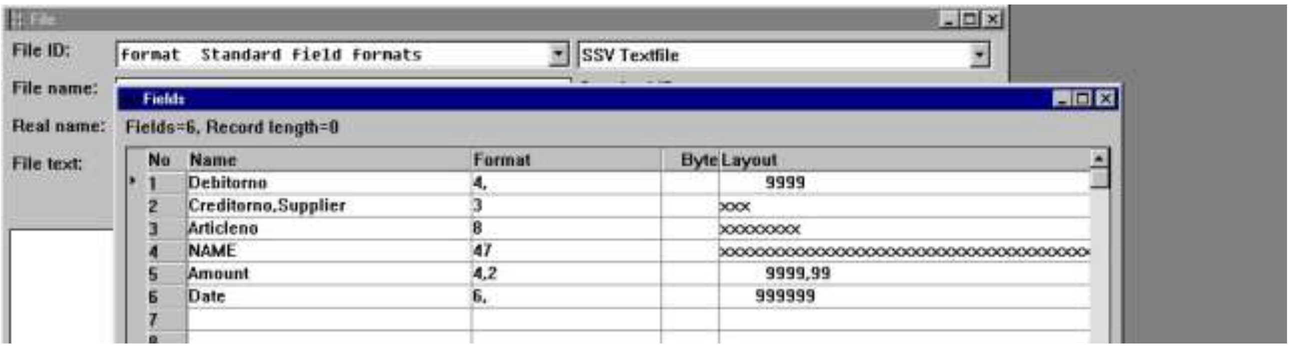
Note that workfields are numbered as usual after the last used field in the file.
The maximum number of fields in one file is still 999, but fieldnumbers may be up to 2.000.000.000 in the 32 bit version. The 16 bit version is restricted to a maximum of 65000.

6.3. Datadictionary standard field formats

A field format may be stated as AMOUNT, the real format will be taken from the file FORMAT if present by searching for a fieldname Amount.

6.3.1. The standard FORMAT file

To activate the standard field formats, just create a file named FORMAT in your datadictionary e.g.:



File ID: Format Standard Field Formats | SSV Textfile

File name:

Real name:

File text:

Fields

Fields=6, Record length=0

No	Name	Format	Byte	Layout
1	Debitorno	4,		9999
2	Creditorno,Supplier	3		xxx
3	Articleno	8		xxxxxxxx
4	NAME	47		xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
5	Amount	4,2		9999,99
6	Date	6,		999999
7				

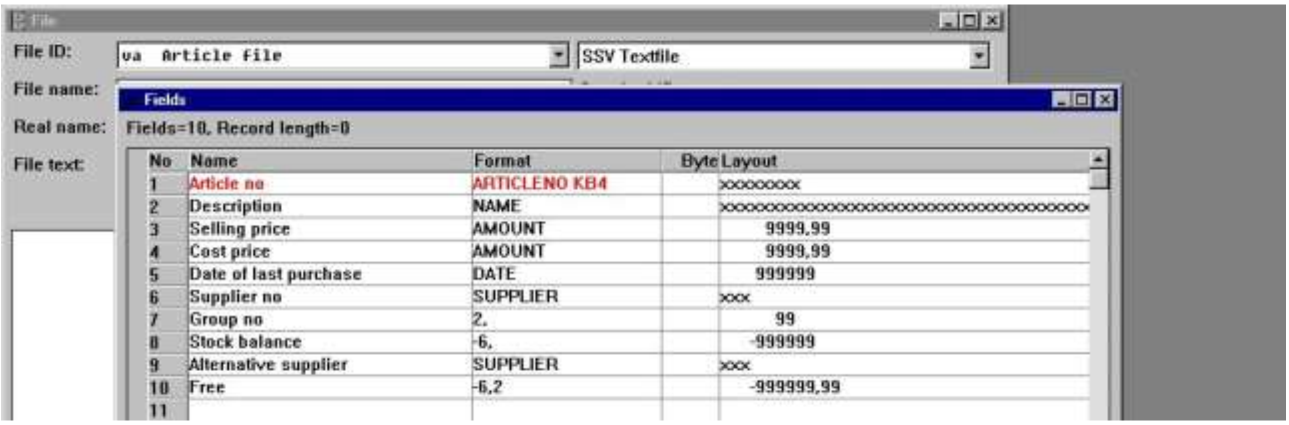
35. Creating the FORMAT file with standard formats

The fieldnames given here will be the standard formats, these must be alphanumeric without special characters, upper/lower case does not matter. You may state synonyms by separating these by comma as shown for supplier.

The field formats may contain bytenumbers, packtypes and other options just like a normal field format.

6.3.2. Defining a file using the standard formats

You may use these standard formats when defining a file like:



Fields=10, Record length=0

No	Name	Format	Byte	Layout
1	Article no	ARTICLENO KB4		xxxxxxxx
2	Description	NAME		xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
3	Selling price	AMOUNT		9999,99
4	Cost price	AMOUNT		9999,99
5	Date of last purchase	DATE		999999
6	Supplier no	SUPPLIER		xxx
7	Group no	2.		99
8	Stock balance	-6.		-999999
9	Alternative supplier	SUPPLIER		xxx
10	Free	-6,2		-999999,99
11				

36. The demo article file using standard formats

The standard format is used when a field format starts with an alphabetic character. The standard format name goes up to the first space met. After this, you may state additional options for the field as shown for the first field with the K=Key and B4=Bytenumber 4 options added.

6.4. Integration between different database systems

As it is being more common to have different database systems in the same equipment, it is possible to define these completely separate but still access and mix these from within the calculations.

A qualifier stating the ID of the database followed by underscore may be stated in front of any fileID as:

```
comet_invoice = Filedefinitions COMET, file INVOICE
alx_customer  = Filedefinitions ALX, file CUSTOMER
```

Which may be used in calculations as:

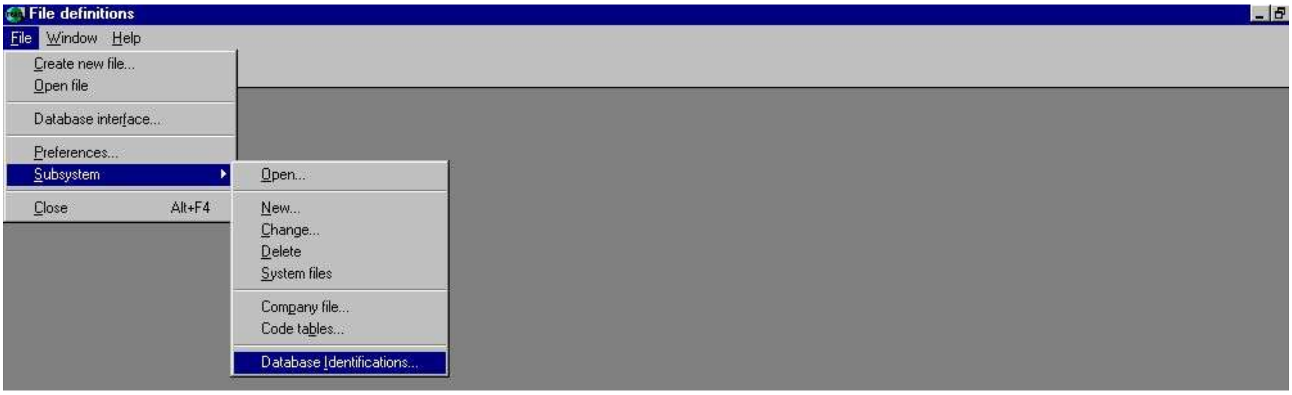
```
alx_customer#47=1
READ(comet_invoice),alx_customer#47
comet_invoice#statcode=1 .
```

6.4.1. The database system IDs

A file containing the database systems ID (BASID.SSV) states the connection from a fileID like 'comet_xxxxx' to a directory with the file definitions (FILES.SSV/xxxxx.SSD and BASIS.SSV) for the database 'comet'.
The BASID.SSV file must always be placed in the same directory, as where the BASIS.SSV file with the drivers are found for this database.

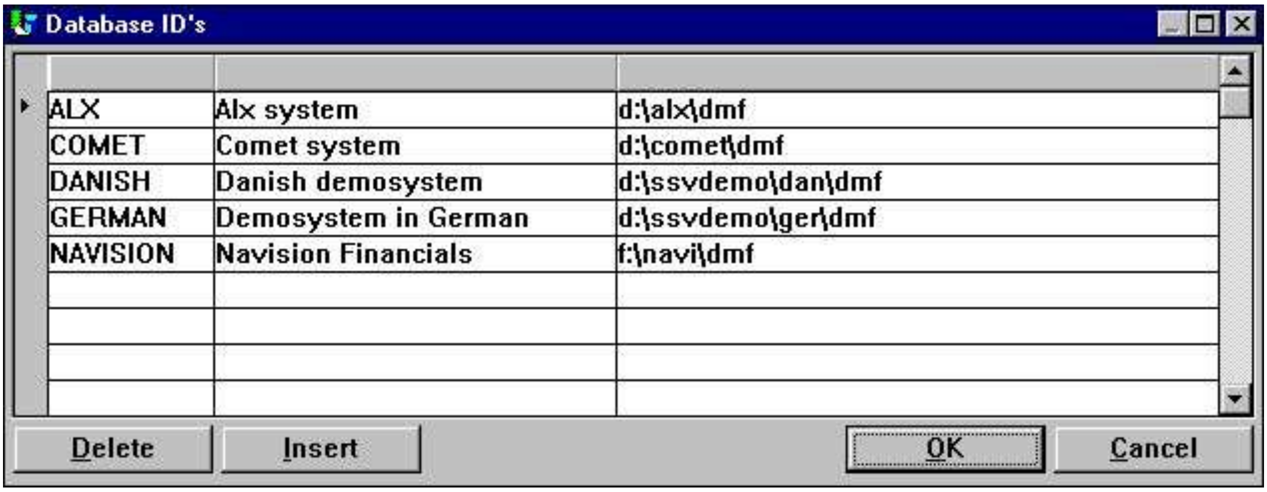
6.4.1.1. Creation of database identifications

You reach the database ID's from the FDF subsystem menu:



37. Selection of maintenance of the database ID's

wherefrom you get the following screen:



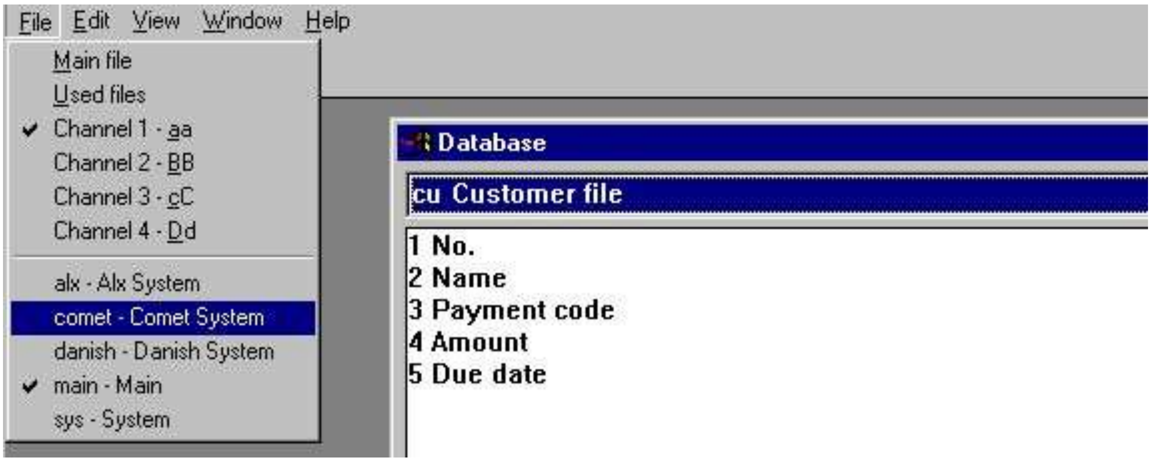
ALX	Alx system	d:\alx\dmf
COMET	Comet system	d:\comet\dmf
DANISH	Danish demosystem	d:\ssvdemo\dan\dmf
GERMAN	Demosystem in German	d:\ssvdemo\ger\dmf
NAVISION	Navision Financials	f:\navi\dmf

38. Maintenance of the database ID's

Note that the database ID is alphabetic and uppercase (A-Z) only, you cannot use digits or special characters.

6.4.1.2. The database window when BASID is activated

When more database ID's are present in the system these will show as menu items in the file menu for the database window:

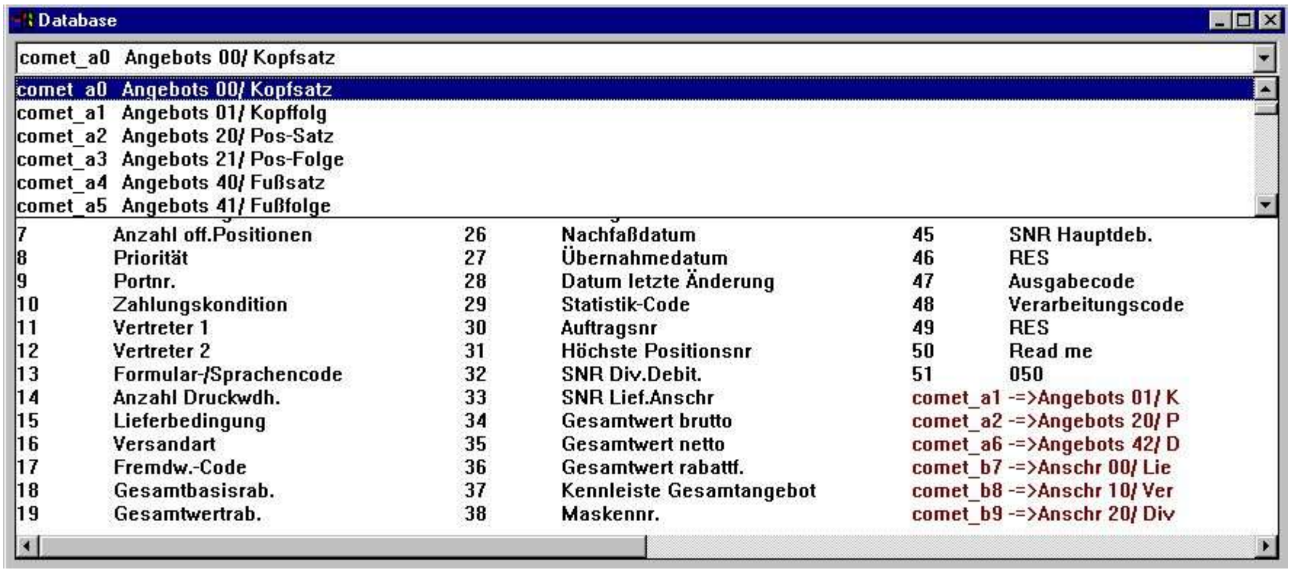


cu Customer file

1 No.
2 Name
3 Payment code
4 Amount
5 Due date

39. The database window file and database selection

When you select for example the COMET database, you will get this as:



comet_a0 Angebots 00/ Kopfsatz

```
comet_a0  Angebots 00/ Kopfsatz
comet_a1  Angebots 01/ Kopffolg
comet_a2  Angebots 20/ Pos-Satz
comet_a3  Angebots 21/ Pos-Folge
comet_a4  Angebots 40/ Fußsatz
comet_a5  Angebots 41/ Fußfolge
```

```
7    Anzahl off.Positionen     26   Nachfaßdatum              45        SNR Hauptdeb.
8    Priorität                 27   Übernahmedatum            46        RES
9    Portnr.                   28   Datum letzte Änderung     47        Ausgabecode
10   Zahlungskondition         29   Statistik-Code            48        Verarbeitungscode
11   Vertreter 1               30   Auftragsnr                49        RES
12   Vertreter 2               31   Höchste Positionsnr       50        Read me
13   Formular-/Sprachencode    32   SNR Div.Debit.            51        050
14   Anzahl Druckwdh.          33   SNR Lief.Anschr           comet_a1 ->Angebots 01/ K
15   Lieferbedingung           34   Gesamtwert brutto         comet_a2 ->Angebots 20/ P
16   Versandart                35   Gesamtwert netto          comet_a6 ->Angebots 42/ D
17   Fremdw.-Code              36   Gesamtwert rabattf.       comet_b7 ->Anschr 00/ Lie
18   Gesamtbasisrab.           37   Kennleiste Gesamtangebot  comet_b8 ->Anschr 10/ Ver
19   Gesamtwertrab.            38   Maskennr.                 comet_b9 ->Anschr 20/ Div
```

40. The file, field and connection selection in the database window

6.4.1.3. The fixed database ID's MAIN and SYS

TRIO will always add two ID's:

- MAIN
- SYS

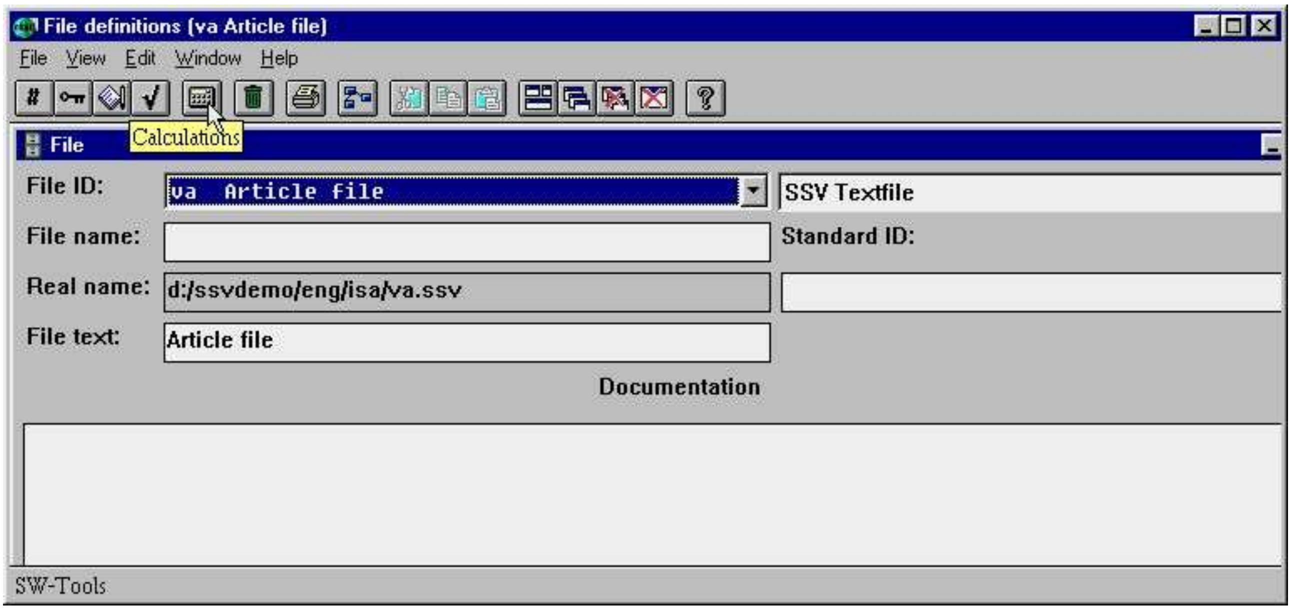
MAIN you may use to return from a selected database to the original.
SYS is more for programmer's use, where special system fields may be added. This is also used internally by TRIO itself.

6.4.2. File connections spanning over different databases

In the FDF standard file connections may be defined to other database systems, as seen above in the database window the connected file is just stated as BASID_FILEID to get another database.

6.5. Datadictionary calculations / Stored procedures

Each file or field definition may be associated with one or more calculation blocks held in the datadictionary itself. These stored procedures are defined by:


File definitions (va Article file)
File View Edit Window Help
Calculations
File
SW-Tools

File ID: va Article file — SSV Textfile

File name:

Standard ID:

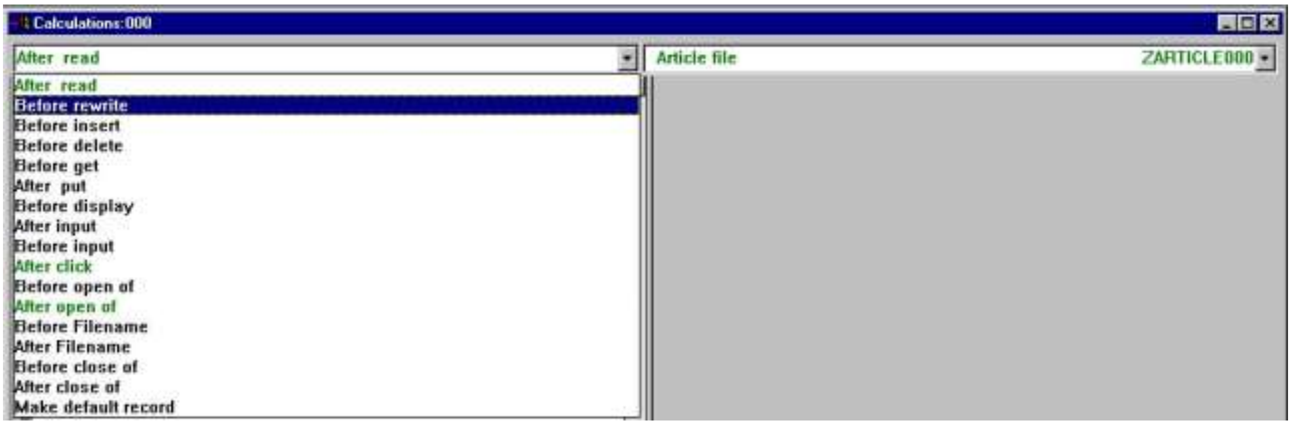
Real name: d:/ssvdemo/eng/isa/va.ssv

File text: Article file

Documentation

41. The new calculation icon in the data dictionary

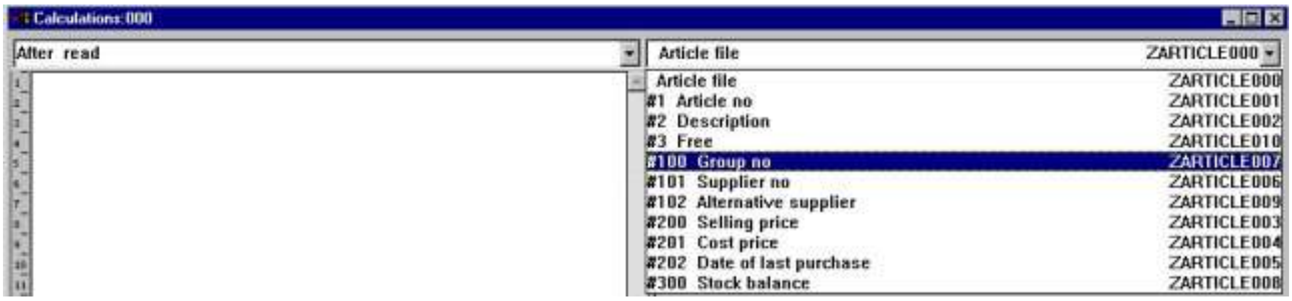
Like the present IQ calculations, the calculation block name decides, when the specific calculations should be executed, e.g. by READ or by WRITE of the file.



- After read
- Before rewrite
- Before insert
- Before delete
- Before get
- After put
- Before display
- After input
- Before input
- After click
- Before open of
- After open of
- Before Filename
- After Filename
- Before close of
- After close of
- Make default record

42. Selecting where to calculate for a file definition

When the calculation block is selected, you may select a single field also:



Calculations:000

After read

Article file ZARTICLE000

Article file	ZARTICLE000
#1 Article no	ZARTICLE001
#2 Description	ZARTICLE002
#3 Free	ZARTICLE010
#100 Group no	ZARTICLE007
#101 Supplier no	ZARTICLE006
#102 Alternative supplier	ZARTICLE009
#200 Selling price	ZARTICLE003
#201 Cost price	ZARTICLE004
#202 Date of last purchase	ZARTICLE005
#300 Stock balance	ZARTICLE008

43. Selecting calculations for a single field or the complete file

6.6. User definable subfunctions

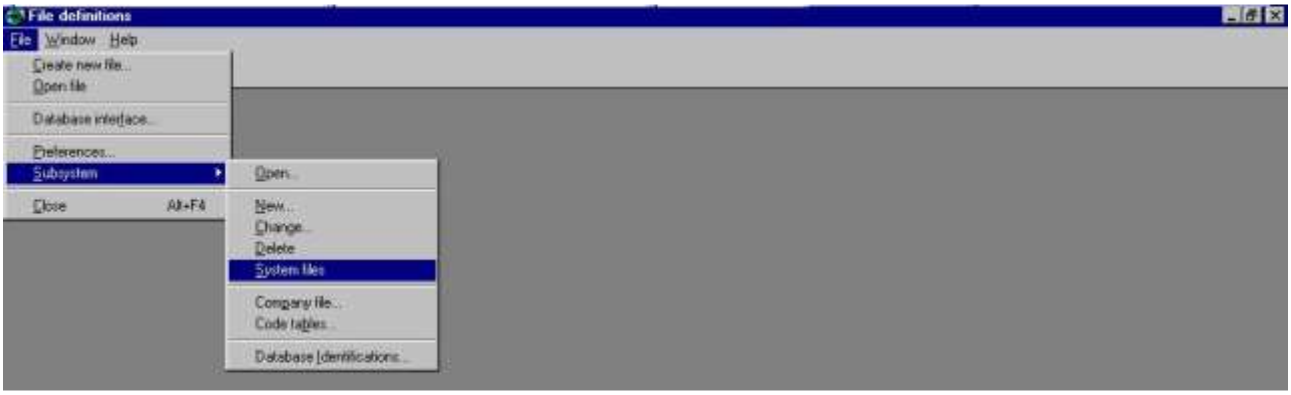
Common blocks of calculations may be defined as a subfunction like the function descriptions which come with TRIO in the files 00-99.

These files are made like normal file definitions, but may hold function definitions and documentation of internal TRIO functions and external DLL functions which may be made by other programmers.

From version 008 you may now also define your own set of functions as common calculations, which may be modified and parametered when loaded.

6.6.1. Selecting the function definitions

You reach the function definition files when the FDF programme is switched into the SYSTEM FILES mode:

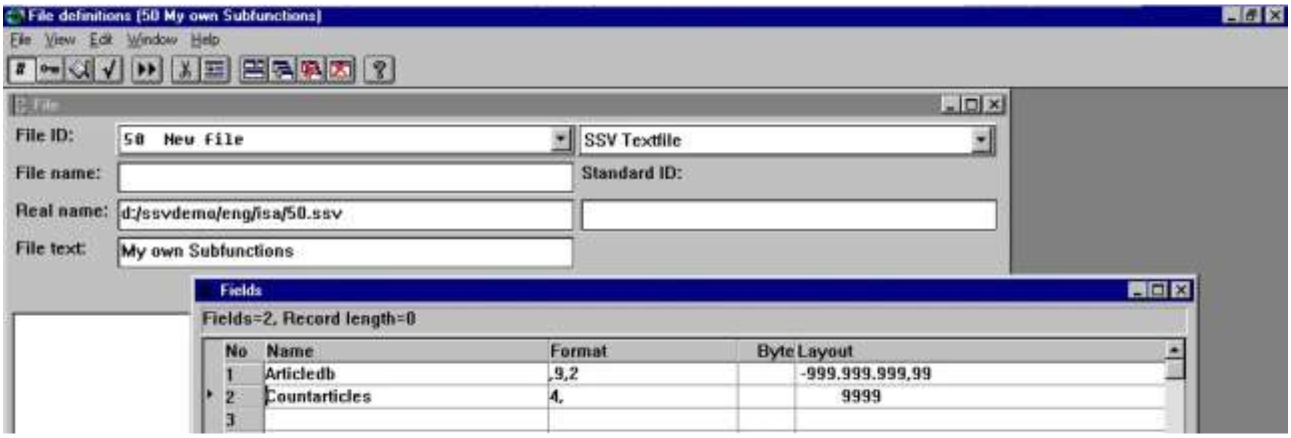


44. Selecting the SYSTEM FILES mode in the FDF

which enables you to maintain / create file definitions starting with a digit, which is normally blocked in the FDF.
You should change/create filedefinitions in the range 50-59 only, thus avoiding conflict with this and future TRIO releases.

6.6.2. Creation of new functions

First the functions are created just as fields in the datadictionary, the fieldname becomes the function name and the field format states how the return value is given:


File definitions (50 My own Subfunctions)
File View Edit Window Help
File
Fields

File ID: 58 New file | SSV Textfile

File name:

Standard ID:

Real name: d:/ssvdemo/eng/isa/50.ssv

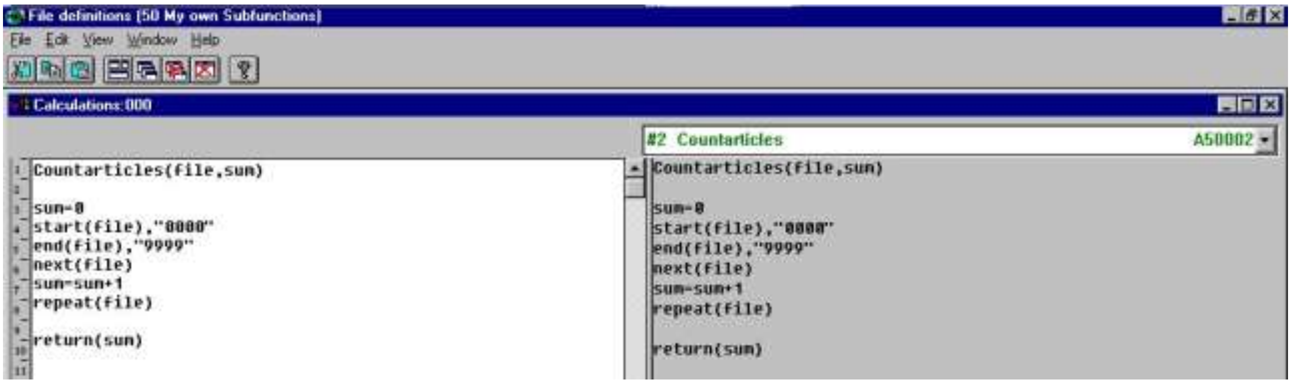
File text: My own Subfunctions

Fields=2, Record length=0

No	Name	Format	Byte	Layout
1	Articledb	,9,2		-999.999.999,99
2	Countarticles	4,		9999
3				

45. Creating new functions in the subfunction definition 50

The function- (field-) name must be plain alphabetic, no spaces or special characters is allowed. Upper/lowercase does not matter.
The calculations for the functions are then entered as the datadictionary field calculations:


File definitions (50 My own Subfunctions)
File Edit View Window Help
Calculations:000

```
Countarticles(file,sum)

sum=0
start(file),"0000"
end(file),"9999"
next(file)
sum=sum+1
repeat(file)

return(sum)
```

#2 Countarticles A50002

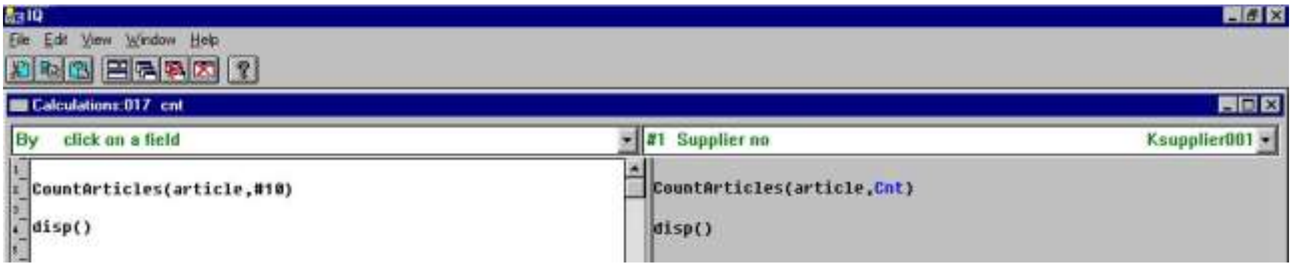
```
Countarticles(file,sum)

sum=0
start(file),"0000"
end(file),"9999"
next(file)
sum=sum+1
repeat(file)

return(sum)
```

46. Entering the function calculation lines

The function is now installed and may be used in other datadictionary calculations or IQ as:



By click on a field

```
CountArticles(article,#10)

disp()
```

#1 Supplier no Ksupplier001

```
CountArticles(article,Cnt)

disp()
```

47. Using the homemade function

6.6.3. How it works

The first line of the function definition contains

functionname(par1,par2,...) .

When the function is to be calculated, the code is loaded into the program and any occurrence of par1 is replaced by the first given parameter, par2 with the next, and so on, whereafter the code is executed just as it was entered in the programme itself.
In the above example the first lines becomes by load:

```
#10=0
start(article),"0000"
end(article)
:
:
```

7. External packages and runtime licences

A package consisting of a set of TRIO programs may be made and licensed individually by a certified TRIO distributor.

7.1. Packages

A package consists of one ZIP file named ddddllll.zip containing all necessary files, dddd being the distributor number, llll a package number.
The ZIP file may contain report definitions, IQ programme definitions, file definitions, SSV files for parameters and pictures.

7.1.1. Package numbers

When the package number llll is in the range from 3000 to 3999, the ZIPfile will be crypted and can only be used by customers having a valid license for the product llll (3000-3999) issued by distributor dddd.
If llll is in the range 3000-3499 the license procedure for user ID registration is not necessary, 3500-3999 requires a final license to be issued for each PC user ID within 3 months just like the TRIO package.
If llll is any other number the ZIPfile is not crypted and usable by any TRIO customers with a full license, not just runtime, and the package does not have to be licensed separately.

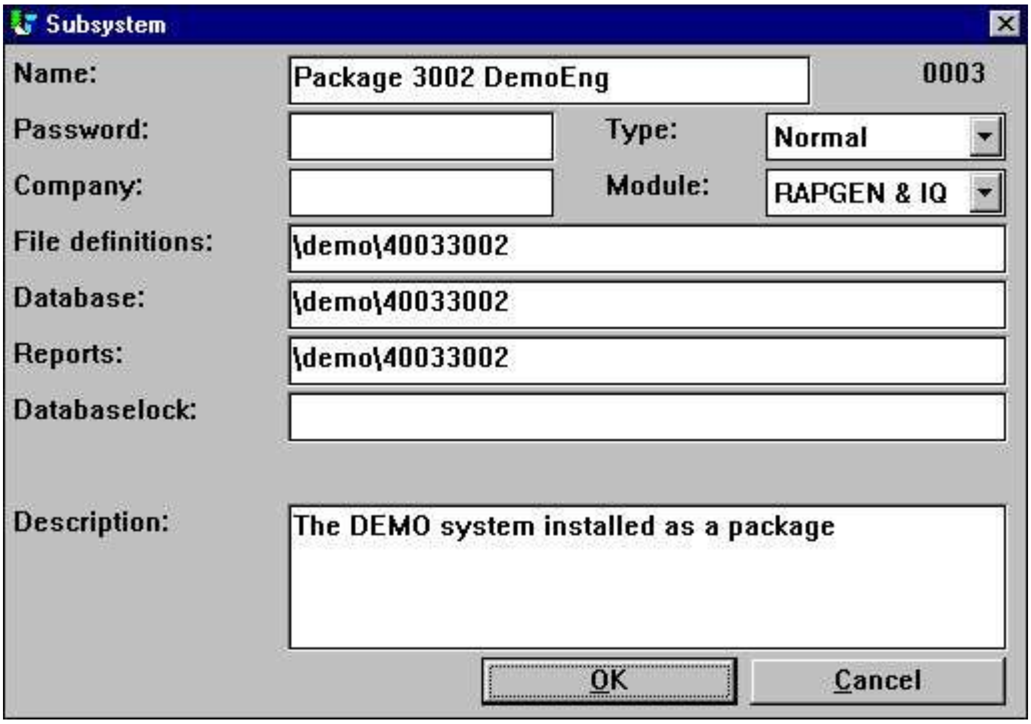
7.2. TRIO Runtime licenses

TRIO may be delivered with a RUNTIME license, in which case it is not possible to create/amend programs at all, only start of premade programs within a licensed package is possible.

The FDF module will however be fully available also with just a runtime license, as the installation may require individual file setup.

7.3. Activating a package in TRIO

If a package 3002 is made by distributor 4003 the ZIP filename for this becomes 40033002.ZIP
This zipfile must be copied to the customer system, for example to the directory DEMO as \DEMO\40033002.ZIP
You may now set any report/IQ/FDF or database path in TRIO to point to this zipfile, either by a user homepath or creating a subsystem as shown:



Subsystem

Name: Package 3002 DemoEng 0003
Password:
Type: Normal
Company:
Module: RAPGEN & IQ
File definitions: \demo\40033002
Database: \demo\40033002
Reports: \demo\40033002
Databaselock:
Description: The DEMO system installed as a package

48. Setting up a package subsystem

Above the file definitions are also to be taken from the package. You may however set these to be taken from the customers own definitions outside the package just by changing the path.

7.3.1. How TRIO handles a package

TRIO will for the above subsystem try to open a file for, say report number 777, like \DEMO\40033002\dm1777.src. If this file is not present and the directory stated is 8 digits, TRIO will check if the package file \DEMO\40033002.ZIP is present. If so, the license is checked and the requested file is unzipped and encrypted from here without the user noticing this at all.

If the report is then amended and saved, the directory 40033002 will be created and the real file \DEMO\40033002\dm1777.src will be written. As the file is now present, all further access will go to the amended file and the original file in the package is ignored. The one programme has now been moved out from the package and modified for individual use.

This means by later upgrading with a new version of the programs inside the package by replacing the ZIPfile, all individual amendments will be kept unless such files are removed. Also the package may contain a set of standard file definitions. If any file on the customer requires individual setup, it will just be moved out from the package ZIPfile when modified.

7.3.1.1. Package licenses

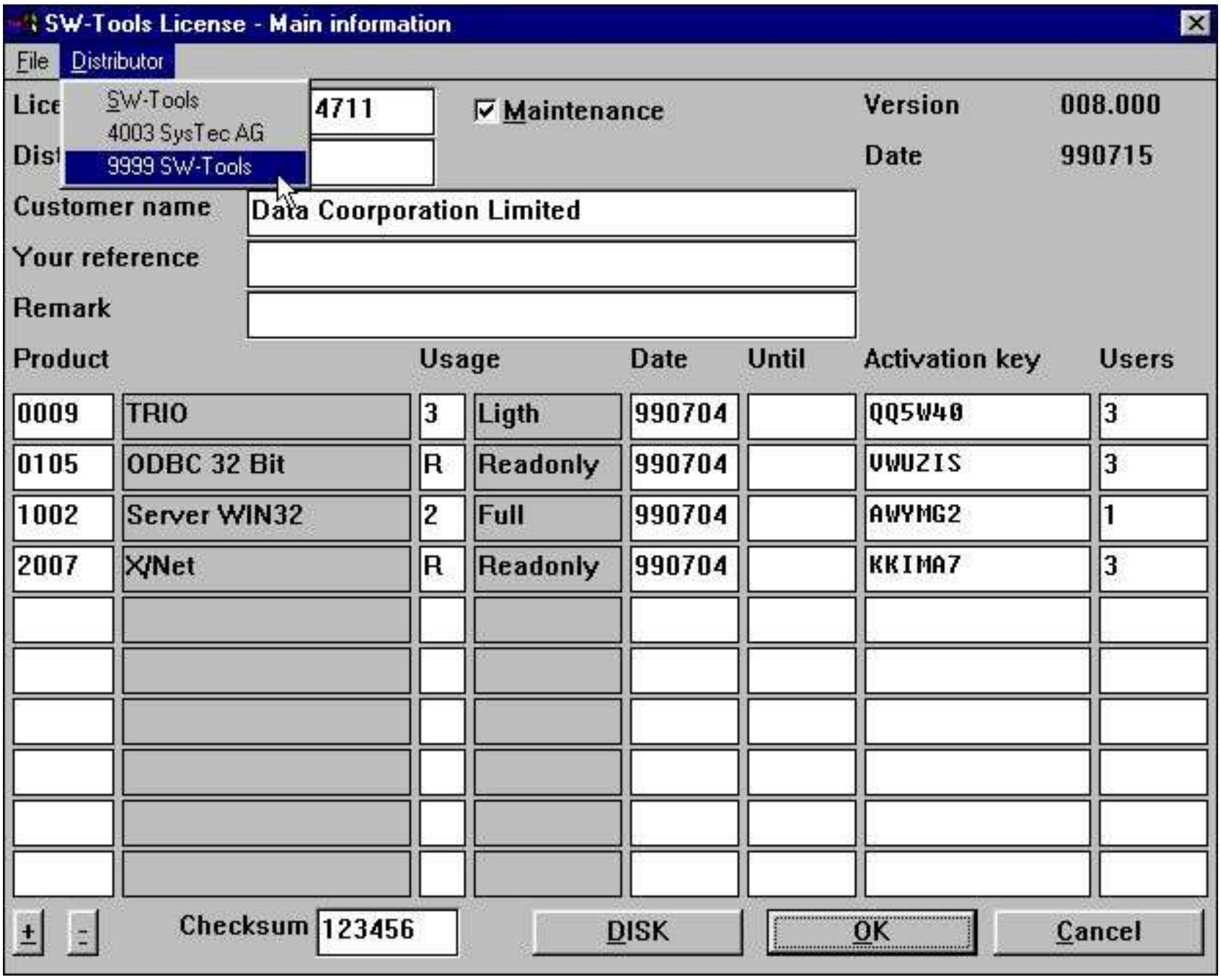
The distributor 4003 may issue a RUNTIME (or READONLY, which is the same) license for the package, in which case only the start of the programs is possible, TRIO will never, as described above, allow amendments and move a programme out of the package. File definitions however may be amended.

The distributor 4003 may also choose to issue a FULL license. In this case the programs may be modified freely if the customer also has got a full TRIO license.

Note that package numbers 3000-3499 do not require user registrations. Maximum number is the same as for the TRIO license, 3500-3999 do, and all other numbers do not require a separate license at all and are always for full usage.

7.4. The license input program

A package license is considered completely separate from the TRIO license, and for this purpose the license programme has been extended with a menu for selection of distributor:



Lice 4711

Dist

☑ Maintenance

Version 008.000

Date 990715

Customer name Data Coorporation Limited

Your reference

Remark

Product		Usage		Date	Until	Activation key	Users
0009	TRIO	3	Ligth	990704		QQ5W40	3
0105	ODBC 32 Bit	R	Readonly	990704		VWUZIS	3
1002	Server WIN32	2	Full	990704		AWYMG2	1
2007	X/Net	R	Readonly	990704		KKIMA7	3

Checksum 123456

49. Selection of package distributor in the license program

The first menupoint SW-Tools will be present always for the TRIO license, the additional distributors are shown if a distributor license file is present.

7.4.1. The distributors license file

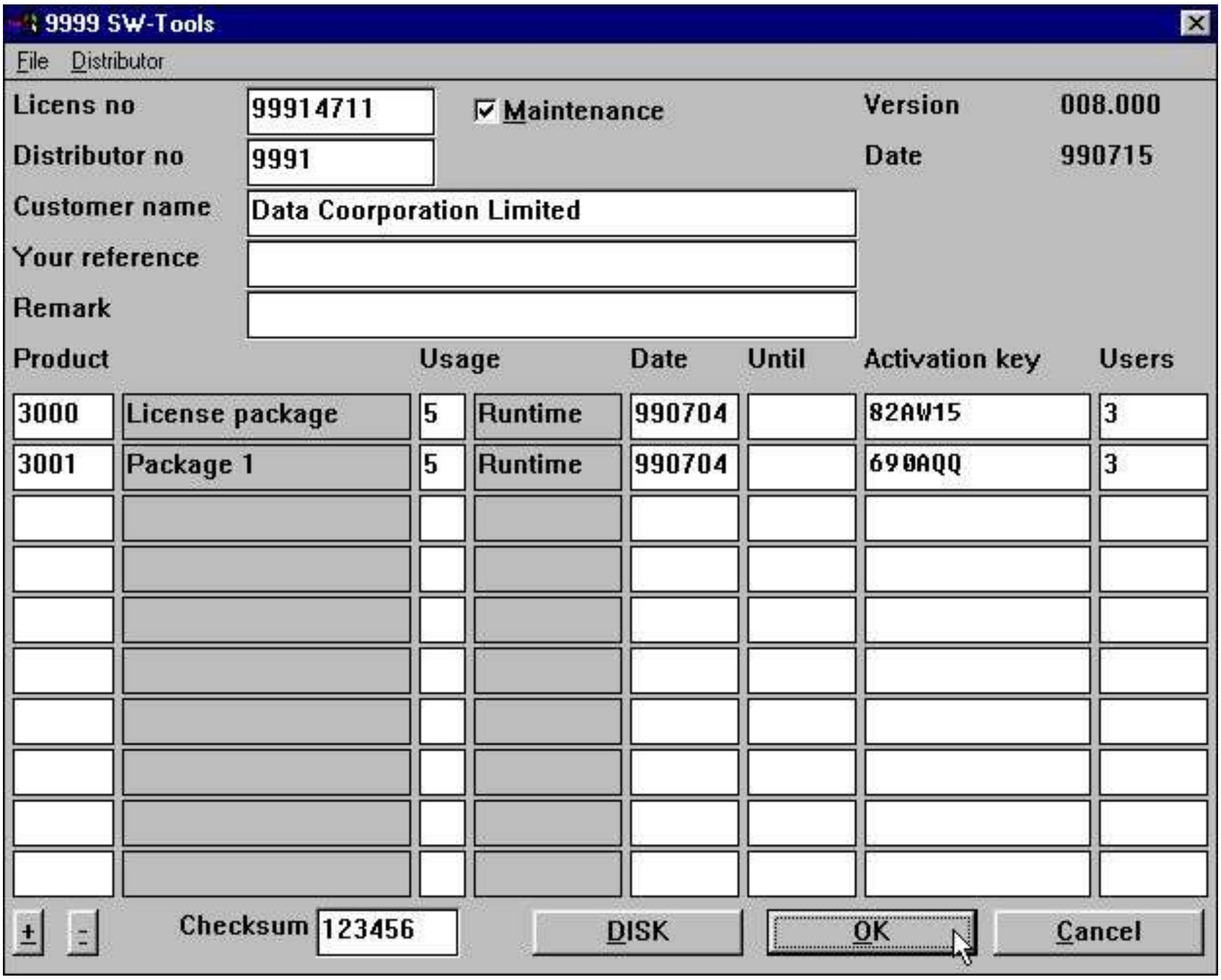
A distributor must identify each package with a package number and a name.
For TRIO itself the license programme takes this information from the file LICENSPR.ENG on the TRIO installation directory, ENG being the language suffix (ENG is also the default if the used language is not present)
The file LI4003PR.ENG must be made by the distributor 4003 and placed together with the LICENSPR.ENG file on the customer system before the package licenses can be entered. This file could contain:

```
SysTec AG
3001;Danish Package
3002;English Demosystem
3003;German Package
A002;Voll
A005;Runtime
A00R;Nur lesen
```

The first line being the distributor name to be displayed in the license program, followed by the package numbers and names, and finally the usage codes.

7.4.2. Entering the distributor license

When a distributor is selected the license from this may the be entered as:



Licens no 99914711 ☑ Maintenance Version 008.000

Distributor no 9991 Date 990715

Customer name Data Coorporation Limited

Your reference

Remark

Product		Usage		Date	Until	Activation key	Users
3000	License package	5	Runtime	990704		82AW15	3
3001	Package 1	5	Runtime	990704		690AQQ	3

Checksum 123456

50. Two licensed packages from an external distributor

7.4.2.1. DISK input and output of license files

Like TRIO, it is possible to forward license files on disk. For distributor packages the .LIC and .PLS files will get the same name as for TRIO, but have a header line with the distributor number.

By DISK input of the .LIC file in the license programme the correct distributor will be selected automatically. The customer does not have to use the menu first.

By DISK output of the .PLS file this information must of course be forwarded to the correct distributor by the customer.

7.5. Preparing a package on the distributor site

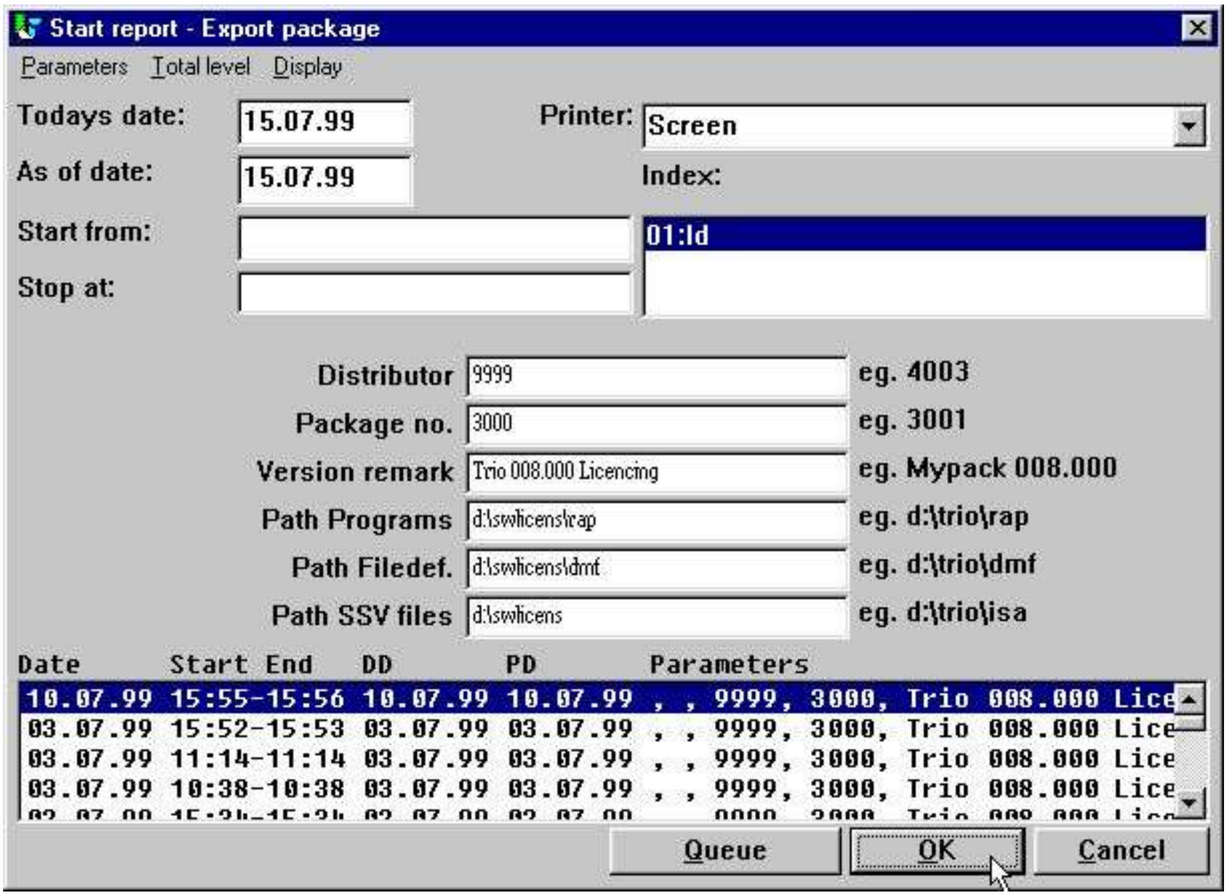
The package should normally be contained as source in one complete TRIO subsystem so the thing to do is to zip the files together with the proper cryptation key and ship the zipfile.

7.5.1. The licensing package

A licensing package containing all necessary programs to enter and issue package licenses will be released for distributors, who needs to create their own packages.
This set of TRIO programs contains all elements necessary to enter and issue the distributor licenses together with the package helpprograms.

7.5.2. Making the package ZIP file

In the distributor license package there is a report for this, scanning through the input files and calling the ZIP functions, which will deliver the proper cryptation key for the package number.



Todays date: 15.07.99

As of date: 15.07.99

Printer: Screen

Start from:

Stop at:

Index: 01:Id

Distributor 9999 eg. 4003

Package no. 3000 eg. 3001

Version remark Trio 008.000 Licencing eg. Mypack 008.000

Path Programs d:\swlicens\rap eg. d:\trio\rap

Path Filedef. d:\swlicens\dmf eg. d:\trio\dmf

Path SSV files d:\swlicens eg. d:\trio\isa

```
Date     Start End   DD       PD       Parameters
10.07.99 15:55-15:56 10.07.99 10.07.99 , , 9999, 3000, Trio 008.000 Lice
03.07.99 15:52-15:53 03.07.99 03.07.99 , , 9999, 3000, Trio 008.000 Lice
03.07.99 11:14-11:14 03.07.99 03.07.99 , , 9999, 3000, Trio 008.000 Lice
03.07.99 10:38-10:38 03.07.99 03.07.99 , , 9999, 3000, Trio 008.000 Lice
```

51. Starting the package report on distributor site

7.5.2.1. Contents of the package ZIP file

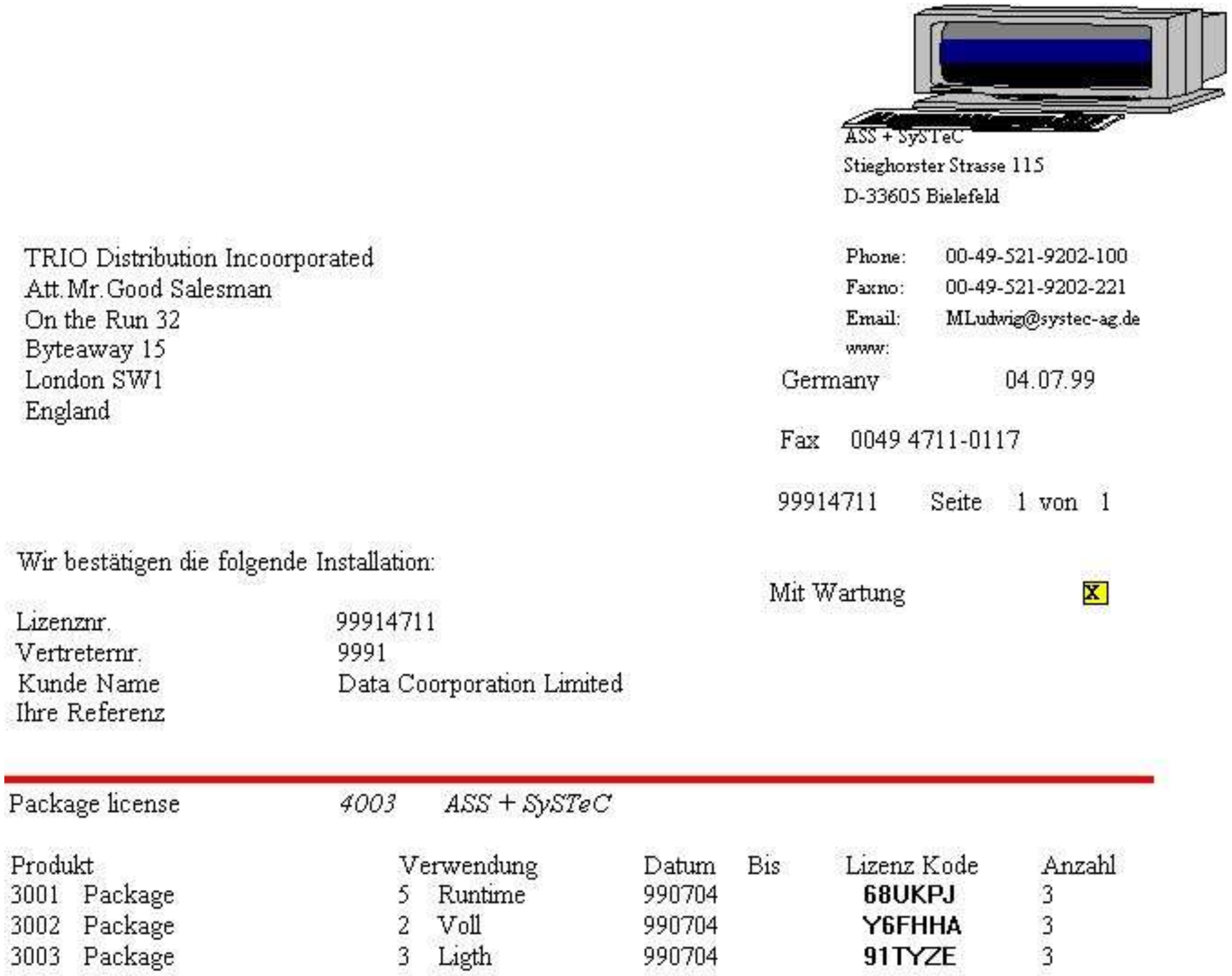
In the package ZIP file you may place any programme definition DMxxxx.SRC / IQxxxx.SRC, programme overviews DMREPORT.SSV / IQREPORT.SSV, file definitions xx.SSD and overview FILES.SSV.

Also, pictures such as LOGOs may be inserted.

For distributors making compiled reports, the DMxxxx.EXE compiled program may also be zipped, in which case the customer does not need a compiler to run this.

7.5.3. Issuing a license for the package

For the time being the license request must be forwarded to SW-Tools and the license registered here in a separate system until the license package programs are finally released and documented.
A distributor license with own logo may look like:



ASS + SySTeC
Stieghorster Strasse 115
D-33605 Bielefeld

TRIO Distribution Incoorporated
Att. Mr. Good Salesman
On the Run 32
Byteaway 15
London SW1
England

Phone: 00-49-521-9202-100
Faxno: 00-49-521-9202-221
Email: MLudwig@systec-ag.de
www:

Germany 04.07.99

Fax 0049 4711-0117

99914711 Seite 1 von 1

Wir bestätigen die folgende Installation:

Mit Wartung ☒

Lizenznr.	99914711
Vertreternr.	9991
Kunde Name	Data Coorporation Limited
Ihre Referenz	

Package license *4003* *ASS + SySTeC*

Produkt		Verwendung		Datum	Bis	Lizenz Kode	Anzahl
3001	Package	5	Runtime	990704		**68UKPJ**	3
3002	Package	2	Voll	990704		**Y6FHHA**	3
3003	Package	3	Ligth	990704		**91TYZE**	3

52. A printed distributor package license

The logo printed is taken from the dddd.WMF file, here 4003.WMF.
The signature printed is taken from the XX.BMP file, XX being the first 2 letters of the user name entered in the license for the current PC.

7.5.4. Copying the package to the customer side

You will have to place the following files on the customer system:

- ddddllll.ZIP The package ZIP file
- LIddddPR.ENG The distributor license file
- nnnnnnnn.LIC The customer license file if possible

8. Other amendments and enhancements

8.1. Limits

The following numbers, which previously have been a maximum 32.000 bytes, have been increased to 65.000 bytes on the 16 Bit, 2.000.000.000 on the 32 Bit version.

- **Recordlength of a file**
- **Length of one single alpha field and (from,to) specification**
- **Number of fields in one group (Tablefields)**
- **Total size of a report definition (DM1001.src)**

8.2. Memory and optimization

The memory usage allows access from external DLL functions both on the 16 bit and 32 bit version to TRIO internal structures.
In general the modules were previously optimized mostly with respect to the 16 bit versions, now optimizations goes toward the 32 bit versions.

8.3. SW-Tools ODBC Driver

The ODBC driver has been extended to support long fileIDs, datadictionary calculations, and also external package file definitions also.

8.4. UNIX server SWTUSOCK

The default startup of the Unix server now uses the -x option causing each client to get his own process, which highly improves both performance and stability. To avoid using the -x option you may use -X (uppercase) to turn it off.

8.4.1. LINUX server

A version of SWTUSOCK for LINUX is available.

8.5. Descending index definition

The D options on field in index definitions may be used for the SSV and BASIC drivers and will be threaded exactly as I (invert all bits)

8.6. EXPORT Append to file

If a + is added to the export filename (as c:/tmp/ud+), data will be appended to the file instead of overwriting the file.

8.7. Japanese kanji codetables

The Japanese kanji codetables has been tuned, thanks to SNI Japan.

8.8. Network pathnames

It is now possible to use network computer names in the pathnames as
\\computername\sharename\directory .

8.9. User administration

At the time of this documentation the full user administration has not been updated for long fileIDs, basisIDs and fieldnumber modifications.

9. Subfunctions

The wellknown ZIP and UNZIP functions for file compression have been built in and are the basis for PIP print archiving and, together with cryptation, separate licensed packages.
For printing, PIP and FORM has been added for archiving and forms.
GRID functions for list/combobox handling in IQ has been added.

9.1. The ZIP and UNZIP functions

9.1.1. UNZIP - Unpack files

Number UNZIP(Text *par1*, Text *par2*, Text *par3*, Number *par4*)

Par4: Max length of *par* 3

The UNZIP function takes input from a ZIP compressed file made with the ZIP function or another product like PKZIP or WINZIP.

where the available options are:

```
    -d               restore/create Directory structure stored in .ZIP file
    -f               Freshen files in destination directory
    -n               extract only Newer files
    -o               Overwrite previously existing files
    -s[pwd]          Decrypt with password
```

See also: ZIP
Example:

```
   UNZIP("-d c:/tmp/zipfile")
   UNZIP("d:/work/packfile","j:/tmp",#11,512)
```

9.1.2. **ZIP** - Zip file compression

Number ZIP(Text *par1*)

The ZIP function compresses one or more files into a zipfile, which may later be unpacked using the UNZIP functions or other programs like PKZIP or WINZIP.

where the available options are:

```
    -a              Add files
    -b[drive]       create temp zipfile on alternative drive
    -c"comment"     set comment for all files
    -d              Delete files
    -e[x,n,f,s,0]   use [eXtra|Normal (default)|Fast|Super fast|NO compression]
    -f              Freshen files
    -i              add files with archive Attribute set (don't turn attribute
off)
    -m[f,u]         Move files [with Freshen | with Update]
    -o              set .ZIP file date to the latest file in .ZIP file
    -p|P            store Pathnames|p=recursed into|P=specified & recursed into
    -q              Quiet mode
    -r              Recurse subdirectories
    -s[pwd]         Scramble with password
    -t[date]        take files NEWER than or EQUAL to date (default=today)
    -T[date]        take files OLDER than date (default=today)
    -u              Update files
    -w|W<h,s>       include|exclude <Hidden, System> files (default=Whs)
    -x<file>        eXclude specified file
    -z"comment"     set .ZIP file header comment
```

See also: UNZIP,PIP

Example:

```
   ZIP("d:/work/files*.*")
```

9.2. PRINT functions

9.2.1. PIP - Print archiving

PIP(Fields *par1*,Filename *par2*,Text *par3*)

Description: PIP enables you to control the print archiving for each report instead of for a printer in general.
Par1 should contain the fields to form the printindex file for search and display of printoverview, as invoice number, customer name or the like.
Par2 contains the print archive filename, first char must be a letter. If no path is given the database path from the preference setup is used. If only 4 characters or less is given, YYMM is added to the filename and the date is inserted as 2.field in the printindex file.
Par3 can normally be omitted, in which case the print archives all pages printed since the last PIP function call. You may however state:

```
   *        All pages printed
   -        No pages, Just add entry to the SSV printindex
   1-3,7    These pages
   0        Current (Last) page only
```

0=OK, x=Failed.
See also: PRINT,ZIP
Example:

```
PIP("#1-3","kept")     /* Archive into keptYYMM with field 1-3 in printindex
```

9.2.2. SCRPRT - Recall screen print (IQ)

SCRPRT(Filename *par1*, Text *par2^)*

Description: SCRPRT("filename") calls up the screen printer with the saved print from filename. This may for example be used in IQ by click on a field.
For the PIP Print archiving SCRPRT("filename,PIPID") is used, causing all files with the given PIPID to be unpacked from the filename.zip archive.
The second parameter may be used to tune the display on screen, it consist of a textstring with 5 values separated by commas:
Par2: "a,b,c,d,e"

```
   a:   1  = Start display on page 1
   b:   1  = Display in window,
        0  = Full screen
   c:  -1  = Zoom factor, zoom out once to reduce size
   d:   4  = If given, print on myprt 4, close after this is done
   e: 3-4  = If d given, page range to print these pages only may be set
```

Returnvalue: None.
See also: PRINT,PIP
Example:

```
SCRPRT("c:/w/ab.cde")     /* Show this file using the screen printer
SCRPRT("c:/keepit/kept9908,7","1,1,-1") /* PIPID 7, page1 in window zoomed -1
```

9.2.3. **PRINT** - Print formula

PRINT(FORM=Text *par1*)
Parameters: *Par1*: Filename,WMF file for form

PRINT(FORM=c:/swtools/wmf/0101.wmf) defines a WMF picture file which will be used as background form when next page is printed.
Returnvalue: None.
See also: PRINT,PIP
Example:

```
PRINT(FORM=c:/swtools/wmf/0101.wmf)     /* Select this form
```

9.2.4. PRINT(LAB= - Label function (RAP)

PRINT(LAB=Text *par1*, Text *par2*, Text *par3*, Text *par4*, Text *par5*, Text *par6*)

par6 : Copies

Description: The width and height of any label on the sheet can be given in centimetres or inches by using the following syntax:

```
    7cm equals 7 centimetres
    2in equals 2 inches
```

The below sample produces labels printed from left to right on a label sheet with 21 labels, 3 on each row, 7 rows, where each label has the width/height of 7 centimetres. Each label is printed in 2 copies.

Returnvalue: None.

See also: PRINT

Example:

```
FIRST
PRINT(LAB=1,3,7,7cm,7cm,2) /* Define label print
NORMAL
```

9.3. The GRID Functions for IQ

9.3.1. DGRID - Dialog Database Grid (IQ)

DGRID(text *par1*, text *par2*)

Description: This function may be used to generate a dialog of records from a selected table. The dialog will display the records according to an existing index and the fields requested. THIS FUNCTION CANNOT BE CANCELLED!
The syntax of the definition in *par1* is:

A!B!C!D!E!F!G!H!I!J!K

where each parameter is separated by the character "!".

A - File id
B - Index
C - Fields to display
D - Column to return value from (Origin 0)
E - Dialog header
F - Selections (Optional - Refer to EXEC)
G - Reserved
H - Reserved
I - Reserved
J - Screen x position (optional)
K - Screen y position (optional)

Please note the returnvalue is set to origin 0 of the fields requested to be displayed. For example, if defined

va!1!1-6!0!Select an article

table va is opened using index 1 and display of fields 1-6. If a row is selected the returned value will be the value of display field 0, e.g. field 1 (Article number).
If defined

va!2!1,2,6!2!Select an article

table va is opened using index 2 and display of fields 1, 2 and 6. If a row is selected the returned value will be the value of display field 2, e.g. field 6 because

Display field 0 = field 1
Display field 1 = field 2
Display field 2 = field 6

If required to control which records are to be displayed, it may be required to perform selections. As TRIO already supports the command EXEC, it is possible to use a parameter F for this:

va!1!1-6!0!Articles in group 9!va#7==9

This will only include articles within article group 9.
Returnvalue: 0=Ok, row selected x=No row selected, Dialog closed
Example: DGRID("va!1!1-6!0!Select an article",#50) */* User may select an article*

9.3.2. GRIDHDR - Set header for grid (IQ)

GRIDHDR(fields *par1*, fields *par2*, Bitflag *par3*)

32768 = Line pointer active

Description: The heading may be set by reference to fields whereas the field names will be used. For example,

va#1-6

will generate a heading as

Article no . Name . Selling price ....

The format of each field will determine if the column is left or right justified, but may be changed with an option after the field reference. Also, a field may be inserted into the grid without being displayed or scrolled. The following options may be used:

l - left justified
r - right justified
h - hidden
s - no scroll
i - no input

A definition such as

va#1s,2,6h,7l

will display field 1 as a no scroll field, field 2, field 6 will not be displayed and field 7 will be left justified.

Returnvalue: None.

See also: GRIDFLD

Example: GRIDHDR("#50","va#1-10") */* This defined the grid header as field 1-10 from the article table*

9.3.3. GRIDFLD - Set fields values into grid row (IQ)

GRIDFLD(fields *par1*, fields *par2*, number *par3*)

par3 : Row number
Description: The function inserts the value of fields in *par2* into the grid. Please remember manually to calculate the row number for *par3* which starts from 0.
Returnvalue: None.
See also: GRIDHDR
Example: GRIDFLD("#50","va#1-10",0) /* *Insert fields values in first row*

Figure list

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