

# Intro to Crystal Reports

**Quick Start** Much of the information in this help document is of benefit to those who want to write their own Crystal Reports and need to understand the mechanics of it all. If you're looking for a quick way to get to know how to use the reports we've provided for you, you should take a look at these pages first:

1. **Running Crystal Reports from ProStock**
2. **Selecting Records**
3. **Sorting**
4. **Save Report Definitions**
5. **Tutorial: Using the Query Wizard**
6. **Crystal Reports Security**

## The Relation of Crystal Reports to ProStock

**SQL** SQL stands for Structured Query Language. SQL is a generally-accepted command language for asking questions of a data base. Not all data bases can support SQL queries, but ProStock's Btrieve data base is one that can. SQL queries can be as detailed and sophisticated as you want to make them. You can use a report writer to design the layout of the report.

An SQL front-end is a program that allows you to create SQL reports. There are many SQL front-ends available on the market, and most of them will work in conjunction with ProStock. In fact, ProStock Agency, itself, is an SQL front-end; and the Custom Forms part of ProStock is a basic report writer. The front-end program provides you with methods for asking questions of the data base.

In ProStock, those "questions" are asked by selecting menu choices. In a standard SQL front-end, the questions are asked by typing an SQL Query. The SQL that ships with ProStock Agency is based on Crystal Reports. All the supplied reports were designed with the Crystal Report Writer, and the ProStock SQL Screen uses the Crystal Report Viewer to produce its reports.

**Crystal Reports** The Crystal Report Writer is a general-purpose report creation engine. It is capable of reading many different data bases, including Btrieve, using SQL as the command language for creating reports.

ProStock contains the Report Viewer portion of Crystal Reports, as well as about three dozen pre-configured reports. Using the SQL language, you can produce innumerable reports from the pre-configured ones that we have provided. If you also own the Crystal Report Writer, you can design any number of other reports, using your ProStock data base.

When you run one of the Crystal reports that we provide, you can add further queries of your own. For example, when listing sales by month, you can specify only sales in your local area, or only foreign sales, etc.

You can also specify a sorting sequence for the report. For instance, the mailing labels report is preset to print by zip code; however, you can change the sorting sequence, so that it prints by Client ID, etc.

# Running Crystal Reports in ProStock



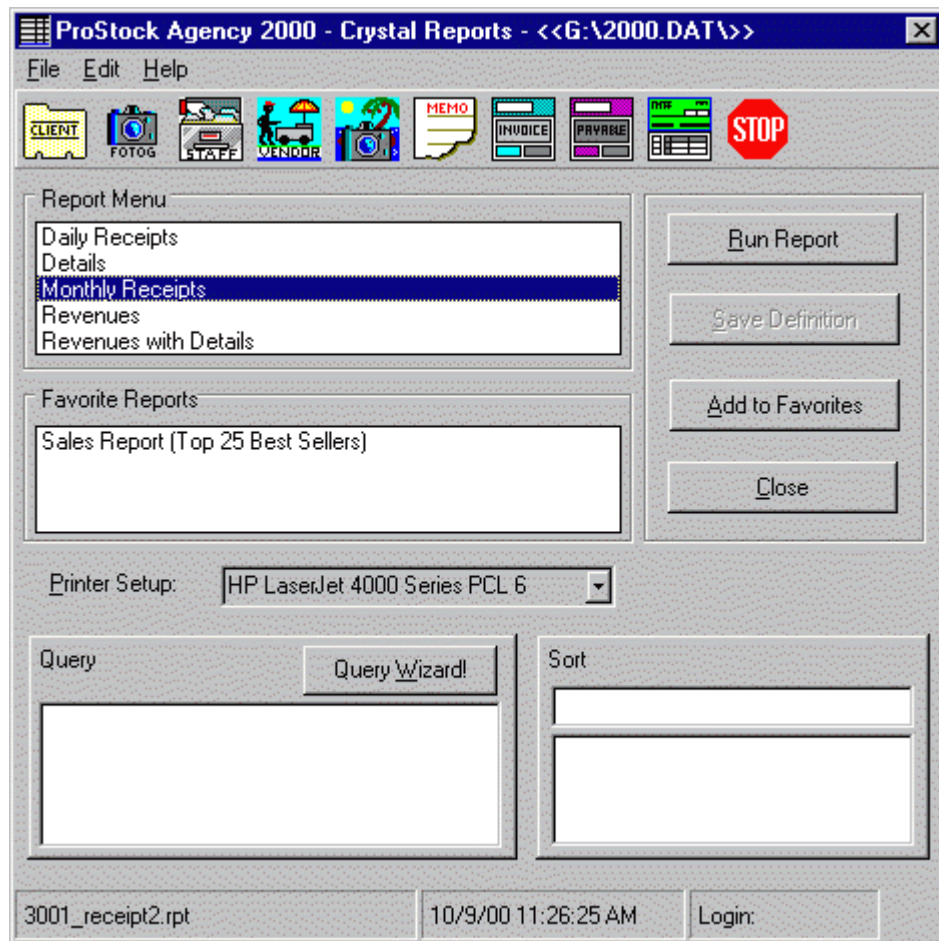
To run 32bit Crystal Reports in ProStock,

**Click Reports\Crystal Reports\32-bit.**

or

**Click the Crystal Report Icon in the Toolbar.**

The Crystal Reports Menu looks something like this:



**Program  
Icons**

The Crystal Reports screen displays a list of icons corresponding to each module of the program (Clients, Memos, Photographers, Invoices, etc.), just like the ProStock Toolbar.

1. Click on an icon to display the reports that relate to it
2. Select a report
3. Click the Run Report button.

Each report is pre-designed with certain Selection criteria and/or a particular Sorting criterion. For instance, a Receivables Report pre-selects only those Invoices that have balances due; a Payable Report lists Payables in due-date order.

You may add further Selection and Sorting criteria to your report before running it, by entering the appropriate SQL commands in either the Selection box or the Sort box. We have made this easier by creating the Query Wizard, which is covered later in this help document.

**Display and  
Print**

Once the report is displayed, you may resize or maximize the screen in order to see more of the report. The top section of the screen displays how many records have been selected, and how many pages the report is. The buttons at the top of the report represent VCR-type buttons that move through the pages of the report.

1 of 1    75%    Total:3    100%    3 of 4

October 9, 2000

**Receipts By Month (Totals)**

Month	Receipts
March	3,734.00
April	487.00
May	1,100.00
<b>Totals</b>	<b>5,301.00</b>

When a report has been sent to the screen, you may print it by pressing the Printer button (it will automatically print to the default Windows printer). You may also click on the ZOOM button to determine who large to magnify the report on screen.

# Selecting Records

## Understanding filters and sorts in Crystal Reports

In Crystal Reports, you can use the Query Wizard to select (or filter) and sort the **records** in your report. Basically, we provide certain reports that give broad listings (like all Clients, all Images, all sales, etc.) You can use the Query Wizard to filter out which records you want to list.

The Query Wizard will not, however, change the presentation of the information, in terms of font or layout or adding/deleting fields from the report.

## Getting the Most Out of Your Data

Perhaps even more important than understanding what the report allows you to list, is understanding how your data has been entered in ProStock. You need to know what you've put INTO ProStock before you can decide what you want to get OUT of it! If you run a report selecting only Photographers in Germany, but have never filled out the 'Country' field on the Photographer screen, then your report will be blank!

One of the ways to select or filter Clients from your Client list is by color-coding them. ProStock can color-code each Client/contact with one of four different colors. Let's say you want to code-red all contacts who are delinquent in paying Invoices.

1. Edit a Client
2. Click on the word "Company" above the Client ID info, and watch it change colors every time you click.
3. Make it red and save it.
4. Repeat this process for any Contacts who are delinquent (a good time to do this is when you send out statements and you see Clients who have Invoices 120+ days overdue).

Go ahead and change a few contacts to RED so you can try out the **Tutorial** later.

## The parts of a report

Each report is based on tables of information which contain records. Each record contains fields and it is these fields that you can use to select and sort your data.

TABLE			
RECORD 1	FIELD A	FIELD B	FIELD C
RECORD 2	FIELD A	FIELD B	FIELD C

To use queries, you should understand what goes into them:

- **Tables, Records, Fields**
- **Operators**
- **Criteria**
- **Functions**
- **Special Codes**

Once you have a basic understanding of the parts of a query, you can begin to use the Query Wizard as a shortcut to writing query code.

### **Beginning your Query**

The first thing to do before querying a report is to run the report without any queries to see what information it lists. Then you can proceed with an idea of what data you can select/sort and what you cannot.

### **Quick Start: Query Wizard**

1. Select the report you want to filter
2. Click the Query Wizard
3. Choose the table and field to select by
4. Enter the selection criteria (such as "greater than 0" or "not equal to 'USA'")
5. (If necessary) Choose the record that you'd like the information to be sorted by
6. Click Finish
7. Run the report.
8. If you like the results, **SAVE the REPORT DEFINITION**, so you can run it again next time, without repeating all the above steps!

See the **QUERY WIZARD TUTORIAL** for a more complete, step-by-step explanation of how to use the Query Wizard.

# Tables, Records, Fields

**Tables** The ProStock data base is divided into a number of cross-referenced **TABLES**. There are tables for Clients, Photographers, Invoices, Delivery Memos, etc. Sometimes, a particular part of the data base is made up of more than one table. For example, Invoices are made up of four tables:

Invoices  
Usages  
Other\_Charges  
Rights

**Records** Each table contains **RECORDS**, which you enter into the database. All of your Clients, Images, Invoices, etc., are considered records (identified by an ID).

**Fields** Within each record are data **FIELDS**. Fields are the individual parts that contain information about the record.

TABLE			
RECORD 1	FIELD A	FIELD B	FIELD C
RECORD 2	FIELD A	FIELD B	FIELD C

Think of it like this: You have a Client TABLE (ps001.dat) which lists all your Clients. Each Client listed is considered a RECORD and for each record, you have several fields which contain pertinent information about that Client (ID, Company Name, address, phone, etc.)

Filtering (or 'selecting') Crystal Reports is essentially just choosing the records you want to see, by naming specific information that exists in a particular field.

For example, if you only want to list your Japanese Clients, you would use the Query Wizard to select only the Client **records** which contain the word *Japan* in the 'Country' **field**.

**Database Fields** Some examples of fields are:

- {Images.Id}: The Image ID number
- {Clients.City}: The city where the Client is from
- {Invoices.Date}: The date of the Invoice
- {Payables.Amount}: Commission amounts

**Computed fields**

Some fields on reports are computed fields. Computed fields may modify the original field, or else combine two fields.

For example, City, State, and Zip are three different fields. If you printed them on a document that way, there would be unsightly spaces between the fields. Therefore, we create a computed field called CitySTZip.

Computed fields are displayed in the middle section of the Query Wizard, and are preceded with an @, like {@CitySTZip}. Here is an example of an SQL query with a computed field:

```
"Cleveland" in {@CitySTZip} = True
```

This query asks for all the records (for instance, in a Client report) of Clients in the city of Cleveland.

**Date fields**

Date fields that appear on reports are always computed fields (this is because Crystal would display our dates as raw numbers if left in their original format). Computed date fields use the following convention:

1. Invoice dates {@InvDate}.
2. Memo dates {@MemoDate}.
3. Due dates {@DueDate}.
4. Cash transaction dates {@DetailDate}.

Etc.

**Date field selections**

When selecting a date range, the SQL query takes a special form, depending on whether you are using the raw date (such as **{Memos.Date}**) or the computed date field (**{@MemoDate}**).

Use the raw field format when there is no computed date field on the report; use the computed format when you can see a date field on the report.

Sometimes you have to use the raw field, because the date doesn't actually appear on the report. For example, if you were listing Clients, and wanted to only list those that you entered in 1994, you would have to use the raw field {Clients.Date}, because the computed field {@ClientDate} does not appear on the report.

**Table List**

**All tables and fields are listed in this help document.**

# List of Tables and Fields

This section contains a full specification of all the tables in ProStock data and their corresponding fields. Each section also contains examples showing how to use these fields in a selection formula or sort criterion.

## ACCOUNTS Year-to-Date

**ACCTS YTD:** contains the account financial information for Clients, Photographers, Salespersons and Vendors. It also contains the cash balances for cash accounts (checkbooks). The Type of account is contained in the first field: "I" for Clients; "P" for Photographers; "S" for Salespersons; "V" for vendors; and "C" for Cash accounts.

**File name: ps035.dat**

**Subdirectory: MAIN**

Field Name	Database Correspondence	Field Length
Type	Type of account (V, P, S, I, C)	1
Id	Account ID	8
Year	Data Set (1996.DAT, PLAYDATA)	8
BalFwd	Balance forward from past year	12
Billed	Billed year-to-date	12
Credited	Credits, Chargebacks, Adjustments	12
Paid	Paid year-to-date	12
Interest	Interest charged on this account	12
IntPaid	Interest paid on this account	12

### Examples

**{AcctsYTD.Year} = "1995.DAT"**

Lists financial data only for the current year. This selection should be part of any report that uses Account YTD information (Client Billings, Photographer Commissions, etc.)

**{AcctsYTD.Billed} > 0**

Lists only accounts who have current billings.

**{AcctsYTD.BalFwd} > 0 or {AcctsYTD.Billed} > 0**

Lists accounts who have a balance forward or current billings.

**({AcctsYTD.BalFwd} + {AcctsYTD.Billed}) -  
({AcctsYTD.Credited} + {AcctsYTD.Paid}) > 0**

Lists Accounts Receivable by Account.

**Sort: +{AcctsYTD.Billed}**

Lists in order of billings (e.g., lists Clients billings from least billed to most billed).

**Sort: -{AcctsYTD.Billed}**

Same as above, but lists from most billed to least billed.

## CAPTIONS

The Captions table contains the captions that have been entered for Images (the rest of the Image information is in the Images table). If you are using sets of Images, the Caption table has one entry for each set, not for each Image.

**File name: ps005.dat**

**Subdirectory: IMGBASE**

Field Name	Database Correspondence	Field Length
Id	Image ID Number	13
Cap_1	First 60 characters of Image caption	60
Cap_2	Second 60 characters of Image caption	60
Cap_3	Third 60 characters of Image caption	60
Cap_4	Fourth 60 characters of Image caption	60
Cap_5	Fifth 60 characters of Image caption	60
Cap_6	Last 60 characters of Image caption	60

Examples

**{Captions.Id} = "ANI 01 DR001"**

This example only lists the caption for picture set ANI 01 DR001

**'checkers' in {Captions.Cap\_1} + {Captions.Cap\_2} +...+ {Captions.Cap\_6} = TRUE**

This example displays all the captions that contain the word 'checkers'

**Sort: +{Captions.Cap\_1}**

Lists captions in alphabetical order of caption (not Image ID).

## CATEGORIES

The Categories table contains the master list of Image Categories: their code and description. There is also a SubCategories table, that contains the master list of SubCategories for each Category.

**File name: ps013.dat**

**Subdirectory: IMGBASE**

Field Name	Database Correspondence	Field Length
Id	Category ID code	4
Name	Category name	10

Examples

**{Categories.Id} = "ANI "**

This example only lists the ANI Category

**{Categories.Id} > "A" and {Categories.Id} < "B"**

This example only lists Categories that start with the letter 'A'

**Sort: +{Categories.Id}**

List Categories in Category ID order

## CLIENTS

The Clients table contains your complete list of Clients. ProStock uses the same list, no matter which year you are in. The financial data for the Clients table (balance forward, amount billed, etc.) is contained in the AcctsYTD table..

**File name: ps001.dat**

**Subdirectory: MAIN**

Field Name	Database Correspondence	Field Length
Id	Company ID code	6
SubId	Contact ID code	2
Date	Date first entered into system	8
Company	Company name	40
Address1	First address line	40
Address2	Second address line	40
City	City	20
State	State or Province	2
Zip	Zip or postal code	10
Country	Country	20
Phone	Customer phone number	25
Fax	Customer fax number	25
Cntct_Lst	Contact last name	20
Cntct_Fst	Contact first name	15
Cntct_Mid	Contact middle initial	1
Title	Contact's title	25
Salute	Salutation (ordinal number from pick list)	2
Last_Date	Date of last Contact	8
Sort_1	First sort code (ordinal number from pick list)	2
Sort_2	Second sort code (ordinal number from pick list)	2
Extra1	First extra field (e.g. Courier)	25
Extra2	Second extra field	25
Extra3	Third extra field	25
Tax1	Taxable Client (tax one)? Y/N	1
Tax2	Taxable Client (tax two)? Y/N	1
Comm	Commissionable Client? Y/N	1
Billed	Currently unused	12
Paid	Currently unused	12
Interest	Currently unused	12
Balance	Currently unused 12	
Warning	Client color	4
Check	Internal use only	8

Examples

**{Clients.SubId} <> "00"**

Does not list the umbrella companies (Contacts whose SUBID=00)



**{Clients.City} = "New York" and "Madison" in  
{Clients.Address1} = True and {Clients.Cntct\_Fst}  
="John" and {AcctsYTD.Billed} > 1000**

On a Client Billing report, lists all companies on Madison Avenue in New York whom you have billed over \$1,000 and whose Contact name is "John"

**Sort: +{Clients.Zip}**

List Clients in Postal code order

## **CONSIGN\_ HISTORY**

The Consign\_History table is the same as the Photo History on ProStock's Reports menu. It holds the complete history of Images that have gone out on Delivery Memos - when they went out and when they came back.

**File name: ps028.dat**

**Subdirectory: IMGBASE**

Field Name	Database Correspondence	Field Length
Image_Id	Image ID out on Memo	16
Fotog	Photographer	4
Memo_Num	Memo number	6
Rtn_Date	Date returned (0 if still out)	8

Examples

**{Consign\_History.Fotog} = "DR"**

Lists all Images by Don Resnick that have gone out on Memos.

**{Consign\_History.Rtn\_Date} = 0**

Lists all Images that are still out.

**Date(1899, 12, 30) + {Consign\_History.Rtn\_Date} =  
"November 12, 1993"**

Lists all Images returned on November 12, 1993. Notice the funny way you have to designate raw dates! All dates equal the number of days since December 30, 1899.

**Sort: +{Consign\_History.Memo\_Num}**

Lists photo history by Memo number.

**Sort: +{Consign\_History.Fotog}**

Lists photo history by Photographer.

## DETAILS

DETAILS (OF PAYMENTS AND RECEIPTS): The Details table contains the details of cash payments and receipts. The summaries of these payments and receipts is contained in the Transactions table. Each check or deposit has a single summary entry, followed by as many details as make up the transaction.

**File name: ps033.dat**

**Subdirectory: YTD**

Field Name	Database Correspondence	Field Length
Number	Check or deposit number (from Transaction table)	8
Date	Check or deposit date	8
GL_Acct	General Ledger account	6
Amount	Amount of cash entry	12
ID	Payee ID code	8
Reference	Invoice or payable reference number	7
Memo	Memo field	15
Checkbook	Which checkbook this entry can be found in	6

### Examples

**{Details.Number} =11034**

Lists all the details for check number 11034.

**{Details.Id} = "TIMMAG01"**

Lists all the receipts from Time Magazine, "01" Sub ID.

**Date(1899, 12, 30) +Truncate( {Details.Date}) = "10/1/95"**

Lists all the checkbook details from October 1, 1995. If the date is visible on the report, the following will work as well:

{@DetailDate} = Date(1995, 10, 1)

**Sort: +{@DetailDate}**

Lists details in date order.

**Sort: +{Details.Number}**

Lists details in check number order.

## DIGITAL\_IMAGES

The Digital\_Images table contains a listing of all the digital Image file pointers. ProStock keeps two pointers for each Image: a pointer to the thumbnail digital Image, and a pointer to the high-res digital Image.

**File name: ps006.dat**

**Subdirectory: IMGBASE**

Field Name	Database Correspondence	Field Length
Id	Image ID number	16
Thumbnail	Path to Thumbnail digital file	35
Preview	Path to Preview digital file	35
LoRes	Path to LoRes digital file	35
MedRes	Path to MedRes digital file	35
HiRes	Path to HiRes digital file	35

### Examples

{Digital\_Images.Id} ="ANI 01 DR001 001"

Lists the digital file for this single picture.

{Digital\_Images.Id} > "ANI" and {Digital\_Images.Id} < "ANJ"

Lists the digital files for all the Animal Images.

Sort: +{Digital\_Images.Id}

Lists digital pointers in Image ID order.

## DUPES

The Dupes table contains a listing of the dupes that are currently out on Delivery Memos. It does not contain a complete listing of dupes. The Consign\_History table contains the complete listing of Images that have gone and come back.

**File name: ps004.dat**

**Subdirectory: IMGBASE**

Field Name	Database Correspondence	Field Length
ID	Dupe ID code	16
Location	Memo # that dupe is out on	6
Original	Original Image ID code	16

### Examples

**{Dupes.Id} > "ANI" and {Dupes.Id} < "ANJ"**

Lists the dupes in the Animal Category

**{Dupes.Location} <> "In hou"**

Lists all the dupes that are currently out

**Sort: +{Dupes.Id}**

Lists dupes out in Image ID order.

**Sort: +{Dupes.Location}**

Lists dupes out in Memo number order

## GL ACCTS

The GLAccts table contains your General Ledger accounts and the monthly entries that result from the Trial Balance, Period Closing, and various audits. There is a GLAccts table for each fiscal year, and it is titled with the year (ps1995.dat, ps1996.dat, etc.). If you are using a hybrid data base such as FM95.DAT, the GLAccts table will be found in a file called psfm95.dat.

**File name: ps2001.dat  
(current year)**

**Subdirectory: MAIN**

Field Name	Database Correspondence	Field Length
GL_Acct	General Ledger account ID	6
GL_Item	Account description	30
St_Budget	Start balance for budgeting	12
Budget(1 to 12)	Monthly budget amounts per account	12
End_Budget	Closing balance for budgeting	12
St_Actual	Start balance for account activity	12
Actual(1 to 12)	Monthly actual amounts per account	12
End_Actual	Closing balance for each account	12

Examples

**Length(TrimRight({GL\_Acct.Id})) = 1**

Lists only the top-level accounts

**{GL\_Acct.End\_Actual} > 1000**

Lists General Ledger accounts with more than \$1000 activity

**Sort: +{GLAccts.End\_Actual}**

List General Ledger accounts in order of amount of activity

## IMAGES

The Images table contains a listing of the original Images in your inventory. Each record contains the number of dupes for that original, as well as the number of dupes that are currently out; but the Images table itself only contains original Images. Captions for the Images are contained in the Captions table; and keywords for the Images are contained in the Keywords file.

**File name: ps003.dat**

**Subdirectory: IMGBASE**

Field Name	Database Correspondence	Field Length
ImgId	Image ID number	16
Date	Copyright (or entry) date	8
Fotog	Photographer	4
Memo_Num	Memo that original is on ("In hou" if in)	6
Dupes	Number of dupes, and number out	2
Extra	Image window extra field	15
CatYesNo	Is this a catalog Image? Y/N	1
Catalogue	Name of catalog and page number	15
Restrict	Is this Image restricted? Y/N	1
Category	Category and SubCategory of Image	7
Attributes	Image attributes (format, orientation, etc.)	10

### Examples

**{Images.Fotog} = "DR"**

Lists Images taken by Don Resnick

**{Images.Catalogue} = "March, 1993"**

Lists all the Images in the March, 1993 catalogue.

**{Images.Dupes} / 256**

Number of dupes for this Image.

**{Images.Dupes} Mod 256**

Number of dupes for this Image that are currently out.

**Sort: +{Images.ImgId}**

Lists Images in Image ID order.

**Sort: +{Images.Extra}**

Lists Images in the order of the extra field.

**INVOICES**

The Invoices table contains the headers and summary information for Invoices. The details of Invoices are contained in the Usages table and the Other\_Charges table. Invoice rights are contained in the Inv\_Rights table.

**File name: ps019.dat****Subdirectory: YTD**

Field Name	Database Correspondence	Field Length
Number	Invoice number	6
Date	Invoice date	8
Client	Client ID/SubID	8
Memo_Num	Memo# the Invoice was generated from	6
Hdr_3	Third header item (after date, #)	20
Hdr_4	Fourth header item	20
Hdr_5	Fifth header item	20
Hdr_6	Sixth header item	20
Ct	Code for Client Type (position in pick list)	2
Mc	Code for Market Code	2
Ma	Code for Market Area	2
Mg	Code for Market Group	2
Mt	Code for Market Type	2
Sp	Code for Special Consideration	2
Circ	Publication circulation	8
Length	Length of run	8
Inserts	Number of inserts	2
St_Date	Start date of license	8
End_Date	End date of license	8
Salesperson	Code for Salesperson on Invoice	2
Pd_Off	Code if Invoice balance is zero	1
Tax1_Tot	Taxable amount for tax rate one	8
Tax1	Sales tax (rate one)	8
Tax2_Tot	Taxable amount for tax rate two	8
Tax2	Sales tax (rate two)	8
Conversion	Currency conversion rate	8
Symbol	Currency symbol	1
Freight	Amount of freight or shipping charge	8
Fees	Total of licensing fees	8
Interest	Interest charged on Invoice	8
Total	Invoice total (minus interest)	8
Paid	Amount paid on Invoice	8
TimeCheck	Internal use	8

Examples

**{Invoices.Client} = "TIMMAG01"**

Lists Invoices for Time Magazine, 01 Contact.

**{Invoices.Ct} = 4**

Lists billings for Client type number 4 (e.g., Tobacco companies).

**"FedEx" in {Invoices.Hdr\_4} = True and {@InvDate} = Date(1995, 11, 22)**

Lists Invoices that were shipped by Federal Express on November 22, 1995

**{Invoices.Total} - {Invoices.Paid} > 0**

Lists Invoices with current balances due (Receivables).

**{Invoices.Salesperson} = "SO"**

Lists billings for Salesperson "Steve Oppenheimer"

**{Invoices.Ma} = 2**

Lists billings in Market Area #2: Regional

**Sort: +{Invoices.Total}**

Lists Invoices in order of billed amount

**Sort: +{Invoices.Date} ( or +{@InvDate} )**

Lists Invoices in date order.

**KEYWORDS**

The Keywords table contains all the keywords that have been applied to Images. The master list of keywords is in the Library table.

**File name: ps016.dat**

**Subdirectory: IMGBASE**

Field Name	Database Correspondence	Field Length
Image_Id	Set portion of Image ID number	13
Keyword	Keyword on Image	13
Code	Code for format and orientation	2
Catalogue	Catalog Image? Y/N	1

Examples

**{Keywords.Keyword} = "Elephant"**

Lists all the pictures of elephants.

**Sort: +{Keywords.Image\_Id}**

Lists keyworded Images in keyword order

## LIBRARY

The Library table contains the master list of keywords. The keywords that have actually been applied to Images are contained in the Keywords table.

**File name: ps015.dat**

**Subdirectory: IMGBASE**

Field Name	Database Correspondence	Field Length
Keyword	Keyword	13

Examples

**{Library.Keyword} > "A" and {Library.Keyword} < "M"**

Lists the master list of keywords from A through L

**Sort: +{Library.Keyword}**

Lists keywords in alphabetical order.

## MEMOS

The Memos table contains the Delivery Memo master file: Memo headers, Client, date, totals, etc. The details of the Memo are contained in the Images table and the Dupes table.

**File name: ps012.dat**

**Subdirectory: YTD**

Field Name	Database Correspondence	Field Length
Client	Consignee on Memo	8
Ship_To	Pointer to Ship-To address	2
Date	Memo date	8
Number	Memo number	6
Hdr_3	Third header item (after date, #)	20
Hdr_4	Fourth header item	20
Hdr_5	Fifth header item	20
Hdr_6	Sixth header item	20
Salesperson	Salesperson or researcher on Memo	2
Research_Fee	Research fee	8
Courier	Courier number	16
Ship_Fee	Shipping fee	4
Prints	Number of times Memo has been printed	2
Sent	Number of Images originally sent	2
Out	Number of Images still out	2
In	Number of Images returned	2
Extra	Memo extra field (not currently used)	15
Usage	Proposed usage	40
Subject	Subject of Images sent	30
DueDate	Date Images are due back	8
Originals	Number of originals sent	2
Dupes	Number of dupes sent	2
Inv_Num	Invoice number created from Memo	6
TimeCheck	Internal use	8

Examples

**{@MemoDate} > Date(1995, 3, 31) and {@MemoDate} < Date(1995, 7, 1)**

Lists all Memos in the second quarter of 1995: Another way to do this: **{@MemoDate} in Calendar2ndQtr = True**. This selection formula would work for any year as long as you are on a calendar fiscal year.

**{@DueDate} < Today**

Lists all Memos that are due before today's date.

**Sort: +{Memos.DueDate}**

Lists Memos in due date order

**Sort: +{Memos.Client}**

Lists Memos in order of consignee

**OTHER\_CHARGES**

The Other\_Charges table contains the definitions of the line items on Invoices (other than licensing fees, which appear in the Usages table). Other charges are things such as Research fees, Lost Images, Damaged Images, Duping fees, etc. The Other\_Charges table - along with the Invoices table, Usages table, and Inv\_Rights table - make up Invoices in ProStock.

**File name: ps018.dat**

**Subdirectory: YTD**

Field Name	Database Correspondence	Field Length
Inv_Num	Invoice number	6
Line_Item	Description of line item	30
Quantity	Quantity sold	4
Price	Price per unit	8
Taxable_1	Is item taxable on rate one? Y/N	1
Taxable_2	Is item taxable on rate two? Y/N	1
GL_Acct	General ledger account number	6
Fotog	Photographer ID code (for commissionable items)	4
CommS	Commissionable to Salesperson? Y/N	1
CommP	Commissionable to Photographer? Y/N	1

Examples

**{Other\_Charges.GL\_Acct} = "11201 "**

Lists all billings for account #11201.

**{Other\_Charges.Taxable\_1} = "Y"**

Lists all billings that are taxable on rate one.

**{Other\_Charges.Fotog} = "DR"**

Lists all commissionable billings for Photographer Don Resnick.

**Sort: +{Other\_Charges.Inv\_Num}**

Lists other charges in order of General Ledger account.



## PAYABLES

The Payables table (which includes commissions and chargebacks) contains the full list of payables in the current year data set. Vendor payables (unlike commissions) also have an associated Payables\_Line\_Item table. The payable reference ends with a code as to what type of "vendor" produced the payable: "V" for trade vendor; "P" for Photographer; "S" for Salesperson.

**File name: ps021.dat**

**Subdirectory: YTD**

Field Name	Database Correspondence	Field Length
Reference	Payable reference number	7
Date	Payable date	8
Id	Payee ID code	6
Inv_Num	Related receivables Invoice	6
Image_Id	Image number for commission payable	16
Amount	Amount of payable (before discount)	8
Discount	Amount of discount (or photog commission)	4
Paid	Amount paid	8
DueDate	Date payable is due	8
Hdr_4	Header item four	15
Hdr_5	Header item five	15
Hdr_6	Header item six	15
InvYear	Code denotes past year payable (*)	1

### Examples

**{Payables.Id} = "ACME "**

Lists history of payables to Acme Freight Company

**{Payables.Id} = "ACME " and**

**{Payables.Paid} < {Payables.Amount} \* Payables.  
Discount} / 100**

Lists all payables that are still due to Acme Freight Company

**Date(1899, 12, 30) + {Payables.DueDate} > Today + 30  
and**

**Date(1899, 12, 30) + {Payables.DueDate} < Today + 60**

Lists all payables that are due 31 to 60 days from now. Another way to enter this formula is: {@DueDate} > Today + 30 and {@DueDate} < Today + 60

**Sort: +{Payables.Inv\_Num}**

Lists payables in order of receivables Invoice number

**Sort: +{Payables.DueDate}**

Lists payables in order of date due

**PAYABLE\_**  
**LINE\_ITEMS**

The Payable\_Line\_Items table contains the details for vendor payables. Commissions payable do not have Payable\_Line\_Items.

**File name: ps030.dat**

**Subdirectory: YTD**

Field Name	Database Correspondence	Field Length
Pay_Reference	Payables reference number	7
Item	Line item description	30
GL_Acct	General ledger account number	6
LI_Quant	Quantity	4
Amount	Price per unit	8

Examples

**{Payable\_Line\_Items..GL\_Acct} = "61201 "**

Lists all billings for account #61201.

**"TELEPHONE" in UpperCase({Payable\_Line\_Items.Item}) = True**

Lists all payables that have the word 'telephone' in them. Changing 'telephone' to uppercase finds all references to 'telephone', 'Telephone', and 'TELEPHONE'. Use this when you're not sure how the data was entered. Notice the braces inside parentheses.

**Sort: +{Payable\_Line\_Items.Reference}**

Lists payables details in order of payable reference number

**Sort: +{Payable\_Line\_Items.GL\_Acct}**

Lists payables details in order of General Ledger account.

**SUB-**  
**CATEGORIES**

The SubCategories table contains the definitions of the SubCategories that go with the Categories in the Categories table. The corresponding field in the Images table is Images.CatSub.

**File name: ps014.dat**

**Subdirectory: IMGBASE**

Field Name	Database Correspondence	Field Length
Id	SubCategory ID (contains Category ID)	7
Name	SubCategory name	20

Examples

**"ANI" in {Subcategories.Id} = True**

Lists all SubCategories in the Category Animals

**Sort: +{Subcategories.Id}**

Lists SubCategories in ID order

**SUB-MISSIONS**

The Submissions table contains the history of Submissions by Photographers. The main index field is Submissions.Fotog, and its related field in the Vendors table is Vendors.Id.

**File name: ps029.dat**

**Subdirectory: MAIN**

Field Name	Database Correspondence	Field Length
Fotog	Photographer ID code	4
Date	Date of Submissions	8
Submitted	Number of Images submitted	2
Accepted	Number of Images accepted	2
Category	Category and SubCategory	7
Job_Num	Job number (for assignments)	10

Examples

**{Submissions.Fotog} = "DR"**

Lists all Submissions from Don Resnick.

**Date(1899, 12, 30) + {Submissions.Date} = "11-05-95"**

Lists all Submissions received on November 5, 1995. Another way to enter this would be: {@SubDate} = Date(1995, 11, 5)

**Sort: +{Submissions.Fotog}**

Lists Submissions in Photographer order.

**Sort: +{Submissions.Date}**

Lists Submissions in date order.

**TRANS-ACTIONS**

The Transactions table contains the master file of checks and deposits. Each entry is coded for the type of entry (check, deposit, miscellaneous, transfer) - this code is contained in the decimal portion of the Number. In addition, each entry is coded for payee type, and checkbook. The details of each check and deposit are contained in the Details table.

**File name: ps023.dat**

**Subdirectory: MAIN**

Field Name	Database Correspondence	Field Length
Number	Check or deposit number (contains type code)	4
Date	Date of check or deposit	8
Checkbook	GL_Acct number of checkbook	6
Id	Payee ID code	6
Type	Type code (V, P, S, I, C)	1
Memo	Check memo	30
Amount	Amount of check or deposit	8

## Examples

**{Transactions.Id} = "DR"**

Lists all the checks to Don Resnick

**Date(1899, 12, 30) + {Transactions.Date} >= "01-01-96"**

**and**

**Date(1899, 12, 30) + {Transactions.Date} < "02-01-96"**

Lists all checks and deposits in the month of January, 1996. Can also be entered as: {@TransDate} >= Date(1996, 1, 1) and {@TransDate} < Date(1996, 2, 1). If necessary, be sure to enter the correct checkbook into the formula. Otherwise, the report will show checks and deposits from all the checkbooks in the system (and will mix them up):

**{Transactions.Checkbook} = "11101 "**

This is the primary checkbook..

**Sort: +{Transactions.Date}**

Lists checks and deposits in date order.

**Sort: +{Transactions.Id}**

Lists checks and deposits in payee ID code order.

## USAGES

The Usages table contains the licensing fees that have been charged to Clients on Invoices. This table is one of the subsidiary tables used to create Invoices. It is also the basis for the Photographer Sales reports. The Usages table also contains Photographer pre-restrictions that have been entered on the Image window.

**File name: ps017.dat**

**Subdirectory: IMGBASE**

Field Name	Database Correspondence	Field Length
ImgId	Image ID code	16
Date	Date of usage	8
Client	Client on Invoice	8
Usage	Usage description	40
Fotog	Photographer ID code	4
Comm	Commission rate (divide by 100)	4
Size	Size code (from Image Fee window)	2
Place	Placement code (from Image Fee window)	2
Fee	Amount charged (in raw currency)	8
Paid	Amount paid to Photographer	8
Conversion	Conversion rate (from Invoice)	8
GL_Acct	General Ledger account of licensing fees	6
Restrict	Is this a restriction? Y/N	1

### Examples

**{Usage.Inv\_Num} = "194023"**

Lists all licensed Images on Invoice 194023.

**"TIMMAG" in {Usage.Client} = True**

Lists all licensed Images for Time Magazine (across Contacts).

**{Usage.Client} = "TIMMAG01"**

Lists all licensed Images for the first Contact at Time Magazine.

**Sort: +{Usages.Date}**

Lists usages in date order

**Sort: +{Usages.Inv\_Num}**

Lists usages in Invoice order

**Sort: +{Usages.Fotog} +{Usages.ImageId}**

List usages in Photographer order, and within Photographer in Image ID order.

## VENDORS

The Vendors table contains all the people whom you pay money to: trade vendors, Photographers, and employees. Photographers are given the type "P"; Staff are given the type "S"; and trade vendors are given the type "V". Payables for each of these payees are also coded with the same "type" code (see the Payables table and the Transactions table).

**File name: ps007.dat**

**Subdirectory: MAIN**

Field Name	Database Correspondence	Field Length
Type	Vendor type (P, S, V)	1
Id	Vendor ID code	6
Comm	Commission or discount rate (divide by 100)	4
Date	Date vendor was added to system	8
Last_Date	Last date of Contact	8
Company	Vendor Company name	40
Address1	First address line	40
Address2	Second address line	40
City	Vendor city	20
State	Vendor state	2
Zip	Vendor postal code	10
Country	Vendor country	20
Phone	Vendor phone number	25
Fax	Vendor fax number	25
HomePhone	Photographer home phone number	25
CellPhone	Photographer cellular phone number	25
Contact_Last	Contact last name	20
Contact_First	Contact first name	15
Contact_Mid	Contact middle initial	1
Acct_Num	Your account number with vendor	25
Extra1	Extra field	25
Extra2	Extra field	25
Extra3	Extra field	25
Terms	Vendor terms	2
Sort2	Sort field	2
GST	Value added tax? Y/N	2
Num_Sub	Photographer: number of Images submitted	2
Num_Acpt	Photographer: number of Images accepted	2
Num_Rjct	Photographer: number of Images rejected	2
Warning	Color warning	4
TimeCheck	Internal use	8

Examples

**{Vendors.Type} = "P" and {Vendors.Zip} = "10010"**

Lists all Photographers in zip code 10010.

**{Vendors.Type} = "V" and {Vendors.Terms} = 2**

Lists all vendors that give 30 day billing.

**{Vendors.Type} = "S" and Date(1899, 12, 30) +  
Truncate({Vendors.Last\_Date}) > Date(1995, 1, 1)**

List all Staff who have produced sales since January 1, 1995.

**Sort: +{Vendors.Company}**

Lists vendors in Company name order.

**Sort: +{Vendors.Num\_Sub}**

Lists Photographers in order of number of Images submitted.

**Sort: +{Vendors.Zip}**

Lists vendors in postal code order (for mailings).

# Operators

All the selection formulas that we have presented so far use operators to select data. Addition, subtraction, and comparison, are examples of operators. Every selection formula must have at least one operator in order for the formula to make sense.

For example, if you want to select all your Clients in Fargo, the selection formula would be:

```
{Clients.City} = "Fargo"
```

In this formula, the operator is the "equal sign"

Here is an example of a selection formula with more than one operator:

```
{@InvDate} < Date(1995, 2, 1) and  
{@InvDate} > Date(1994, 12, 31)
```

This formula selects all Invoices in the month of January, 1995. The operators are the "less than" sign, the word "and", and the "greater than" sign.

Operators may be arithmetic or alphanumeric.

Many arithmetic operators also work on alpha data. For instance, asking for records where {Clients.Company} > "B" will list all Clients whose Company names start with a "B" or above.

In this case, the operator is the greater-than sign (>).

There are a great many possible Operators in an SQL query. **Following is a list of all the operators that you can use to create selection formulas.**

To do this:	Type this:	To do this:	Type this:
<b>Add</b>	+	<b>Subtract</b>	-
<b>Multiply</b>	*	<b>Divide</b>	/
<b>Equal</b>	=	<b>Not equal</b>	<>
<b>Greater than</b>	>	<b>Less than</b>	<
<b>Greater than or equal</b>	>=	<b>Less then or equal</b>	<=
<b>Or</b>	or	<b>And</b>	and
<b>Not</b>	not	<b>Parentheses</b>	( )
<b>If...then...else</b>	<b>If...then...else</b>	<b>In range</b>	in
<b>In string</b>	in	<b>In array</b>	in
<b>Concatenate</b>	+	<b>Percentage</b>	%
<b>Subscript (array)</b>	[ ]	<b>Subscript (string)</b>	[ ]
<b>To Dollar</b>	\$	<b>Assignment</b>	:=
<b>Make range</b>	to	<b>Make array</b>	[,]

# Criteria

The Criterion for a query is the term that must be satisfied in order for the query to yield records. Usually this criterion is at the end of the statement, but in some cases it is at the beginning.

1. {Images.CatYesNo} = "Y"

Y is the criterion

2. {Photographers.Balance} > 1000

1000 is the minimum criterion

3. {@InvDate} < Today -30

Today - 30 is the maximum criterion

Always make sure that the criterion matches the type of data within the field. For example, entering the query {Photographers.Balance} > 'USA' would yield no data, because {Photographers.Balance} is a numeric field, and 'USA' is text.

# Functions

Crystal Reports provides many functions for extracting information from the files. For example, you can report all sales that occurred during the Calendar1stQtr, or search for information using the UpperCase function (so you don't have to worry about whether the information was capitalized or not).

Any function can be part of a formula entered in the Selection box on the ProStock Crystal Reports windows.

```
"NORTH" in UpperCase({Captions.Cap_1}) = True
```

This searches for all references to the word North in the first line of each caption. It will find all instances of north, North, NORTH, Northwest, etc.

```
Month({@InvDate}) = 11
```

This example reports all invoices in the month of November. Month is the function.

```
Length(TrimRight({GL_Acct.Id})) < 4
```

This example nests two functions, to report only the summary accounts from the General Ledger. Following is a list of all the functions that you can use to create selection formulas.

**FUNCTIONS** Abs(x)  
Average([array])  
Average(field, condField)  
Average(field, condField, "condition")  
Average(field)  
BeforeReadingRecords  
Count([array])  
Count(field, condField)  
Count(field, condField, "condition")  
Count(field)  
Date (yyyy, mm, dd)  
Day (x)  
DayOfWeek (x)  
GroupNumber  
IsNull  
Length(x)  
LowerCase (x)  
Maximum([array]) Maximum(field, condField)  
Maximum(field, condField, "condition")  
Maximum(field)  
Minimum([array])  
Minimum(field, condField)  
Minimum(field, condField, "condition")

Minimum(field)

Month (x)  
Next  
NextIsNull  
NumericText(fieldname)  
PageNumber  
PopulationStdDev([array])  
PopulationStdDev(field, condField)  
PopulationStdDev(field, condField, "condition")  
PopulationStdDev(field)  
PopulationVariance([array])  
PopulationVariance(field, condField)  
PopulationVariance(field, condField, "condition")  
PopulationVariance(field)  
Previous  
PreviousIsNull  
PrintDate  
RecordNumber  
Remainder(numerator, denominator)  
ReplicateString(x,n)  
Round(x, # places)  
Round(x)  
StdDev([array])  
StdDev(field, condField)  
StdDev(field, condField, "condition")  
StdDev(field)  
Sum([array])  
Sum(field, condField)  
Sum(field, condField, "condition")  
Sum(field)  
Today  
ToNumber (x)  
ToText (x, # places)  
ToText (x)  
ToWords(x, # places)  
ToWords(x)  
TrimLeft (x)  
TrimRight (x)  
Truncate (x)  
UpperCase (x)  
Variance([array])  
Variance(field, condField)  
Variance(field, condField, "condition")  
Variance(field)  
WhilePrintingRecords  
WhileReadingRecords  
Year (x)

# Special Codes

**Color Codes** Most fields that you filter with are self-explanatory. In order to sort Clients by colors, however, you have to know these codes.

Red	255
Blue	16711680
Green	49152
Yellow	65535

The field used to sort color coded Clients is the '**Warning**' field. So to see a list of Clients who are color coded red, you would use the selection formula:

$$\{\text{Clients.Warning}\} = 255$$

**Character Codes** Often, agencies need reports that list only Clients or sales that are associated with a particular Staff member. This can easily be done using the Query Wizard to filter only records in which Staff ID = a particular Staff member's ID code.

For many agencies, Staff ID is represented by a 2- or 3-character code (usually initials). In order to recognize this alpha-code, Crystal must have a numerical translation. To do this requires a simple formula, using assigned numerical values for each letter of the alphabet. Below are the formula and a table of letter values.



For 2-character codes            [1st letter value] x 256 + [Last letter value]

For 3-character codes            [1st letter value] x 256 + [2nd letter value] + [Last letter value]

**Example:** A Staff member with an ID of 'DR' would have a numerical equivalent of 17490.

**Customized Lists**

ProStock provides several user-defined lists (Client sorts, Image formats, Invoice marketing codes, etc.). When filtering data by using one of these fields, you must query by numerical equivalent of a listed entry, rather than the text entry that is shown. These values can be found in your PS.INI file. (You can access this by clicking Utilities\Edit INI Files\PS.INI)

For example, an agency might use Client Sort 1 to specify Client type (advertising, publishing, etc). The list would be defined in PS.INI as Client Sort 1. Below is a selection from a "Client Sort" list:

```
[Client Sort 1]
n/a=0
Advertising=1
Publishing=2
Corporate=3
Government=4
Technology=5
Website=6
Manufacturing=7
```

To see a Client listing Crystal Report in which only Advertising Clients are shown, you would query using the formula:

```
{Clients.Sort1} = 1
```

If you used {Clients.Sort1}="Advertising", the report would find no records.

**Zero-Based Lists**

Remember that all lists in your PS.INI file are Zero-Based. All lists begin with a zero, whether shown or not. That means that even if you have a listin that looks like this:

```
[Client Sort 1]
Advertising=1
Publishing=2
Corporate=3
Government=4
```

ProStock still reads this:

```
Advertising=0
Publishing=1
Corporate=2
Government=3
```

So in this case, retrieving Advertising Clients would require the following query:

```
{Clients.Sort1} = 0
```



# Sorting

All reports are presented in a certain sort order. Usually the sort order makes intuitive sense based on the nature of the query. For instance, lists of Images are usually in Image ID order; mailing labels are usually in zip code order.

However, sometimes you may wish to modify the sort order, or add additional sorting. Use the Sort Box to indicate the sorting order you want. Enter a sort order by typing the key field you wish to sort by, preceded by a plus (+) sign for ascending order, or a minus (-) sign for descending order.

For example:

`+{Clients.Zip}`

Lists Clients in Zip code order

`+{Clients.Last_Date}`

Lists Clients in order of last Contact

`+{Invoices.Date}`

Lists Invoices in date order

## **Ascending vs. Descending order**

The plus sign (+) means the list will be in ascending order (lowest to highest). If you change it to a minus sign (-) it will list in descending order (highest to lowest).

## **Multiple Sorts**

You may enter multiple sorts. For instance, if you want to list all the outstanding Images by Client, then within each Client, by Memo number, and within each Memo by Image ID; you would enter three sort criteria:

`+{Clients.Id}`

`+{Memos.Memo_Num}`

`+{Images.Id}`

The SQL would sort all the data in this complex order. Expect complex sorts such as this to take a longer time to format.

# Saving Report Definitions

Whenever you run a report with selection and/or sort criteria, you are actually defining your own customized version of the report. In many cases, you might want to save this definition so that you can run the report again. To do so,

1. Click the Save Definition button
2. ProStock will ask for a name for the report. You would enter a name to help you remember the report definition, like International Billings
3. Then ProStock will prompt for a file name. Reports are normally saved with the letters **rpt**, followed by the sequential number of the saved report (ProStock will automatically do this numbering for you) and then the extension of **def**.
4. Click the Ok button to save this customized report definition. ProStock will add it to the list of reports.

**Notes:**

# Using the Query Wizard

## Print and follow the steps!

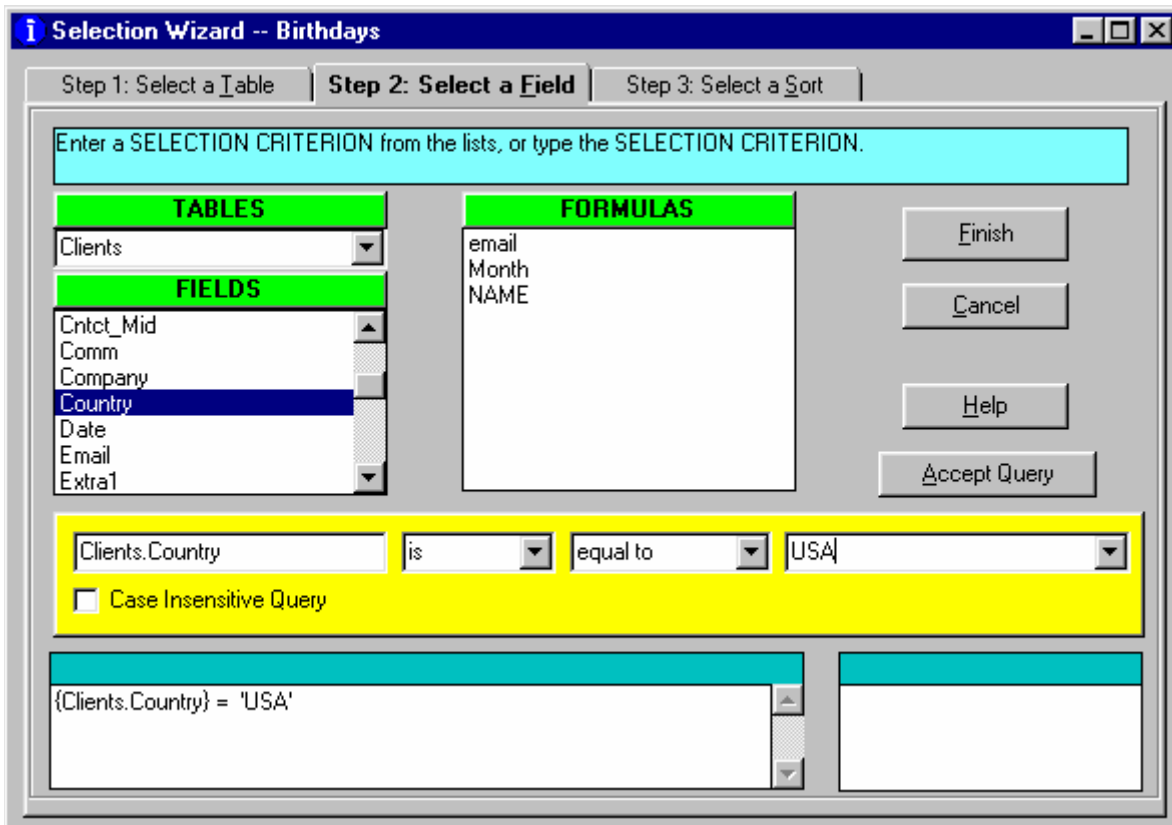
When you're finished with this tutorial you will be a wizard with the Query Wizard!

Here's an example of how to take a basic Client List and

- Select records by Color Code
- Remove 00 Contacts from the list
- List only the Contacts you have billed more than \$1000, and
- Sort by Company name.

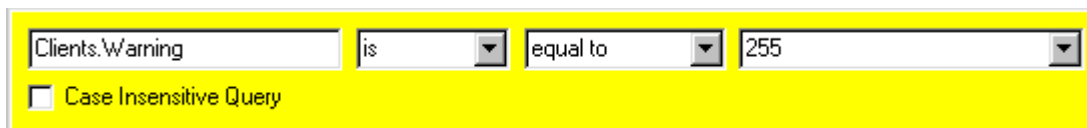
## The Query Wizard

Take a look below to see what the Query Wizard looks like. Then continue with the Tutorial to discover what each part can do for your reports!



**In ProStock, follow these steps:**

1. Run Crystal Reports
2. Select the report **CLIENT LIST**.
3. Run the report to see what information it lists. You'll see that it is a simple list of all Client/Contacts. Close the report, so that you are back to the Crystal Reports Menu with the CLIENT LIST report highlighted.
4. The first thing you want to do is select only the records that are coded red. Check the reference table to find out what the code is for RED.
5. Click on the **Query Wizard** button
6. Now select the first field you want to filter. Its the color-code field on the Client screen (called "Warning" in ProStock). So, in the **Available Tables** menu, select **Client**.
7. In the **Available Fields** menu, select **WARNING**.
8. Look below in the yellow section of the screen at the four boxes. Click in the far right box and type in the code for Red (**255**). Now you'll see this:

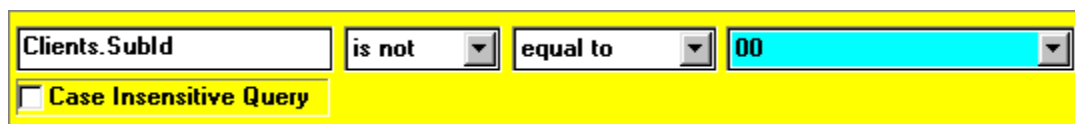


A screenshot of a yellow-bordered query filter box. It contains four input fields: the first contains 'Clients.Warning', the second is a dropdown menu with 'is' selected, the third is a dropdown menu with 'equal to' selected, and the fourth is a text box containing '255'. Below these fields is a checkbox labeled 'Case Insensitive Query' which is currently unchecked.

9. Then press your **ENTER** key (or click on "Accept"). You have now selected all the Clients/Contacts in your list that have been coded red.

Do not list 00 Contacts The next thing you want to do is *de-select* the 00 Contacts (Contacts whose Sub-ID = 00). **IMPORTANT: CLICK ON THE "STEP 1: SELECT TABLE AND FIELD" tab at the top of the Query Wizard Screen.** It is currently on STEP 3: SORT, and you are not ready to sort yet!

10. Now you are ready to de-select the 00 Contacts. Again, you need to know which table and field you want to filter. This time its the Sub-ID field on the Client screen.
11. In the **Available Tables** menu, select **Client**.
12. In the **Available Fields** menu, select **SUBID**.
13. In the yellow box, Click on the "is" box and change it to "is not."
14. Then click in the box on the far right and type "00". The yellow box will now look like this:



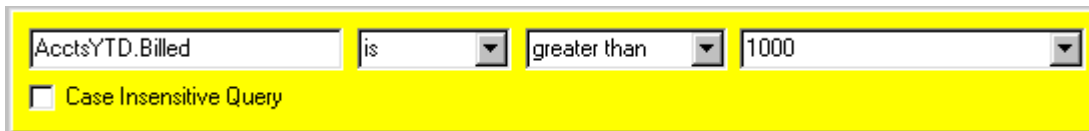
A screenshot of a yellow-bordered query filter box. It contains four input fields: the first contains 'Clients.SubId', the second is a dropdown menu with 'is not' selected, the third is a dropdown menu with 'equal to' selected, and the fourth is a text box containing '00'. Below these fields is a checkbox labeled 'Case Insensitive Query' which is currently unchecked.

15. Press your **ENTER** key. You have now de-selected any 00 Contacts, so that they will not list.

**Select  
Billing  
Criteria**

Now get ready to select only the Contacts you have billed more than \$1000. **IMPORTANT: CLICK ON THE "STEP 1: SELECT TABLE AND FIELD" tab at the top of the Query Wizard Screen.** It is currently on STEP 3: SORT, and you are not ready to sort yet!

16. Again, you need to know which field you want to filter. In this case, you want to know which Clients' ACCOUNTS you've BILLED over \$1000 this year.
17. In the **Available Tables** menu, click on **AcctsYTD**.
18. In the **Available Fields** menu, click on **BILLED**.
19. In the yellow section, click in the "equal to" box and change it to "**greater than.**" Click in the box on the far right and type "**1000**". The yellow section should now look like this:



AcctsYTD.Billed is greater than 1000

Case Insensitive Query

20. Press your **ENTER** key. You have just selected ONLY the Contacts who have been billed over \$1000.

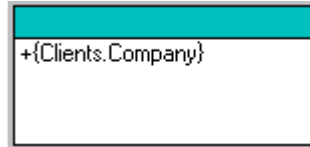
**Sort by  
Company  
Name**

You are ALMOST ready to sort—but here's a little trick. Your Query Wizard is still looking at the **AcctsYTD table**, but you want to sort by a field in the Client table.

21. Click on the **STEP 1: SELECT TABLE AND FIELD** tab
22. Click on **Client** in the **Available Tables** menu.
23. Now that you have selected the appropriate table, click on the **STEP 3: SORT** tab. Following this order prevents any errors!

Now you need to know which fields you want to sort by, and in what order. In this case you want the data sorted first by company name, and second by contact last name.

24. In the **Available Fields** menu, click first on **COMPANY**. You'll see some code appear in the bottom-right corner of the Query Wizard that looks like this:



25. Next click on **CNTCT\_LST** (this stands for Contact Last Name). You have just told the program to list the results in alphabetical order, first by Company Name, then in alphabetical order by Contact Last Name.
26. Click the **FINISH** button on the Query Wizard Table and run your report.
27. When it prompts for the Data Set (Year) to run the report, choose your current FISCAL year (2000.DAT)

That's it! If you like the results of this report, save the definition, so you won't have to Query all this information each time you run it!

### **More Examples**

Try a few different filters in different reports to practice. For example:

1. Make mailing labels for only your foreign Clients using the Client Mailing Labels crystal report

Clients.SubID is not equal to 00 and Clients.Country is not equal to 'USA' (or fill in your country).

2. Say you have a Category called ANI: Animals. You want to see all the restricted Images within that Category. (this is assuming that the Category code is part of your Image ID number). The restrictions report uses the USAGES table, and IMAGE ID is an available field in that table.

Run the Image report called Restrictions. Use the query wizard to select only the Images in the "Animals" Category (only the IMAGE IDs that CONTAIN ANI)

3. A Client calls you and says she has used your Images before for \$150.00 per use and you think you've never licensed an Image to her for less \$300.00. Use the Invoice report **Sales Report (Image Fees)** to find out!

Tell the Query Wizard you only want to see Image fees where Client ID = (her Client ID) and Usage fees are LESS THAN \$300.

# Crystal Reports Security

## Security: our new feature!

We have added security options to Crystal Reports!

In the Users Privileges screen, the privileges "Add Tracking, Edit Tracking, Delete Tracking" have been replaced. The new privileges are "Reports Level 1," Reports Level 2," and "Reports Level 3." Now you can determine what level of reports security to assign each staff member.

Each report is given a number code in the name (invlist1.rpt would now be 3001\_invlist.rpt). That number determines the level of security of the individual report. So, in this case, only Staff members with "Reports Level 3" privileges can access this particular report. (Level 1 reports begin with '1001' and Level 2 reports begin with '2001').

Although we have predefined the reports at different levels of security, you can easily change this by renaming the reports. For instance, just by renaming the file from 3001\_invlist.rpt to 2001\_invlist.rpt, you have changed that 'Level 3' report to a 'Level 2' report. Now each agency can determine its own security options.

## To set up user privileges:

As with any other ProStock user privileges, an administrator must perform the following steps:

1. In ProStock click Utilities\Setup\Add-Delete Users
2. Select the name of the person whose privileges you want to change
3. Hold down the CTRL key (so that the current privileges aren't removed) and scroll to the area where Reports privileges are given. Select each level that you want the Staff member to be able to access. (If you want someone to be able to access all 3 levels of reports, you must highlight all three levels - highlighting Level 3 only will only enable him/her to see Level 3 reports).
4. Click the Replace button. Repeat for all other Staff members.

To change the security of any report, first you must know what its file name is. You can easily check that:

1. Start Crystal Reports in ProStock
2. Select the report you would like to see (click on it only once)
3. In the bottom left-hand corner of the Crystal Reports screen you will see the name of the report (like **1001\_clilist1.rpt**)

Once you know what the report is called, you can change it's security level by changing it's file name.

1. Navigate to your SERVER:\Psa32\Reports folder.
2. Find the report you want to change
3. Right click the file - choose RENAME and change the name (like **2001\_clilist1.rpt**).
4. **Update the ProStock menu.** - in the same folder you will find a file called **PSSQL.ini**. Open it.
5. Look for the Report you just changed and update the name of it

**Client List=1001\_clilist1.rpt** becomes

**Client List=2001\_clilist1.rpt**

6. Save and close this file.