

Extractors Manual

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Introduction

This document describes the Extractors to be used with the CleverQ[™] software which includes:

QuickBooks® Microsoft Access ODBC Databases Microsoft Excel Data Package Creator

It helps to understand how data is stored within CleverQTM. Please review the section on "Data Sources" in the "Customization Manual" to understand the concepts before reading further in this manual.

The Navigator provides a friendly way to work with the Extractors to see the flow of data as well as choose the functions within the program.



The Extract, Transform, Load (ETL) block on the Navigator has a drop-down list of the extractors available which include:

QuickBooks

Database Excel Data Package QBD Merge

QuickBooks Extractor

Setup

When you first startup the QuickBooks Extractor, you will notice a new window appearing outside of the CleverQ window. This occurs because the QuickBooks Extractor runs as a separate program from CleverQ so you can be doing one thing in CleverQ and something else in the extractor including extracting data. The program opens up connected to your CleverQ QBD file and on the "Setup" tab.



You can setup the extractor is one of four modes:

- No Extractions (QuickBooks Not Used)
- Single Company
- Multiple Companies
- Multiple Companies (with totals across all companies)

You most likely will use the Single Company mode and when you select this, you will be able to select your QuickBooks Company file.

Single Comp	Not Used any panies panies with Totals	Single Company File: C:\Users\Public\Documents 10.0\sample_service-based b	\Intuit\QuickBooks\Sample Company Files\QuickBo business.qbw	ooks Enterprise Solutions
				Quick
				Browse to your company file

For multiple companies, you can choose any number of companies. The key to making this work is to have your first Filter in CleverQ set to "Company". This is where the Company name will be stored to match up with the data.

🔡 CleverQ - Quicl	kBooks Extractor Se	tup		
QuickBooks Setu	P Options Report/D	ata Definitions Extract		
QuickBooks Single Comp Multiple Com Multiple Com	any	Single Company File: C:\Users\Public\Documents\Intuit\Quir 10.0\sample_service-based business.qt	ckBooks\Sample Company Files\QuickBooks ow	Enterprise Solutions QB
		Multiple Co	ompany Files	
Enabled	Company Name (Use	ed for Filter 1)	File Name	
Image: A state of the state	Company A		C:\Users\Public\Documents\Intuit\Qui	ckBooks\Sample Company 😐
	Company B		C:\Users\Public\Documents\Intuit\Qui	ckBooks\Sample Company 🛄
	Company C		C: \Users \Public \Documents \Intuit \Qui	ckBooks\Sample Company
Check enable c mor compa	nies	Enter name of company name t be stored in Filter Click the + to add a n company		Browse to select company file
Rec	ord 3 of 3 🕨 🗰 🕇			>
C:\Users\Public\	Documents\CleverQ\Cle	everQDataSample.qbd		Done

Options

After you have selected your mode and company file(s), select the "Options" tab.

🔡 CleverQ - QuickBooks Extractor Setup				
QuickBooks Setup Options Report/Data Definitions Extract				1
Using Job Tracking	Ovenide I Monthly Data Start Date	Date Range Options		lates:
	Daily Data Start Date	Monday , Aug	just 09, 2010	•
Load records with zeros*	End/Current Date	Monday , Aug	just 09, 2010	•
"Each report has the option to load "all rows" and "all columns". When these are selected, you will get a complete extraction and possibly many rows and co that are all zeroes. This is necessary when there exist data for parent and chi and consistency is required for row names and filters. When the "All Rows" og selected, rows with all zeroes will not be extracted if the "Load records with zer option is not selected. When the "all rows" and "all columns that contain non-zero values. reports ignore the "all rows" and "all columns that contain non-zero values. reports ignore the "all rows" and "all columns" options. Any zero value entries regardless of the "all rows" and "all columns" options are extracted unless this option "Load records with zeros" is selected.	Jumns Id items tion is os" et, the Some e not			
C:\Documents and Settings\All Users\Documents\CleverQ\CleverQDataSample.	qbd			Done

On this tab you can set the following options.

Using Job Tracking

Job Tracking within QuickBooks provides the ability to segregate data by job. Use this option if you are using Job Tracking in QuickBooks. This basically allows you to set a job filter for certain reports and your extracted data can be utilized by job.

Using Classes

If you have setup Classes in QuickBooks and want to segregate data by classes, check off this option. You will be allowed to setup a filter for Classes for various reports.

Load Records with Zeros

If you choose to not load the records with zeros, the amount of data loaded will be smaller and this will improve the performance of the system. Without the records, you may be missing some report data you need to create parameters, so use this option with caution. Also note that the CleverQ calculation engine will fill in data gaps with zeros in report data or in other words getting data missing inside the report date range will return zero. While, getting data missing outside the report date range will return null. Nulls will usually result in a warning or error message. Each report has the option to load "all rows" and "all columns". When these options are selected, you will get a complete extraction and possibly many rows and columns that are all zeroes. This is necessary when there exists data for parent and child items and consistency is required for row names and filters. When the "All Rows" option is selected, rows with all zeroes will not be extracted if the "Load records with zeros" option is not selected. When the "all rows" and "all columns" options are not set, the extraction will only include rows and/or columns that contain non-zero values. Some reports ignore the "all rows" and "all columns" options.

Any zero value entries regardless of the "all rows" and "all columns" options are not extracted unless this option "Load records with zeros" is selected.

Override Data Range

In some cases you may want to extract data for a specific data range and overwrite the options for each report. This is not a frequently used option, but comes in handy when working with the sample files in QuickBooks.

Report/Data Definitions

On the Report/Data Definitions tab, you will see a tree view of all the reports and data definitions available.



When you click on a specific definition (Profit & Loss shown in the next figure), the right side of the form will fill in with the options for that report.

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= ·· Company & Financial +	Profi	it & Loss
Balance Sheet Budgets Profit & Loss Budget Overview Sales Sales by Item Summary Sales by Item Summary Sales by Item by Rep Summary Sales by Customer Summary Open Sales Orders by Item Open Sales Orders by Item Open Sales Orders by Item Payroll Payroll Inventory Inventory Valuation Summary Inventory Stock Status by Item Vendors & Payrables	Filters Account Image: Colspan="2">Image: Colspan="2">Image: Colspan="2" Image: Colspan="2">Image: Colspan="2" Image: Colspan="2" Ima	Monthly Data For Prior 2 ** years (1 = current yr only) Calculate Quarterly Totals Calculate Annual Totals For Future ** years Daily Data For Last 0 ** Calculate Weekly Totals Calculate Weekly Totals
Ventous a rayables A/P Aging Summary Outsomers & Receivables A/R Aging Summary Time Tracking Time Tracking Time by Name	, Remove all Detail Records and Keep Totals I All Rows* All Columns* Clear Settings for this Report	Only Show Report in QB Purge this Extract this View Data Now Data Now Data

Filters and other controls on this form will be enabled depending on the options and specific report type.

You can assign filters or not.

Data is either extracted by month, by day, or for the current date depending on the report. You can choose to include any number of prior years of data including the current year. You can also calculate quarterly or annual totals based on the monthly data. For daily data, you can choose the last x days and optionally calculate weekly data. When an extraction occurs and you have chosen not to purge all data, only the data for the data range specified will be cleared before the extraction. This gives you the ability to build up the data without extracting all the data all the time. In other words, once you have extracted the prior years, just extract the current year.

Future years are enabled when you extract budget data.

You can optionally "Remove all Detail Records and Keep Totals Only". With this selected, only row names coming from QuickBooks starting with the word "Total" are extracted.

Each report has the option to load "all rows" and "all columns". When these options are selected, you will get a complete extraction and possibly many rows and columns that are all zeroes. This is necessary when there exists data for parent and child items and consistency is required for row names and filters. When the "All Rows" option is selected, rows with all zeroes will not be extracted if the "Load records with zeros" option is not selected. When the "all rows" and "all columns" options are not set, the

extraction will only include rows and/or columns that contain non-zero values. Some reports ignore the "all rows" and "all columns" options. Any zero value entries regardless of the "all rows" and "all columns" options are not extracted unless this option "Load records with zeros" is selected.

The extractor provides for you to extract only one report at a time which is helpful in troubleshooting. This is done by the button on this tab called "Extract Data Now". If you want to purge the data first, press the "Purge this Data Now" button. If QuickBooks is opened to this company file, you can actually see the report(s) that are being extracted in QuickBooks, if you check the "Show Report in QB" checkbox. After the extraction, you can view the data just for this definition by pressing the "View Extracted Data" button. More about that later.

Extracting

Manual Extraction

After all the report/data definitions are set and you are ready to really extract the data, go to the "Extract" tab.

🔛 CleverQ - QuickBooks Extractor Setup	_ 🗆 ×
QuickBooks Setup Options Report/Data Definitions Extract	1
Be sure to include enough data to support the gauges and indicators you have specified. Excluding data you do not need will improve the overall performance of the system.	
Caution: CleverQ relies on QuickBooks reporting accuracy. Although "inactive items" activity are included in QuickBooks Balance Sheet and Profit & Loss reports, QuickBooks only includes inactive items in the "Sales by Item Summary" if the items had activity within the report date range, but exclude all inactive items from the "Inventory Valuation Summary". Accurate Annual Tumover, Retum on Asset, Days Inventory and other indicators require child items remain in Active Status while loading QuickBooks data.	
Purge All QuickBooks Data Get QuickBooks Data Now Show Extracted Data	
OR Create Scheduled Task View Log for Last Extraction	
C:\Users\Public\Documents\CleverQ\CleverQDataSample.qbd	Done

First, if you want to clear out all extracted data, press the "Purge All QuickBooks Data" button. You will normally not do this, but occasionally it is necessary to start with all new extracted data. You will be prompted with this message....



Press "Yes" to purge all data not just QuickBooks data. Press "No" to just purge QuickBooks data, or press "Cancel" to not purge anything.

Pressing the "Get QuickBooks Data Now" will start an extraction process and you will see a progress bar window.

CleverQ	QB RDE Extracting
	Extracting
	Cancel

Depending on options you have set, the number of reports, the number of companies, and the amount of data, the extraction could take a few minutes to a few hours. You should be able to use your computer for other things during the extraction. You can also view the progress by clicking on the "View Log for Last Extraction" button and pressing the "Refresh" button.

NOTE: Make sure you open QuickBooks the first time you do an extraction or you will probably see this message.



This occurs if you have not enabled CleverQ through QuickBooks Integrated Applications. The first time this occurs you will see a window similar to the following....



After the extraction is complete, you will see a message similar to the following depending on the reports you have chosen.



Automatic Extraction

You can automate the extraction of QuickBooks data so it can occur in the evening after the days transactions are complete. It is also good to do this since the extraction can take some time. This is done from the "Create Scheduled Task" button on the Extract tab. *NOTE: This is a different process than scheduling the extractions from the CleverQ Navigator. You may need to do both, depending on the data to be extracted.*

By pressing this button you will see a message similar to the following:



Automatic extraction is done using the Windows Task Scheduler. CleverQ has automatically created a batch job file as listed in the message box and pasted the name of the file to the clipboard for creating a scheduled task using Windows.

Since there are so many different versions of Windows now and each has its own interface, the details of how to do this is not covered here. You can refer to numerous online references about Scheduled Tasks.

For Windows XP Users press the Start button, All Programs, Accessories, System Tools, and Scheduled Tasks.

If you are using the Report Manager, you may want to extract this data first and then schedule the report processor to run after all the extraction are completed.

Viewing the Log

Any activity associated with the extraction process is done in the background and status is stored in a log. To view the log, press the "View Log for Last Extraction" button. You will see this form where all activity is logged including errors.

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	📕 View Log		
ſ	View Log	Log Text	
	6/28/2010 2:47:32 PM	Extraction Started	
	6/28/2010 2:48:55 PM	Profit & Loss Processed	
	6/28/2010 2:49:07 PM	Profit & Loss Filter	
	6/28/2010 2:49:07 PM	Extraction Complete	
	ee ee af te		
Ľ			
	Refresh Show	v Complete Log Purge Log	Close

This form also provides for viewing the complete CleverQ log, not just for QuickBooks extractions. You can purge the log if you choose. Pressing the "Refresh" button will update the form every few seconds so you can see the progress of activity especially if you are doing a long extraction.

Viewing Extracted Data

You can view extracted data for a specific report on the Report/Data Definitions tab byh pressing the "View Extracted Data" button or for any report by pressing the "Show Extracted Data" button on the Extract tab.

The form will open with the Report Name filter dropdown open. Uncheck "Show All" and then select the report you want to see.

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🔜 View Extracted Data								_ 🗆 ×
Report Name Data Type Company Job		Class Customer	Name Vendor N	ame Employee I	Name Item	Account		^
Show All)		Column Type 🔺	1					
A/P Aging Summary		Containin ()pc)					
A/P Aging Summary Filter					E 6/30/2008			
A/R Aging Summary		New Construction	Overhead	Remodeling			% of Tot Asset	Amou
🖌 🗹 A/R Aging Summary Filter								
Balance Sheet								
Dept Allocation		0	0	0				
Dept User Allocation			0	0				
Formula Parameter	0							
Inventory Stock Status by Item					71227.23	3		
Inventory Stock Status by Item Filter								
Inventory Valuation Summary								
Inventory Valuation Summary Filter								
Open Sales Orders by Item								
Open Sales Orders by Item By Rep	0				144031.44	4 335552.98	1532.4	
Open Sales Orders by Item Filter		0	0	0				
Open Sales Orders by Rep								
Open Sales Orders by Rep Filter	0							
Payroll Summary								
Payroll Summary by Employee	-							
Profit & Loss								
Profit & Loss Filter								
Sales by Customer Summary		0	0	0				
Sales by Customer Summary Filter								
Sales by Item by Rep Summary								
Sales By Item By Rep Summary Filter								
Sales by Item Summary								
Sales By Item Summary Filter		0	0	0				~
Sales by Rep Summary								>
Sales By Rep Summary Filter							1	_
Seasonal Trend FP					Preview/E	xport Print		Done
Seasonal Trend PL								
OK Cancel .:								

The form can be resized to you can see more data if you want. The data is shown in a pivot table and there are many options for looking at this data.

Report Name	Data Type Co	mpany Job	Class	Vendor N	ame Employee I	Name	Account							
Data Value		Column Date 🔺	Column Type 🔺]										
		6/30/2008	- 7/31/2008	8/31/2008	9/30/2008	- 10/31/2008	11/30/2008	- 12/31/2008	- 1/31/2009	2/28/2009	- 3/31/2009	- 4/30/2009	5/31/2009	· 6/30/200
Row Number 🔺	Row Name 🔺													
] 4	10100 · Checking	50251.	65348.96	5 57450.59	68688.73	71157.08	59807.69	55115.44	70365.80	55191.61	65713.29	58673.32	64684.78	5
5	10400 · Petty C	. 10	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
6	10300 · Savings	312	31200	31293.42	31293.42	31293.42	31322.72	31322.72	31322.72	31408.64	31408.64	31408.64	31481.03	3
7	Total Checking/	82451.	97548.96	89744.01	100982.15	103450.50	92130.41	87438.16	102688.52	87600.25	98121.93	91081.96	97165.81	9
9	11000 · Accoun	. 100914.	86688.7	113409.93	112892.97	129392.97	152602.97	163635.07	200210.07	232440.07	236615.93	243255.50	242244.55	27
10	Total Accounts	100914.	86688.73	113409.93	112892.97	129392.97	152602.97	163635.07	200210.07	232440.07	236615.93	243255.50	242244.55	27
12	12800 · Employ	. 15	40 1540	1540	1540	1540	1540	1540	1540	1540	1540	1540	1540	
13	12100 · Invent	24418.	10 24834.50	24834.50	24174.80	24174.80	24174.80	24174.80	24174.80	24174.80	23522.32	23354.08	23354.08	2
14	13100 · Pre-pai	. 67	50 5400	4050	2700	1350	11672	10024.34	8376.68	6729.02	5081.36	3433.70	9886.04	
15	13400 · Retain	3593	14 3593.44	3593.44	3593.44	3593.44	3593.44	3593.44	3593.44	3593.44	3593.44	3593.44	3593.44	
16	12000 · Undep										16252.08	18252.08	18252.08	1
17	Total Other Cur	. 36301.	54 35367.94	34017.94	32008.24	30658.24	40980.24	39332.58	37684.92	36037.26	49989.20	50173.30	56625.64	5
18	Total Current A	219667.	58 219605.63	3 237171.88	245883.36	263501.71	285713.62	290405.81	340583.51	356077.58	384727.06	384510.76	396036.00	41
20	17000 · Accum	-106112.	-106112.5	-106112.57	-106112.57	-106112.57	-106112.57	-106112.57	-106112.57	-106112.57	-106112.57	-106112.57	-150548.48	-15
21	15200 · Building	. 6500	650000	650000	650000	650000	650000	650000	650000	650000	650000	650000	650000	
22	15300 · Constr	306	30600	30600	30600	30600	30600	30600	30600	30600	30600	30600	30600	
23	15000 · Furnitu	456	52 45652	45652	45652	45652	45652	45652	45652	45652	45652	45652	45652	
24	16900 · Land	1800	180000	180000	180000	180000	180000	180000	180000	180000	180000	180000	180000	
28	15100 · Vehide	157873.	157873.82	157873.82	157873.82	157873.82	157873.82	157873.82	157873.82	157873.82	157873.82	157873.82	157873.82	15
29	Total 15100 · V	157873.	157873.83	157873.82	157873.82	157873.82	157873.82	157873.82	157873.82	157873.82	157873.82	157873.82	157873.82	15
30	Total Fixed Asset	s 958013.	958013.2	958013.25	958013.25	958013.25	958013.25	958013.25	958013.25	958013.25	958013.25	958013.25	913577.34	91
32	18700 · Securit	. 34	10 3440	3440	3440	3440	3440	3440	3440	3440	3440	3440	3440	
33	Total Other Ass	. 34	10 3440	3440	3440	3440	3440	3440	3440	3440	3440	3440	3440	
34	TOTAL ASSETS	1181120.	1181058.88	1198625.13	1207336.61	1224954.96	1247166.87	1251859.06	1302036.76	1317530.83	1346180.31	1345964.01	1313053.34	133
39	20000 · Accoun	. 74	35 5435	5 5714	5000	5000	9050	11733.75	10979.87	9744	9050	9050	13100	1
40	Total Accounts	. 74	5435	5 5714	5000	5000	9050	11733.75	10979.87	9744	9050	9050	13100	
42	20600 · CalOil	4050.	-4050.98	-4050.98	-4050.98	-4050.98	-4050.98	-4050.98	-1710.98	-6390.98	-6390.98	-6390.98	-5860.98	
43	20500 · QuickB		1600	-1600	-200	-3000	-3000	-3000	-3000	-3000	1050	-7050	-7050	
44	Total Credit Cards	s 4050.º	-2450.98	-5650.98	-4250.98	-7050.98	-7050.98	-7050.98	-4710.98	-9390.98	-5340.98	-13440.98	-12910.98	-1
50	24100 · Emp. H													
		-	1											

You can filter, sort, rearrange, expand and collapse, group, print, and export the data. Refer to the section later in this document titled "Viewing Extracted Data Using the PivotGrid".

Database Extractor

The CleverQ Database Extractor is a powerful interface that allows you to extract data from Microsoft Access or any ODBC compliant database. ODBC stands for Open DataBase Connectivity. This can include SQL Server, MySQL, Oracle, InterBase, Sybase, and others. There are even ODBC drivers for QuickBooks so you can extract data independently from the predefined QuickBooks-CleverQ interface. This will give you unlimited access to all the QuickBooks data.

Setup

Using the main menu and selecting "Setup – Data Sources – Database", or selecting Database in the Extractor Definitions block on the Navigator, will bring up the "Load Data from Databases" form as shown in the figure below.

Q Load Data from Databases		
Sel Source and Description		<u> </u>
MySQL on KS4-tbl_eval-(Monthly):		🔎 EDIT
Status:		
MySQL on K54-tbl_receipt-(Monthly):		🔎 EDIT
Status:		
MySQL on K54-tbl_receipt-(Monthly):UserID		🔎 EDIT
Status:		
Stocks-Query1-(Monthly):		🔎 EDIT
Status:		
Stocks-StockData-(Monthly):		🔎 EDIT
Status:		
Stocks-StockData-Close(Monthly):		🔎 EDIT
Status: Data load complete		
Stocks-StockData-Close(Daily):		₽ EDIT
Status: Data load complete		
Clear Selections Select All Add New	Get Data	ок 🚽

On this form you will see a list of individual extraction definitions. On this list there is a selection box which enables the individual definition when the actual extraction occurs. A description of the extraction is shown on the first line for each definition. This description is a combination of the report name, data type, column type, and filters. The second line will show the status of the extraction. The buttons to the right include a button to view the extracted data and an Edit button to edit the individual definition. To add a new definition, press the "Add New" button. This will display a blank form as shown in the next figure.

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Edit Database Source										
Data Source Type:	Data Type: Monthly Enable	ed								
Source:	To avoid orphaned data ource is	6								
Query/Table/View:	defined you cannot change the source. You									
Report Name:	must delete and re-ente the source.	er								
Field Mappings Date R	ange Filter Mappings History Settings Status									
Select/Enter Mapped Field										
	Row Name: (Required)									
	Data Value: (Required)									
с	olumn Date: (If blank, current date is used)									
R	w Number:									
	Dept Name:									
Parent Ro	w Number:									
Ca	lumn Type:									
Delete Copy	Open Data Source Get Data View Data Extracted OK									

Data Sources

The Data Source Type dropdown box will give you a choice of two options: Access or ODBC.

Microsoft Access

If you choose to connect to a Microsoft Access database, press the 🖻 button to browse to the MDB or MDE file. This file cannot be password protected. You can then use the dropdown box labeled "Query/Table/View" to choose either a table or query in the database. Once you do that, the dropdown for the various field mappings will automatically have the field names for that table or query. You can even press the "Open Data Source" button to look at the raw data. CleverQ will open up a new instance of Microsoft Access and automatically display the table or query in read only mode.

ODBC

If you choose to connect to an ODBC source, the ODBC source must have already been established through Windows. You will generally find the program to setup ODBC connections under the Administrative Tools in Windows. The ODBC sources listed as System DSN's are available in the dropdown list of sources.

NOTE: If you are running on a x64 machine, you must use the 32 bit ODBC administrator that can be found at %windir%\SysWOW64\odbcad32.exe.

You can then use the dropdown box labeled "Query/Table/View" to choose either a query/table/view in the database. Once you do that, the dropdown for the various field mappings will automatically have the field names for that table or query. You can even

press the "Open Data Source" button to look at the raw data. CleverQ will open up a query and automatically display the data in read only mode.

Report Name

After you select your Access or ODBC data source, you can enter a report name or leave it blank and CleverQ will automatically assign a report name based on the source. Multiple definitions can have the same report name.

Data Type

You must select a data type. This basically tells CleverQ whether the data to be extracted will be stored in the data cache as monthly, daily, annual, quarterly, weekly, or current data. This affects how the data maybe totaled in the extraction as well and how the data will be made available to the CleverQ ACE and VP.

Field Mappings

You must at a minimum assign a field to the Row Name and Data Value mappings. Essentially if you were to input a simple list of items, these would be the only items you need. The Row Name must be mapped to a string field and the Data Value must be mapped to a numeric field. If you leave the Column Data blank, the current data will be used.

You can also enter a fixed value rather than a field for the Row Name by enclosing a string is single quotes. This may be useful if you are going to use the filter fields.

For the remaining fields, please review the section on "Data Sources" in the "Customization Manual".

Date Range

On the Date Range tab, you can leave the entire tab blank and then all the data from the source will be extracted. Or you can choose various options for the monthly or daily data types. For the other types, use the specific data ranges set on the right side of the form.

CleverQ[™] Extractors Manual

Edit Database Source			
Data Source Type:	ODBC Data Type: Month!	y 🔹	Enabled
Source:	MySQL on KS4	•	To avoid orphaned data, once a data source is
Query/Table/View:	tbl_calendar	•	defined you cannot change the source. You
Report Name:			must delete and re-enter the source.
Field Mappings Date R	ange Filter Mappings History Settings Status		
For Monthly Data	Type * Use this date rai	nge	
Extract the la	st 24 - months or * Start Date	:	
🗖 Calculat	e Quarterly Totals End Date	:	
🗖 Calculat	e Annual Totals		
For Daily Data Typ	e		
Extract the la	ast 45 - days or *		
🗖 Calculat	e Weekly Totals		
			not calculated when 1 the "Get Data" button
Delete Copy	Open Data Source Get Data View Data Extracte	d	ОК

Filter Mappings

If you have setup your QBD file with filters (See the Preference form), you can map fields in your extractions to the filters.

Edit Database Source											
Data Source Type: Access	✓ Data Type: Monthly ✓	🗹 Enabled									
Source: C:\Program F	To avoid orphaned data,										
Query/Table/View: CQ_Sales											
Report Name: DS Unit COG	Name: DS Unit COGS										
Field Mappings Date Range Filter M	lappings History Settings Status										
	Select/Enter Mapped Field										
Company	▼										
Location	- -										
Department	<u>·</u>										
New/Used	New_Used										
Product Type	BodyType										
Manufacturer	Manufacturer 🗾										
Brand											
Employee											
Delete Copy Open Da	ta Source Get Data View Data Extracted	ОК									

There is a subtle understanding that is necessary here. If you setup an extraction as shown in the previous diagram, three filters are selected. This means that only records with all three fields will be extracted and monthly totals will only exist when all three

filters are specified. In other words, if you need a total for, in this case, Product Type only, it will not be available in the extracted data. You will need to add a new extraction only specifying the Product Type as a filter. If you wanted all combinations of filters extracted you will need many definitions. So it is necessary to know what combinations of filters you will be using in your dashboards, scorecards, and reports and make sure you have specified all the extraction definitions you need. If you bring in combinations you will not use, you will be making the time to extract and calculate longer than necessary in addition to making your QBD file larger than necessary. Here is a helpful analysis if you want to bring in all combinations:

For 1 filter, you will need 2 extraction definitions: one with the filter and one without the filter.

For 2 filers, you will need 4 extraction definitions: one with no filters, one with only filter 1, one with only filter 2, and one with both filters.

Filter 3	Filter 2	Filter 1
No	No	No
No	No	Yes
No	Yes	No
No	Yes	Yes
Yes	No	No
Yes	No	Yes
Yes	Yes	No
Yes	Yes	Yes

For 3 filters, you will need 8 extractions.

For 4 filters, you will need 16 separate extractions.

And for more filters, the number of extractions can be calculated using the formula:

```
Number of Extractions = 2^{\text{Number of Filters}}
```

History Settings

On the History Setting tab, you can set options for doing real time extractions.

CleverQ[™] Extractors Manual

Edit Database Source						
Data Source Type:	Access	🗾 🗾 Data Ty	pe:	Monthly 💌		🔽 Enabled
Source:	C:\Program Files\Deal	ership Software\D)ata\CQ_DS_(Queries.mdb	-	To avoid orphaned data, once a data source is
Query/Table/View:	CQ_Sales				-	defined you cannot change the source. You
Report Name:		must delete and re-enter the source.				
Field Mappings Date R	ange Filter Mappings	History Settings	Status			
Keep History						
Keep History for:	Mins 🔹					
Update Interval:	0 Mins 🔹					
Last Update: 1/9/2	010 12:47:20 PM					
			1			
Delete Copy	Open Data Source	Get Data	View Data	a Extracted		OK

Keeping History

Normally whenever you load the data from a query, all the previous data from that query will be deleted. You can keep this data so it doesn't get deleted by checking off the option "Keep History". This is useful if you want to maintain the data for plotting or comparing values. The "Last Data Loaded at" field will tell you the data and time when the last load was performed. If you only want to keep history for a specific period of time, enter a value next to the caption "Keep History for:" This can be as little as 1 minute or as long as hundreds of days.

Automatic Loading

You can setup the software to automatically load periodically by entering an "Update Interval". This can be a value in terms of minutes, hours, or days. When the current time and the "Last Data Load at" value exceed the update interval, the data is loaded in the background. This can provide a real-time update of data and gauges on a dashboard. Don't forget to set your preference for "Auto Update Dashboard".

Getting Data

There are 4 places where you can extract database data:

- Edit Database Source form
- Load Data from Databases form
- Extract Now on the Navigator (see later section)
- Schedule Extraction (see later section)

Edit Database Source Form

Using the "Get Data" button on the Edit Database Source form will only extract the data for the specific data source. If calculation of totals is selected on the Date Range tab, they will not be calculated when extracting data from this form. This option is good for testing your extractions since you can view the data source, get the data, and then view the extracted data all from this form.

Edit Database Source					
Data Source Type:	I	 Data Type 	e: Monthly 💌		🗖 Enabled
Source:				<u> </u>	To avoid orphaned data,
Query/Table/View:					defined you cannot change the source. You
Report Name:					must delete and re-enter the source.
Field Mappings Date R	ange Filter Mappings I	History Settings 🛛 S	itatus		
		Select/Ente	er Mapped Field		
	Row Name:		•	(Required)	
	Data Value:		-	(Required)	
с	olumn Date:			-	(If blank, current date is used)
R	ow Number:			•	
	Dept Name :		1	•	
Parent R	ow Number:			•	
Ca	olumn Type:				
Delete Copy	Open Data Source	Get Data	View Data Extracted		ОК

Load Data from Databases Form

Using the "Get Data" button on the Load Data from Databases form will only extract the data for the sources that have been selected. If calculation of totals is selected on the Date Range tab, they will be calculated when extracting data from this form.

-	Load Data from Databases			<
Se				•
Г	MySQL on K54-tbl_document-(Monthly):	Q	EDIT	
	Status:			
Г	MySQL on K54-tbl_documentlink-(Monthly):	Q	EDIT	
	Status:			
Г	MySQL on K54-tbl_eval-(Monthly):	Q	EDIT	
	Status:			
Г	MySQL on K54-tbl_receipt-(Monthly):	Q	EDIT	
	Status:			
Г	MySQL on K54-tbl_receipt-(Monthly):UserID	Q	EDIT	
	Status:			
Г	Stocks-Query1-(Monthly):	Q	EDIT	
	Status:			
Г	Stocks-StockData-(Monthly):	Q	EDIT	
	Status:			
₹	Stocks-StockData-Close(Monthly):	Q	EDIT	
	Status:			
	Stocks-StockData-Close(Daily):	Q	EDIT -	
U	Status:			
_	Ilear Select All Add New Get Data	ок		-1

Microsoft Excel Extractor

NOTE: Starting with version 1.908 of CleverQ, the Microsoft Excel Extractor has been redesigned and previous extraction definitions will not work. You will need to edit your workbooks and definitions.

CleverQ[™] can connect to one or more Microsoft Excel workbook files and pull data from one or more named ranges within the workbooks. The data ranges are blocks of data with rows and columns. There must be row names and optionally column names as well as some date associated with the data. If your requirements are to pull data from individual cells and you want to map the cells to specific names, then refer to the Data Package Excel Extractor for an alternative method of loading Excel data.

Setting up a Source

The Excel Workbook requires you name sets of cells using the Named Range feature of Excel. This allows $CleverQ^{TM}$ to find the correct set of cells. Refer to the Microsoft Excel Help system to understand how to name a range of cells. One method to name a range is described below.

To name a range of cells in Excel:

- 1. Select the range of adjacent cells
- 2. Click the "Name" box on the left end of the formula bar
- 3. Type the name for the cells
- 4. Press Enter

💌 M	Microsoft Excel - Examples.xls											
Eile Edit View Insert Format Iools Data Window Help												
📔 🗅 🚅 🔚 🔒 📆 🎒 💁 🔍 🖤 🕺 🖻 🛍 • 🝼 🗠 - 🔍 - 🍓 Σ - ફੈļ 🧎 🛍 🔯 🛷 100%												
Arial		- 10	• B / I	I E E E	B 🗐 🕏 🤋	6 , ^{+.0} .00		II • 🙆 •				
	Data1 🔪	•	∱ ≈ 8456									
	A	В	С	D	E	F	G	Н				
1												
2												
3												
4			New York	Connecticut	New Jersey	Rhode Island	ļ					
5		Product A	8,456	67,640	12,553	4,136						
6		Product B	37,032	9,509	7,307	83,103						
7		Product C	74,504	22,022	98,781	51,518						
8		Product D	2,402	77,098	247	49,443						
9												
10												

You can have as many named ranges within one worksheet or workbook as you want.

There are different types of named ranges required for importing to CleverQ. Again, it helps to understand how data is stored within CleverQ[™]. Please review the section on "Data Sources" in the "Customization Manual" to understand these concepts.

At a minimum, CleverQ requires a range of cells that contain numeric data. This will be referred to as the "Data Value" range. As shown in the next figure, the light blue areas is where the data values are so these would be the "Data Value" range.

	A	В	С	D	E	F	G	Н		J
1										
2										
3										
4			New York	Connecticut	New Jersey	Rhode Island				
5		Product A	8,456	67,640	12,553	4,136				
6		Product B	37,032	9,509	7,307	83,103				
7		Product C	74,504	22,022	98,781	51,518				
8		Product D	2,402	77,098	247	49,443				
9										
10										
11										
12			5/31/08	6/30/08	7/31/08	8/31/08				
13		Product A	18,889	47,245	27,943	87,782				
14		Product B	59,563	43,625	22,057	23,063				
15		Product C	43,926	62,206	9,026	60,135				
16		Product D	18,607	36,941	71,491	45,367				
17										
18										
19			New York	Connecticut	New Jersey	Rhode Island	New York	Connecticut	New Jersey	Rhode Island
20			5/31/08	5/31/08	5/31/08	5/31/08	6/30/08	6/30/08	6/30/08	6/30/08
21		Product A	75,869	65,997	68,480	87,043	75,366	67,483	48,034	78,803
22		Product B	69,347	73,246	15,951	70,929	94,741	21,075	18,623	77,772
23		Product C	7,286	1,444	22,766	86,254	872	66,906	35,429	86,897
24		Product D	21,664	74,035	50,713	44,102	95,604	46,225	77,642	34,391
25										
26										
27				1	2	3	4			
28				Product A	Product B	Product C	Product D			
29		5/31/08	New York	78,099	15,709	3,336	25,821			
30		5/31/08	Connecticut	97,236	27,553	61,815	48,875			
31		5/31/08	New Jersey	87 ,993	32,859	14,280	7,680			
32		5/31/08	Rhode Island	97,125	81,154	13,440	17,655			
33		6/30/08	New York	22,788	40,588	48,775	29,004			
34			Connecticut	47,806	15,235	75,922	16,598			
35		6/30/08	New Jersey	24,603	28,846	40,175	15,039			
36		6/30/08	Rhode Island	36,555	38,856	73,121	13,328			
37										

Data can be presented in an Excel worksheet in various formats as shown in the previous figure (and the figure is not showing the only formats that could exist). We need to extract the appropriate row and column headers surrounding the data. Generally there is always a row name (as shown in the yellow cells in the figure). This is referred to as the "Row Name" range and you will need to name that group of cells separate from the data value range. Note that the row name range does not have to be adjacent to the data value range as shown in the next figure.

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	B	С	D	E	F	G	Н	I	J	К	L	М	N	0	P	Q
	10/7/2010 7:49															
					Previous											
				Last	Close	High	Low	Volume	Change	% Change	52 Vk Hiah	52 Vk Low	Market Cap	EPS	P/E Batio	Shares
D	w Jones Industrial Average Index	Chart	News	10940.52	10944.72	10974.16	10918.57	113,647,413	-4.2	-0.04%	11258.01	9601.26	Ū	0	0	
Ap	ple Inc	Chart	News	289.06	288.94	291.99	285.26	19,851,030	0.12	0.04%	294.73	185.55	264,074,489,644	13.28	21.8	913,562,
Ar	nazon.com Inc	Chart	News	155.8	160.87	160.68	154.6	4,581,711	-5.07	-3.15%	161.78	88.4	69,772,257,022	2.42	66.5	447,825
Ci	trix Systems Inc	Chart	News	60.81	70	69.34	59.74	14,233,696	-9.19	-13.13%	71.93	36.75	11,367,791,252	1.26	55.5	186,939
<u>C</u> \	/S Caremark Corp	Chart	News	32.34	32.06	32.41	31.96	5,690,227	0.28	0.87%	38.27	26.84	43,924,770,327	2.6	12.3	1,358,218
eE	lay Inc.	Chart	News	24.48	24.59	24.78	24.25	6,704,006	-0.11	-0.45%	28.37	19.06		1.9		1,312,155
	pogle Inc.	<u>Chart</u>	News	533.01	538.23	539.95	529.94	2,194,696	-5.22	-0.97%	629.51	433.63			23.3	318,706
He	ewlett-Packard Co	Chart	News	40.57	40.81	41.22	40.44	19,778,500	-0.24	-0.59%	54.75	37.32	92,002,332,818	3.58	11.4	2,267,743
	al Mart Stores Inc.	Chart	News	54.53	54	54.63	53.9	7,658,826	0.53	0.98%	56.27	47.77	198,300,903,471	3.89	13.8	3,636,547
	<u>x Technologies Inc</u>	Chart	News	7.6	7.6	0	0	0	unch	0.00%	10.49	4.65		-0.3	0	34,931
	vanced Micro Devices Inc	<u>Chart</u>	<u>News</u>	6.83	6.98	7.05		19,453,267	-0.16	-2.22%	10.24	4.33		1.59		674,570
	el Corp	<u>Chart</u>	<u>News</u>	19.21	19.15	19.37	19.13	44,127,878	0.06	0.31%	24.37		106,961,274,902	1.67	11.5	5,568,000
	SI Systems Inc.	<u>Chart</u>	<u>News</u>	34.71	36.8	35.76	34.49	189,162	-2.09	-5.68%	36.84	17.03		1.27	28.9	18,404
	izer Inc	<u>Chart</u>	<u>News</u>	17.18	17.23	17.38	17.17	26,239,187	-0.05	-0.30%	20.36		138,097,618,493	1.26	13.6	
	crosoft Corp	<u>Chart</u>	<u>News</u>	24.36	24.35	24.54	24.13	35,873,311	0.01	0.04%	31.58	22.73		2.11	11.6	8,653,567
	egeneron Pharmaceuticals Inc	<u>Chart</u>	News	29.32	28.45	29.64	28.45	561,997	0.87	3.06%	30.58	15.02	2,407,563,104	-1.16	0	82,113
	hitedHealth Group Inc	<u>Chart</u>	<u>News</u>	34.12	35.07	35.22	33.94	10,117,625	-0.96	-2.72%	36.07	23.5		3.72	9.4	1,124,268
	agonWave Inc.	<u>Chart</u>	<u>News</u>	6.45	6.26	6.87	6.22	743,170	0.19	3.04%	14.1	4.4	237,293,945	1.14	5.4	36,789
	rtex Pharmaceuticals Inc	<u>Chart</u>	<u>News</u>	34.22	34.72	34.83	34.22	877,384	-0.5	-1.44%	44.24	31.25	6,940,897,600	-3.52	0	202,831
	hnson & Johnson	<u>Chart</u>	<u>News</u>	63.13	62.8	63.16	62.5	7,879,568	0.33	0.53%	66.2	56.86		4.84	13	2,754,445
	<u>&T Inc.</u>	<u>Chart</u>	<u>News</u>	28.49	28.94	29.05	28.24	38,376,796	-0.45	-1.55%	29.43	23.78		2.14	13.7	5,909,000
	rd Motor Co	<u>Chart</u>	<u>News</u>	13.21	13.01	13.45	13.04	77,449,968	0.2	1.54%	14.57	6.81	45,433,404,121	1.49	8.7	3,439,319
	earwire Corp	<u>Chart</u>	<u>News</u>	7.42	7.77	7.84	7.3	2,163,974	-0.35	-4.50%	8.82	5.35	7,313,171,367	-1.93	0	985,602
	culus Innovative Sciences Inc.	<u>Chart</u>	News	1.42	1.44	1.46	1.42	19,880	-0.02	-1.39%	3.2	1.34	37,313,992	-0.29	0	26,277
	armin Ltd	<u>Chart</u>	News	30.01	30.19	30.29	29.6	1,239,963	-0.19	-0.61%	40.47	26.11	5,838,864,819	3.31	9.1	194,596
Kr	aft Foods Inc.	<u>Chart</u>	News	31.34	31.28	31.5	31.24	4,174,570	0.06	0.19%	31.98	25.85	54,650,055,833	2.73	18.2	1,744,058

Another unique aspect of the row name range occurs when you export data from QuickBooks® into an Excel worksheet (See the next figure). Note that the row names take up multiple columns in Excel. If you define a row name range with multiple columns, the text from all the columns will be concatenated into one row name.

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	AE			E	F	G	Н		J	к	L	М
1	<u> </u>	, .		-		0	Nov 1, 08	Nov 8, 08	Nov 15, 08	Nov 22, 08	Nov 29, 08	Nov 30, 08
	ASSET	IS										
3		лгег	It As:	sets								
4		Ch	eckir	na/S	avin	as						
5				-		anty Credits/Uncoll	4,861.08	4,861.08	4,861.08	4,861.08	4,861.08	4,861.08
6			0000)3 · \	NAS	H-OUT	208.25	208.25	208.25	208.25	208.25	208.25
7			1000) 0 · 0	Cast	Accounts						
8				1010	10 · 0	Cash on Hand	200.00	200.00	200.00	200.00	200.00	200.00
9				1020) 0 · 0	Checking Accounts						
10					1021	0 · Reserve	1,480.92	1,480.92	1,480.92	1,480.92	1,480.92	1,480.92
11					1022	20 • Main Checking	-118,270.92	-118,270.92	-118,270.92	-118,270.92	-118,270.92	-118,270.92
12						0 · Petty Cash Checking	1,912.61	1,912.61	1,912.61	1,912.61	1,912.61	1,912.61
13					1024	10 · Credit Unio	150,537.23	150,537.23	150,537.23	150,537.23	150,537.23	150,537.23
14				Tota	il 10	200 · Checking Accounts	35,659.84	35,659.84	35,659.84	35,659.84	35,659.84	35,659.84
15				1030	0.9	WEEP ACCOUNT	691,148.21	691,148.21	691,148.21	691,148.21	691,148.21	691,148.21
16						· Cash Accounts	727,008.05	727,008.05	727,008.05	727,008.05	727,008.05	727,008.05
							,					
17		Tot	tal Cl	neck	ing/	Savings	732,077.38	732,077.38	732,077.38	732,077.38	732,077.38	732,077.38
10												
18 19		Ac				vable						
20						unts Receivable	24.005.25	24,005,25	24,005,25	24,005,25	24,005,25	94,005,95
20						Contracts In Transit	34,995.35 16,167.76	34,995.35 16,167.76	34,995.35 16,167.76	34,995.35 16,167.76	34,995.35 16,167.76	34,995.35 16,167.76
22						nternal Adjustments Varranty Receivables	9,612.35	9,612.35	9,612.35	9,612.35	9,612.35	9,612.35
23)ealer Reserve Receivable	10,599.94	10,599.94	10,599.94	10,599.94	10,599.94	10,599.94
24						Accounts Receivable - Other	-982.83	-982.83	-982.83	-982.83	-982.83	-982.83
25						Accounts Receivable	70,392.57	70,392.57	70,392.57	70,392.57	70,392.57	70,392.57
							10,002.01		10,002.01	10,002.01		10,002.01
26		Tot	tal Ac	cou	nts	Receivable	70,392.57	70,392.57	70,392.57	70,392.57	70,392.57	70,392.57
27		Oth	ner C	urre	ent A	Issets						
28			1299	99 · L	Inde	eposited Funds	123,577.76	124,577.76	124,577.76	124,577.76	124,577.76	124,577.76
29			1300)0 · I	nve	ntory						
30				1310)0 • F	(V Inventory						
31					1311	0 · New Motorhomes						
32						13111 · Class A Diesel	445,835.00	445,835.00	445,835.00	445,835.00	445,835.00	445,835.00
33						13112 · Class A Gas	161,949.00	161,949.00	161,949.00	161,949.00	161,949.00	161,949.00
34					Tota	il 13110 · New Motorhomes	607,784.00	607,784.00	607,784.00	607,784.00	607,784.00	607,784.00
35					1313	20 · New TT & 5th Wheels						
36						13121 · Travel Trailers	403,512.00	403,512.00	403,512.00	403,512.00	403,512.00	403,512.00
37						13122 · Sport Utility Travel Trailers	73,392.00	73,392.00	73,392.00	73,392.00	73,392.00	73,392.00
38						13123 · Fifth Wheels	729,907.00	729,907.00	729,907.00	729,907.00	729,907.00	729,907.00
39						13124 · Sport Utility Fifth Wheels	535,625.00	535,625.00	535,625.00	535,625.00	535,625.00	535,625.00
40						I 13120 · New TT & 5th Wheels		1,742,436.00				
41					1313	10 · New FD & PUC						

There are other range names that can be defined. Dates are referred to "Column Dates", although they do not have to be across columns, and can consist of a single cell or a range of cells. In the previous figures the date ranges are shown with a tan background. Another range is referred to as a "Column Type" and is shown with a light green background in the figures. This is optional. You might also want to define what is called a "Row Number" range. This is a set of numerical values that generally is used to maintain the same order of data in the extraction. This is optional and CleverQ can auto number as necessary.

If you use Filters in CleverQ, you can also define filter ranges as you will see described further on. These can be used in place of row name ranges or column type ranges. Filter ranges can also be single cells. For example, you have multiple companies and you have

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the company name located in a single cell of the worksheet. You can assign a range name to that single cell and then assign that range name to the Company filter in the extraction definition.

Defining the Extractions

Using the main menu and selecting "Setup – Data Sources – Excel", or selecting Excel in the Extractor Definitions block on the Navigator, will bring up the "Load Data from Excel" form as shown in the figure below.

Since you can have an unlimited number of extractions coming from the same or different Excel workbooks, the form lists each of the extraction definitions. On this form you can see a description of the extraction as well as the last status of the extraction.

0	Load Data from Excel	ſ		X
Se	el Source and Description		?	-
×	Balance Sheet-(Daily):	Q	EDIT	
	Status: Data load complete			
	Examples 1-(Current):	ρ	EDIT	
	Status: Data load complete			
┓	Examples 2-(Monthly):	Ω	EDIT	
	Status: Data load complete			
⊽	Examples 3-(Monthly):	Q	EDIT	
	Status: Data load complete	-		
	Examples 4-(Monthly):	ρ	EDIT	
	Status: Data load complete	-		
┓	Examples 4 Transpose-(Monthly):	ρ	EDIT	Г
	Status: Data load complete			
1	Profit & Loss-(Monthly):	ρ	EDIT	Г
	Status: Data load complete			
	Stocks Test Filter-(Current):StockNames	ρ	EDIT	Г
	Status: Data load complete			-
☑	Stocks Test Normal-(Current):	ρ	EDIT	Г
	Status: Data load complete	~		
	Clear Select All Add New C Load Data with Zeros Get Data	ОК		•

There are checkboxes next to each definition to select which extractions will occur when you press the "Get Data" button on the bottom of the form. This is the manual method to get multiple extractions. You can also manually do one extraction at a time, which is available on another form that will be described later. The extractions can also be programmed to occur at a certain time. That is covered in another section of the user manuals. You can individually check of the selection box, or use the "Clear Selections" or "Select All" buttons. However you leave this form in terms of the selected definition, they will be remembered after it is closed. When you do a complete reload from the Main Menu using "File – Load Data from Sources", the selections on this form will be used to determine what data will get loaded.

On option that is common to all extractions is to "Load Data with Zeros". This option is selected by checking off the box on the bottom of the form. When unchecked, any Excel data cells that are blank or zero, will not be loaded into CleverQ.

For each extraction, you can view the data extracted by pressing the P button. To edit the extraction, press the button "EDIT" next to the definition.

Adding and Editing Definitions

To add a new extraction definition, press the "Add New" button on the bottom of the form.

The Edit Excel Source form is shown in the next figure. When adding a new source, first enter the filename of the Excel Workbook. There is a button to the right of the field where you put the Excel Workbook file. You can click this to get a file select dialog and browse your disk for the file you want to use. You can also just type in the name. The software will actually open the Excel Workbook in the background and gather the names of the named ranges in the workbook. You simple need to pick one on the rest of the form.

Edit Excel Source	
Source: D:\CleverQ\Documentation\Excel Samples\Quickbooks Export 1.xls	📄 🔽 Enabled
Report Name: Balance Sheet	To avoid orphaned data, once a data source is defined you cannot
Data Type: Daily_	change the source. You must delete and re-enter the source.
Range Mappings Filter Mappings History Settings Status	
Select/Enter Mapped Range/Text	
Row Name: RowNames	(If blank, 'use filter' is used)
Data Value: Data	(Required)
Column Date: Dates	(If blank, current date is used)
Row Number:	(If blank, autonumbering will be used)
Column Type:	(Optional)
Delete Copy Open Data Source Get Data View Data Extracted	ОК

Once you have selected a workbook file, you can actually open it up in Excel very easily by clicking on the "Open Data Source" button. You can actually edit the workbook at this time, but any new named ranges will not show up on this dropdown lists. If you do add any named ranges, close the Edit Excel Source form and reopen it.

The next item you need to add is the Report Name you want to assign to the Extracted Data. You can have several extractions defined with the same name and all the data will be treated by CleverQ as the same data source. This is common for multiple companies, different dates, etc.

You then need to select a data type. This refers to whether the data is monthly, weekly, daily, quarterly, annual, or current.

Mappings

There are four (4) tabs showing various items. The most important is the "Range Mappings" tab. From the dropdown lists, choose the Row Name, Data Value, Column Date, Row Number, and Column Type ranges. Some of these can be left blank. Except for the Data Value entry, you can also enter text that is not in the list and this will be used as the value for all the records extracted.

On the Filter Mappings tab, you will see listed the filters specified on the CleverQ preferences form. For those filters enabled, you can use the dropdown list to select a range from the worksheet, or enter text that is not in the list and this will be used as the value for all the records extracted.

Edit Excel Source	
Source: D:\CleverQ\Documentation\Excel Samples\Quickbooks Export 1.xls	📄 🖻 Enabled
Report Name: Balance Sheet	To avoid orphaned data, once a data source is
Data Type: Daily 💌	defined you cannot change the source. You
	must delete and re-enter the source.
Range Mappings Filter Mappings History Settings Status	
Select/Enter Mapped Range	
Item	
Account	
· · · · · · · · · · · · · · · · · · ·	
<u> </u>	
Delete Copy Open Data Source Get Data View Data Extracted	ОК

History Settings

The History Setting tab, gives you options for keeping historical data.

Edit Excel Source	
Source: D:\CleverQ\Documentation\Excel Samples\Quickbooks Export 1.xls	📄 🗹 Enabled
Report Name: Balance Sheet	To avoid orphaned data, once a data source is
Data Type: Daily 💌	defined you cannot change the source. You must delete and re-enter the source.
Range Mappings Filter Mappings History Settings Status	
Keep History for: Mins	
Update Interval: 0 Mins 💽	
Last Update: 10/6/2010 3:31:16 PM	
Delete Copy Open Data Source Get Data View Data Extracted	OK

Normally whenever you load the data from a worksheet range, all the previous data from that source will be deleted. You can keep this data so it doesn't get deleted by checking off the option "Keep History". This is useful if you want to maintain the data for plotting or comparing values. The "Last Data Loaded at" field will tell you the data and time when the last load was performed. If you only want to keep history for a specific period of time, enter a value next to the caption "Keep History for:" This can be as little as 1 minute or as long as hundreds of days.

You can setup the software to automatically load periodically by entering an "Update Interval". This can be a value in terms of minutes, hours, or days. When the current time and the "Last Data Load at" value exceed the update interval, the data is loaded in the background. This can provide a real-time update of data and gauges on a dashboard. Don't forget to set your preference for "Auto Update Dashboard".

When data from an Excel worksheet is loaded, the worksheet is recalculated so the most current data is loaded. This includes updating any web-queries that are stored on the worksheet.

Status

And finally there is the Status tab. This simply shows the results of the last extraction including any error messages.

Edit Excel Source	
Source: D:\CleverQ\Documentation\Excel Samples\Quickbooks Export 1.xls	🖙 🗵 Enabled
Report Name: Balance Sheet	To avoid orphaned data, once a data source is
Data Type: Daily 🔽	defined you cannot change the source. You must delete and re-enter the source.
Range Mappings Filter Mappings History Settings Status	
Data load complete	
Delete Copy Open Data Source Get Data View Data Extracted	OK

Deleting

To delete a selected definition, press the Delete button on bottom of the form. You will be prompted to delete any data with the same report name prior to completing the deletion.

Copying

To make it easier to create definitions from existing ones, there is a "Copy" button. Press this button and a copy of the current definition will be made.

Testing

It is recommended when you setup an extraction to test it. This can be done from this form by pressing the "Get Data" button. The status of the extraction will be displayed on the Status tab.

Once the data is loaded you can view the data by pressing the "View Data Extracted" button. This could be used to verify you have loaded the data properly. The features of the View Extracted Data form are described in a section at the end of this manual.

🖳 View Extract	ed Data					
Report Name Data Type Item Account						
Data Value		Column Date 🔺	Column Type 🔺			
		10/6/2010				
Row Number 🔺	Row Name 🔺	Connecticut	New Jersey	New York	Rhode Island	
🗆 1	Product A	270560	50212	33824	16544	
- 2	Product B	38036	29228	148128	332412	
- 3	Product C	88088	395124	298016	206072	
- 4	Product D	308392	988	9608	197772	
			?	Preview/Export	Print	Done

Data Package

A Data Package is an external set of programs that are available with CleverQ for manually creating data or for extracting data from Excel is a different way than the Excel Extractor. The programs are referred to as:

- Data Package Creator
- Data Package Excel Extractor

Data Package Creator (DPC)

Refer to the separate user manual called "Data Package Creator Manual" for details of using this program.

Data Package - Excel Extractor (DPXE)

The CleverQ *Data Package – Excel Extractor* is an alternative way to get Excel data into the CleverQ software. Here are the features and limitations of this interface:

- Each Excel Workbook usually contains data for the same date.
- Each Workbook can contain multiple worksheets.
- There is no special format required within a worksheet. You map each cell to a data element using a template.
- There can be multiple reports contained within each worksheet where a template defines each report.
- Multiple identically formatted workbooks can be located within a single folder and the software will process all workbooks in the folder and keep track of which workbooks have been processed.

Setting up a Source

The Data Package - Excel Extractor (DPXE) File

When the software was installed, a blank DPXE file was put in the folder "C:\Documents and Settings\All Users\Documents\CleverQ" or "C:\Users\Public\Documents\CleverQ". The file name is "CleverQ DPXE.mdb". The file extension of mdb tells the system that the file is a Microsoft Access database. You will need to have Microsoft Access installed on your computer to use the DPXE. If you use the DPXE on the same machine that you installed CleverQTM software, then you should be all set. If you use the DPXE on another machine, you will need to have Microsoft Access on that machine.

The file is self contained and includes the data that you will enter, the templates, and the software to enter the data.

Creating a New DPXE File

Do not use the original file that was installed with the software. Make a copy and rename the file to something that is appropriate for the type of data it will contain. For example, if you are going to enter data for a particular company, then use the company name for the filename. For a department, you would use the department name. It does not matter what you use for the name, but ultimately the filename may be used as part of the report name in the CleverQTM software, so it should be meaningful. When renaming the file, make sure to maintain the same file extension of "mdb".

Use the Windows menus or keys to copy the file. You can locate the file anywhere you want to as long as the Clever Q^{TM} software will have access to it when it gets loaded.

Starting the DPXE

After copying and renaming the blank master file, simply double-click on the file, and Microsoft Access should open and load the file. After seeing the splash screen for a few seconds, you will see the main menu.

😆 Main Menu					
CLEVER		A PACKAGE - EXC Version 1.0		RACTOR	
Customized for:				Edit Templates	
				Import Templates	
Company Name: Input File Option Single Exce	el Workbook © Folde	r with Multiple Files (all fi	les must ha	ve same format)	
Excel Workbook File:				₽	
	Extract Data Now	Purge Data			
	View Extracted Data				
	View Log				
Note: If this program is opened and there is no user activity for the first 30 seconds, data extraction will automatically occur and when completed, the program will close. This mode should be used in conjunction with a Windows Scheduled Task to automate the extraction.					
If you open Excel from this program, some functionality may be disabled until you close Excel.					
On this main menu, the text box "Customized for:" is optional. You must enter a company name and it **must match exactly** the company name in the CleverQ QBD file that you will be loading the data into.

You have a choice of working with a single Excel workbook file, or a folder with Multiple files. You will either enter the single file or the folder. There is a browse

button to allow you to point to the file or folder.

CleverQ Data Format

2

It is important to understand how data is stored both in the DPXE and CleverQTM. A group of related data gets a name and this is called the "Report Name". It is called a report because normally the data comes from a report.

Within a report, you can specify a department if the data is associated with a department.

Data must also be associated with a date and a period of time. This is called the "Data Type". You can choose: Annually, Quarterly, Monthly, Weekly, Daily, and Latest. Dates. You always enter the last date within the period.

With the Report Name, Dept Name, and Data Type, you have enough to enter a table of data. The table is organized into rows(items) and columns (column types). The row name describes what the data value is for. The optional column type is usually used to describe the type of data. For example, Qty, Hours, Amount, Percent.

Templates

By pressing the "Edit Templates" button on the main menu, you will be presented with a Template List as shown in the next figure.

CleverQ[™] Extractors Manual

Report Name	Dept Name	Column Type	Data Type	Date Cell	
Balance Sheet (Master)			-	·	
Profit & Loss (Master)			-	•	
Profit & Loss		Amount	Monthly 🔽	PAGE 1'!\$E\$7	
Balance Sheet		Amount	Monthly 🔽		
Profit & Loss		Qty	Monthly 🔽	'PAGE 1'!\$E\$7	
-			-		

It will initially be blank you and can just start creating new templates by typing on the bottom of the list. Each template consists of:

- Report Name (will be used to define the CleverQ parameters)
- Dept Name (Optional)
- Column Type (Optional, if data has multiple column types, you will need to create a template for each type)
- Data Type (Required)
- Date Cell (This will point to a cell in the workbook that contains the date. If the cell does not return a date, the data extraction will not proceed.)

Templates can be copied, deleted, and edited. You can also import templates from other DPXE files from the main menu. Doing so, will delete any templates existing within the current DPXE file, so import first.

NOTE: Templates can be defined and not used. If the Data Type column is blank, the template will not be used during the data extraction.

Editing a template will bring up the form as shown in the next figure.

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R	eport N	lame	Pro	fit & Loss				Dept Name:				
C	olumn 1	Гуре	Am	ount	Data T	ype:	Monthly 👻	Date Cell:	PAGE 1'!\$E\$7			
	Item/F	Row	Nam	e		Cell						2
0	🖃 - N	et In	come			n('PAGE	: 1'!\$U\$62)					
1	(Net	Ordir	ary Income		n('PAGE	: 1'!\$U\$55)					
2		🖨 E:	(pen:	e		n('PAGE	: 1'!\$U\$54)					
3		Θ	6600	10 - Personnel Wages & Salarie	\$	n('PAGE	: 1'!\$U\$19)+n('F	AGE 1'!\$U\$6)				
4	[]			100 - Owner/Manager Wages		n('PAGE	: 1'!\$U\$11)					
5				66105 - Owner Salary								
6			· · · · · · · · · · · · · · · · · · ·	66110 - Owner Bonuses & Mgn	it Fees							
7	ļļ.			66115 - GM Salary								
8				66120 - GM Commissions								
9	ļ			66125 - GM Bonuses								
10				66130 · Directors Fees								
11			Τ.,	200 - Clerical & Gen Maint Sala	ries	n('PAGE	2'!\$D\$15)					
12 13	ļ			66205 - Salaries Accounting								
			ļ	66210 - Salaries Clerical								
14 15				66215 - Salaries Maintainance 66225 - Bonuses - Administratio								
15				300 - Sales Department Wage:	•••	- PDACE		ACE 2445412)		+n('PAGE 2'!\$F\$15)+		1¢D¢7)(%
16				66305 - Wages - Sales Manage		····•.	: 2!\$D\$13)+n(" : 2!\\$D\$13)+n("F			+n(FAGE 2!\$F\$10)+	n(FAGE 2	isus/j+n(r
18			· · · · · · · · · · · · · · · · · · ·	66310 - Commissions - Sales M		п(гАас	. 2:50313]+ri(1	AGE ZIOFOIDJ				
19				66315 - Bonuses - Sales Mana								
20				66320 - Wages - Sales People	Jonion	n('PAGE	2'!\$D\$7)+n('P)	GE 21\$E\$7)				
21				66325 - Commissions - Sales P	eople							
22				66330 - Bonuses - Sales Peopl								
23				66335 - Salaries Sales Clerical								
F)				74		1	1			1	
Expa		← ↑	→ ↓	Add New Item Remove Add Sub-Item Remove B			rint C	alc			Save	Cancel
Colla	pse	т	¥	Add Sub-Item Remove t	ranch					_		

The top section of this form displays the same information on the template list and cannot be changed on this form. This form contains a tree or outline capable list where you specify an item or row name and the cell where the value can be found in the Excel workbook. The cell reference is formatted just like a cell reference if you were in Excel, which is

Worksheet name!Cell

If the worksheet name contains a space, then enclose it with single quotes. The Cell reference is row first then column like "A1" for Column A Row 1. For absolute cell referencing, you will want to use the \$ symbol (i.e. \$A\$1). You should refer to the Microsoft Excel documentation for more information about cell references. You might also want to enclose the entire worksheet cell reference within parenthesis and preceeded by the letter "n". This converts an empty cell to a zero value. If a cell is empty and you do not want to load it into CleverQ, then the n(...) is not needed. Your cell reference can also include a formula or calculation. It is evaluated just like Excel would evaluate it. This way the template could setup one item which could be the sum of several cells. You can include any of the arithmetic operations as well as the Excel built in functions.

If you are working with one workbook, then you can also select an item if it refers to a single cell and press the Calc button on the bottom of the form, and the value returned from the workbook will be displayed. This is a handy feature to make sure you have entered the cell reference correctly.

The Item/Row Name is text and is usually manually entered but can also reference text within the workbook. You can include a cell reference just like the value cell reference.

Both the Item/Row Name and the Cell Reference can also include the name of a range within the workbook. This will allow one item in the template to extract many rows in the extracted data. They must be ranges with one dimension either vertically or horizontally and both must be the same size. If you reference a range, that is the only thing that can be in the reference, you cannot include a formula. The Calc button will not work for a range reference.

Working with items involves using the various buttons located on the bottom of the form as shown in the following figure.



Be sure to Save your template before you close this form by pressing the Save button.

Extracting Data

With the templates defined, and the workbook or folder defined, you can now extract the data. This is done by pressing the "Extract Data Now" button on the main menu.

Viewing Extracted Data

To view the extracted data, press the "View Extracted Data" button. The View Data form will appear. This form is almost identical to the one within CleverQ to look at report data. Select your filters and press the Refresh button.

😰 Viaw Data	
Select Filters for Viewing Report Name: Clear Date Range: Row Name:	Dept: Column Type: Column Type: V
Department Row Name	Date Column Type Data Value D Type
	· · · · · · · · · · · · · · · · · · ·
	Close
Record: I I	Close

Viewing the Log

A log of activity associated with the DPXE can be viewed by pressing the "View Log" button on the main menu. The log will display the dates and times of all data extractions as well as any errors that occurred during the extraction. You should view this after each extraction to make sure there were no problems.

Automating the Extraction

When the DPXE file is opened and there is no user activity for the first 30 seconds, data extraction will automatically occur and when completed, the program will close. This mode should be used in conjunction with a Windows Scheduled Task to automate the extraction.

Adding a Source to the Data Load

When you are in the CleverQ[™] software, you can load the data entered with the Data Package Excel Extractor two ways:

1 - Using the main menu and selecting "Setup – Data Sources – External"

File	View	Edit	Set	up Help		
				Navigator		
				Preferences		
				Data Sources	►	QuickBooks
				Parameters		Excel
				Indicators		Database
				Gauges	►	Data Package
				Dashboards		
				Security		
				Object Relationships/Export		
				Import Objects		

2 – Selecting "Data Package" from the dropdown list in the Extractor Definitions on Navigator, will bring up the "Load Data from External Data File" form as shown in the figure below.

In either case you will see the following form displayed....

🝳 Load Data from	i External Data File						
Sel	External Data File			Report	Name		
		🖻 🖉				•	🔍 🐺
Keep History for		Update Interval:	0 Mins	🗾 La:	st Update:		
	rnal File Name as part of Repo	rt Name					
Status:							_
Clear Selections	Select All				Get External Data	(ок

With the form containing one or more entries it will look something like this....

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QI	.oad Data fro	m External Data	ı File						
Sel		External D	ata File			Repor	t Name		•
	:\CleverQ\Devel	opment\QBD DPC 1	-00.mdb	🔁 test				•	۵ 🐺
	Keep History f	or: Mins	•	Update Interval:	0 Mins	• L	ast Update:		
	Do not use Ext	ernal File Name as j	part of Repo	rt Name					
	Status:								
				1				-	
			•	Update Interval:	0 Mins	• L	ast Update:		
		ernal File Name as j	part of Repo	rt Name					
	Status:								
Cle	ar Selections	Select All					Get External Data	0	к

Use the \checkmark button to browse to the file location of the data file mdb. Once the MDB file has been selected, you can choose the report name using the dropdown list under Report Name. Behind the scenes, CleverQTM will open the MDB file and get a list of the report names and populate the drop down list.

To delete a selected report name from the list, press the button on the appropriate line.

After the data is loaded you can view the data by pressing the button. This could be used to verify you have loaded the data properly. Remember the Report Name is the name of the MDB followed by a dash followed by the report name unless you choose the option "Do not use External File Name as part of Report Name", in which case the Report Name will only be used. After optionally selecting the Date Range, Row Name, and/or Column Type, press the "Refresh" button.

You use the same form "Load Data from External Data File" to set up and execute the loading process. On the left side of the form are checkboxes. Check off those reports you want to load. You can select all of them by pressing the "Select All" button on the bottom of the form. You can de-select all of them by pressing the "Clear Selections" button on the bottom of the form.

To load the data, press the "Get External Data" button on the bottom of the form. You will be notified when the data is loaded and there will be a status message for each report under the MDB file name. Check these to see that there were no errors.

However you leave this form in terms of the selected reports to load, they will be remembered after it is closed. When you do a complete reload from the Main Menu using "File – Load Data from Sources", the selections on this form will be used to determine what data will get loaded.

Keeping History

Normally whenever you load the data from a report, all the previous data from that report will be deleted. You can keep this data so it doesn't get deleted by checking off the option "Keep History". This is useful if you want to maintain the data for plotting or comparing values. The "Last Data Loaded at" field will tell you the data and time when the last load was performed. If you only want to keep history for a specific period of time, enter a value next to the caption "Keep History for:" This can be as little as 1 minute or as long as hundreds of days.

Automatic Loading

You can setup the software to automatically load periodically by entering an "Update Interval". This can be a value in terms of minutes, hours, or days. When the current time and the "Last Data Load at" value exceed the update interval, the data is loaded in the background. This can provide a real-time update of data and gauges on a dashboard. Don't forget to set your preference for "Auto Update Dashboard".

QBD Merge

The QBD Merge extraction is only available for Multiple Company licenses. After choosing this extraction type you will see the following form:



Then Press ... to select the file.



When you are ready to extract, go to the extract tab and choose from the various features available.

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🖳 CleverQ - QBD Merge Extractor Setup	
Setup Extract	
Merging QBD files requires that all Filter settings and other preferences be identical to the main QBD file. Filter1 in the QBD files being extract will be ignored and replaced by the company name on the Setup tab of this form.	ed
☑ Create Company Totals	
Purge All Data Get Data Now Show Extracted Data	
OR Create Scheduled Task View Log for Last Extraction	
C:\Users\Public\Documents\CleverQ\DevTest.qbd	? Done

Extracting the Data

Extract Now on the Navigator

The Navigator has an icon labeled "Extract Now". Clicking on this icon will extract data from all selected data sources. Depending on the amount of extraction, this could take a long time.



Schedule Extraction

Also on the Navigator form, you can click on the "Schedule Extraction" icon which will create a Windows Scheduled Task which will cause the data extraction to occur at a particular time. This is useful to schedule in the evening when the extraction takes a long time. In addition to extracting from all selected data sources including databases, the formulas are populated in the data cache and the data cache is recalculated.

Using the Data

The data extracted can be used as a source for reports or as a source for parameters. As a source for parameters, they will be referenced by indicators and ultimately gauges.

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🔍 Parameter I	Detail					
Select Existing	Parameter:		Parameter	Source All		•
Net Income						•
Parameter Name:	Net Income To overwrite au	to-naming, change the nan	ne after selecting the	report, row, and column.	Note: Total revenue in an accounting period le	Tested
- Map Paramete	A parameter can l source, or a form	be mapped to a specific iten ula based on other paramet	n on a report/data	 Key Parameter Null to zero No Filters 	expenses during the same period. If incr are not deducted, it is called operating p Loss, as the case may be). Also called e- net earnings, or net profit.	ome taxes 🥫
Report Name:				-1		
	Net Income					
Column Type:				Ŀ		
×						
Calculate Para	meter —	- OR -				
Formula:						
×						
period in a da	ate range and stored to	er formula is calculated norm be used by other paramete te range, preceed the form	rs or indicators. To (
Add New Param	eter Copy	Delete Parameter	Where Used	Calculate		Close

Viewing Extracted Data Using the PivotGrid

Some extractors provide a way to look at the extracted data using a powerful PivotGrid. In particular, the QuickBooks extractor provides this interface.

When the View Extracted Data form opens, you will be prompted to select a report. Uncheck "Show All" and check off the report you are interested in.

eport Name 🗹 Data Type Company	Job	Class Customer	Name Vendor N	ame Employee 1	lame Item A	ccount		
(Show All)	ite 🔺	Column Type 🔺						
A/P Aging Summary		Column Type 🔺)					
A/P Aging Summary Filter					6/30/2008			
A/R Aging Summary		New Construction	Overhead	Remodeling			% of Tot Asset	Amo
A/R Aging Summary Filter								
Balance Sheet								
Dept Allocation								
Dept User Allocation		0	0	0				
Formula Parameter	0							
Inventory Stock Status by Item					71227.23			
Inventory Stock Status by Item Filter								
Inventory Valuation Summary								
Inventory Valuation Summary Filter								
Open Sales Orders by Item								
Open Sales Orders by Item By Rep	0				144031.44	623095.48	1532.4	
Open Sales Orders by Item Filter		0	0	0				
Open Sales Orders by Rep								
Open Sales Orders by Rep Filter	0							
Payroll Summary								
Payroll Summary by Employee								
Profit & Loss								
Profit & Loss Filter								
Sales by Customer Summary		0	0	0				
Sales by Customer Summary Filter								
Sales by Item by Rep Summary								
Sales By Item By Rep Summary Filter								
Sales by Item Summary								
Sales By Item Summary Filter		0	0	0				
Sales by Rep Summary								>
Sales By Rep Summary Filter							1	
Seasonal Trend FP					Preview/Expo	ort Print		Done
Seasonal Trend PL								
-								
\square								

The form can be resized by dragging edges and more or less data can be shown.

Columns can be resized by moving the mouse over to the border of the column and dragging the edge.

Sorting

			6/30/2008
	Row Number 🔺	Row Name 🔺	
	- 4	10100 · Checking	50251.8
Sorting	- 5	10400 · Petty C	100
-	- 6	10300 · Savings	3120
	- 7	Total Checking/	82451.8
	- 9	11000 · Accoun	100914.2
	- 10	Total Accounts	100914.2

A dimension field is a row or column field and they are all arranged in ascending or descending order. The sort order is determined by an up or down arrow.

Filtering

Any field except the data field can have a filter. You saw the filter for Report name when you first opened the form. Clicking on the top right portion of a field will show the filter icon and then you can filter by that field value.

Data Value		Column Date 🔺 Column Type 🔺	
			— 10/31/2
Row Number 🔺	Row Name		
3 4	10100 · Checking	✓ (Show All) ✓ 10100 · Checkina	- A 7
- 5	10400 · Petty Cash	✓ 10300 · Savings	=
- 6	10300 Savings	☑ 10400 · Petty Cash	3
3 7	Total Checking/Savings	11000 · Accounts Receivable	10
- 9	11000 · Accounts Receivable	2000 · Undeposited Funds	12
- 10	Total Accounts Receivable	12100 · Inventory Asset	12
- 12	12800 · Employee Advances	12800 · Employee Advances 13100 · Pre-paid Insurance	
- 13	12100 · Inventory Asset	✓ 13400 · Retainage Receivable	2
3 14	13100 · Pre-paid Insurance	15000 · Furniture and Equipment	
- 15	13400 · Retainage Receivable	🗹 15100 · Vehicles - Other	
- 16	12000 · Undeposited Funds	✓ 15200 · Buildings and Improvements	
17	Total Other Current Assets	15300 · Construction Equipment 155 Wilks Blvd.	3
- 18	Total Current Assets	▼ 16900 · Land	26
20	17000 · Accumulated Depreciation	✓ 17000 · Accumulated Depreciation	-10
21	15200 Buildings and Improvements	☑ 18700 · Security Deposits	
- 22	15300 · Construction Equipment	20000 · Accounts Payable	
- 23	15000 · Furniture and Equipment	20500 · QuickBooks Credit Card	
- 24	16900 · Land	✓ 20600 · CalOil Credit Card ✓ 23000 · Loan - Vehicles	
- 28	15100 · Vehicles - Other	23100 · Loan - Vehicles	15
- 29	Total 15100 · Vehicles	23200 · Loan - Vehicles	15
30	Total Fixed Assets	24010 · Federal Withholding	95
- 32	18700 · Security Deposits	24020 · FICA Payable	
33	Total Other Assets	24040 · FUTA Payable	
34	TOTAL ASSETS	 ✓ 24050 · State Withholding ✓ 24060 · SUTA Payable 	122
39	20000 · Accounts Payable	24070 · State Disability Payable	
40	Total Accounts Payable	24080 · Workers Compensation	
- 42	20600 · CalOil Credit Card	🗹 24100 · Emp. Health Ins Payable	
 ∃ 43	20500 · QuickBooks Credit Card	🗹 25500 · Sales Tax Payable	

In addition to filtering each column, you can create complex filters with "Prefilters". Right mouse click on an empty space and choose Show Prefilter.

🖳 View Extract	ed Data				(• @ _ 0	×
Report Name	Data Type Com	bany Ci	ustomer Name	Vendo	r Name Item Ac	count	\square
Data Value		Employee N	lame 🔺 Co	olumn Date	▲ Column Type ▲)	=
	🚬 🏹 Refresh 🕻)ata	N. Mason		🛨 Total no sales rep		
Row Number 🔺	Row Show Fiel	d List					
2	Blue Show Pre	filter				5080	
	Floor Plans					14794	-
	Plumb Fixtrs					2276.66	
.	Cabinet Pulls	ور من مردم			A second state of the second	1179.20	

You will then get the PivotGrid Prefilter form where you can create complex filter expressions.

PivotGrid Prefilter	×
Or O	
[Row Name] Begins with Plumbing 😢	
[Vendor Name] Contains ABC 🕲	
[Account] Begins with 10 💿	
And 💿	
[Employee Name] Equals Gregg O. Schneider 😳	
OK Cancel Apply	

Grouping

In the following example for the Sales by Item by Rep Summary report, the Employee Name field was dragged into the column header area to facilitate grouping by Employee.

Report Name 👻	Data Type Cor	mpany Customer	Name Vendor N	lame Item	Account							
Data Value	(Employee Name 🔺	Column Date 🔺	Column Type	•							
		Elizabeth N. Mas	ion									
		3/31/2010					- 4/30/2010					5/31/20
Row Number 🔺	Row Name 🔺	Amount	Avg COGS	Avg Price	COGS	Qty	Amount	Avg COGS	Avg Price	COGS	Qty	Amount
2	Blueprints											
	Floor Plans											
	Plumb Fixtrs											
3	Cabinet Pulls											
	Carpet											
	Decking											
	Doorknobs Std											
	Exterior	240	722.62	240	722.62	2						
	Framing											
	Installation											
	Interior											
	Lk Doorknobs											
	Rough											
	Trim											
	Window											
4	Decking											
	Drywall											
	Installation											
	Interior	576	154.08	144	616.30	8						
	Labor											
	Light Pine											
	Lk Doorknobs											
	Removal											
	Rough											
	Total Cabinets											
	Total Hardware											
	Total Lumber											
	Total Parts											
	Total Wood Door											
5	Appliance											
		7										>

Expanding and Collapsing Groups

Report Name VI	sterd Data	Danu Cush			lame Item	Accou	unt								
Report Name	Data Type Com	pany Custom													
Data Value	(Employee Name		Date 🔺	Column Ty	pe 🔺									
		3181/2010	ISON						- 4/30/2010						⊡ 5/31/2
Row Number 🔺	Row Name A	Amount	Avg COGS		Avg Price	CO	GS	Qty	Amount	Avg COG	iS	Avg Price	COGS	Qty	Amount
- 2	Blueprints Floor Plans		lick to												
	Plumb Fixtrs	e) 0	pand or ollapse												
- 3	Cabinet Pulls Carpet	C		/											
	Decking														
	Doorknobs Std														
	Exterior Framing	24	D	722.62		240	722.62	: :	2						
	Installation														
	Interior														
	Lk Doorknobs Rough														
- 4	Trim														
	Window Decking														
	Drywal														
	Installation Interior	57	4	154.08		144	616.30		2						
	Labor	57		101.00		111	010.00		,						
	Light Pine														
	Lk Doorknobs Removal														
	Rough														
	Total Cabinets Total Hardware														
	Total Lumber														
	Total Parts Total Wood Door														
- 5	Appliance														
< 11															
												Г	Preview/Export	Print	Do
Report Nam	diracited Data ne ♡ Data Typ			ustom	er Name	Vend	lor Name	Item (4		-					
	ne 🔍 Data Typ	e Compa	iny Cu Employee N			Vend		Item /	xccount	-					
Report Nam	ne 🔍 Data Typ			lame	▲ Colu		:e 🔺) (C	iolumn Type 🔺	xccount	-					
Report Nam Data Value	ne 🔍 Data Typ		Employee N	lame	▲ Colu		:e 🔺) (C		xccount	-					
Report Nam	ne 🔍 Data Typ		Employee N	lame	▲ Colu		:e 🔺) (C	iolumn Type 🔺	xccount	-					
Report Nam Data Value	ne 🔍 Data Typ	e Compa	Employee N	lame	▲ Colu		:e 🔺) (C	iolumn Type 🔺	xccount						
Report Nam Data Value Row Numbe	ne 🔍 Data Typ	e Compa	Employee N	lame	▲ Colu		:e 🔺) (C	iolumn Type 🔺	xccount						
Report Nam Data Value Row Numbe	ne 🔍 Data Typ	e Compa ame A	Employee N	lame	▲ Colu		:e 🔺) (C	iolumn Type 🔺	5080 14794 2276.66						
Report Nam Data Value Row Numbe	er 🔺 Row Na Blueprin Floor Pl.	e Compa ine 1 ts ins ixtrs	Employee N	lame	▲ Colu		:e 🔺) (C	iolumn Type 🔺	secount 5080 14794						
Report Nam Data Value Row Numbe	ne 🔍 Data Typ Pr 🔺 Row Na Blueprin Floor PL Plumb F	e Compa ine 1 ts ins ixtrs	Employee N	lame	▲ Colu		:e 🔺) (C	iolumn Type 🔺	5080 14794 2276.66						
Report Nam Data Value Row Numbe	er A Row Na Blueprin Floor Pl. Plumb F Cabinet	e Compa ame A ts A hxtrs Pulls	Employee N	lame	▲ Colu		:e 🔺) (C	iolumn Type 🔺	5080 14794 2276.66 1179.20						
Report Nam Data Value Row Numbe	er A Row Na Blueprin Floor Pl. Plumb F Cabinet Carpet	e Compa internet internet inte	Employee N	lame	*) Colu ason	imn Dat	e A C	iolumn Type 🔺	5080 14794 2276.66 1179.20 12648						
Report Nam Data Value Row Numbe	er A Row Na Blueprin Floor PL Cabinet Carpet Decking	e Compa It sme	Employee N	lame	*) Colu ason		e A C	iolumn Type 🔺	5080 14794 2276.66 1179.20 12648 9062						
Report Nam Data Value Row Numbe	er A Row Na Blueprin Floor PL Cabinet Carpet Doorkno	e Compa in Compa in Compa its sts sts sts Pulls sbs Std	Employee N	lame	*) Colu ason	imn Dat	e A C	iolumn Type 🔺	5080 14794 2276.66 1179.20 12648 9062 1267.32						
Report Nam Data Value Row Numbe	er	e Compa ame ^ (ts s s s ts Pulls bbs Std	Employee N	lame	*) Colu ason	imn Dat	e A C	iolumn Type 🔺	5080 14794 2276.66 1179.20 12648 9062 1267.32 22695.22						
Report Nam Data Value Row Numbe	er Capet Carpet Decking Doorkn Exterior Framing	e Compa i i i ts i pulls i bbs Std i ion	Employee N	lame	*) Colu ason	imn Dat	e A C	iolumn Type 🔺	xccount 5080 14794 2276.66 1179.20 1267.32 22695.22 4225						
Report Nam Data Value Row Numbe	er Plumb F Plumb F Carpet Decking Dorran Franing Instalial	e Compa i i i i i i i i i i	Employee N	lame	*) Colu ason	imn Dat	e A C	iolumn Type 🔺	5080 5080 14794 2276.66 1179.20 1179.20 12648 9062 12695.22 22695.22 22695.22 22695.22 22695.22 30314						
Report Nam Data Value Row Numbe	er Potential Plumb F Captet Carpet Decking Doorkn Exterior Installal Interior	e Compa i i i i i i i i i i	Employee N	lame	*) Colu ason	imn Dat	e A C	iolumn Type 🔺	5080 14794 2276.66 11267.32 22695.22 4225 4225 30314 918.88						
Report Nam Data Value Row Numbe	er A Row Ni Blueprir Floor Pl Plumb F Cabinet Carpet Decking Doorknu Exterior Framing Installal Interior Lk Door Rough Trim	e Compa e Compa e Compa ts - Compa states - Compa e	Employee N	lame	*) Colu ason	imn Dat	e A C	iolumn Type 🔺	xccount 5080 14794 2276.66 1179.20 12648 9062 1267.32 22695.22 4225 30314 918.88 918.88 918.72 14099.83 2572						
Report Nam Data Value Row Numbe 2 3	er Plumb F Traming Installal Interior IL Door Rough Trim Window	e Compa t Compa ts	Employee N	lame	*) Colu ason	imn Dat	e A C	iolumn Type 🔺	5080 14794 2276.66 1179-20 12648 9962 1267.32 2267.32 24225 30314 918.88 912.72 14099.83 912.72 14099.83 22572 322						
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Report Nam Data Value Row Numbe 2 3	er Row N Blueprir Floor Pl Plumb F Cabinet Carpet Decking Installal Interior Rough Trim Window Decking Drywall	e Compa i i i i i i i i i i	Employee N	lame	*) Colu ason	imn Dat	e A C	iolumn Type 🔺	xccount 5080 14794 2276.66 1179.20 12648 9062 1267.32 22695.22 22695.22 22695.22 1267.32 30314 918.88 912.72 14099.83 2572 3032 14099.83 2572 31301 10632						
Report Nam Data Value Row Numbe	er Potential Potentia Potential Potential Potential Potential Potential Potential Pot	e Compa e C	Employee N	lame	A Colu	1927.2	e C C C C C C C C C C C C C C C C C C C	iolumn Type 🔺	5080 14794 2276.66 1175.40 11264.32 22695.22 4225 4225 4225 30314 918.88 912.72 14099.83 2572 3232 21301						
Report Nam Data Value Row Numbe 2 3	er Plumb F Pl	e Compa e C	Employee N	lame	A Colu	imn Dat	e C C C C C C C C C C C C C C C C C C C	iolumn Type 🔺	xcount 5080 14794 2276.66 1179.20 12648 9062 1267.32 22695.22 4225 30314 918.88 918.72 30314 918.72 14099.83 2572 322 1301 10632 3576						
Report Nam Data Value Row Numbe 2 3	er Plumb F Pl	e Compa i C	Employee N	lame	A Colu	1927.2	e C C C C C C C C C C C C C C C C C C C	iolumn Type 🔺	5080 14794 2276.66 1179-20 12648 9962 1267.32 22695.22 4225 30314 918.88 912.72 14099.83 32572 322 13001 2572 322 322 322 322 322 322 322 322 322 3						
Report Nam Data Value Row Numbe 2 3	er A Row Na Blueprin Floor Pl Plumb F Cabinet Carpet Decking Doorkin Exterior Framing Installal Interior Lk Door Rough Window Decking Drywall Installal Interior Labor Lubor Labor	e Compa i C	Employee N	lame	A Colu	1927.2	e C C C C C C C C C C C C C C C C C C C	iolumn Type 🔺	5080 14794 2276.66 112648 9062 1267.32 22695.22 4225 30314 918.88 912.72 1409.83 912.72 1409.83 912.72 1409.83 912.72 1301 10632 322 1301 10632 3570 938941.34						
Report Nam Data Value Row Numbe 2 3	er A Row Nk Blueprir Floor Pl Plumb F Cabinet Carpet Decking Doorkin Exterior Framing Installal Interior Rough Trim Window Decking Drywall Installal Interior Labor Light Pir Lk Door	e Compa i C	Employee N	lame	A Colu	1927.2	e C C C C C C C C C C C C C C C C C C C	iolumn Type 🔺	xccount 5080 14794 2276.66 1179.20 12648 9062 1267.32 22695.22 22695.22 22695.22 1267.32 22695.22 1267.32 22695.22 1267.32 1301 10632 9576 5709 38941.34						
Report Nam Data Value Row Numbe 2 3	er Plant Typ Pl	e Compa i C	Employee N	lame	A Colu	1927.2	e C C C C C C C C C C C C C C C C C C C	iolumn Type 🔺	ccount 5000 11794 2276.66 1179.20 12648 9062 1267.32 22695.22 4225 30314 918.68 918.72 4225 22695.22 4225 1267.32 22695.22 4225 2322 11605.23 9576 5709 38941.34 1552.04 1552.04 790						
Report Nam Data Value Row Numbe 2 3	er Plumb F Pl	e Compa i C	Employee N	lame	A Colu	1927.2	e C C C C C C C C C C C C C C C C C C C	iolumn Type 🔺	xcount 5080 14794 2276.66 1179.20 12648 9062 12649.22 22695.22 4225 30314 918.88 912.72 14099.83 22572 322 1301 10632 9576 5709 38941.34 1552.04 7390						
Report Nam Data Value Row Numbe 2 3	er Potential Plumb F Plumb F Captet Carpet Decking Doorkin Exterior Exterior Kraming Installal Interior Lk Door Rough Orywal Installal Installal Interior Lk Door Rough Cywal Captet Ca	e Compa te Compa ts	Employee N	lame	A Colu	1927.2	e C C C C C C C C C C C C C C C C C C C	iolumn Type 🔺	CCCOUNT 5080 14794 2276.66 1179.20 12648 9962 1267.32 22695.22 4225 30314 918.88 912.72 14099.83 912.72 14099.83 912.72 322 1301 10632 25709 385941.34 11552.04 790 385941.34 11552.04 790						
Report Nam Data Value Row Numbe 2 3	er A Row Na Blueprin Floor Pl Plumb F Cabinet Carpet Decking Doorkin Exterior Framiog Installal Interior Lk Door Rough Trim Window Decking Drywall Installal Interior Labor Labor Light Pir Lk Door Rough Tristallal Interior Labor Light Pir Light Pi	e Compa i C	Employee N	lame	A Colu	1927.2	e C C C C C C C C C C C C C C C C C C C	iolumn Type 🔺	xcount 5080 14794 2276.66 11267.32 22695.22 4225 4225 4225 4225 4225 14099.83 912.72 14099.83 912.72 14099.83 912.72 14099.83 912.72 14099.83 912.72 1301 10632 9576 938941.34 1552.04 7790 33995.4 238.90 7912.06						
Report Nam Data Value Row Numbe 2 3	er Row Nk Blueprir Floor Pl Plumb F Cabinet Carpet Decking Doorkn Exterior Framing Installal Interior Rough Trim Window Decking Drywall Installal Interior Labor Light Pir Lk Door Remove Rough Total Ca Total Hk Total Lu	e Compa i C	Employee N	lame	A Colu	1927.2	e C C C C C C C C C C C C C C C C C C C	iolumn Type 🔺	xcount 5080 14794 2276.66 1179.20 12648 9062 1267.32 22695.22 22695.22 4225 30314 918.88 912.72 30314 918.88 912.72 14099.83 912.72 14099.83 912.72 14099.83 912.72 1301 10632 9576 5709 38941.34 1552.04 7509 38941.34 7509 38941.34 7509 38941.34 7509 38941.34 7509 38941.34 7509 7509 7509 7509 7509 7509 7509 7509						
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Printing

Press the Print button and the PivotGrid will be sent to your default printer. To select a printer, press the Preview/Export button instead.

Exporting

Press the Preview/Export button to view the PivotGrid as it would print. From here you can choose a printer and print or export the PivotGrid to a variety of formats including PDF, HTML, MHT, RTF, TXT, CSV, XLS, XLXS, BMP, EMF, GIF, JPEG, PNG, TIFF, and WMF. You can also directly email from this form.

