milestone XProtect Retail 2.2 User's Manual



Target Audience for this Document

This document is aimed at users of Milestone XProtect Retail and provides descriptions of how to create and use different types of queries.

The manual should be helpful to both the user who investigates known kinds of fraud or shrinkage using existing queries, and to the advanced user who creates or adjusts queries to match new types of fraud or shrinkage.

Note: The installation of Milestone XProtect Retail is not covered in this manual.

Copyright, Trademarks and Important Information

Copyright

© 2008 Milestone Systems A/S.

Trademarks

XProtect is a registered trademark of Milestone Systems A/S.

Microsoft and Windows are registered trademarks of Microsoft Corporation.

All other trademarks mentioned in this document are trademarks of their respective owners.

Disclaimer

This document is intended for general information purposes only, and due care has been taken in its preparation.

Any risk arising from the use of this information rests with the recipient, and nothing herein should be construed as constituting any kind of warranty.

Milestone Systems A/S reserve the right to make adjustments without prior notification.

All names of people and organizations used in this document's examples are fictitious. Any resemblance to any actual organization or person, living or dead, is purely coincidental and unintended.



Contents

INTRODUCTION	5
System Requirements	5

Custom Parameters	
Query types	
Performing a Normal Query	
Performing a Group By Query	
Drilling Down a Group By Query	9
Viewing Transactions and Video	10
Printing	
Exporting a Query Result	

MANAGING QUERIES						
Creating a Query						
Using the SQL Interface	14					
Editing a Query						
Deleting a Query						

APPLICATION SETTINGS16	RET
cting to the Surveillance System16	(
ding Database Structure	ſ



Introduction

The Milestone XProtect Retail application is a powerful investigation tool which can help you to pinpoint shrinkage and fraud.

With the Retail software you are able to:

- Execute queries in business data to find suspicious transactions
- View video matching suspicious transactions
- Export recordings for video evidence
- Create your own queries

System Requirements

The requirements for the Milestone XProtect Retail system are project specific and can only be calculated based on the individual project.



How to Investigate

With the Milestone XProtect Retail application you can investigate different kinds of suspicious data to identify shrinkage and fraud. This is done by using one of the defined queries to look for suspicious activity in the business data. Queries find transactions, which are linked to the video recorded from by a camera at the till when the specific transaction took place.

🐟 VideoO	S XProtect Retail										
<u>Eile Vie</u> t	v Que <u>r</u> y Designer	Tools <u>H</u> elp)								
Query											
Select a gu Note: The .	iery and a time span for i longer time span you sel	the guery and , lect the longer .	oress Run time it will.	to execute th take to execu	e query. te the que	egy.					
Query:											*
Time span:	Today	*	From:	Sunday ,	May	25, 2008	\sim	To:	Sunday 🚏	May	25, 2008 🛛 💌
											Run
											.::

1. Select a query in the *Query* list to find data that you want to investigate.

📥 Vide	eoOS	XProtect	Retail							
Eile	⊻iew	Que <u>r</u> y D	esigner)	Tools	<u>H</u> elp					
Query										
Select Note: .	a quei The lor	y and a tim nger time sp	e span foi van you se	the query lect the k	r and press Ru unger time it wi	in to execute If take to exe	e the query. scute the qu	iery:		
Query:										*
Time sp	ban:	Transactioi Transactioi Transactioi Refunds gr	ns by emp ns by Tran ns by TILL ns outside ouped by	oyee saction N of normal <u>tem</u>	umber business hou	\$				



2. Select a time span. You can either select *Today*, *Last 48 hours*, *Last 7 days*, *Last 14 days*, *Last month*, *Everything* or *From - To*. When choosing *From - To* the *From* date picker and the *To* date picker will be enabled and you can specify the start and end date for the query analysis.

🔶 VideoO	S XProtect Retail				
<u>F</u> ile ⊻ie	w Que <u>r</u> y Designer	Tools <u>H</u> elj	D		
Query					
Select a g Note: The	uery and a time span for ti longer time span you sele	he query and ct the longer	press Rur time it will	n to execute the query. Take to execute the query.	
Query:					~
Time span:	From - To	*	From:	Sunday , May 25,2008 💌 To: Sunday , May	25, 2008 🛛 💌
				K May, 2008	Run
				Sun Mon Tue Wed Thu Fri Sat 27 28 29 30 1 2 3	
				4 5 6 7 8 9 10	
				11 12 13 14 15 16 17 18 19 20 21 22 23 24	
				25 26 27 28 29 30 31	
				1 2 3 4 5 6 7	
				100ay. 372372000	

You can either enter the date manually in the *From* and *To* fields, or you can click the dropdown arrow to select the date from a calendar.

3. Click the *Run* button.

Query Parameters

If the query has been designed with parameters the Milestone Xprotect Retail application will present you with the following dialog:

Para	mter values		
Please I	fill in the value of the following paramters:		
	Name	Value	
۱.	@CardNumber		
	@CurrencyDescription		
		OK Cancel	

In this dialog the values of the different parameters for the query can be entered. When you have entered all values click the OK button.



Query types

The Milestone XProtect Retail application has two different types of queries: normal queries and group by queries.

- Normal queries are simple queries resulting in a set of specific transactions where each line in the result set represents one transaction.
- Group by queries are aggregated queries resulting in a set of records representing several transactions.

A transaction line may be greyed out in the result set. There can be several reasons for this:

- the Milestone surveillance system doesn't have any video matching the transaction
- the Retail System is not correctly connected to the Milestone surveillance system
- no camera has been assigned to the till

7 Tip: You can filter out the greyed out lines by clicking in the menu *View* and selecting *Hide filtered rows*.

Performing a Normal Query

When you perform normal queries you will see a window like this:

🔶 VideoO	🔶 VideoOS XProtect Retail 📃 🗖 🔀							
File Viev	v Query Designer Tools Help							
Query								
Select a gu Note: The I	iery and a time span for the query and press Run to execu longer time span you select the longer time it will take to e.	te the query. recute the query.						
Query:	Transactions by employee				~			
Time span:	Everything	From: Monday Januar	/ 01, 1753 💉 To:	Thursday , December 31, 999	38 🖂			
				R	un			
	TransactionId	V	14	TranDate	V			
298250B80	AC0461385FA98CE4964287D		2/28/2007 3:10:47 PM					
2F4F9FAB2	25EE 4084BD 3628CB 3B 6D D 9E D		2/28/2007 8:03:51 AM					
31B367794	E574D41B1276FAD4BAEA5DA		2/28/2007 7:39:13 AM					
1417A938E	DEF5471FA4D42F33A2EE9E7B		2/28/2007 7:16:34 AM					
027A912E4	174143CF83882CAE4EBAEF18		2/28/2007 6:23:40 AM					
07D77C67	1D78476495747E3BC616D73F		2/16/2007 1:28:30 PM					
20EDE384	ECA64A09B6772D66B583A63B		2/16/2007 4:41:15 PM					
OF68CD 3A	C1E04649A1B056B9535F4BB1		2/16/2007 5:10:43 PM					
2AA924845	5FDA4FAFB444A4BA695F0611		2/16/2007 5:21:39 PM					
1C1E6D43	EC0B43F7A274294F125E8268		2/16/2007 5:30:05 PM					
269540E20	ADC470A99288D111EF8B9AE		2/16/2007 7:02:32 PM					
07A6AF85/	07A6AF85AE064A0685D68FC4FCD6B9F0 2/16/2007 7:21:18 PM							
3ACCB491	3ACCB491E4AB4A748487B504FE7D195B 2/16/2007 7:34:27 PM							
04C676588	04C676588B92446C903DD8AC69A1802C 2/16/2007 8:07:04 PM							
1B1EC383	FA91477BB67503CE99AE6FD4		2/28/2007 7:41:15 AM					
024867BB1	DD54FBF98578D0D65404E1C		2/28/2007 7:24:52 AM					
					d			

Every transaction is represented by a single line in the table. By clicking on a transaction line the Milestone XProtect Retail application will show the transaction with the receipt and the matching video (see Viewing Transactions and Video on page 10).

Note: If the Milestone XProtect Retail system is not correctly connected to the Milestone surveillance system it is not possible to access the *Video* tab and clicking on a line in the result set



will not trigger any action. (Please see Retail Application Settings on page 16 for instructions on how to connect to the surveillance system.)

Performing a Group By Query

Performing group by queries will present you with a window like this:

🐟 VideoOS	XProtect Retail						
<u>F</u> ile ⊻iew	Query Designer	Tools <u>H</u> e	lp				
Query							
Select a gu Note: The k	ery and a time span for onger time span you se	the query an elect the longe	d press Ru v time it wil	n to execute the query. I take to execute the qu	ery.		
Query:	Void items pr employe	е					~
Time span:	Everything	*	From:	Monday , January	01, 1753 🛛 💌	To: Thursday	, December 31, 9998 🛛 💌
							Bun
	Name	Y		Number_Of_Items	7	7	V
John Johns	on				í	2	
Robert Rob	ertson						

When performing a group by query each line in the table represents a set of transactions. In the example above each line in the table represents the void items made by each employee. The *Number_Of_Items* column in the table shows the number of void items made by the specific employee and the last column gives a graphical representation of the number of void items.

When clicking on a line in the group by table each transaction contained in the group will be shown in a drill down table.

Drilling Down a Group By Query

When you drill down into an aggregated (group by) query result, the transactions found in the group by query are presented like this:



🔶 Video	OS XProtect Retail										
<u>File V</u>	jew Que <u>r</u> y Designer	Tools <u>H</u> elp									
Query											
Select a Note: Th	guery and a time span for he longer time span you se.	the query and pres lect the longer time	is Run to e it will take	execute the query. To execute the query.							
Query:	Void items pr employe	e									~
Time spar	n: Everything	*	From:	Monday , January	01, 1753	3 💽 To: Thursday	, Dec	cember	31, 9	9998	~
Bac	ж									Run	
	TransactionIc	ł	Y	TranDate	V	Reason	Y	Line	V	Value	Y
9CD 4058	B6BA014327ADD98BD54	v1687E3B	2/	16/2007 3:16:01 PM		Entered wrong product			8	-795	5.00
9CD 4058	B6BA014327ADD98BD54	\1687E3B	2/	16/2007 3:16:01 PM		Entered wrong product			9	-795	5.00
	9 -795.00 Entered wrong product 9 -795.00										

This window is very similar to the normal query window, where each line in the table represents a transaction, and clicking a line will switch to the *Video* tab showing the specific transaction (see Viewing Transactions and Video on page 10). The only difference between the drill down query and the normal query is the *Back* button just above the table in the left side of the window. This button will return to the group by query.

Note: If the Retail System is not correctly connected to the Milestone surveillance system it is not possible to access the *Video* tab and clicking on a line in the result set will not result in any action. (Please refer to Retail Application Settings on page 16 for instructions on setting up the connection to the Milestone XProtect Enterprise system).

Viewing Transactions and Video

Click on the *Video* tab to see the each transaction with the receipt shown to the left and the matching video to the right.





To return to the query table click the *Query* tab. From the query table it is possible to access another transaction by either clicking a different transaction in the table, or by executing another query.

To **step through the transactions** in the query table click on either the previous transaction or next transaction \checkmark button in the toolbar. This will change the transaction (receipt and video) in the *Video* tab to the previous or next transaction in the query table.

Printing

To **print** the specific transaction from the *File* menu, select *Print* or simply click on the *Print* icon in the toolbar. Alternatively create a **preview of the print** by selecting the *Print Preview...* in the *File* menu, or click on the "Print Preview..." icon in the toolbar.

Exporting a Query Result

You can export the result of all query types. The result set will be exported as a comma separated file (csv) containing only the data shown in the table. The Export facility is accessible through the menu *File* and click on *Export*. The export of the result set displays a *Save As* window from where a location for the file can be selected.

To **export the specific transaction** with Video, select *Video Export* from the *File* menu. This will open the *Browse For Folder* window where you select the export folder.



Managing Queries

The management of a store can identify and minimize fraud and shrinkage by using the Milestone XProtect Retail application. As the main sources of the shrinkage or fraud are eliminated, new kinds of fraud and shrinkage may emerge, or it can be relevant to investigate other kinds of already existing shrinkage or fraud. This is why you can create or edit queries in the Milestone XProtect Retail application.

Creating a Query

1. From the Query *Designer* menu select *New* to create a new query. This will open the *Query Designer*.

The *Query Designer* offers two ways to edit queries: the SQL interface or the graphical interface. The SQL view is a simple text editor where the SQL text can be entered. The graphical interface resembles the one known in Microsoft Access. Both interfaces are equal and can be used when editing a query and any changes will automatically be reflected in both interfaces. This step-by-step description uses the graphical interface options. See *Using the SQL Interface* on page 14 for a short description of this method.



Example only. When creating a new query the Query Designer is empty. The SQL interface pane is by default not displayed. The drill down information pane is only enabled when editing a group by query.

- 2. Enter the name of the new query in the *Query name* text box. Use a name that describes the functionality of the query. The name must be unique.
- 3. Limit the result set returned from the database to the Milestone XProtect Retail application by entering an integer in *Number of results* field or set it to *All*. Since the dataset in the



database is usually very large it is important to select a relatively small amount of results to ensure that the performance of the Milestone XProtect Retail application and the SQL server is not compromised.

4. Add the required tables by selecting *Add Table* from the *Query Designer* menu or by clicking on the *Add Table* icon in the toolbar.

Add Table

 Tables:

 mst_CashPaymentItem

 mst_CreditCardPaymentItem

 mst_Department

 mst_Employee

 mst_Transaction

 mst_TransactionData

 mst_TransactionItem

This will open up an Add Table dialog:

Select the required tables, and click the *Add* button.

5. Tables will by default be joined based on their relations but these joins can be removed by selecting the line connecting the two tables in the graphical representation and pressing the Delete button.

New table joins can be added by clicking on the required field name in one table and dragging it to equivalent field name in the adjacent table.

Note: All queries must be joined to the table mst_Transaction.

6. Select output fields by clicking in the checkbox to the left of the field name in the graphical interface or by adding a line to the criteria table.

Note: All normal queries must have the fields TransactionId and TransDate selected as output fields.

7. If you want to create a group by query either select *Add Group By* from the *Query Designer* menu, or click on the *Add Group By* icon ^[1] in the toolbar. If not continue to next step.

This enables the drill down information section with *Possible fields* and the *Selected fields* lists. From the *Possible fields* list select the information you want to include in the drill down table. Selected information is displayed in the *Selected fields* list and will automatically be generated with a group by query.

Note: To create a valid group by query, the fields TransactionId and TransDate from the table mst_Transaction must be selected (there is no restriction on where they should be represented in the list of selected fields).



8. Save the query.

Using the SQL Interface

To activate the SQL interface select *Pane* > *SQL* from the *Query Designer* menu or click the *SQL Pane* icon \square in the toolbar.

This will add a text box in the bottom left corner of the *Query Designer* tab showing the SQL for the query. This SQL text can be altered manually. When you have finished editing this text you can click anywhere outside the SQL interface pane and the graphical editor will reflect the changes you have just made.



Editing a Query

To edit an existing query, on the *Query* tab select the query in the *Query* list. Then select *Edit* from the *Query Designer* menu. This will open the *Query Designer* tab.

Edit the query in the *Query Designer* until it fits your requirements and save it.

See also *Creating a Query* on page 12 for more information.



Deleting a Query

To delete a query, on the *Query* tab select the query in the *Query* list. Then select *Delete* from the *Query Designer* menu.



Retail Application Settings

The setup options for the Milestone XProtect Retail application is accessible by selection *Options* from the *Tools* menu. This will open the *Options* dialog with two tabs: *XProtect Settings* and *General Settings*.

Connecting to the Surveillance System

From the *XProtect Settings* tab in the *Options* window you can setup the connection to the Milestone XProtect Enterprise server.

Enter the URL to the XProtect Enterprise Image Server in the *Host URL* field.

Note: Remember to specify the port number if the Milestone XProtect Enterprise Image Server is running on a different port than the default port (port 80). If you want to use port 8080 from the local machine with the http protocol it could look like this: http://127.0.0.1:8080

Enter the user's login credentials in the *User name* and *Password* fields. The user must be configured in the Milestone XProtect Enterprise Image Server with the necessary access rights.

Options		\mathbf{X}
XProtect	Settings Constal Sottings	
Host UR	L:	
http://12	27.0.0.1	
User nar	ne:	
User		
Passwor	'd:	

	Ok	Cancel



Reloading Database Structure

On the *General Settings* tab you can refresh the database structure by clicking the *Refresh Database Cache* button. The local cache of the database structure is reloaded. This is only necessary when the database structure has been changed. This happens very rarely.

Ор	tions 🛛 🔀
:	XProtect Settings General Settings Database: Refresh Database Cache
	Ok Cancel



Headquarters (Denmark):

Milestone Systems A/S Banemarksvej 50 G, DK-2605 Brondby, Copenhagen Denmark Tel.: +45 88 300 300 Fax: +45 88 300 301

Middle East:

Singapore:

Japan:

30 Robinson Road

Singapore 048456

Tel.: +65 6225 2686

Fax: +65 6225 1798

P.O. Box 500809

Milestone Systems Middle East

Dubai, United Arab Emirates

Milestone Systems Singapore

Tel.: +971 50 8827093

13-03 Robinson Towers

Milestone Systems Japan

Tokyo 150-0033, Japan Tel.: +81 (0) 3 3780 8749

Fax: +81 (0) 3 3476 4234 マイルストーン・システムズ

29-6, Sarugaku-cho, Shibuya-ku,

DIC, Building 5 IEB, 6th floor, Office 606

The Americas:

Milestone Systems Inc. 12725 SW Millikan Way, Suite 300 Beaverton, Oregon 97005 USA Tel.: +1 503 906 7910 Fax: +1 503 961 0221 If calling from the USA or Canada, phone tollfree 866-2-MILESTONE

United Kingdom:

Milestone Systems UK 118 Codnor Gate, Ripley Derbyshire DE5 9QW England Tel: +44 (0) 1773 570 709

Germany:

Milestone Systems DE Am Kleefeld 6a 83527 Haag i. OB. Germany Tel./fax: +49 (0) 8072 442173

Italy:

Milestone Italia S.r.l. Via Paisiello, 110 20092 Cinisello Balsamo Milano, Italy Tel: +39 02 6179 508 Fax: +39 02 6179 507

France:

Milestone Systems France SARL 121 rue d'Aguesseau 92100 Boulogne-Billancourt France

〒150-0033 東京都渋谷区猿楽町29-6 (デンマーク大使館内)

www.milestonesys.com info@milestonesys.com