

RemoteEyes and MileStone Integration User's Manual

© 2022 Odyssey Technologies, Inc. 7526 Connelley Drive, Suite A Hanover, Maryland 21076 Phone (888)291-6379

Table of Contents

1	Programs and versions for the integration	1
2	Integration diagram	. 3
3	How integration looks like	. 4
4	Installation and Settings	. 6
	4.1 POSSvr	. 6
	 4.2 POSWatch 4.2.1 Create interface(s)/tabs for POS System 4.2.2 Setup listen port 4.2.3 Setup Text Insertion service (POSSvr) info 4.2.4 Assign camera to POS register 4.2.5 Search transaction data 	. 6 . 7 . 8 . 9 10
	4.3 PWClient4.3.1 Setup server site4.3.2 View Transactions	10 10 11
	4.4 DataTransferSvr4.4.1 Create interface(s) for MileStone Transact Sources4.4.2 Setup listen port	13 13 15
	4.5 MileStone xProtect Management Client4.5.1 Create transaction sources	16 16 18
	4.6 MileStone xProtect Smart Client4.6.1 Setup views for video and text4.6.2 Search Transact, display saved video and text	20 20 21

1. The programs/modules and versions for the integration

The integration involves POS system (1), RemoteEyes POSWatch (2), POSSvr text insertion service (3), POSWatch remote client (4), DataTransferSvr programs (5), and MileStone xProtect Management Client (6) and Smart Client (7).

Software versions:

RemoteEyes:

- POSSvr: 6.5.2102.11
- POSWatch: 9.0.2001.12
- PWClient: 9.0.2203.31
- DataTransferSvr: 9.0.2202.18

MileStone:

- xProtect VMS Products 2022 R1
- xProtect Smart Client 2022 R1

Note

POSWatch, POSSvr, DataTransferSvr and xProtect Management Client could be installed under the same machine or different machines.

1.1 POS system

It connects POSWatch and sends transaction data from all POS registers to POSWatch.

Currently we have finished integration with bunch of POS systems. For example, Micros 3700, Micros 9700, Micros Simphony, Iss45, Sicom, Restaurant Manager, POSiTouch, Radiant, StorePoint, UnifyPOS, Store Point, Gilbarco, etc....

1.2 POSWatch (server program from RemoteEyes)

This is the program to get connection and POS transaction data from POS system. It handles data and save the transaction in SQL database, assigns camera to the register ID, and sends transaction text lines to POSSvr service.

It is also the server program working with PWClient (remote client) to handle data requests on client side.

1.3 PWClient (POSWatch remote client program from RemoteEyes)

This is the client program for POSWatch. User could request POS transaction data from POSWatch and print out the order details as PDF.

1.4. POSSvr (service program from RemoteEyes)

This is a Windows service program that works in between POSWatch and DataTransferSvr. It takes connections from POSWatch and DataTransferSvr, handles POS text lines sent from POSWatch and sends text along with camera info to DataTransferSvr.

1.5 DataTransferSvr (server program from RemoteEyes, works with MileStone)

This is the program works with **MileStone** software.

This is the program works with **MileStone** software.

It takes connections from MileStone transaction sources, and sends the POS text lines received from POSSvr to transaction sources. Each connection is for one transaction source and for one assigned camera/register.

1.6 MileStone xProtect Management Client

User will create and setup multiple transaction sources/definitions under **Transact**. Each transact source is for one POS register, and it will connect to DataTransferSvr and get text lines on a specific port.

1.7 MileStone xProtect Smart Client

User will create and setup Views and Transact to show live video and POS transaction text lines.

2. Integration architectural diagram

The following diagram is about the integration of RemoteEyes products and MileStone software.



3. How it looks like

The following screens are about how the integration looks like while POSWatch, DataTransferSvr, xProtect Smart Client are running.



Left: RE POSWatch

Right: RE DataTransferSvr



MileStone xProtect Smart Client: Live Video and Transact View



4. Installation and settings

Note

Install POSWatch, POSSvr and DataTransferSvr under the same machine.

4.1 POSSvr

Use POSSvr installation package to run Setup.exe to install POSSvr service and POSSvrAdmin program. POSSvr service will be started automatically after installation.

POSSvrAdmin program is where you could change POSSvr settings. To run POSSvrAmdin, you could go to Start>All Programs>Remote Eyes>POSSvr>Launch POSSvr Admin. The default user and password for admin program is admin/admin.

The default listen port of POSSvr is **2995**, IP is **localhost**, and the connection user/password is **admin/admin**.

4.2 POSWatch:

Use POSWatch installation package to install POSWatch. Double click on desktop icon to launch POSWatch. Default login user/password is admin/admin.

4.2.1 Create interface(s)/tab(s) for POS System

Here is an example. Click button **POS** on top to add new interface/tab for your POS system by selecting **New** then **DEMO** as the interface type.

DOSWatch		
04/05/22 17:32:43 DEMOALL		New Delete Cancel Esc
	New POS or Access Control System × Please specify your system type from the list:	
	Please provide the name of the unit (the unit might be a server, terminal, or register etc.): Unit Name DEMOALL (< 5 characters)	
	OK Cancel	

Interface/tab creation on POSWatch

4.2.2 Setup listen port

Click button **My Setup** on the bottom. Under tab **Communication** set/change POSWatch listen port that is for the connection coming from POS System when necessary. POSWatch has a default port for each type of POS systems. For example, for demo POS simulator, the default is 3900.

Setup for DEMO ALL		×
Communication Camera Mapping Logs		
Communication information:		
Listen to DEMO ALL	2000	
Connection Port of DEMO ALL:	3900	
\Box		
Connections		
	ок	Cancel

Listening port of POWatch for POS System

4.2.3 Setup Text Insertion service (POSSvr) info

Check the status of **Text Insertion Server** on the bottom (see screen below).

If it shows **localhost connected** or **xxx.xxx.xxx connected** it means POSWatch is connected to POSSvr service and ready to send text lines to POSSvr. And you don't need to change anything.



If not, you need to click button **Setup** on the right pane of POSWatch screen to bring up **Text Insertion** configuration page (see screen below). IP should be always **localhost**, the default listen port of POSSvr server is **2995**. The info about text insertion service here needs to match what is under POSSvrAdmin program (check 4.1.1.1 for details).

🗇 POSWatch 04/05/22 17:40:01 P User ID Password System Configuration Х SIGN OUT: 1233 BRKFST POTATOES 2.50 ICED WATER 0.00 CLOSE CHECK: 41150 Transaction Data Preservation Access Admin Text Insertion System Logs Remote Auto Launch Т Text Insertion Service Connection CASH:\$4.25 2 IPlocalhost 1-١, BEGIN CHECK: 21114 Table/Emp ID: 21002 PRIMO BURGER 13 2995 Port Number: Setup View 13.99 User Name admin CLOSE CHECK: 859 User Password CASH:\$12.64 • <<Start>: Please click 'Connect' button to connect to the text PWE Setup insertion service with above settings: Upd 501 SIGN OUT: 1501 (Note: settings can be saved only when you Connec ≺Start>: click Connect button) 0.00 Configuration BISC & GRAV 4 99 Maximum number of charaters before wraping BEGIN CHECK: 11360 Table/Emp ID: 2 501 SIGN OUT: 201 ОК Cancel

The info of text insertion service (POSSvr) on POSWatch

4.2.4 Assign camera to POS register

Click button **My Setup** on the bottom under tab **Camera Mapping**, add your new cam-dev mapping by clicking button **New**. Under window **New Cam Mapping**, input register# as the Device (terminal) ID, and choose the corresponding camera for text insertion. Click **OK** to save your settings.

Setup for DEMO ALL								
Commu	unication Camera Mapping Lo	ogs						
		,						
	terminal	name						
	1	1						
	2	2						
	3	3						
	4	4						
	5	5						
			_					
[New Edit		Dele	te				
			ок	Cancel				

Below is an example: assign camera 1 to register 1.

Sample Camera mapping list for POS registers on POSWatch

New Cam Map	ping							\times		
DEMO Device ID: 1 (99,) DEMO Device Name : 1 DTE register										
Select C	- amers for T	ext Insertio	n:							
♥ 1 ■ 9	□ 2 □ 10	□ 3 □ 11	□ 4 □ 12	□ 5 □ 13	□ 6 □ 14	□ 7 □ 15	□ 8 □ 16			
□ 17 □ 25	□ 18 □ 26	□ 19 □ 27	□ 20 □ 28	□ 21 □ 29	□ 22 □ 30	□ 23 □ 31	□ 24 □ 32			
□ 33 □ 41	□ 34 □ 42	□ 35 □ 43	□ 36 □ 44	□ 37 □ 45	□ 38 □ 46	□ 39 □ 47	□ 40 □ 48			
☐ 49 ☐ 57	□ 50 □ 58	□ 51 □ 59	□ 52 □ 60	□ 53 □ 61	□ 54 □ 62	□ 55 □ 63	□ 56 □ 64			
□ 65 □ 73	□ 66 □ 74	□ 67 □ 75	□ 68 □ 76	□ 69 □ 77	□ 70 □ 78	□ 71 □ 79	□ 72 □ 80			
I 81										
		OK			Cancel					

Sample camera mapping on POSWatch

4.2.5 Search transaction data

Click on button View Transactions on the bottom of POSWatch.

Specify the searching criteria and click button **Search** to get the transaction records.

Below is an example searching result.

ch Criteria	Row	Date	Time	Dev	Dev. Name	Emp ID	Description	Qty	Price	Cam	Chk	Other
m	1	04/05/2022	00:00:00	5	test	1238	FRESH FRUIT SIDE		1.99	5	41725	<pdf> FRES</pdf>
	2	04/05/2022	00:00:03	5	test	1238	CLOSE CHECK			5	41725	[payment]CAS
April 2022	3	04/05/2022	00:00:03	5	test	1238	TOTAL		4.24	5	41725	[payment]CAS
Sun Mon Tue Wed Thu, Eri, Sat	4	04/05/2022	00:00:06	5	test	1238	SIGN OUT			5		<pdf>SIGN</pdf>
27 20 29 20 21 1 2	5	04/05/2022	00:00:09	5	test	1501	SIGN IN			5		<pde><<star< td=""></star<></pde>
27 20 23 30 31 1 2	6	04/05/2022	00:00:12	5	test	1501	BEGIN CHECK			5	41726	<pde> </pde>
3 4 🔕 6 7 6 3	7	04/05/2022	00:00:15	5	test	1501	FLAVOBED LATTE		4.65	5	41726	<pde> FLAV</pde>
	8	04/05/2022	00.00.18	5	test	1501	BISCUIT SANDWICH		7.99	5	41726	<pde> BISCI</pde>
17 18 19 20 21 22 23	9	04/05/2022	00:00:21	5	test	1501	BISCUIT SANDWICH (V)		-7.99	5	41726	<pde> BISCI</pde>
24 25 26 27 28 29 30	10	04/05/2022	00:00:24	5	test	1501			1.00	5	41726	[naument]CA9
1 2 3 4 5 6 7	11	04/05/2022	00:00:24	5	test	1501			4.65	5	41726	[payment]CA9
	12	04/05/2022	00:00:27	5	test	1501			4.00	5	41120	<pre>/PDE>SIGN</pre>
From Time: 12:00:00 AM	13	04/05/2022	00:00:21	5	test	1238	SIGN IN			5		<pre></pre>
	14	04/05/2022	00:00:33	5	test	1238	BEGIN CHECK			5	41727	
	15	04/05/2022	00:00:36	5	tast	1238	GBEEK GYBO		10.99	5	41727	
	16	04/05/2022	00:00:30	5	test	1238			10.00	5	41727	
	17	04/05/2022	00:00:33	5	test	1238				5	41727	[naument]CA9
un Mon Tue Wed Thu, Fri, Sat	19	04/05/2022	00.00.42	5	test	1230	TOTAL		10.99	5	41727	[payment]CAS
27 28 29 30 31 1 2	19	04/05/2022	00:00:42	5	test	1230	SIGN OUT		10.55	5	41727	ZDDESCIGN
2 1 7 6 7 0 0	20	04/05/2022	00.00.40	5	test	1501	SIGN IN			5		ZDDEX/28ba
	20	04/05/2022	00.00.40	5	test	1501	DECINICUECK			5	41720	
10 11 12 13 14 13 16	21	04/05/2022	00.00.51	5	test	1501			2.25	5	41720	
17 18 19 20 21 22 23	22	04/03/2022	00.00.04	5	test	1501			2.33	5	41720	
24 25 26 27 28 29 30	23	04/03/2022	00.00.07	5	test	1501			3.70	5	41720	ZEDES CHAI
1 2 3 4 5 6 7	24	04/03/2022	00.01.00	0	test	1501			-3.70	5	41720	(FUE) CHAI
To Time: E-41-22 DM	20	04/03/2022	00.01.03	5	test	1501			2.45	5	41720	[payment]CA3
0.41.23 FM	20	04/03/2022	00.01.03	5	test	1501			2.40	5	41720	(paymentjuka)
	27	04/03/2022	00.01.00	5	test	1001				5		(PDF) sign
	20	04/03/2022	00.01.03	5	test	1230	DECINICUECK			5	41700	
Check Number:	23	04/05/2022	00:01:12	5	test	1230			0.00	5	41723	
	30	04/05/2022	00:01:15	5	test	1238	UCED WATER		0.33	5	41723	(PDF) GRILL
Employee ID:	31	04/05/2022	00:01:18	5	test	1238				5	41723	(PDF) ILED
	32	04/03/2022	00.01.21	5	test	1230			0.00	5	41723	[payment]CA3
Total	33	04/05/2022	00:01:21	5	test	1230			0.33	5	41723	[paymentjuAs
European Contra	34	04/05/2022	00:01:24	5	test	1238				5		(PDF) SIGN
Function Lode	30	04/05/2022	00:01:27	5	test	1501	SIGN IN			5	41700	<pdf><<star< td=""></star<></pdf>
UTH BY	35	04/05/2022	00:01:30	5	test	1501	BEGIN CHECK		4.00	5	41730	(PDF) (/PD
EGIN CHECK	37	04/05/2022	00:01:33	5	test	1001	BISC & GRAVY		4.99	5	41730	KPDE> BISC
HARGE TIP	<											>
LOCK IN												
LOCK OUT 🗸 🔰	Total Re	ecords: 2000)									
		I										
fenu Item:												
DECCS												
BLUEBEBBY V												
												Close

Sample View Transaction result on POSWatch

10

4.3 PWClient - POSWatch remote client

4.3.1 Setup server site

Click button Add and enter POSWatch site connection info, click Save to save the site. Click button Connect to make connection.

Version 9.0. Connection to POSWatch Site List Add Edit Delete Delete Al	2203.31 Help	
Connection Status to POSWatch: Not connected	Site connection info POSWatch connection info Site Name: local IP: 10.0.0.8 User ID: admin Port: 5000 Password: [*****] For Remember User and password	×
View Events Minimize	Save Cancel	

POSWatch server site info on PWClient

4.3.2 View Transactions

Once PWClient gets connected to POSWatch site, click button View Events to bring up search window.

Provide search criteria and click button **Search** to request transaction data saved in POSWatch SQL database. The data will show in the result list. Below is an example.

To output the complete and detailed order/ticket/check, select any line of the order in the list and click button **Save Order as PDF**. User could use this pdf file as reference while **searching Transact** on MileStone xProtect Smart client.





Transaction result requested by PWClient

Chk44203_2022-04-	-15_100118.pdf - Adobe Acrobat Reader DC (64-bit)		
Eile Edit ⊻iew Sig	gn <u>W</u> indow <u>H</u> elp		_
Home Tools	Chk44203_2022-0 ×		
□ ☆ 命) 🖶 🔍	\bigcirc	4
•	2022-04-15 10:01:18 BEGIN CHECK: 44203 Table/Emp ID: 2 1238 < <start>> register: 3 SIGN IN: 1226 SIGN OUT: 4201 SOUP CUP SWEET TEA CLOSE CHECK: 44203 CASH:\$4.24 CLOSE CHECK: 44203 CASH:\$4.24</start>	2.50)

Sample PDF on PWClient

4.4 Setup DataTransferSvr

4.4.1 Create interface(s)/tab(s) for MileStone transaction sources

Here is an example. Click button **CAMERA** on top to add new interface/tab for one MileStone Transaction Source. Select **New** then provide camera ID (matches what you setup on POSWatch) and listen port (MileStone transaction source will use it to connect).

Camera ID should match how you name the related MileStone transaction source (check below for MileStone transaction source settings). For example, if you are going to create the interface for source **Reg1LaneCam1TS**, you should enter **1** for camera ID field. Please notice that the listen port **6001** should be the same for both interface/tab **Camera1** and source **Reg1LaneCam1TS**.

Check screen shots below. It created 5 interfaces/cameras/tabs. Interface/tab **Camera1** listens on port **6001** and **camera ID** is **1**. So, the text lines from POS register 1 (say camera 1 is assigned to register 1 on DataTransferSvr - Camera1 04/05/22 17:23:44 CAMERA New B Delete Cancel Esc New Camera for MileStone Transact Socurce BEGIN CHECH 2022-04-05 17 Transact Source Associated Camera ID: 1 (for example: 1) >=1, <=256 \square DataTransferSvr Listen port for the Transact Source 6001 >1000, <65000 (Note: make sure the port is unique) 0K Cancel

POSWatch) will be sent to MileStone transaction source **Reg1LaneCam1TS** (see MileStone xProtect Management Client settings below, port is 6001) that is created for register 1

Creation of new interface/camera on DataTransferSvr for MileStone Transaction Source



Sample screen of DataTransferSvr

4.4.2 Setup listen port

Click button **Setup** on the bottom. Under tab **Communication** set/change interface listen port that is for the connection coming from MileStone transaction source (Transact connector) when necessary.

Below is an example for interface **Camera1**.



Listening port of DataTransferSvr for MileStone Transaction Source

4.5 Setup MileStone xProtect Management Client - Transact

4.5.1 Create transaction sources

Under **Transact** > **Transaction sources**, add new source(s).

Each transaction source is for one register. If you have 3 registers, create 3 sources.

About naming, to have settings under control between camera and register, it is better to include register ID and camera ID while you name a transaction source. For example, if camera 1 is assigned to POS register 1 on RE POSWatch, and you use interface Camera1 on RE DataTransferSvr, you could name your source as Reg1Lane1Cam1TS (or Reg1Cam1TS). In this way, text lines from POS register 1 will be sent to transaction source Reg1Lane1Cam1TS. That is, both DataTransferSvr interface/cam ID and related POS register ID on POSWatch should be included in the name of the transaction source.

You also need to associate the proper camera with your transaction source under xProtect management Client.

Here is a sample transaction source, **Reg1Lane1Cam1TS**, which is created for register 1 and uses port 6001 to connect to RE DataTransferSvr. All text lines for POS register 1 will be sent to Reg1Lane1Cam1TS.



Transaction sources 🚽 🗸 🕂	Transaction source Informati	ion
Transaction sources Reg1Lane1Cam1TS	General settings	3
Reg2Lane2Cam2TS Reg3Lane3Cam3TS Reg4Lane4Cam4TS Reg5Lane5Cam5TS	Enable: Name: Connector: Transaction definition: Retention period:	License expires: 4/5/2023 Reg1Lane1Cam1TS TCP client connector Reg1Lane1Cam1 30
	Connector properties Host name: Port number:	10.0.0.218 DataTransferSvr IP 6001 DataTransferSvr Listen Port

MileStone xProtect Management Client Transact setup

4.5.2 Create transaction definitions

Under **Transact** > **Transaction definitions**, add new definition(s).

Below is the example to setup definition for source **Reg1Lane1Cam1TS**.

<u>Tips</u>: 1. Use **{0d}{0a}** as **Break Line** while adding filter.

2. Enter << Start>> as *Start pattern*, choose Use exact match for *Match type*.

Wilestone XProtect Management Client 2022 R1	- 0
File View Action Maintenance Tools Help	
同 🦻 🛜 🗢 曲	
Site Navigation	Transaction definition Information
DESKTOP-4ET0933 - (22 1a)	
Site Navigation	Transaction definition is in use by one or more sources. Changing the transaction definition while the sources are running can lead to transactions not being processed correctly for a short period of time. Name: Reg1Lane1Cam1 Encoding: US-ASCII • Start collecting data Load from file Save to file Filter configuration Remove control characters that are not defined as filter text Image: Control characters that are not defined as filter text Match type: Use exact match • Start pattern: Control characters that are not defined as filter text
Transaction definitions	29. C. J. av. Except

Transaction definitions 🛛 🚽 👎	Transaction definition	n Information		
□· I Transaction definitions				
· 國 Reg1Lane1Cam1	General se	ttings		
Reg2Lane2Cam21S				
Reg3Lane3Cam3	This transaction running can lea	n definition is in use d to transactions no	by one or more sources. Changir to being processed correctly for a	ng the transaction definition while the sources a short period of time.
Reg5Lane5Cam5			5. 5	-
test definition	Name: Reg1L	ane1Cam1		Encoding: US-ASCII v
	Start collecti	ng data Load fr	om file Save to file	
	- Filter configur	ation		
	Raw data:			
				Add filt
	Filmstand	0 - 17	Colorida da c	•
	Filter text	Action	Substitution	
	(00)(0a)	break line		I
	Remove contro	ol characters that are	e not defined as filter text 🔽	
	Match type:	Use exact match	~	
	Start pattern:	< <start>></start>		
	e la cipación.			

Sample MileStone Transaction definition

4.6 MileStone xProtect Smart Client

4.6.1 Setup views for video and text

Below is an example. Under **Views** add view group **POSWatchTest** (4x3). To attach video camera and transaction source to the views, click button **Setup** on top right (Tips: for transaction source, left click **Transact** and **drag-and-drop** to the **empty view**, select/attach the transaction source from the source list).

Note

The Views for transaction source and the assigned camera are better to be side by side thus you could easily check the video and text simultaneously.



Sample MileStone xProtect Smart Client views for video and transaction source

4.5.2 Search transaction data and display saved video and text

Click button **Transact** on top, enter keyword and specify **date/time** and click button **Set**. The POS transaction data text lines will be listed on left pane.

Click one of the transaction text lines in the list, the related video and text will show accordingly. You could play the clip to

Below is an example for how searching transaction and showing video and text work. The keyword is order number 44203, and time/date is from 4/15/22 10:00:09 AM to 4/15/22 10:22:05 AM. While choosing one of the records, the related video file and transaction text file will load and both show the timestamp.

💠 Milestone XProtect Smart Client										
ι	ive	Playbac	:k	Exports	Sear	ch	Alarm Manager	Transact		
0) 11:13:2	3 AM Thank	vou for usir	ng this trial licen	ise to demoi	nstrate or	evaluate the XProtect video r	nanagement software. The		
				-						
6	44203				8 3					
a	Custom in	iterval) -	All source	es ▼						
	From			То						
Tin	4	April 2022	►	•	April 2022	Þ				
	Su M	o Tu We Th	Fr Sa	Su Mo T	'u We Th	Fr Sa				
	27 28 3 4	3 29 30 31 5 6 7	12 89	27 28 2 3 4 9	9 30 31 5 6 7	12 89				
	10 11 17 18	1 12 13 14 19 20 21	15 16 22 23	10 11 1 17 18 1	2 13 14	15 16 22 23				
	24 25 1 2	5 26 27 28 3 4 5	29 30 6 7	24 25 2 1 2	26 27 28 3 4 5	29 30 6 7				
	10	· 00 · 09 AM		10 · 2	2 · 05 AM					
				Set		ancel				

Search transactions data/text lines



Show saved video and text