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CASSTM, Coding Accuracy Support System, certification is the process of normalizing addresses to USPS[®] Publication 28 standards and validating them against current USPS data. All address elements are verified while adding ZIP CodeTM, ZIP+4TM, carrier route and delivery point details.

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Introduction to EZ24x7PLUS

MySQL Table Support - Sharing Address Lists

Standard EZ24x7 uses CSV files allowing access only to address files on your computer. EZ24x7^{PLUS} loads lists into MySQL tables available to anyone having access to a common MySQL service. See Appendix A

Local Mail*SERVE Address Service

EZ24x7^{PLUS} users avoid using address credits when NCOA^{LINK} move update is not required and the site has Mail*SERVE installed. See Appendix B



EZ24x7^{PLUS} – First Visual Clues

When configured for MySQL, the mode indicator circled in red above and to the right will appear. When the indicator shows "CSV", file mode is active. If the mode shows "SQL", table mode is active.

When configured to use Mail*SERVE as an alternate address service, the Mail*SERVE host name appears in the lower left -- circled in red.

Configuring EZ24x7^{PLUS}

EZ24x7 users will not see changes until MySQL and Mail*SERVE services have been configured. For initial setup, the EZ24x7^{PLUS} Configuration window is opened with the command <CTRL><SHIFT>A.

EZ24x7 Plus Configuration 🛛 🗙	EZ24x7 Plus Configuration
?	? Hostname of MySQL service
CSV Apply Exit	CSV Apply Exit
Configuration	Configuration
Basic EZ24x7 Service	O Basic EZ24x7 Service
C Add MySQL Support	C Add MySQL Support
C MySQL & Mail*SERVE	MySQL & Mail*SERVE
- MySQL instance	MySQL instance
	don-quixote
User:	User: MSDBA
Pswd:	Pswd:
Click to test MySQL	Database Connected
	Restore MySQL Instance
Mail*SERVE instance	Mail*SERVE instance
	don-quixote
Click to test Mail*SERVE	Mail*SERVE Available
	Restore Mail*SERVE Instance

The "?" icon tells you what to do.

Start by picking one of the radio-buttons.

- Basic EZ24x7 Service
- Add MySQL Support
- MySQL & Mail*SERVE

Although MySQL support is available without Mail*SERVE, Mail*SERVE always requires MySQL.

Parameters necessary for connection to services are determined by the configuration radio-button. The post installation MySQL user and password are "MSDBA" and "CHANGE".

The example above and to the right indicates both MySQL and Mail*SERVE. Our test network provides both MySQL and Mail*SERVE from the same server named 'don-quixote'.

Switching Between "CSV" and "SQL" modes

The mode indicator displays "CSV" or "SQL" in the upper right corner of the main $EZ24x7^{PLUS}$ window.

When you need to change modes...

- 1. Click the mode indicator.
- 2. Change the checkbox just below the "?" icon.
- 3. Click "Exit".

Note That...

- Immediately after the transition to EZ24x7^{PLUS}, "CSV" mode is necessary to access preexisting address lists so that they can be loaded into SQL tables.
- Unless "CSV" mode is needed to load a preexisting address list, users should use "SQL" mode.

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EZ24x7 Plus Configuration	EZ24x7 Plus Configuration
P Hostname of Mail*SERVE	Hostname of Mail*SERVE
CSV Apply Exit	SQL Apply Exit
Conguration	Configuration
Basic EZ24x7 Service	Basic EZ24x7 Service
C Add MySQL Support	C Add MySQL Support
MySQL & Mail*SERVE	MySQL & Mail*SERVE
MySQL instance	MySQL instance
don-quixote	don-quixote
User: MSDBA	User: MSDBA
Pswd:	Pswd:
Click to test MySQL	Click to test MySQL
Mail*SERVE instance	Mail*SERVE instance
Click to test Mail*SERVE	Click to test Mail*SERVE

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"CSV" Mode – "Lists" Tab

When an address list has been selected, the text of the "Lists" tab changes to "Order #".

Address lists processed in "CSV" mode are not loaded into tables and are therefore available on your computer only. Sharing of address list data is possible loading the CSV data into a MySQL table.

From the "Lists" tab visible in "CSV" mode, click the address list to select it. Right-click of the selected address list will tell you which MySQL table or open a window allowing you to create a MySQL table.



The image to the left shows what happens when the address list has never been loaded into MySQL. The image to the right shows what happens if the list already exists as a MySQL table.

"SQL" Mode - "SQL" Tab

EZ24x7^{PLUS} users should use "SQL" code unless they need to load a preexisting address list into a table.

When an address table has been selected, the text of the "SQL" tab changes to "Table #".

Click the table you want to work with. The tab's text changes to "Table #".

Refer to the red ellipse in the left-hand image below. This is the path to the folder containing CSV files. Clicking the path opens the folder as seen in the image to the right.



Service Tab – Mail*SERVE

When Mail*SERVE is installed locally and EZ24x7^{PLUS} has been configured to use it, address credits will not be used to service lists not requiring NCOA^{LINK} move update.



Notice that when NCOA is not checked, the word "Mail*SERVE" appears instead of the word "Credits" or a dollar amount. This indicates that the service will be performed locally using the new multi-threaded burst protocol capable of 100,000 addresses per minute or higher.

SQL Tab - Available from "SQL" mode

There are three operations supported to maintain address list tables. Once you have selected the table with a mouse click, you can double-click the table to open the Table Operations window allowing:

- Rename simply change the name of the table
- Refresh recertify the address list
- Drop eliminate the address list table

REFRESH: The screen below and to the left shows "Refresh" which takes you to a revised "Service" tab without steps 2 and 3 as input file and definition are predetermined by address table refresh.

You are only allowed to select the services and start the certification. Remember that with Mail*SERVE configured, processing the address list is free of charge when not selecting NCOA^{LINK} move update.

= EZ24x7	EZ24x7
File Account Logs Help	File Account Logs Help
CASS/DPV NCOA ELOT RDI Suite/LACS SOL	SOL SOL
Log On Service Table 1 Enhance Preparation	Log On Service Table 1 Enhance Preparation
Table # Timestamp Age Count List Name 1 2013-07-08 17:21:05 0 131346 Does eat oats and goats eat oats Table Operations	USPS Required Expected Mailing Services List Source O - First-Class, Periodical, Standard Mail, Packages Customers (Internal List) EZ24x7 Service Running 846865 Credits Image: Nicos Image: Ni

Once finished, return to the "SQL" tab and see the new table having the same name as the table it refreshed while the original input table was renamed indicating it was refreshed by table 16.

== EZ	24x7						_ 🗆 X
File	Account	Logs Help					
	1						SQL
8	Mail prep	paration begins by sele	cting a :	serviced	address list.		
Lo	ig On	Service	Table	e 16	Enhance	Preparation	1
		-	L				ΞÌ.
l r	<u>Table #</u>	Timestamp	Age	Count	<u>List Name</u>		
	1	2013-07-08 17:21:05	0	131346	<< 16 (Does eat oa	ts and goats eat oats)	_ 11
	16	2013-07-09 10:16:19	0	131346	Does eat oats and	goats eat oats	_
					\mathbb{R}		
don	-quixote					C:\AES\MS	_out\16

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SQL Tab continued...

RENAME: The screen to the left shows renaming the address list -- to the right the final result.

== EZ24x7					×I =	⊐ EZ24x7					_ 🗆 🗙
File Account Lo	ogs Help				F	File Account Log	gs Help				
CASS/DPV	NCOA eLOT RDI Suit	erLACS		SQL		CASS/DPV	NCOA eLOT RDI Suit	ie/LACS			SQL
Log On	Service	Table 1	Enhance	Preparation		Log On	Service	Table 1	Enhance	Preparation	1
	inestamp of 3-07-08 17:21:05 able Operations Rename Dr	Age Count Lis 0 131345 Jul Refresh	t <u>Hame</u> 2013 promotion Drop joats eat oats	Exit		Table # Ti 1 20	1 13-07-08 17:21:05	A <u>ae Count Li</u> 0 131346 D	st Name ses eat oats and go	concert	
aon-quixote				C:VAES/EZ_OUT/4647		aon-quixote				C:VAES/EZ_0	DUIT (46/47

DROP: Eliminate the address list table from the MySQL database.

Enhance Tab - "CSV" and "SQL" mode

Enhance allows you to manually enhance addresses in the list. If Mail*SERVE has been configured, actual address investigation is done locally making it much more responsive.

In "SQL" mode, changes are made to the table. In "CSV" mode changes are made to files.

To prevent confusion and loss of data, Enhance requires that you be in "SQL" mode to work address lists loaded into tables. Below and to the left you see the error message when clicking the "Enhance" tab while in "CSV" mode.

Address lists stored in tables require "SQL" mode to access the Enhance tab -- shown to the right.



Preparation Tab

In "SQL" mode, mail preparation must consider table data -- in "CSV" mode, the actual files.

To prevent confusion, Preparation requires "SQL" mode to work address lists loaded into tables.

The image below and to the left shows what happens if you attempt to prepare an address list loaded into a table from "CSV" mode.

EZ24x7 le Account Li	ogs Help	-	-		
😵 Mail prepa	ration begins by sel	ecting a serviced ad	dress list.	C	:sv
Log On	Service	Order 4647	Enhance	Preparation	
Order #	<u> Timestamp</u>	Age Count	EZ24x7 Instant Ser	vic	-
4647	2013-07-06 10:1	0:18 2 131346 (CASS/DPV NCOA eL	OT RDI Suite/LACS	
	ERROR	Address List Tab	le Exists	×	
	(Switch to SQL M	ode and pick MySQL	table 1.	
				ОК	l
on-quixote				C:\AES\EZ_out\	464

The image below and to the left has switched to "SQL" mode. When you click "GO" to prepare this mailing, an extra step is introduced. If there were no changes from "Enhance", click "No". If there were changes due to address enhancement, you need to click "Yes" to refresh the CSV files before mail preparation.

De-duplication of addresses is supported when a CSV file refresh occurs after which you are given the choice to de-duplicate the refreshed CSV file as shown below and to the right.



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Appendix A – MySQL Server Setup Notes

MySQL support relies on a single MySQL installation for your organization. The choice of which server to use for MySQL should be based on uptime and availability.

AES systems software licensees already having Mail*LIST installed can use their existing MySQL service compatible with EZ24x7^{PLUS}.

EZ24x7 users without AES systems software will need to run the EZ-SQL.msi install file on the server chosen to share EZ24x7 address data. The install file is available at <u>www.ez24x7.com/EZ-SQL</u>.

Unlike EZ24x7 where the client applet is installed on every computer, MySQL service only needs to be installed on a single MySQL server.

Managing the MySQL instance is not generally necessary. For simple database backup procedures refer to Appendix D.

Optionally, a system DBA may want to tweak security and manage backups using a MySQL management tool. DBA management is available using several third part tools -- many of them free. ORACLE MySQL Workbench is free and briefly discussed in Appendix C.

Appendix B - Mail*SERVE Server Setup Notes

Mail*SERVE -- requires AES systems software license and the latest update.

• PER_THREADS are required as well as and the following tuning parameters

[PROFILE ADDRESS_SEF	RVER]
POOL_THREADS=3	// minimum 3
PERS_THREADS=8	$\ensuremath{/\!/}$ recommended minimum is the number of server threads
[PROFILE SERVER_TUN	ING]
Z4_DPV_CACHE=7	
LOAD_KEYS=-1	

• Check C:\AES\log\MS_WIN_SVC.log looking for...

*** Multi-threaded service activated ***

Appendix C – SQL Workbench – Security and Backups

EZ24x7 MySQL support does not require a DBA. If you want the added security of managing ID's and passwords, ORACLE provides a free MySQL management tool called MySQL Workbench.

MySQL DBA functions are outside the scope of EZ24x7 support. If you are new to this, we are providing these limited getting started notes.

- Install MySQL Workbench free from ORACLE
- Create connection to the MySQL server
 - Host where you installed the MySQL service
 - o Port 7502
 - o Initial ID and Password "MSDBA" and "CHANGE"
- Server Administration appears to the right of the Workbench startup window.

Configure your database server, setup and server logs.
Server Administration Or click to manage a database server instance.
don-quixote Hoat: don-quixote Type: DB Only
Register a new server instance to manage.
Manage Import / Export Create a dump file or restore data from a file.
Manage Security Manage user accounts and assign privileges.

• "Manage Security" will take you to a screen where you can manage accounts.

Admin (don-quixote) ×	
File Edit View Database Plugins	s Scripting Help ORACL
Task and Object Browser	Users and Privileges
MANAGEMENT	Server Access Management Schema Privileges
Server Status	User Accounts Details for account MSDBA@%
Startup / Shutdown	User From Host Login Administrative Roles Account Limits
Status and System Variables	MSDBA %
A Server Logs	PUBLIC % Login Name: MSDBA Tou may create multiple accounts with the same name to connect from different hosts.
CONFIGURATION	guest %
🖉 Options File	root localhost Limit Connectivity to Hosts Matching: 1% % % andwidcards may be used
SECURITY	Password: *********** Type a password to reset it.
	Consider using a password with 8 or more characters with mixed case letters, numbers and punctuation marks.
DATA EXPORT / RESTORE	Confirm Password: Enter password again to confirm.
📥 Data Export	
Data Import/Restore	
-	
	Add Account Drop Revoke All Privileges Reverb Apply Refresh
WB Admin Opened	

• You will see backup and recovery below managaing ID's. Scheduling automatic backups requires another method. There are dozens of Internet articles searching "Scheduling MySQL Backups".

******* WARNING ******* Changing and then forgetting a password is outside the scope of EZ24x7 support.

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Appendix D - Simple Backup without DBA Management

The need for a backup is rare. But when needed, nothing else will do. Decide on backup frequency. The decision is a compromise between the costs of taking backups vs. the risk and cost of recovery of data between backups. Weekly backups are usually adequate.

The simplest backup method with using a DBA tool is:

- Stop the Windows service "myprj" running on the EZ24x7 MySQL server.
- Create a ZIP or RAR compressed file of the C:\AES\myprj\data folder.

🕌 C:\AES\myprj				
G O ⊂ 🚺 C:\AES\myprj				
File Edit View Tools Help				
Organize 🔻 📜 Open	Include in library 🔻 Share with 👻 Burn	New folder		
☆ Favorites	Name ^	Date modified		
Desktop	鷆 data	7/6/2013 11:43 AM		

• The example below using WinRAR shows us using a meaningful name with a date.

Archive name and parameters	? ×
General Advanced Options Files	Backup Time Comment
Archive name	Browse
C:\Users\root\Desktop\ez_sql_2013	-june-07.rar
	Update mode
Profiles	Add and replace files
Archive format RAR ZIP Compression method Normal Split to volumes, size B	Archiving options Delete files after archiving Create SFX archive Dut authenticity verification Put recovery record Test archived files Lock archive
	OK Cancel Help

- \circ $\;$ Don't forget to move the backup file to another machine.
- Start Windows service "myprj" to restore service
- *** RESTORATION Same as backup except replace C:\AES\myprj\data with extract of latest backup.

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Appendix E – Troubleshooting

Startup fails because of a configuration error.

You will get a message saying which service fails to connect, either MySQL or Mail*SERVE.



You are given the opportunity to correct...



Depending on the first message, make certain the service is running. Check for firewalls and network access to the server.