

# Transaction Set Archiver

## Implementation Guide

Date: September 14, 2018



**Verifone®**

---

# Transaction Set Archiver Implementation Guide

Verifone, Inc.  
88 West Plumeria Drive  
San Jose, CA 95134  
Telephone: 408-232-7800  
<http://www.verifone.com>

© 2018 Verifone, Inc. All rights reserved.

No part of this publication covered by the copyrights hereon may be reproduced or copied in any form or by any means - graphic, electronic, or mechanical, including photocopying, taping, or information storage and retrieval systems - without written permission of the publisher.

The content of this document is subject to change without notice. The information contained herein does not represent a commitment on the part of Verifone. All features and specifications are subject to change without notice.

Verifone, Ruby SuperSystem, and Secure PumpPAY are registered trademarks of Verifone, Inc. Ruby Card, iOrder, and Commander Site Controller are trademarks of Verifone. All other brand names and trademarks mentioned in this document are the properties of their respective holders.

---

## Revision History

Date	Description
09/14/2018	Initial Release.

---

# Contents

<b>Introduction . . . . .</b>	<b>1</b>
Overview . . . . .	2
Event Manager . . . . .	3
Event Processing Utility . . . . .	3
Developing a Data Plan . . . . .	4
Computer(s) for Data Collection and Storage . . . . .	4
 <b>Installation . . . . .</b>	 <b>5</b>
Starting Installation . . . . .	5
Installing Apache . . . . .	5
Installing Transaction Set Archiver . . . . .	6
Installing Archiver Components . . . . .	7
Installing the Event Processing Utility . . . . .	8
Installing the Event Manager . . . . .	9
 <b>Event Manager . . . . .</b>	 <b>10</b>
Opening Event Manager . . . . .	10
Logging onto Event Manager . . . . .	10
Setting Events . . . . .	12
Removing Events . . . . .	14
Copying Events . . . . .	15
Testing Events . . . . .	16
Restoring Events . . . . .	17
Changing the Password . . . . .	18
Logging off Event Manager . . . . .	19
Exiting Event manager . . . . .	19
 <b>Event Processing Utility . . . . .</b>	 <b>20</b>
Opening the Event Processing Utility . . . . .	21
Creating a New Event Process . . . . .	22
Modifying an Event Process . . . . .	38
Removing an Event Process . . . . .	38
Parameters and Values . . . . .	39

<b>Using Transaction Set Archiver . . . . .</b>	<b>48</b>
Viewing Data. . . . .	48
Windows Explorer . . . . .	48
Transaction Manager . . . . .	49
Setting up for Data Refresh . . . . .	50
Forcing Events . . . . .	50
Viewing Logs . . . . .	51
Event Logs . . . . .	51
Apache HTTP Server Logs . . . . .	51
Enable White List Processing . . . . .	52

# 1

## TRANSACTION SET ARCHIVER

---

### Overview

The Transaction Set Archiver is a means to collect data from a site using an event based system inherent to the Verifone Site Controller. The advantage of using the Transaction Set Archiver is that password maintenance is not required.

Event Manager, a part of the Transaction Set Archiver, sets up a secure trusted relationship between a Site Controller and a trusted Web Server ("server"), by requiring a secure log in and access to establish that relationship.

Once the relationship is established, data is delivered to the server from the Site Controller on a timed or event based intervals (events). While password management is not required, maintaining the user is. If the user is deleted or permissions are reduced it can affect the Transaction Set Archiver's ability to process the events.

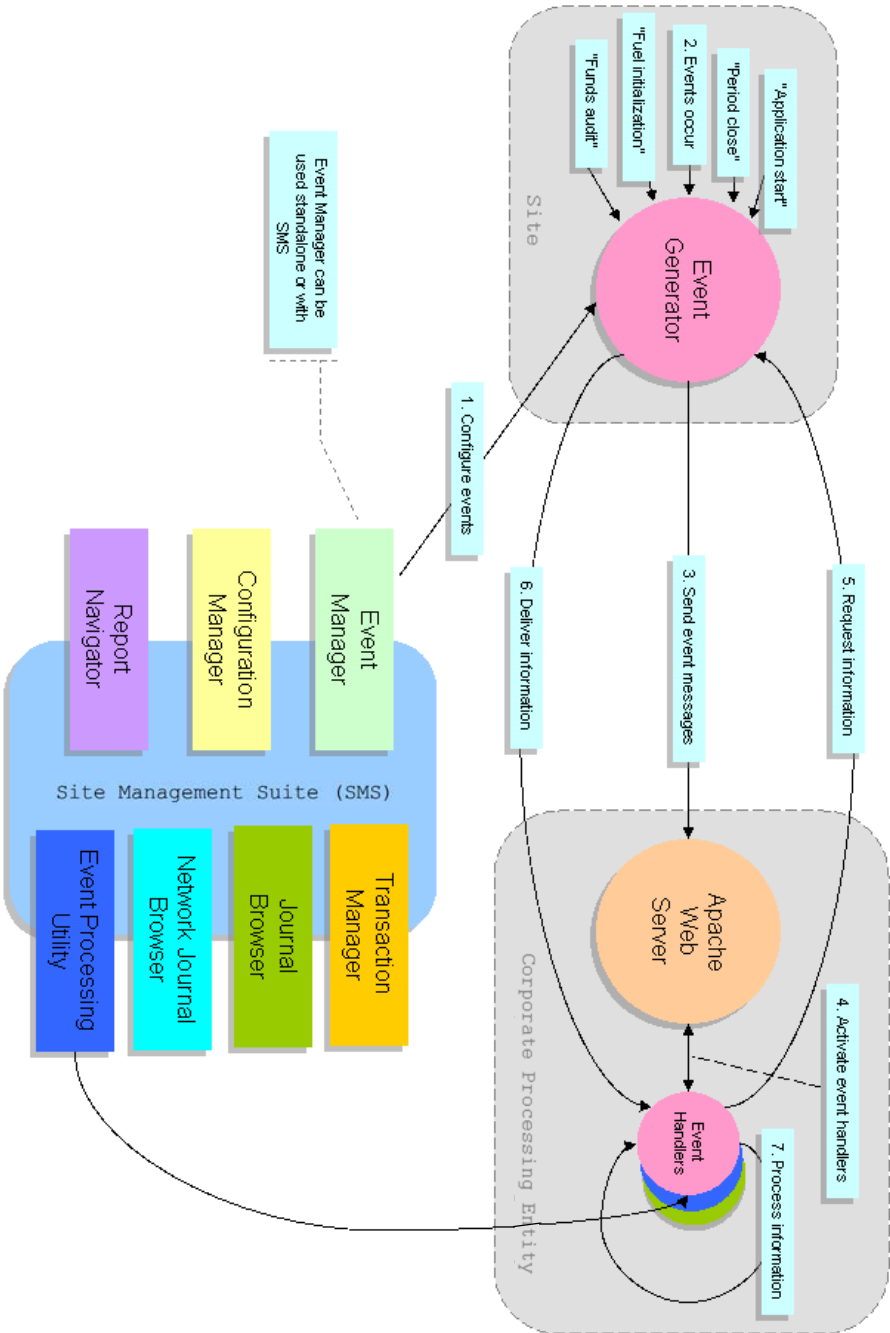
The event based system on the Site Controller generates a temporary token (cookie) for the event notifications sent to the server. The server then uses the cookie to request data. The cookie is based on the permissions of the Mapped User at the time the event was generated.

The Transaction Set Archiver requires a resident Apache HTTP Server. Events can be set up and managed with the Event Manager.

When a configured event (such as a period close) occurs, the Event Generator on the Site Controller sends an event message to the Apache HTTP Server on the client PC, which activates the event handlers.

The event handlers on the client PC then send a request for data sets back to the Site Controller, which responds by delivering the data sets to the client PC. See the "Event Management System - Overview" diagram.

EVENT MANAGEMENT SYSTEM - OVERVIEW



## Event Manager

The Transaction Set Archiver Setup allows you to install the Event Manager, which is a tool used to select and configure specific Site Controller events that occur on Site Controllers with base 156 or higher software. The events that can be managed are:

- Application Start
- Period Close
- Fuel Initialization
- Funds Audit
- Manager Workstation
- Sales Monitor
- Peripheral Status

Event Manager provides other support functions to manage the registered events: restoring events on a fresh installation, replicating events from one site to another, and deleting/modifying existing events.

## Event Processing Utility

After an event is configured with the Event Manager, you can use the Event Processing Utility to configure a set of instructions to process any of the incoming events on the Apache server. The instructions can include the following actions:

- Save the received data to a file.
- Send a message to an email address.
- Run a script file to process the received data.

For example, if you want to know when the system restarts, you can set up an event process that saves the information to a file and sends you a notification of the event via email.



---

## Developing a Data Collection Plan

The following sections provide guidelines for developing a data collection plan.

### Computer(s) for Data Collection and Storage

You must first decide which computer(s) to use for data collection. Consider the following:

- If collected data are to be permanently archived, storage capacity is important.
- If custom software is required for data processing, computing power may be a factor.
- If data are collected on a computer on which the Management Suite is installed, the data can be viewed with the Transaction Manager.

# 2

## INSTALLATION

---

### Starting Installation

#### Installing Apache

1. Download a compiled version of Apache from a trusted source for the Windows version of the “server” it will be installed on.
2. After Apache is installed run a test to ensure it properly runs.
3. Configure Apache to accept HTTPS requests.



*It might be necessary to patch the Windows system first for Windows 7 and 8 and Sever 2008 and 2010. Please reference the ISD Engineering Bulletin 0235 for more information.*

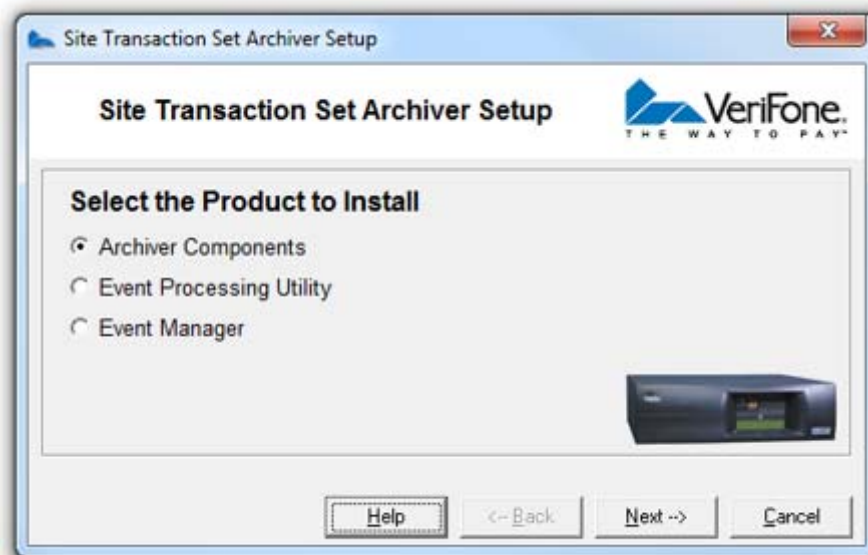
4. If the system did not need to be “patched” the processSiteEvent file will need to be moved from the tsaScripts/cgi-bin directory to the Apache cgi-bin location.
5. Ensure the path to the “processSiteEvent.wsf” is correct. If it is not correct, modify it to point to the correct location.
6. Save file.

## Installing Transaction Set Archiver



*The minimum screen resolution for displaying the Event Manager and the Event Processing Utility is 1024 x 768 pixels.*

1. Insert the Site Transaction Set Archiver CD. If the CD does not automatically launch the installer, do the following:
2. Click **Start > Run**.
  - a. In the Open text box, type: e:\SEMInstall.exe. (Replace "e:" with your CD drive letter.)
  - b. Click **OK**.
3. The Site Transaction Set Archiver Setup dialog box appears.



## Installing Archiver Components

1. In the Transaction Set Archiver Setup dialog box, select **Archiver Components**.
2. Click **Next**. The License Agreement appears.
3. Read the license agreement. If you accept the terms of the license agreement, click **I accept the terms in the license agreement**. (If you do not accept the terms, click **Cancel** to quit the installation.)
4. Click **Next**. The Scripts Location dialog box appears.

## Installing the Event Processing Utility

1. In the Site Transaction Set Archiver Setup dialog box, select **Event Processing Utility**.
2. Click **Next**. The Site Event Processing Utility wizard appears.
3. Click **Next**. The license agreement appears.
4. Read the license agreement. If you accept the terms of the license agreement, click **I accept the terms in the license agreement**. (If you do not accept the terms, click **Cancel** to quit the installation.)
5. Click **Next**. The Destination Folder dialog box appears.



*The Event Processing Utility must be installed on the same PC as the Apache HTTP Server.*

6. Do one of the following:
  - To change the Destination Folder, click **Change**, select a new Destination Folder, and click **Next**.
  - To accept the default Destination Folder, click **Next**.
7. The Setup Type dialog box appears. Select **Complete**.
8. Click **Next**. The Ready to Install the Program dialog box appears.
9. Click **Install**. After installation, the Wizard Completed dialog box appears.
10. Click **Finish**. The Installation Complete dialog box appears.
11. Do one of the following:
  - Click **Back** to install other programs.
  - Click **Finish**.

## Installing the Event Manager

1. In the Site Transaction Set Archiver Setup dialog box, select **Event Manager**.
2. Click **Next**. The Site Event Manager wizard appears.
3. Click **Next**. The license agreement appears.
4. Read the license agreement. If you accept the terms of the license agreement, click **I accept the terms in the license agreement**. (If you do not accept the terms, click **Cancel** to quit the installation.)
5. Click **Next**. The Destination Folder dialog box appears.
6. Do one of the following:
  - To change the Destination Folder, click **Change**, select a new Destination Folder, and click **Next**.
  - To accept the default Destination Folder, click **Next**.
7. The Setup Type dialog box appears. Select **Complete**.
8. Click **Next**. The Ready to Install the Program dialog box appears.
9. Click **Install**. After installation, the Wizard Completed dialog box appears.
10. Click **Finish**. The Installation Complete dialog box appears.
11. Do one of the following:
  - Click **Back** to install other programs.
  - Click **Finish**.

# 3

## EVENT MANAGER

The Site Event Manager allows you to select and configure the events for which you want to collect data. After testing, event data are collected automatically and available in a folder for review.

The Site Event Manager performs the following functions for one or more Site Controllers:

- Set Events
- Remove Events
- Copy Events
- Test Events
- Restore Events
- Change Password

---

### Opening Event Manager

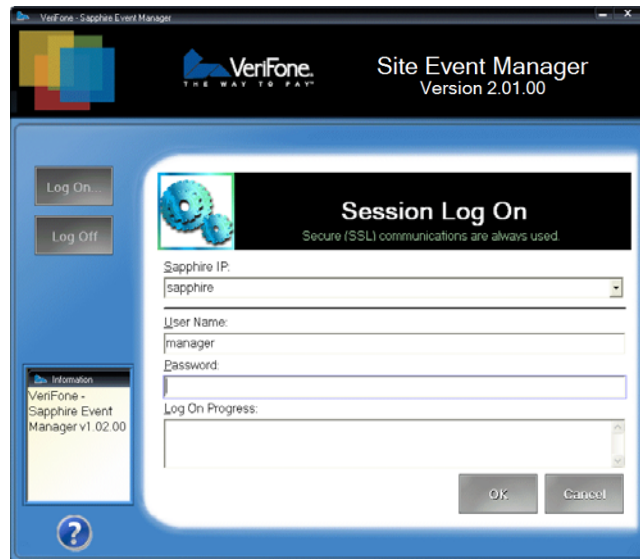
Click **Start > Programs > Verifone > Site Management Suite > Site Event Manager**.

---

### Logging On to Event Manager

In order to use the Site Event Manager, you must log on to a Site Controller. Before beginning, obtain the address of the Site (IP address or host name), a user name, and a password.

1. If the Session Log On dialog box is not open, click **Log On**.
2. Enter the IP address or the host name.



3. Enter your user name.
4. Enter your password. (See "Changing the Password > Password Guidelines.")
5. Click **OK** to connect to the Site Controller.

After you have logged on, the Task Menu appears. At the top of the menu is the site name and IP Address of the Site Controller to which you are connected.



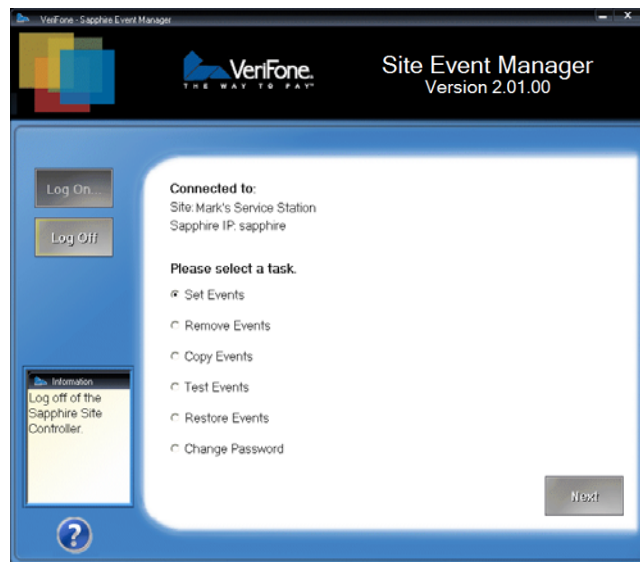
*After 15 minutes of inactivity, the connection is lost and you must log on again.*



## Setting Events

Each event for which you want to collect data must first be set up on the Site Controller.

1. In the Site Event Manager Task Menu, click **Set Events**.

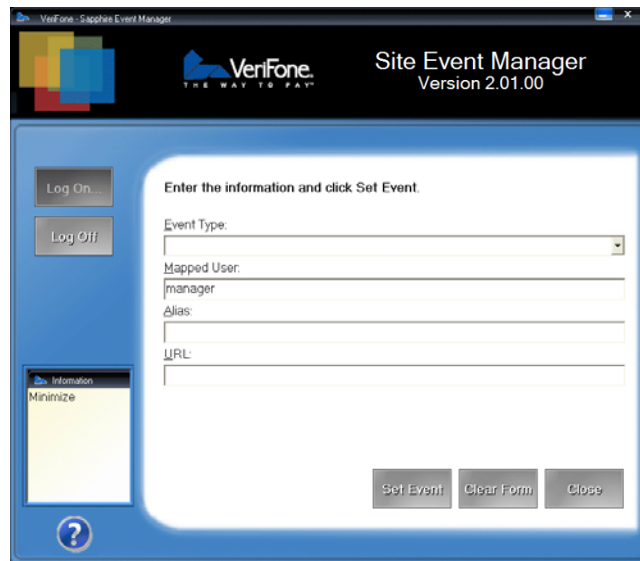


2. Click **Next**. The Set Events dialog box appears.



*You can start over at any time by clicking **Clear Form**.*

3. Select the Event Type from the drop-down list: Application Start, Period Close, Fuel Initialization, or Funds Audit, Manager Workstation, Sales Monitor, Peripheral Status.



4. The Mapped User is, by default, the logon username. Another mapped user can be entered.
5. Enter the Alias. The Alias is a unique name that identifies the Mapped User and URL for the selected Event Type.
6. Enter the URL of the computer designated as the "listener" or "data collector." The URL is case sensitive and must be entered as follows:  
`http://nnn.nnn.nnn.nnn/cgi-bin/processSiteEvent`



*Leave existing one for backward compatibility.*

7. Click **Set Event**.
8. Click **Close** to return to the Task Menu.

## Removing Events

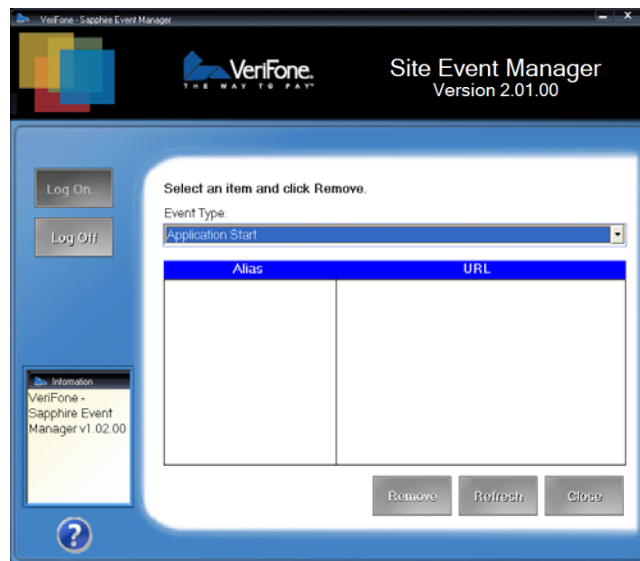
To prevent data from being collected, events may be removed from the Site Controller.

1. In the Site Controller Event Manager Task Menu, click **Remove Events**.
2. Click **Next**. The Remove Events dialog box appears.



*Click Refresh to reread the local cached file and update the list box with the latest data in the local cache.*

3. Select the Event Type from the drop-down list. The Alias and URL appear in the dialog box.



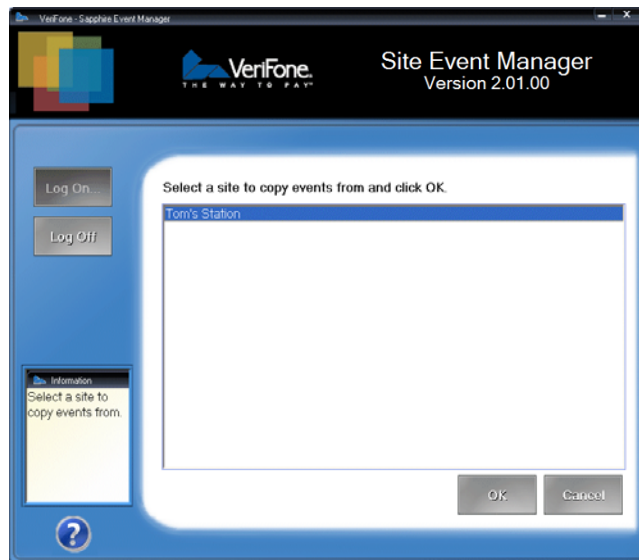
4. Select the event to delete.
5. Click **Remove** to delete the event. Click **Yes** when a message appears to ask if you are sure.
6. A message appears stating "Deletion of Event(s) complete." Click **OK**.
7. Click **Close** to return to the Task Menu.

---

## Copying Events

Events may be copied from other sites and added to the site to which you are currently connected.

1. In the Site Event Manager Task Menu, click **Copy Events**.
2. Click **Next**. The Copy Events dialog box appears.

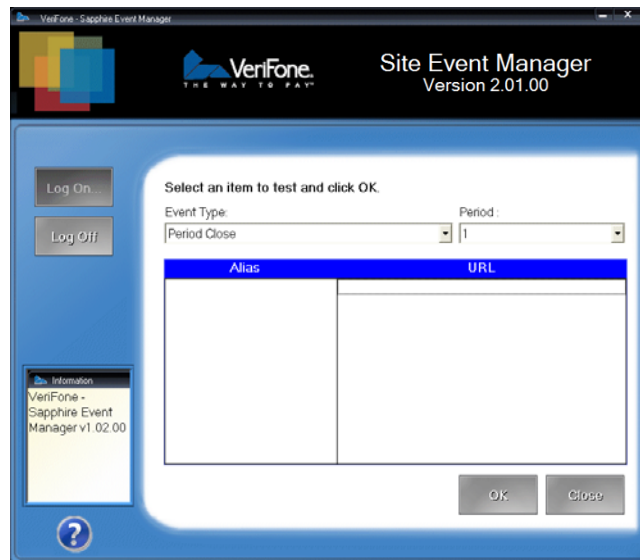


3. The list box displays the sites for which there is a local cache. Select the site from which you want to copy.
4. Click **OK**. A message appears stating "Copy Completed." The event is copied to the site to which you are currently connected.
5. Click **OK**.
6. Click **Cancel** to return to the Task Menu.

## Testing Events

Use the Test Events function to ensure that data are collected and available in the correct location.

1. In the Site Event Manager Task Menu, click **Test Events**.
2. Click **Next**. The Test Events dialog box appears.



3. Select the Event Type from the drop-down list.



*Due to time sensitivity, Funds Audit Event Types cannot be tested.*

4. Select the URL of the event to be tested.
5. Click **OK**. A message box appears stating "Repeat Event Request(s) Sent."
6. Click **OK**. The data that is produced whenever the event occurs are now automatically collected and cached in the proper folders.
7. Click **Close** to return to the Task Menu.

## Restoring Events

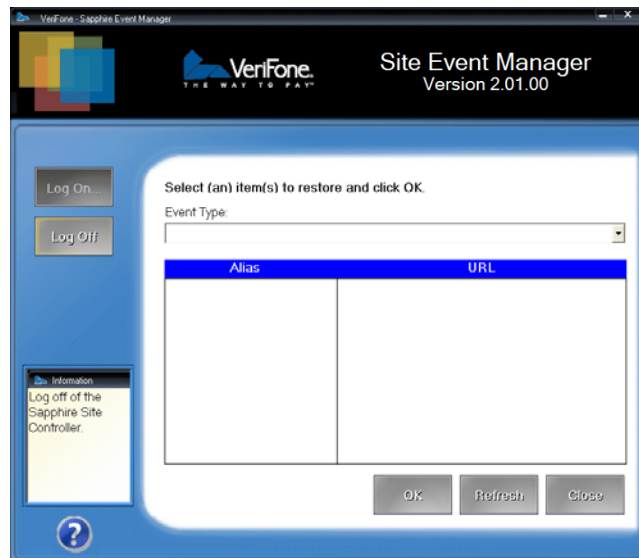
If the Site Controller has been reinstalled, use Restore Events to quickly configure the Site for event notification.

1. In the Site Event Manager Task Menu, click **Restore Events**.
2. Click **Next**. The Restore Events dialog box appears.



Click **Refresh** to reread the local cached file and update the list box with the latest data in the local cache.

3. Select the Event Type from the drop-down list. The Alias and URL appear in the list box.



4. Select the event to restore.
5. Click **OK** to restore the event. A message appears stating "Events Restored."
6. Click **OK**.
7. Click **Close** to return to the Task Menu.

---

## Changing the Password

### Password Guidelines

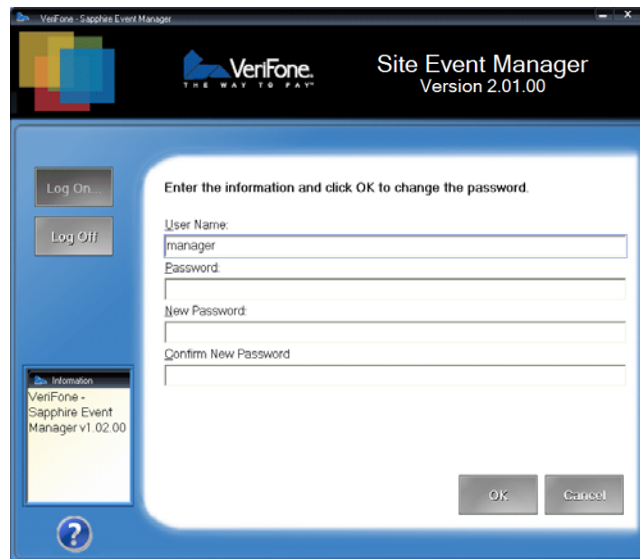
Follow these guidelines for passwords:

- An Administrator can change your password at any time.
- Passwords must be at least seven (7) characters in length and contain at least one (1) digit and one (1) letter.
- Passwords expire at least every 90 days (maybe more frequently, depending on configuration.)
- You cannot reuse your last four passwords.

If an invalid password is entered six consecutive times, your user account is inactivated for 30 minutes. The Administrator can assign a password so that you can log on immediately.

To change your password, follow this procedure:

1. In the Site Event Manager Task Menu, click **Change Password**.
2. Click **Next**. The Change Password dialog box appears.



The screenshot shows a Windows-style dialog box titled "VeriFone - Sapphire Event Manager". The title bar also includes "VeriFone THE WAY TO PAY" and "Site Event Manager Version 2.01.00". The dialog box has a blue border and a white background. On the left side, there is a vertical panel with a "Log On..." button, a "Log Off" button, and an "Information" section that reads "VeriFone - Sapphire Event Manager v1.02.00". The main area of the dialog box contains the text "Enter the information and click OK to change the password." followed by four input fields: "User Name:" (containing "manager"), "Password:", "New Password:", and "Confirm New Password:". At the bottom right, there are "OK" and "Cancel" buttons. A help icon (?) is located at the bottom left of the dialog box.

3. Enter your current user name and password.
4. In the New Password box, enter the new password.

5. In the Confirm New Password box, enter the new password.
6. Click **OK**.

---

## Logging Off Event Manager

To leave a Site Event Manager session, click **Log Off**. The Session Log On dialog box appears so that you can log on again later.

---

## Exiting Event Manager

To close the Site Event Manager, click the **"X"** in the upper right corner.



# 4

## EVENT PROCESSING UTILITY

The Site Event Processing Utility allows you to configure a set of instructions for any or all of the following event types for which data is sent to the Apache server after configuration with Event Manager:

- Application Start
- Period Close (Period 1, 2, 3, or 4)
- Fuel Initialization
- Funds Audit
- Manager Workstation
- Peripheral Status
- Sales Data

The instructions that you configure with the Event Processing Utility allow you to save the data to a file, send a message to an email address, and/or run a script file to process the data.

The following procedures explain how to create, modify, and remove an event process with the Event Processing Utility.

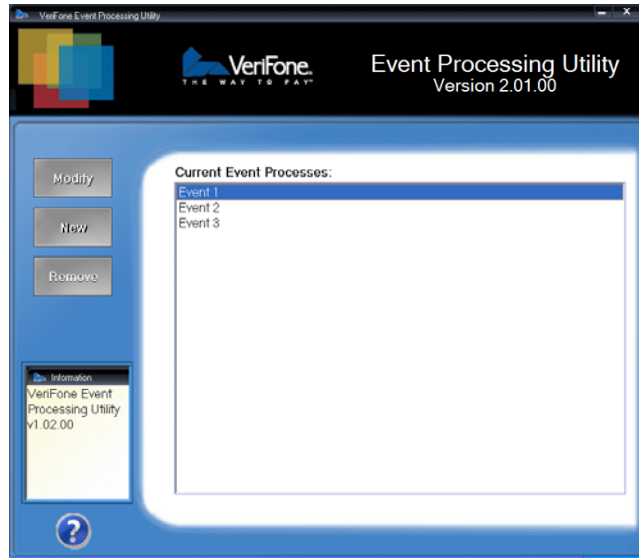


*See “Parameter and Values” (at the end of this chapter) for information about the parameters and values included in the Event Processing Utility.*

---

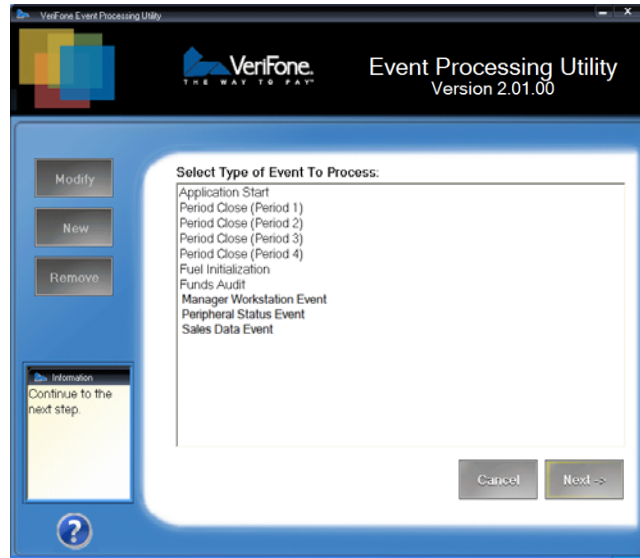
## Opening the Event Processing Utility

Click **Start > Programs > Verifone > Site Management Suite > Site Event Processing Utility**.

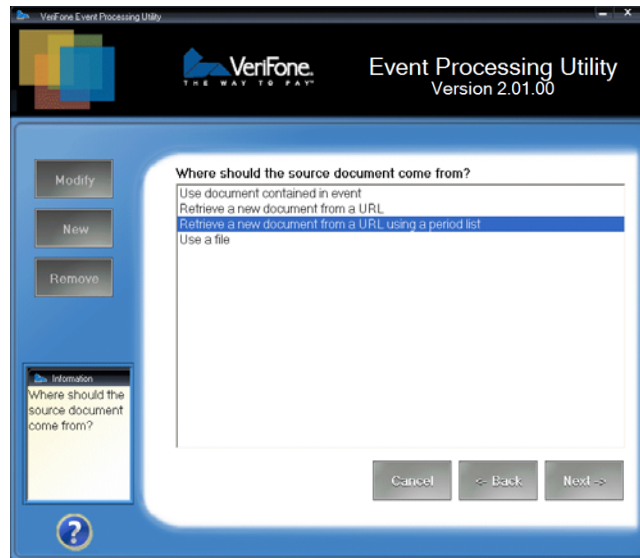


## Creating a New Event Process

1. In the main Event Processing Utility window, click **New**. The Event Types appear.



2. Select an Event Type from the following:
  - Application Start
  - Period Close (Period 1)
  - Period Close (Period 2)
  - Period Close (Period 3)
  - Period Close (Period 4)
  - Fuel Initialization
  - Funds Audit
  - Manager Workstation
  - Peripheral Status
  - Sales Data Event
3. Click **Next**. The Source Document Locations appear.



4. Select the location of the source document from the following:
  - **Use document contained in event** — The event has a document that you want to process. Select the option, click **Next**, and go to step 5.

- **Retrieve a new document from a URL** — Get a document to use in the process. Select the option, click **Next**, and do the following:

#### Retrieve a New Document from a URL

1. In URL Information, select CMD from the Parameter Name drop down list and a value from the Parameter Value drop down list.
2. Click the arrow to move CMD and the value into the URL Parameters box.
3. Repeat steps 1 and 2 for Cookie, with the value %~COOKIE%.
4. Add any other parameters in the same manner.
5. Select the type of request that this command is to use.
6. Click **Next** and go to step 5.

- **Retrieve a new document from a URL using a period list** — Get a document that requires a period list. Select the option, click **Next**, and do the following:

#### Retrieve a New Document from a URL using a Period List

1. In URL Information (see above), select CMD from the Parameter Name drop down list and a value from the Parameter Value drop down list.
2. Click the arrow to move CMD and the value into the URL Parameters box.
3. Repeat steps 1 and 2 for Cookie, with the value %~COOKIE%.
4. Add any other parameters in the same manner.
5. Select the type of request that this command is to use.
6. Click **Next**.

7. In the Period List Information dialog box, repeat steps 1 through 4 and click **Next**.

### Retrieve a New Document from a URL using a Period List (Continued)

VeriFone Event Processing Utility  
Version 2.01.00

Modify  
New  
Remove

Enter the file to compare the Period List against

Path and File Name: (Path is considered relative unless it is fully qualified.)

☐ File path is a URL to the Sapphire Site Controller

Select a variable to add to the file name:

☐ Save file after comparing

Cancel < Back Next >

Information  
VeriFone Event Processing Utility  
v1.02.00

8. In Period List Comparison, enter or browse to the file to which you want to compare the Period List to prevent duplication of data.
9. If the path is a URL to the Site, select that option.
10. You may select a variable to add to the file name and may also select the option to save the file after comparing.
11. Click **Next** and go to step 5.

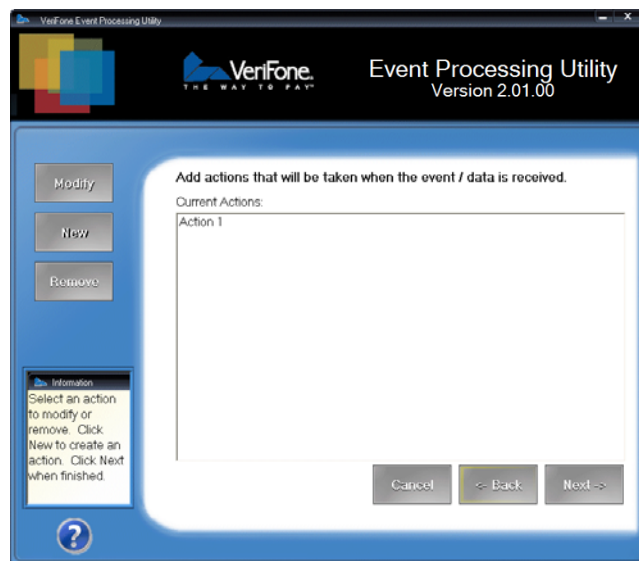
- **Use a file** — Get a document of your own that you want to use in the process. Select the option, click **Next**, and do the following:

#### Use a File



1. In the Source Document Information dialog box, enter or browse to the file.
2. If the path is a URL to the Site, select that option.
3. You may select a variable to add to the file name.
4. Click **Next** and go to step 5.

5. The Add Actions dialog box appears.

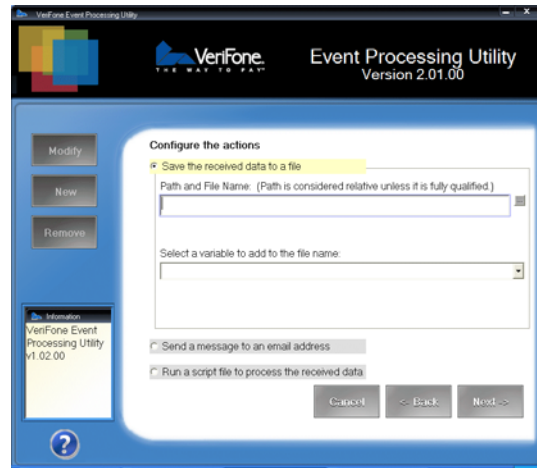


6. Click **New**. The Configure Actions dialog box appears.



7. Select from the following actions:
  - **Save the received data to a file** — Select the option and do the following:

#### Save the Received Data to a File



The screenshot shows the 'VeriFone Event Processing Utility' window, Version 2.01.00. The title bar includes the VeriFone logo and the text 'THE WAY TO PAY'. The main window has a blue border and a central white area titled 'Configure the actions'. On the left side of the window, there are three buttons: 'Modify', 'New', and 'Remove'. Below these is an 'Information' panel showing 'VeriFone Event Processing Utility v1.02.00'. The 'Configure the actions' section has a checkbox labeled 'Save the received data to a file' which is checked. Below this checkbox is a text field for 'Path and File Name: (Path is considered relative unless it is fully qualified)'. Below the text field is a dropdown menu labeled 'Select a variable to add to the file name:'. At the bottom of the 'Configure the actions' section, there are two unchecked checkboxes: 'Send a message to an email address' and 'Run a script file to process the received data'. At the very bottom of the window are three buttons: 'Cancel', '< Back', and 'Next >'. A help icon (?) is located in the bottom left corner of the window.

1. In Configure Actions, enter or browse to the path and file name.
2. You may also select a variable to add to the file name.
3. Click **Next** and go to step 8.

- **Send a message to an email address** — Select the option and do the following:

#### Send a Message to an Email Address

The screenshot shows the 'VeriFone Event Processing Utility' window, Version 2.01.00. The 'Configure the actions' section is active, showing a list of actions with 'Send a message to an email address' selected. Below this, there are fields for 'SMTP Server', 'Port', 'To', 'From', 'Subject', and 'Message'. There are also dropdown menus for 'Select a variable to add to the subject' and 'Select a variable to add to the message'. At the bottom, there is a checkbox for 'Run a script file to process the received data' and buttons for 'Cancel', '< Back', and 'Next >'. On the left side of the window, there are buttons for 'Modify', 'New', and 'Remove', and an 'Information' pane showing 'VeriFone Event Processing Utility v1.02.00'.

1. In Configure Actions, enter the SMTP Server (outgoing mail server) that is reachable from the TSA server and the Port number.

**Note:** *Can be on the same server.*

2. Enter the Subject and Message. You may select a variable to add to the Subject and/or Message.
3. Click **Next** and go to step 8.

- **Run a script file to process the received data** — Select the option and do the following:

#### Run a Script File to Process the Received Data

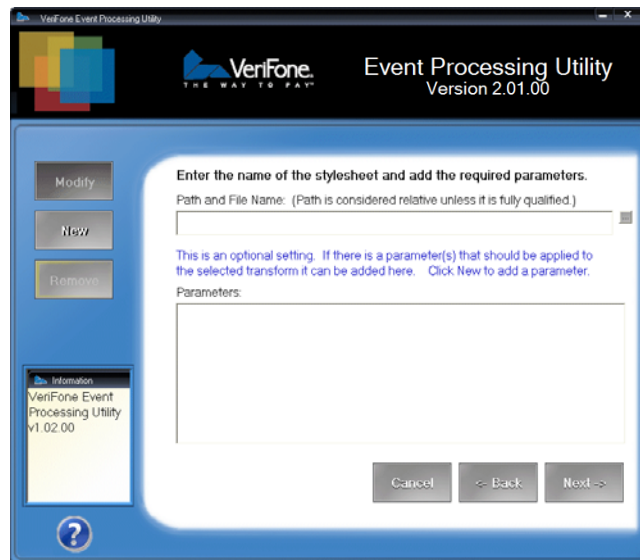
The screenshot shows the 'VeriFone Event Processing Utility' window, Version 2.01.00. On the left is a sidebar with 'Modify', 'New', and 'Remove' buttons, and an 'Information' pane showing 'VeriFone Event Processing Utility v1.02.00'. The main area is titled 'Configure the actions' and contains three radio buttons: 'Save the received data to a file', 'Send a message to an email address', and 'Run a script file to process the received data' (which is selected). Below the radio buttons is a text field for 'Path and File Name: (Path is considered relative unless it is fully qualified)'. To the right of this field are two input boxes for 'Parameter Name' and 'Parameter Value', with a right-pointing arrow button between them. To the right of these is a 'Script Parameters' box. At the bottom are 'Cancel', '< Back', and 'Next >' buttons.

1. In Configure Actions, enter or browse to the path and file name of the script.
2. Enter the Parameter Name and the Parameter Value.
3. Click the arrow to move the Parameter and Value into the Script Parameters box.
4. Click **Next** and go to step 8.

8. The Apply XML Transform dialog box appears.

The screenshot shows the 'VeriFone Event Processing Utility' window, Version 2.01.00, at the 'Apply XML transform(s) to the received data?' step. The sidebar is identical to the previous screenshot. The main area has a title 'Apply XML transform(s) to the received data?' followed by a note: 'This is an optional setting. If there is a transform(s) that need to be applied to the data it can be added here. Click New to add a transform.' Below this is a large empty text box labeled 'Transforms to apply to the received data:'. At the bottom are 'Cancel', '< Back', and 'Next >' buttons.

9. To add a Transform, click **New**. The Stylesheet dialog box appears.



10. In the Stylesheet dialog box, enter or browse to the file.
11. If you want to enter a parameter(s) to be applied to the transform click **New**. The Transform Parameter Information dialog box appears.

12. Select the parameter value type from the following:
- Standard Value — Select the option and do the following:

#### Standard Value

The screenshot shows the 'VeriFone Event Processing Utility' dialog box, version 2.01.00. The 'Transform Parameter Information' tab is active. On the left, there are buttons for 'Modify', 'New', and 'Remove'. Below these is a 'Monitor' button and a status box showing 'VeriFone Event Processing Utility v1.02.00'. The main area contains the following fields: 'Parameter Name', 'Parameter Namespace', 'Parameter Value Type' (with 'Standard Value' selected and highlighted in yellow), and 'Parameter Value'. At the bottom, there are radio buttons for 'XML' and 'Source Document', and 'Cancel', '< Back', and 'Next >' buttons.

1. Enter the Parameter Name, Parameter Namespace (optional), and the Parameter Value.
2. Click **Next**. (If you want to add another transform, do so now.) Click **Next** to return to the Apply XML Transform dialog box.
3. Click **Next** and go to step 13.

- XML — Select the option and do the following:

#### XML

1. Enter the Parameter Name, Parameter Namespace (optional), and the Parameter XML.
2. Click **Next**. (If you want to add another parameter, do so now.) Click **Next** to return to the Apply XML Transform dialog box.
3. Click **Next** and go to step 13.

- Source Document — Select the option and do the following:

#### Source Document

The screenshot shows the 'Transform Parameter Information' dialog box in the VeriFone Event Processing Utility. The dialog has a sidebar with 'Modify', 'Now', and 'Remove' buttons. The main area contains fields for 'Parameter Name', 'Parameter Namespace', and 'Parameter Value Type'. Under 'Parameter Value Type', there are three radio buttons: 'Standard Value', 'XML', and 'Source Document'. The 'Source Document' option is selected and highlighted in yellow. Below these fields, a message states: 'The source document information will be applied on the next step.' At the bottom right are 'Cancel', '< Back', and 'Next >' buttons.

1. Enter the Parameter Name and Parameter Namespace (optional).
2. Click **Next**. The Enter URL Information dialog box appears.

The screenshot shows the 'Enter the URL information' dialog box. It includes a sidebar with 'Modify', 'Now', and 'Remove' buttons. A note at the top states: 'NOTE: All requests require cmd and cookie parameters.' Below this is a table with 'Parameter Name' and 'Parameter Value' columns. To the right, there is a 'URL Parameters' section with a list box containing 'cmd=periodrept', 'period=%PERIOD%', and 'cookie=%COOKIE%'. Below the table, there is a section titled 'What type of request will this command use?' with two radio buttons: 'CGILink - The most common request type. Used to retrieve most data.' (which is selected) and 'NAXML - Used to retrieve NAXML documents.' A text area below contains the URL: '..\cgi-bin\CGILink?cmd=periodrept&period=%PERIOD%&cookie=%COOKIE%&filename=%FILENAME%'. At the bottom right are 'Cancel', '< Back', and 'Next >' buttons.

**Source Document (Continued)**

3. Select CMD from the Parameter Name drop down list and a value from the Parameter Value drop down list.
4. Click the arrow to move CMD and the value into the URL Parameters box.
5. Repeat steps 4 and 5 for Cookie, with the value %~COOKIE%.
6. Add any other parameters in the same manner.
7. Select the type of request that this command is to use.
8. Click **Next**. (If you want to add another parameter, do so now.) Click **Next** to return to the Apply XML Transform dialog box.
9. Click **Next** and go to step 13.

13. The Error dialog box appears. Select the action to be taken in case of an error from the following:
  - **Nothing (do not do anything if an error occurs)** — Select the option, click **Next**, and go to step 14.



- Send a message to an email address — Select the option and do the following:

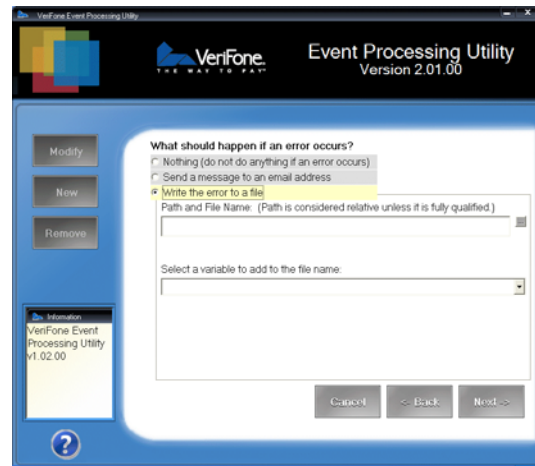
#### Send a Message to an Email Address

The screenshot shows the 'VeriFone Event Processing Utility' window. The title bar includes the VeriFone logo and the text 'Event Processing Utility Version 2.01.00'. On the left, there are buttons for 'Modify', 'New', and 'Remove', and an 'Information' pane showing 'VeriFone Event Processing Utility v1.02.00'. The main area is titled 'What should happen if an error occurs?' and has two radio buttons: 'Nothing (do not do anything if an error occurs)' and 'Send a message to an email address'. The 'Send a message to an email address' option is selected. Below this, there are input fields for 'SMTP Server' and 'Port'. To the right of these are 'To' and 'From' fields. Below 'To' is a 'Subject' field and a dropdown menu 'Select a variable to add to the subject:'. Below 'Subject' is a 'Message' field and a dropdown menu 'Select a variable to add to the message:'. At the bottom, there is a checkbox 'Write the error to a file' and three buttons: 'Cancel', '< Back', and 'Next >'. A question mark icon is in the bottom left corner.

1. In the Error dialog box, enter SMTP Server (outgoing mail server) and the Port number.
2. Enter the Subject and Message. You may select a variable to add to the Subject and/or Message.
3. Click **Next** and go to step 14.

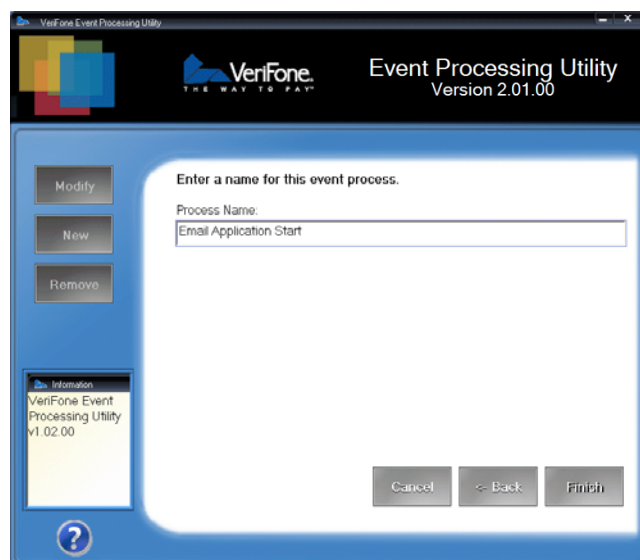
- Write the error to a file — Select the option and do the following:

#### Write the Error to a File



1. In the Error dialog box, enter or browse to the file to which you want to write the error.
2. You may select a variable to add to the file name.
3. Click **Next** and go to step 14.

14. The Action dialog box appears. Click **Next**. The Process Name dialog box appears.



15. Enter a name for the new event process.
16. Click **Finish**. The Information Saved box appears.
17. Click **OK**.

---

## Modifying an Event Process

After you have created an event process, you may modify it by doing the following:

1. In the main Event Processing Utility window, select the event process that you want to modify and click **Modify**. The Event Types appear.
2. The event type is automatically selected. Click **Next**.
3. Follow the "Creating a New Event Process" procedure until you reach the section(s) of the process that you want to modify.
4. Click **Modify** and make the change. Continue as in "Creating a New Event Process," making further changes as necessary.
5. At the end of the procedure, you may keep the same name for the modified event process or rename it.
6. Click **Finish**. The Information Saved box appears.
7. Click **OK**.

---

## Removing an Event Process

You may remove an event process by doing the following:

1. In the main Event Processing Utility window, select the event process you want to remove.
2. Click **Remove**. The "Are you sure" dialog box appears.
3. Click **Yes**. The Information Saved box appears.
4. Click **OK**. The event process is removed.

## Parameters and Values

**cmd** (parameter) — The cgi command to execute on Site Controller.

<b>cmd Value</b>	<b>Description</b>	<b>Required Parameters</b>	<b>Associated pdlist</b>
<b>vrubyrept</b>	The Ruby report.	reptname period filename cookie	vreportpdlist
<b>vperiodrept (Sapphire Only)</b>	Period Report (T-Log). A collection of all transactions and events that occurred in a given period.	period filename cookie	vtlogpdlist
<b>vperiodreptz (Sapphire Only)</b>	Period Report (T-Log). A collection of all transactions and events that occurred in a given period (zipped).	period filename cookie	vtlogpdlist
<b>vtransSet (Commander Only)</b>	Period Report (T-Log). A collection of all transactions and events that occurred in a given period.	period filename cookie	vtlogpdlist
<b>vtranSetz (Commander Only)</b>	Period Report (T-Log). A collection of all transactions and events that occurred in a given period (zipped).	period filename cookie	vtlogpdlist
<b>vcashierrept</b>	The cashier report for a given cashier period, register, and cashier.	filename cashierNum regNum cookie	vcashierpdlist
<b>vfueltotals</b>	Dispenser totals that occurred in a given period on Site.	period filename cookie	vtlogpdlist
<b>vfueltotalsz</b>	Dispenser totals that occurred in a given period on Site (zipped).	period filename cookie	vtlogpdlist
<b>vdealcfg (Sapphire Only)</b>	The deal (mix-match and combo) configuration document.	cookie	N/A

<b>cmd Value</b>	<b>Description</b>	<b>Required Parameters</b>	<b>Associated pdlist</b>
<b>vfuelsite (Sapphire Only)</b>	The fuel site configuration document, including service modes, tanks, blends, fueling positions, hose assignments, and grade pricing.	cookie	N/A
<b>vfuelcfg (Commander Only)</b>	The fuel site configuration document, including service modes, tanks, blends, fueling positions, hose assignments, and grade pricing.	cookie	N/A
<b>vpopcfg</b>	The POP fuel discount configuration document. Shows headers, messages, and trailers for DCRs.	cookie	N/A
<b>vtlssite</b>	The tank level sensor configuration document.	cookie	N/A
<b>vtaxratecfg</b>	The tax rate configuration document.	cookie	N/A
<b>vreportpdlist</b>	The list of available periods for database-based reports.	cookie	N/A
<b>vtlogpdlist</b>	The list of available period closes for tlog-based reports.	cookie	N/A
<b>vpayrollpdlist</b>	The list of available periods for the payroll report (previous and current).	cookie	N/A
<b>vpayrollpdlist2</b>	The list of available periods for the payroll report.	cookie	N/A
<b>vnetworkpdlist</b>	The list of available periods for the network report.	cookie	N/A
<b>vcashierpdlist</b>	The list of available periods for the cashier report.	cookie	N/A
<b>vcwpaypointpdlist</b>	The list of available periods for the car wash pay point report.	cookie	N/A
<b>vcwpaypointpdrept</b>	The actual car wash pay point report.	cookie filename period	vcwpaypoint pdlist

reptname — The name of the Site report.

reptname Value	Description
Department	Department Report
Summary	Summary Report
Tax	Tax Report
Loyalty	Loyalty Report
Hourly	Hourly Report
Network	Network Report
netProd	Network Product Report
propCard	Proprietary Network Card Report
propProd	Proprietary Network Product Report
Deal	Deal Report
popDisc	POP Discount Report
plu	PLU Report
pluPromo	PLU Promo Report
Category	Category Report
dcrStat	Fuel DCR Statistics Report
fpHoseTest	Fueling Position/Product (Hose) Test Report
fpHose	Fueling Position/Product (Hose) Report
fpHoseRunning	Fueling Position/Product (Hose) Running Report
prPriceLvl	Fuel Product/Price Level Report
slPriceLvl	Fuel Service Level/Price Level Report
tierProduct	Fuel Tier/Product Report
autoCollect	Fuel Autocollect Report
cashAcc	Fuel Cash Acceptor Report
tank	Fuel Tank Report
tankMonitor	Fuel Tank Monitor Report
tankRec	Fuel Tank Reconciliation Report
carwash	Car Wash Report
moneyOrderDev	Money Order Device Report
payroll	Payroll Report

Parameter	Value
<b>cookie</b> The credential that authorizes the request to be processed by the Site.	Value = %~COOKIE% The value that was in the event received from the Site replaces %~COOKIE%.
<b>cashierNum</b> The cashier number.	Value = %~CSRNUM% This value may be available in an event received from the Site. <b>Note:</b> See %~CSRNUM% in "Values" below.
<b>filename</b> The name of the file that contains the report data for a given period.	Value = %~FILENAME% This value may be available in an event received from the Site. <b>Note:</b> See %~FILENAME% in "Values" below.
<b>period</b> The reporting period 1 - 4.	Value = 1, 2, or %~PERIOD% This value may be available in an event received from the Site. <b>Note:</b> See %~PERIOD% in "Values" below.
<b>regNum</b> The register number.	Value = %~REGNUM% This value may be available in an event received from the site. <b>Note:</b> See %~REGNUM% in "Values" below.
<b>reptnum</b> The sequence number of the Site report.	Value = 1 - 99, where 1 is current, 2 is most recently closed, etc. Best practice is to use filename instead of reptnum.

## Values

### %~CSRNUM%, %~REGNUM%, %~CSRNAME%

**%~CSRNUM%** — The number assigned to the cashier (1 - 60) set up through Site Management Suite or Configuration Client

**%~REGNUM%** — The register number assigned during install

**%~CSRNAME%** — The cashier name set up through Site Management Suite or Configuration Client

### Value Extracted From

- The Event.
- The period list. When using "Retrieve a new document from a URL using a period list" and the period list is vcashierpdlist, the variable is set to the value of the entry in the period list that is being processed.

### Availability

This value **may be** available on any event, but is not guaranteed. The only reliable use of this variable is when processing cashier reports from a vcashierpdlist.

### Uses

- Parameter name cashierNum and regNum to retrieve cashier reports



*%~CSRNAME% (cashier name) is not a parameter that would be sent to the Site Controller, but is part of the period list.*

- To create/build unique folders/directories for saveTo, writeTo
- To create/build unique filename for saveTo or writeTo
- To create/build a subject and/or message for emailTo



## %~FILENAME%

---

**%~FILENAME%** — A unique name given by the Point of Sale (POS) to a closed report. The name takes the form of a 4-digit year, a 2-digit month, a 2-digit date separated by dashes (a date) and a sequence number separated from the date with a period. For example: 2008-10-02.011.

### Value Extracted From

- The Event
- The period list. When using “Retrieve a new document from a URL using a period list” and using any period list, %~FILENAME% is set to the value of the filename of an entry in the period list that is being processed.

### Availability

This value **may be** available on any event, but is not guaranteed. The only reliable use of this variable is when processing reports from a period list such as vtlogpdlist, vreportpdlist, or vcashierpdlist.

### Uses:

- Parameter name of filename to retrieve reports
- To create/build unique folders/directories for saveTo, writeTo
- To create/build unique filename for saveTo or writeTo
- To create/build a subject and/or message for emailTo

## %~PERIOD%

---

**%~PERIOD%** — A numeric value (1 - 4) representing a reporting period.

### Value Extracted From

- The Event
- The periodCloseEvent entry (added through the Event Processing Utility).

### Availability

This value **may be** available on any event, but is not guaranteed. The only reliable use of this variable is when processing periodCloseEvents.

### Uses

- Parameter name of period to retrieve reports
- To create/build unique folders/directories for saveTo, writeTo
- To create/build unique filename for saveTo or writeTo
- To create/build a subject and/or message for emailTo

## **%~SITE%**

---

**%~SITE%** — The site/store number assigned during install through Site Management Suite or Configuration Client.

### **Value Extracted From**

The Event

### **Availability**

This value is always available.

### **Uses**

- To create/build folders/directories for site-specific storage for saveTo or writeTo
- To create/build site-specific filenames for saveTo or writeTo
- To create/build a subject or message for email and specifically identify the site from which the event came

## **%~CURxxx%**

---

**%~CURYEAR2%** — The last 2 digits of the current year.

**%~CURYEAR4%** — The full 4 digits of the current year.

**%~CURMONTH%** — The 2-digit month for the current month.

**%~CURDATE%** — The 2-digit day of the current month.

**%~CURDAY%** — The name of the day of the week equal to the 2-digit day of the current month.

**%~CURHOUR%** — The 2-digit hour in 24 hours for the current hour.

**%~CURMINUTE%** — The 2-digit minutes for the current minutes.

**%~CURSECOND%** — The 2-digit seconds for the current seconds.

### **Value Extracted From**

The system that is hosting Transaction Set Archiver

### **Availability**

The value is always available.

### **Uses**

- To create/build folders/directories for saveTo or writeTo
- To create/build filenames for saveTo or writeTo
- To create/build a subject and/or message for emailTo

## %~BUSxxx

---

%~BUSYEAR2% — The last 2 digits of the open time of a reporting period

%~BUSYEAR4% — The full 4 digits of the open time of a reporting period

%~BUSMONTH% — The 2-digit month of the open time of a reporting period

%~BUSDATE% — The 2-digit day of the open time of a reporting period

%~BUSDAY% — The name of the day of the week equal to the 2-digit day of the open time of a reporting period

%~BUSHOUR% — The 2-digit hour in 24 hours of the open time of a reporting period

%~BUSMINUTE% — The 2-digit minutes of the open time of a reporting period

%~BUSSECOND% — The 2-digit seconds of the open time of a reporting period

### Value Extracted From

- A source document retrieved using vperiodrept
- A source document retrieved using vrubyrept
- A source document retrieved using vfueltotals
- A source document retrieved using vcashierrept
- A source document retrieved using vpayrollrept
- A source document retrieved using vcwpaypointpdrept
- A source document retrieved using vtransset

**Note:** The option to deliver the data in gzip format is available for vperiodrept and vfueltotals.

### Availability

The value is available **only** if the source document is one of the above. Business date is extracted from the source document after it has been retrieved and represents the date and time the report was opened.

### Uses

- To create/build folders/directories for saveTo or writeTo
- To create/build filenames for saveTo or writeTo
- To create/build a subject or message for emailTo

## %~SEQNUM

---

%~SEQNUM% — A unique 3-digit sequence number assigned by the Point of Sale (POS).

### Value Extracted From

- A source document retrieved using vperiodrept
- A source document retrieved using vrubyrept
- A source document retrieved using vfueltotals
- A source document retrieved using vcashierrept
- A source document retrieved using vpayrollrept
- A source document retrieved using vcwpaypointpdrept
- A source document retrieved using vtransset

**Note:** The option to deliver the data in gzip format is available for vperiodrept and vfueltotals.

### Availability

The value is available **only** if the source document is one of the above. Sequence number is extracted from the source document after it has been retrieved.

### Uses

- To create/build folders/directories for saveTo or writeTo
- To create/build filenames for saveTo or writeTo
- To create/build a subject and/or message for emailTo

# 5

## USING TRANSACTION SET ARCHIVER

---

### Viewing Data

#### Windows Explorer

Use Windows Explorer to view data directly.

1. In Windows Explorer, navigate to C:\siteController\tlogs folder and navigate to the appropriate sitename and period folder.
2. Double-click the folder named for the site.
3. Do one of the following:
  - Double-click the .xml file to review the data.
  - Double-click the zip file to open it, then double-click the .xml file to review the data.

#### Transaction Manager

Use the Site Management Suite Transaction Manager to view and filter data.

1. Log on to the Site Management Suite Transaction Manager.
2. Click **Tools > Transaction Viewer** or **Tools > Transaction Manager** to open the tool you want to use.



*Click **Help > Documentation** for information about the Transaction viewer and Transaction Manager.*

3. Click **File > Open Local TLog** and browse to C:\siteController.
4. Open the "sitename" folder and select the TLog data you want to view.
5. Click **Open**. The data appear in the Transaction Viewer or the Transaction Manager.

---

## Setting Up for Data Refresh

The Transaction Set Archiver recognizes previously collected data and does not collect duplicate data. However, you might want to collect all data again for a particular event or period. Use the procedure below for both Event and Poll Mode data collection.

1. In Windows Explorer, navigate to C:\Program Files\Verifone\TSAScripts\siteInfo\processTransactionSets.
2. Locate and move or delete the site name file (for example, AB123-2.xml).

The next time the event or period data are collected, all data will be collected again.

## Forcing Events

To collect event data immediately, use the “Testing Event Setup” procedure to force the Site Controller to repeat the last closed event.



*You must select the correct event.*

---

## Viewing Logs

**Note:** All Transaction Set Archiver logs roll over and therefore do not require maintenance to prevent large files.

### Event Logs

1. In Windows Explorer, navigate to C:\ProgramFiles\Verifone\tsaScripts\Logs.
2. Double-click process.logN to view the event mode log. The log file displays the inbound event and the IP address and confirms that Transaction Set Archiver received the event.

If an expected event is not listed in the log, the likely cause is one of the following:

- The Site did not send the event data.
  - The Apache HTTP Server is not operating properly.
  - The network was disconnected at the time the event was sent.
3. All further logging for the event is stored in the folder named for the site in C:\Program Files\Verifone\TSAScripts\Logs. Open the site folder and double-click process.logN to view the event log.

### Apache HTTP Server Logs

By default, Apache logging is turned off. See the Apache documentation for information about enabling and maintaining Apache log files.

1. In Windows Explorer, navigate to C:\Program Files\Apache Group\Apache\logs.
2. Double-click on access.log (details of incoming server traffic), or error.log (issues associated with granting requests).

---

## Enable White List Processing

This new feature enables the TSA server to connect to the Site to retrieve data after receiving the event notification through a proxy server.

1. In Windows Explorer, navigate to C:\Program Files(x86)\VeriFone\TSAScripts\siteEvent\whiteListSample (default install).
2. Double-click on whiteListSample.xml.

The following is the content of whiteListSample.xml:

```
<?xml version="1.0" encoding="UTF-8"?>  
<tsa:whiteList xmlns:tsa="urn:vfi-sapphire:tsa.2009-04-21"  
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">  
  <!--
```

To enable White List Processing:

- 1) Copy this file to the siteEvent directory where processEvent.wsf is.
- 2) Rename the file to whiteList.xml
- 3) Add entry elements specifying the siteNumber (store number) and the IP address of the site.

```
<entry siteNumber="1" ipAddress="10.10.10.1"/>  
-->  
</tsa:whiteList>
```

3. Use the steps within the file to enable White List Processing.



*The only entries needed are those sites that have a proxy server in the path (route) from the site to the TSA server.*