



# **TrustCommerce Vault Users' Guide Version 4**

October 2003

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## Purpose

The purpose of this document is to provide merchants with the information required to use the full range of features and services available through the TrustCommerce Vault. For merchants new to processing payments over the Internet, [Appendix A](#) offers a complete guide to the concepts and terms that make Internet Payment Processing work.

## Getting Ready

The Vault is the merchant's access point to the interactive payment processing and reporting services offered by TrustCommerce. To use the Vault, the following steps must be completed:

### Request a TrustCommerce Account

Registration with TrustCommerce can usually be completed in one business day. Once registered, merchants have full access to a TrustCommerce payment gateway "test" account. To register, contact a TrustCommerce Solutions Consultant.

### Establish a Merchant Account

To process transactions over the Internet, an Internet-capable Merchant Account is required. Most banks offer Internet Merchant Accounts, but fees and rates can vary widely. Your TrustCommerce Solutions Consultant can help establish the banking relationship that is right for you.

## Connecting to the Vault

To access the TrustCommerce Vault, type the following URL into your Web browser:

<https://vault.trustcommerce.com>

Notice the "s" in "https." This signifies a secure connection to the Vault website. Connection to the Vault is only allowed via Secure Socket Layer, or SSL. This ensures that all information passed over the Internet to the TrustCommerce Vault is fully encrypted. If you forget to include the "s," you will automatically be redirected to the secure login page.

**NOTE:** Some companies have firewalls that prevent access to secure sites from inside their local networks. This is most likely the case if you are unable to connect to the Vault website or if your browser reports an error. Discuss this problem with your local network administrator.

Once connected, you will see the following screen:



Please log in below.

Customer ID:

Password:

Type your Customer ID (custid) and Password into the spaces provided.

**NOTE:** Passwords are case sensitive; if the site is refusing you access, be sure caps lock is turned off and re-enter the information. If you are still having difficulty, contact TrustCommerce Customer Service for assistance.

Once you login successfully, you will be taken to the main menu of the site.



Welcome, Joe's Diner.

Please chose an option from the menu on the left.

Joe's Diner / 221100

Test

Joseph Joe

Aug 26, 2003 7:57 PDT

[Find a transaction](#)
[Today](#)
[Yesterday](#)
[Month to date](#)
[Run a transaction](#)
[Find a TransID:](#)

**Reporting**

[Simple Report](#)

[Advanced Report](#)

[Month Summary](#)

**Virtual Terminal**

[Credit Card](#)

[ACH](#)

**Citadel**

[Settings](#)

[Users](#)

[Downloads](#)

[Support](#)

[Logoff](#)

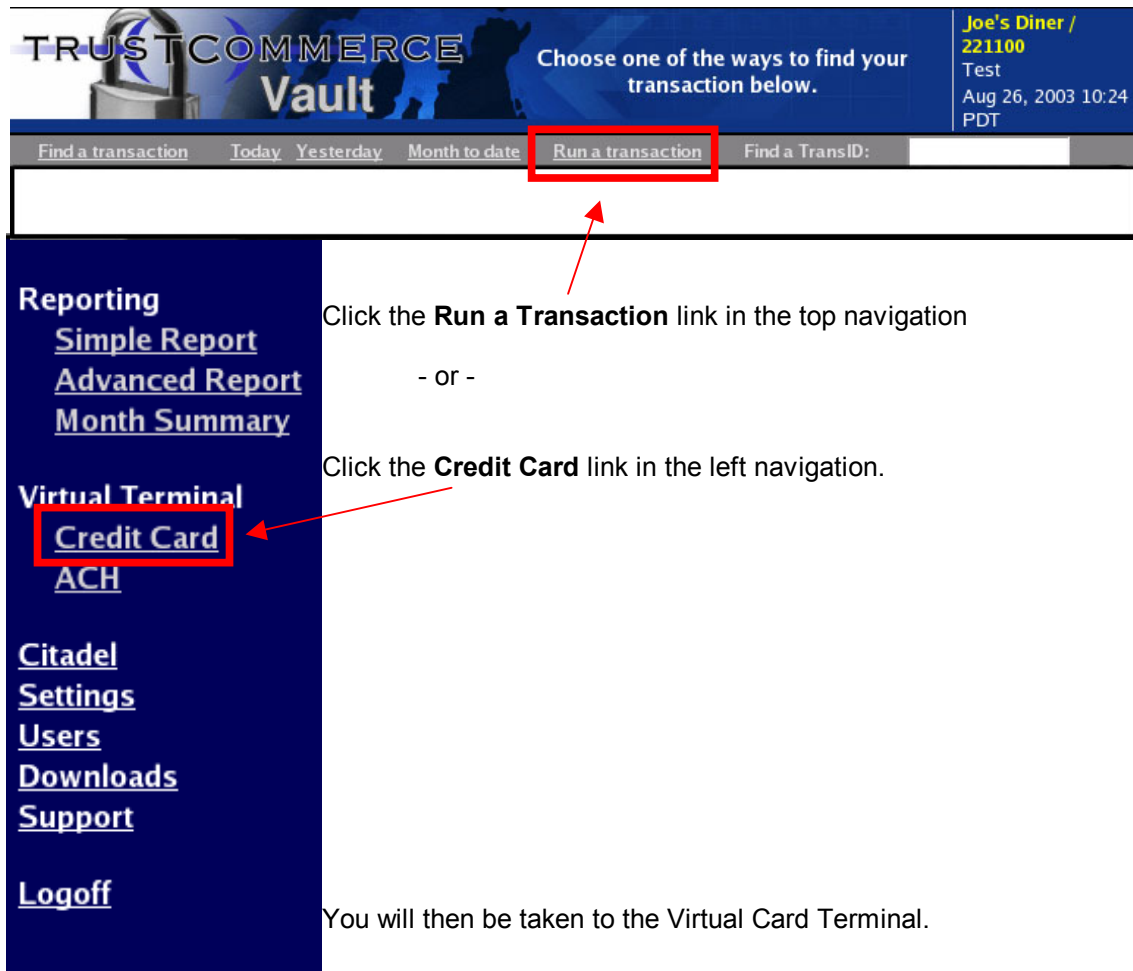
 Help

<b>Time Zones</b>	August 11, 2003
Time zones are now configurable on a per-account basis. Visit the settings page to choose your time zone for reports and receipt printing.	
<b>Enterprise Search Enhancement</b>	July 17, 2003
Controller level users can now use the drop down box to search by CustID on the Advanced Report.	
<b>Archived Receipt Printing</b>	June 19, 2003
Printable Results are now available for all transactions in the Vault. This allows you to print receipts from the TransID Report, no matter how long ago they occurred.	
<b>Additional Account Settings</b>	June 6, 2003
Two new settings for controlling your Virtual Terminal receipt types are available on the <a href="#">Settings</a> page.	
<b>Encrypted Daily Reports</b>	June 3, 2003
All daily reports sent to you via e-mail are now digitally signed to allow you to verify their authenticity. Additionally, there is a new option on the Settings page for automatically encrypting your daily reports so that only you can read them.	
<b>Receipt Printing</b>	March 5, 2003
The Printable Results page now includes a line for a customer signature, and automatically invokes your browsers print functionality (if JavaScript is enabled).	
<b>Vault Redesign</b>	Feb 17, 2003
The main pages of the Vault get a new look. Function and navigation remains almost unchanged, for context-sensitive	

## Processing Credit Cards Through the Virtual Card Terminal

The Virtual Card Terminal functions as a point-of-sale device. Credit card transactions can be entered directly into the Vault and payment authorization received. The Virtual Card Terminal is useful for manually processing phone orders and orders received via mail or fax.

To access the Virtual Card Terminal:



The screenshot shows the TrustCommerce Vault interface. At the top, there is a header with the TrustCommerce logo and a navigation bar. The navigation bar includes links for "Find a transaction", "Today", "Yesterday", "Month to date", "Run a transaction" (highlighted with a red box), and "Find a TransID:". A red arrow points from the "Run a transaction" link to the text "Click the **Run a Transaction** link in the top navigation".

Below the navigation bar, there is a left sidebar with a dark blue background. The sidebar contains the following links: "Reporting", "Simple Report", "Advanced Report", "Month Summary", "Virtual Terminal", "Credit Card" (highlighted with a red box), "ACH", "Citadel", "Settings", "Users", "Downloads", "Support", and "Logoff". A red arrow points from the "Credit Card" link to the text "Click the **Credit Card** link in the left navigation."

Below the sidebar, there is a main content area. The text "Click the **Run a Transaction** link in the top navigation" is followed by "- or -" and then "Click the **Credit Card** link in the left navigation." Below this, the text "You will then be taken to the Virtual Card Terminal." is displayed.

## Credit Card Preauths and Sales

The Virtual Card Terminal is shown below. Only the top five fields in the Virtual Terminal are required to complete a transaction.

☐ Virtual Card Terminal

1	Action	preauth
2	AVS	Off
i	Card Types Accepted	 
3	Card Number	<input type="text"/> required
4	Exp	<input type="text"/> MMY required
5	Amount	\$ <input type="text"/> required
6	CVV (?)	<input type="text"/>
7	Name	<input type="text"/>
8	Address	<input type="text"/>
9	City	<input type="text"/>
10	State	<input type="text"/>
11	Zip	<input type="text"/>
12	Country	<input type="text"/>
13	Email	<input type="text"/>
14	Ticket	<input type="text"/>
15	Operator	<input type="text"/>
16	<input type="button" value="Send Transaction"/>	

17 [Go to offline auth terminal](#)

#	Label	Description
1	Action	Available actions are: <a href="#">preauth</a> , <a href="#">sale</a> , and <a href="#">credit</a> .
2	AVS	<a href="#">AVS</a> stands for Address Verification System. Available AVS states are: <b>on</b> and <b>off</b> . The default is <b>off</b> . With AVS set to <b>on</b> , you <u>must</u> complete lines 7 - 11.
i	Card Types	This is for information purposes only; the operator can find which Credit Card types are accepted by your organization.
3	Card Number	Enter the credit card numbers as a continuous number (no spaces or dashes).
4	Exp	Enter the Expiration Date of the credit card in "mmyy" format (for example: 0405 for April, 2005).

#	Label	Description
5	Amount	Enter the transaction amount – including the decimal point (5.00 = five dollars).
<p>If AVS is set to <b>off</b>, the transaction can now be submitted by clicking the <b>Send Transaction</b> button (16). If AVS is set to <b>on</b>, fields 7 through 11 <u>must</u> be completed. Fields 7-11 can be submitted and will be captured for reporting purposes even if AVS is set to <b>off</b>.</p>		
6	CVV	Enter the three or four digit <a href="#">CVV</a> code.
7	Name	First and Last names as they appear on the card.
8	Address	The address that the credit card bill is sent to.
9	City	The City that the credit card bill is sent to.
10	State	The State that the credit card bill is sent to.
11	Zip	The five or nine digit Zip Code that the credit card bill is sent to.
12	Country	<p>The Country that the credit card bill is sent to .</p> <p><b>NOTE:</b> AVS only works in the United States; if the address entered in fields 7-11 is not in the United States, AVS will reject the transaction.</p>
13	Email	<p>This is a 50-character free form text field that will be saved with the transaction and can be <a href="#">downloaded</a> through the TrustCommerce Vault reporting feature.</p> <p>This field can be used to gather email addresses or any other information that your organization would like to collect about the transaction.</p>
14	Ticket	<p>This is a 30-character free form text field that will be saved with the transaction and can be <a href="#">downloaded</a> through the TrustCommerce Vault reporting feature.</p> <p>This field can be used to gather invoice numbers or any other information that your organization would like to collect about the transaction.</p>
15	Operator	<p>This is a 20-character free form text field that will be saved with the transaction and can be <a href="#">downloaded</a> through the TrustCommerce Vault reporting feature.</p> <p>This field can be used to gather the name of the operator or any other information that your organization would like to collect about the transaction.</p>
16	Send	Click the Send Transaction button to submit the payment.
17	Offline auth terminal	<p>On occasion, a transaction will be declined with a “<b>call</b>” status. In this case, you may call the credit card number listed on the card in order to get a manual authorization for the transaction. Once you have this six-digit number, use the Offline auth terminal to complete processing of the transaction.</p>



**NOTE:** If a required field is omitted or fails a format check, you will automatically be returned to the Virtual Terminal with the offending fields highlighted in red. A description of the error will appear at the top of the page. Correct the error(s) and re-submit the transaction.

If all data entered is valid, the transaction will be processed. In one to two seconds you will be taken to the Transaction Result screen.

### Credit Card Transaction Results

The Transaction Result page provides a variety of valuable information including:

Joe's Diner Transaction Results	
1	Status: <b>approved</b>
2	Transaction ID: <b>011-0000256969</b>
3	AVS: <b>Y</b>

Transaction Details	
4	Date: <b>08-28-2003 09:39 PDT</b>
5	Action: <b>preauth</b>
6	Amount: <b>\$20.00</b>
7	Card Type: <b>Visa</b>
8	Account Number: <b>xxxxxxx-1111 exp 0405</b>
9	Name: <b>Test Account</b>
10	Address: <b>1234 Testing Way</b>
11	City, State, Zip: <b>Test, CA 90016</b>
12	Ticket: <b>12-1234</b>
14	<a href="#">Printable Results</a>

Results Detailed Description	
13	The transaction was successful.

#	Label	Description
1	Status	Possible transaction status messages include: <b>approved</b> - The transaction has been accepted. <b>declined</b> - The card has been specifically refused by the issuing bank. In the even of a decline, additional information will be included on the status page. <b>call</b> - The transaction was declined, but you may call the credit card number listed on the card in order to get a manual authorization.
2	Transaction ID	The Transaction ID is an important piece of information for you and for your customers. You can always find a specific transaction through the report generator, but knowing the Transaction ID makes <a href="#">searching</a> much easier.

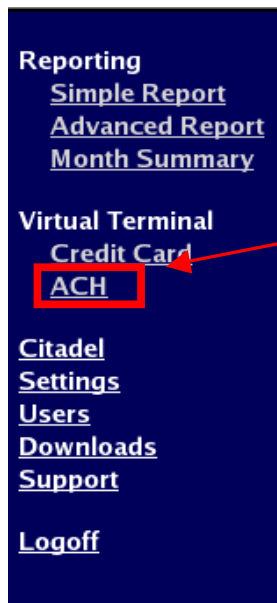
#	Label	Description
3	AVS	This section of the report provides AVS information. For a complete list of AVS Codes and their meaning, see <a href="#">Appendix B</a> .
4	Date	This field displays the transaction date and time.
5	<a href="#">Action</a>	This field reveals the type of transaction that was submitted for processing.
6	Amount	The dollar amount of the submitted transaction.
7	Card Type	The card type (Visa, MasterCard, Discover, AMEX, etc.) will be listed here.
8	Account Number	The account number (only the last 4 digits are readable) and the expiration date of the card are displayed.
9 to 11	Customer Info	All of the customer information gathered with the transaction is displayed in these fields.
12	Ticket	The free form text information entered during the transaction is displayed.
13	Results Detail	This section provides additional information about the transaction. In the event of a declined transaction, the information displayed may be helpful in determining possible reasons for the decline.
14	Printable Results	Clicking on this link will display a version of the transaction results page that is formatted for your printer. A signature line is included on the printable results page, making this report suitable for use as a receipt.

## Processing Payments Through ACH

Automated Clearing House (ACH) transactions, better known as electronic checks, can be accepted and authorized as quickly as credit card transactions through the TrustCommerce ACH Virtual Terminal. Market studies have shown that consumers continue to make more purchases with checks than with credit cards; offering ACH as a payment option gives you the potential to greatly expand your revenues.

**NOTE:** Even though checks are authorized online, settlement may not take place for two (2) or more days.

### The ACH Virtual Terminal

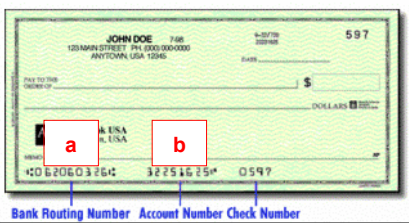


To access the ACH Virtual Terminal, click the **ACH** link in the left navigation.

You will be taken to the following screen:

1

Action sale



Bank Routing Number
Account Number
Check Number

2

Routing Number  required

3

Account Number  required

4

Amount \$  required

5

Name

6

Address

7

City

8

State

9

Zip

10

Country

11

Email

12

Ticket

13

Send Transaction

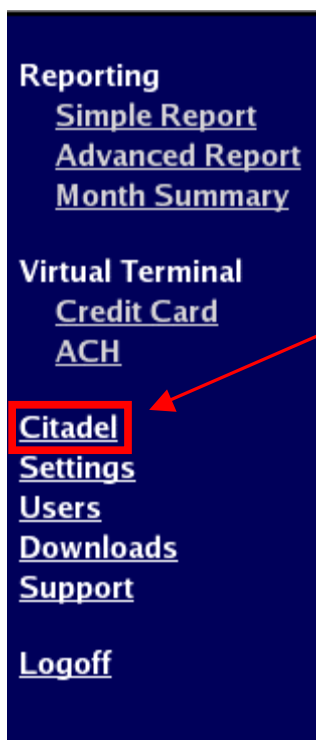
#	Label	Description
1	Action	The only allowed action for ACH is a <b>sale</b> .
2	Routing Number	The routing number is the first block of numbers on the customer's check (beneath the "a" in the diagram above). This is a <u>required</u> field.
3	Account Number	The account number is the second block of numbers on the customer's check (beneath the "b" in the diagram above). This is a <u>required</u> field.
4	Amount	Enter the amount with a decimal point (ex: "5.00").
5 to 12	Customer Info	The remaining fields in the Virtual Terminal display are optional. All information entered is captured by the Vault and made available through Vault reports.
13	Send Transaction	Click the <b>send transaction</b> button to complete the transaction.

## Processing Payment Through the Citadel

The TrustCommerce Citadel is a fully encrypted and secured database used to store customer credit card and/or ACH information. Once a credit card or ACH number has been stored in the Citadel, a Billing ID replaces all references to the card/ACH number. The Billing ID can be used to process future payments on the same credit card or electronic check without the security and privacy issues related to safeguarding the customer's sensitive financial data.

The Citadel also offers the option of recurring billing, making it an ideal tool for subscription payment processing.

### Accessing the Citadel



To access the Citadel Virtual Terminal, click the Citadel link in the left navigation.

You will be taken to the following page:

☐
**Create a New Billing ID**

From this page you will be able to perform all functions required to create and manage your Citadel accounts.

☐
**Billing ID Report**

Show me a list of:

To create a new Billing ID, start by clicking the **Go!** button under the "Create a New Billing ID" header.

☐
**Subscription Report**

Show me a list of:

☐
**Search by Name**

Enter a cardholder name:

☐
**Find a Billing ID**

Enter a billing ID:

The following form will be displayed:

## Create a New Billing ID

New Billing ID

1

Card Number

required

2

Exp

required

3

Verify Card

Yes

or

4

Routing Number

required

5

Account Number

required

Name

Address

Zip

6

City

State

Country

Email

Phone

7

Bill Periodically

No

8

Bill Every

Day(s)

required if billing periodically

9

Number of Payments

10

Payment Amount

\$

11

Start Billing In

Day(s)

12

Create Billing ID

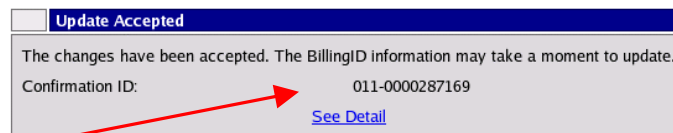
This form not only supports creation of new Billing IDs for Credit Card and ACH accounts, it also allows you to establish a regular billing cycle for charges to be processed against customer accounts.

**NOTE:** Values entered in this form can be modified at a later time.

#	Label	Description
1	Card Number	If you are creating a Billing ID with a Credit Card, enter the card number here.
2	Exp Date	Enter the Credit Card expiration date in mmyy format ("0304" for March 2004).
3	Verify Card	If you want the Citadel to run a \$1.00 preauth against the credit card as a way to confirm the card number is valid, select <b>Yes</b> from this drop down; otherwise, select <b>No</b> .
4,5	ACH Routing and Account Number	If you are using an Electronic Check (ACH) to create your Billing ID, you will need to complete items 4 and 5. For more details on these entries, see the <a href="#">ACH</a> section.

#	Label	Description
6	Customer Information	Information entered into this area is not required, but is recommended. This information will be saved with each transaction and can be <a href="#">downloaded</a> through the TrustCommerce Vault reporting feature.
7	Bill Periodically	Set this value to <b>Yes</b> if you intend to submit recurring billings using this Billing ID; otherwise, set to <b>No</b> . The billing cycle is created in items <b>8-11</b> below.
8	Bill every	From the drop down list, select one of the following values: <b>days, weeks, months, or years</b> . In the field to the left of the drop down, enter the appropriate number. For example, entering " <b>1</b> " next to a drop down value of " <b>months</b> " will result in a once per month billing cycle.
9	Number of Payments	Enter the number of times that this transaction should be processed. For example, entering " <b>6</b> " will result in six payments processed on the schedule established in item <b>8</b> above. NOTE: Once the final payment in the cycle has been completed, the billing ID will be "unstored" and can no longer be used.
10	Payment Amount	Enter the dollar value of each payment. Include a decimal point in your transaction, but do not enter the "\$" sign (for example: "5.00").
11	Start Billing in	Select one of the following values from the drop down list: <b>days, weeks, months or years</b> . In the field to the left of the drop down, enter the appropriate number. For example, entering " <b>1</b> " next to a drop down value of " <b>months</b> " will result in a billing cycle that will begin in one month.
12	Create Billing ID	Clicking this button completes the Billing ID creation process.

Clicking the **Create Billing ID** button will take you to this screen:

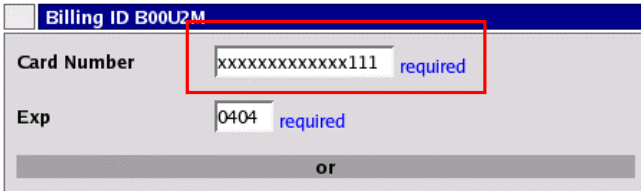


Clicking on the **See Detail** link will produce the page shown below. This page will include the Billing ID created for this account.





The screenshot shows a web form for managing a Billing ID. At the top, there's a header with 'B00U2M', a 'Test Demo' button, and an 'Edit' link (callout 1). Below this, a table-like structure displays fields: 'Billing ID' (B00U2M, callout 2), 'Transaction Date' (09-09-2003 11:05:45 PDT), 'Active' (t, callout 3), 'Demo' (t, callout 4), 'Last Transaction' (none), 'Number of Transactions' (0), and 'Total Income' (\$0.00). A link for 'Credit Card Number' (xxxxxxxxxx-1111, callout 5) is present. Below this, it says 'Expiration Date' (0404) and 'There are no transactions for this billingid.'. At the bottom, there's a 'Run a Transaction:' section with a dropdown set to 'sale', 'AVS off', a dollar sign, and a 'Go!' button (callout 6). A 'download.csv' link is at the very bottom.

#	Label	Description
1	Edit	<p>Clicking the <b>Edit</b> link will re-display the <a href="#">same form</a> used to create the original Billing ID, except that the field with the Account Numbers will no longer show the complete number.</p>  <p>All information can be updated and saved.</p>
2	Billing ID	This is the Billing ID used to process transactions on this account in lieu of the actual Credit Card or ACH number.
3	Active	<p>Possible values are “t” (true) and “f” (false). Once the entire billing cycle for this Billing ID is completed, the Billing ID is “unstored.” At that time, the account can no longer be used. Transactions remain in the system, however, and can be included in all reports.</p> <p>An “f” value indicates that the Billing ID has been unstored.</p>
4	Demo	Possible values are “t” (true) and “f” (false). A “t” value indicates that the account is still in “demo” mode and any billings submitted will not be processed.
5	Credit Card Number	Clicking this link will produce a <a href="#">chain report</a> of transactions processed against this credit card.
6	Run a Transaction	The Citadel does not require subscription billing. If you wish to run a single transaction against this Citadel Billing ID, enter the necessary information in this field.

#### Citadel Results

The Citadel results page will confirm that your manual Citadel billing was successful.

#### Joe's Diner Transaction Results

Status: **approved**  
 Transaction ID: **011-0000287186**  
 AVS: **N**

#### Transaction Details

Date: **09-09-2003 11:10 PDT**  
 Action: **sale**  
 Amount: **\$5.00**

[Printable Results](#)

#### Results Detailed Description

The transaction was successful.

[Return to Billing ID Detail Report](#)

## Citadel Reports

The Citadel provides a number of reports to help you monitor transactions and find specific Billing IDs.

☐
**Create a New Billing ID**

☐
**Billing ID Report**

1 Show me a list of:

☐
**Subscription Report**

2 Show me a list of:

☐
**Search by Name**

3 Enter a cardholder name:

☐
**Find a Billing ID**

4 Enter a billing ID:

#	Label	Description
1	Billing ID Report	The Billing ID Report returns a complete list of your billing IDs meeting the report criteria From the drop-down list, you can choose: <b>only active IDs</b> - Active IDs are available to use for payments. <b>only unstored IDs</b> - These IDs have already been unstored and therefore can no longer be used to run transactions. <b>declined IDs</b> - These IDs were rejected during the last billing cycle. <b>all IDs</b> - The complete list of billing IDs regardless of their status.

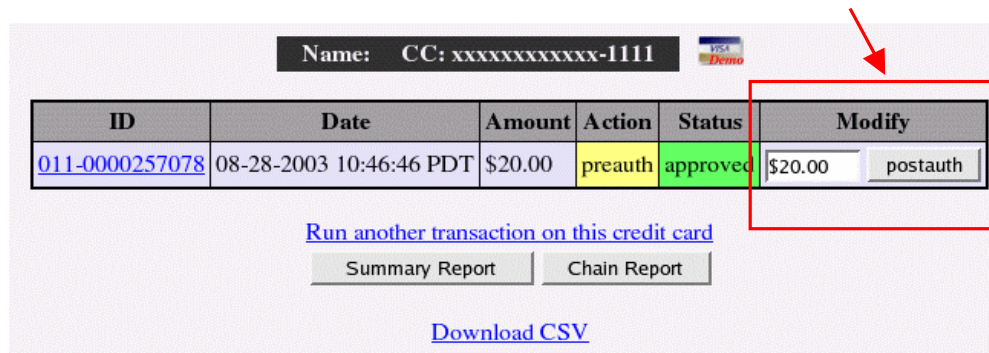
#	Label	Description
2	Subscription Report:	This report shows all accounts with recurring billing. The dropdown list contains the same options as item 1 above.
3	Search by Name	Enter a portion of a name (the more information entered, the smaller the match list will be).
4	Find a Billing ID	Enter an entire Billing ID. This search will return one Billing ID.

## Reconciliation

Reconciliation refers to steps required to close or adjust transactions. TrustCommerce handles settlement transparently, relieving merchants of the responsibility. However, there are other reconciliation tasks that may need to be handled, all of which can be done through the Vault website. These tasks include [postauths](#), [credits](#), [reauths](#), and [chargebacks](#).

### The Modify Box

A critical tool for reconciliation is the **Modify Box**. The Modify Box can be found in the far right hand column of [the Detail Report](#).



ID	Date	Amount	Action	Status	Modify
<a href="#">011-0000257078</a>	08-28-2003 10:46:46 PDT	\$20.00	preauth	approved	\$20.00 postauth

[Run another transaction on this credit card](#)

Summary Report Chain Report

[Download CSV](#)

Next to the transaction amount in the Modify Box is a button that shows the allowable action. In the example above, since the original transaction was a **preauth**, the only allowable transaction is a **postauth**. Other possible values are “**credit**” and, if the original auth has expired, “**reauth**.”

A new line is created each time the “Modify” button is clicked. A multi-step transaction might look like this:



ID	Date	Amount	Action	Status	Modify
<a href="#">011-0000259091</a>	08-29-2003 09:32:28 PDT	\$20.00	credit	accepted	
<a href="#">011-0000259069</a>	08-29-2003 09:19:17 PDT	\$20.00	postauth	accepted	credited
<a href="#">011-0000257078</a>	08-28-2003 10:46:46 PDT	\$20.00	preauth	approved	captured

[Run another transaction on this credit card](#)

Summary Report Chain Report

[Download CSV](#)

As you can see, this transaction has been fully credited; therefore, no additional modifications can be executed. Details of each type of reconciliation follow.

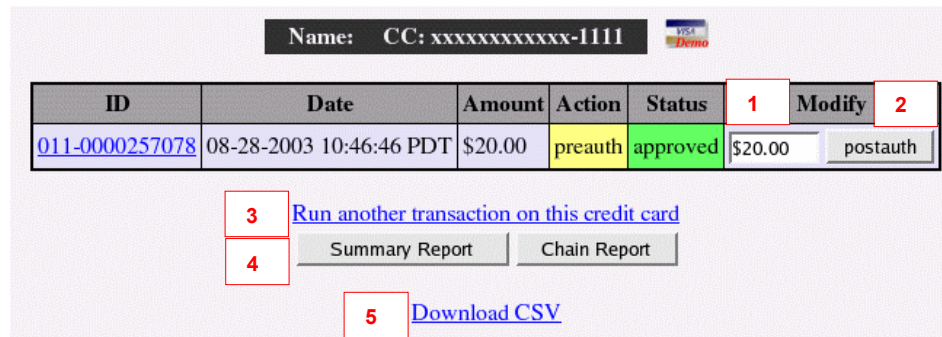
## Postauths

Once a credit card transaction has been preauthed, a second step, a [postauth](#), must be initiated to complete the transfer of funds into the merchant's account.



To complete a postauth, you must go to the Transaction Detail page, either by entering the transaction ID in the header of the Vault home page and hitting enter, or by [searching](#) for the transaction in the Simple or Advanced Reporting pages.

The transaction will be displayed as follows:



ID	Date	Amount	Action	Status	1	Modify	2
<a href="#">011-0000257078</a>	08-28-2003 10:46:46 PDT	\$20.00	preauth	approved	\$20.00		postauth

3 [Run another transaction on this credit card](#)

4 [Summary Report](#) [Chain Report](#)

5 [Download CSV](#)

#	Description
1	By default, the <b>amount</b> to be postauthed is set to equal the amount of the preauth. It is possible to postauth for an amount other than the preauth amount. If you wish to use a different amount, enter it into the field in the format "x.xx" (for example, five dollars would be "5.00"), and then click the postauth button.
1	Complete the Postauth by clicking the <b>postauth</b> button.
3	Another convenient feature of the Transaction Detail page is the ability to run additional transactions against the same credit card. Clicking this link will open the Virtual Card Terminal with all of the information from the original transaction pre-loaded.
4	Clicking the <b>Summary Report</b> or <b>Chain Report</b> button will produce a report listing all transactions executed "today" against the current credit card.
5	A CSV (Excel spreadsheet) <a href="#">download</a> is available for the specific transaction(s) being displayed.

## Postauth Results

After clicking on the "postauth" button, the authorization screen will be displayed.

The postauth results page includes complete information about the transaction and provides a new **Transaction ID**.

Joe's Diner Transaction Results	
Status:	accepted
Transaction ID:	011-0000259069
Transaction Details	
Date:	08-29-2003 09:19 PDT
Action:	postauth
Amount:	\$20.00
Account Number:	xxxxxxx-1111 exp 0404
<a href="#">Printable Results</a>	
Results Detailed Description	
The transaction was successful.	


If there was a problem with the transaction, helpful text will be displayed in the **Results Detailed Description** area.

## Credits

The process of issuing a credit is almost identical to the postauth process described in the previous section. The main difference is that a credit can only be applied to approved postauths and sales, and only for an amount less than or equal to the authorized balance.

If you credit the card for less than the original transaction amount, the credit button will remain available. The amount listed in the text field next to the button will reflect the amount still uncredited on that transaction. If you were to credit it again for the remaining amount, the button would disappear and the text "credited" would appear in the modify box instead.

To process a credit, go to the [transaction detail](#) page.

Name: CC: xxxxxxxxxxxx-1111							
ID	Date	Amount	Action	Status	1	Modify	2
<a href="#">011-0000259069</a>	08-29-2003 09:19:17 PDT	\$20.00	postauth	accepted	\$20.00	credit	
<a href="#">011-0000257078</a>	08-28-2003 10:46:46 PDT	\$20.00	preauth	approved	captured		

[Run another transaction on this credit card](#)

Summary Report Chain Report

[Download CSV](#)

#	Description
1	To complete a credit, enter the <b>amount</b> to be credited.
2	Click the <b>credit</b> button.



## Credit Results

The results will be displayed as a standard results page:

☐
**Joe's Diner Transaction Results**

Status: **accepted**  
 Transaction ID: **011-0000259091**

☐
**Transaction Details**

Date: **08-29-2003 09:32 PDT**  
 Action: **credit**  
 Amount: **\$20.00**  
 Account Number: **xxxxxxx-1111 exp 0404**  
[Printable Results](#)

☐
**Results Detailed Description**

The transaction was successful.

Returning to the Detail Report will reveal all three transactions in the “[chain](#)” for this credit card.

**Name: CC: xxxxxxxxxx-1111**


ID	Date	Amount	Action	Status	Modify
<a href="#">011-0000259091</a>	08-29-2003 09:32:28 PDT	\$20.00	credit	accepted	
<a href="#">011-0000259069</a>	08-29-2003 09:19:17 PDT	\$20.00	postauth	accepted	credited
<a href="#">011-0000257078</a>	08-28-2003 10:46:46 PDT	\$20.00	preauth	approved	captured

[Run another transaction on this credit card](#)  

Summary Report
 Chain Report

[Download CSV](#)


No further transactions can be completed against this chain.

## Chargebacks

Chargebacks occur when a customer calls their credit card company to dispute a charge and requests that the charge be reversed and credited back to their account.

**NOTE:** Chargebacks DO NOT return any money to the customer. Only credits do that. The ONLY function of a chargeback is to balance your books in recognition of the fact that the bank has ALREADY issued a credit to your customer (and against your account.)

To process a chargeback in the TrustCommerce Vault, you must first [bring the original transaction](#) up on your screen.

Name: Test Account    CC: xxxxxxxxxxx-1111    

ID	Date	Amount	Action	Status	Modify
<a href="#">011-0000258910</a>	08-29-2003 07:56:56 PDT	\$20.00	sale	approved	\$20.00 <input type="button" value="credit"/>

[Run another transaction on this credit card](#)

[Download CSV](#)

To access the Chargeback function, click the **transaction ID**. The transaction detail screen (see below) will be displayed.

011-0000258910

<b>TransID</b>	011-0000258910
<b>Action</b>	sale
<b>Status</b>	approved
<b>Transaction Date</b>	08-29-2003 07:56:56 PDT
<b>Account</b>	<a href="#">xxxxxxxxxxx-1111</a>
<b>Expiration Date</b>	2004-04-01
<b>Amount</b>	\$20.00
<b>Avs</b>	Y
<b>Name</b>	Test Account
<b>Address</b>	123 Test St
<b>City</b>	Somewhere
<b>State</b>	CA
<b>Zip</b>	90001
<b>Country</b>	USA
<b>Operator</b>	sjoe

[Associated Transactions](#)

[Printable Results](#)

1

[download csv](#)

#	Label	Description
---	-------	-------------



#	Label	Description
1	Chargebacks	Click the chargebacks button to complete the process. After clicking the button, you will be prompted by the system and reminded that chargebacks and credit has very different purposes. Affirm your intention and the chargeback will be complete.

### Chargeback Results

The chargeback results page will confirm that the chargeback was successful.

Joe's Diner Transaction Results

Status: **accepted**  
Transaction ID: **011-0000259941**

Transaction Details

Date: **08-29-2003 14:40 PDT**  
Action: **chargeback**  
Amount: **\$20.00**  
[Printable Results](#)

Results Detailed Description

The transaction was successful.

### Reauth

Different banks have different preauth periods. It is not uncommon for the funds to be released by the bank after 3 and 5 business days although some banks will retain the preauth for up to 2 weeks.

Within the Vault, preauths expire after fourteen days. In some instances, you may need to collect the money at a date beyond the fourteenth day. In this case, you must use the reauth button that appears next to the expired preauth. Because the issuing bank may have released the preauthorized amount in the interim, there is no guarantee that the funds will still be available.

Once you run the reauth, you will be taken to a transaction results screen.

If the reauth was approved, there will be a box at the bottom of the screen where you are able to postauth the transaction immediately.

You can only reauth a preauth once; afterwards, the modify box for the old preauth will read "expired/reauthed." However, you can reauth the new preauth if it expires. Using this method, a preauth could potentially be kept "alive" indefinitely, producing a very large transaction chain in the process!

## Searching and Reporting

In the TrustCommerce Vault, reporting is simply an extension of searching. It is important to note, however, that access to the reporting feature may vary from user to user. For example, Managers have reporting access to all transactions, Operators can only see their own transactions, and Virtual Terminal Only Operators have no reporting privileges at all.

The report generator is a flexible and powerful tool for locating and reviewing any transaction or group of transactions ever processed through the vault.

### Introduction to Reports

There are four basic report types available:

<a href="#">Summary Reports</a>	Summary Reports reveal top-level "roll-up" information, including transaction counts and dollar totals.
<a href="#">Chain Reports</a>	A chain is a series of transactions that are linked to one another. Chain Reports allow you to view the top of each chain and drill down into chain detail.
<a href="#">Detail Reports</a>	These reports provide details about each individual transaction that makes up a single chain, and also support drilling down into Transaction Detail.
<a href="#">Transaction Detail Reports</a>	This is the lowest level of detail, providing all of the specifics about a single transaction.

### Moving Between Report Views

The four different types of reports provide four different levels of detail. Typically, there are navigation buttons at the bottom of each report that allow you to go to other report types, such as moving to a Summary Report when you are in the Chain Report.

In addition, many reports have clickable links embedded in the text that provide access to additional detail.

Remember, you can always use the "back" button on your browser to return to your previous location.

## Multi-Page Reports

When there are more transactions in your current view than will fit on a single page you will need to maneuver inside one of the report types. In this case, you will see a navigation box below your transaction table.

<a href="#">1</a>	<a href="#">2</a>	<a href="#">3</a>	<a href="#">4</a>	<a href="#">5</a>	<a href="#">6</a>	<a href="#">7</a>	<a href="#">8</a>	<a href="#">9</a>	<a href="#">10</a>	<a href="#">11</a>	<a href="#">Next</a>
-------------------	-------------------	-------------------	-------------------	-------------------	-------------------	-------------------	-------------------	-------------------	--------------------	--------------------	----------------------

The **navigation box** will allow you to move forward or backwards in the selected set by clicking the arrows to the left and right. You can also jump forward to a specific page in the set by clicking on the number of the page in the bottom box.

## Locating Linked Transactions

Most transaction types are linked to other transactions in some form. For example, a preauth and a postauth are linked together. The easiest way to find linked transactions is through the [Chain Report](#).

There is also an "Associated Transactions" link on the [Transaction Detail Report](#).

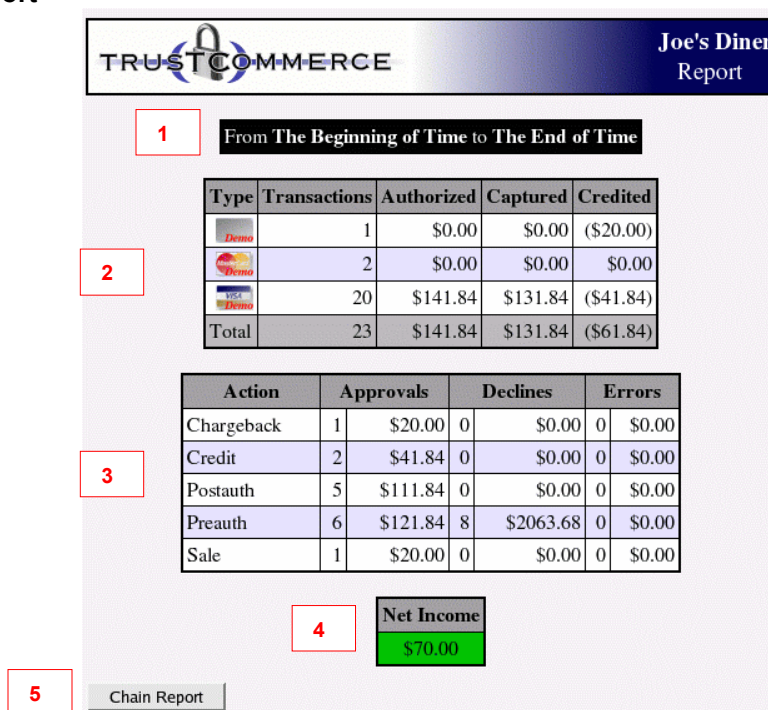
## Leaving the Report

In the lower right-hand side of each report you will find a pair of links. One link will return you to the report generator; the other link will return you to the main menu. You can use these links to leave the report view and go back to the main area of the website. You can then use the main navigation bar to perform other tasks or log out.




## Reports Types

The section below provides detailed information about the types of reports that can be created and an overview of their contents.

### Summary Report



**1** From The Beginning of Time to The End of Time

Type	Transactions	Authorized	Captured	Credited
 Demo	1	\$0.00	\$0.00	(\$20.00)
 Demo	2	\$0.00	\$0.00	\$0.00
 Demo	20	\$141.84	\$131.84	(\$41.84)
<b>Total</b>	<b>23</b>	<b>\$141.84</b>	<b>\$131.84</b>	<b>(\$61.84)</b>

**2**

Action	Approvals	Declines	Errors
Chargeback	1	\$20.00	0
Credit	2	\$41.84	0
Postauth	5	\$111.84	0
Preauth	6	\$121.84	8
Sale	1	\$20.00	0

**3**

**4** Net Income  
\$70.00













**5** Chain Report

Summaries are the most concise type of report. They show:

#	Label	Description
1	Report Title	The report title shows the <b>date range</b> covered by the report.
2	Credit Card Summary	This provides a <b>count</b> of transactions by credit card type, followed by the total dollar amounts authorized and captured, and the dollar value of any credits that were applied.
3	Actions Summary	The <b>Actions Summary</b> shows a count of transactions by action with dollar totals for approvals, declines, and errors for each action type.
4	Net Income	<b>Net Income</b> reveals the sum of sales and postauths minus credits and chargebacks, and is listed at the bottom.
5	Chain Report Button	No reconciliation can be done from the Summary Report. For a closer view and for reconciliation features, you need to switch to the <a href="#">Chain Report</a> . This can be done by clicking on the button labeled "Chain Report" at the bottom of the Summary Report page.

### Chain Report

A [chain](#) is a series of transactions that are linked to one another. The most common type of chain is a preauth/postauth pair.

 <span>Joe's Diner</span>					
1	2	3	4	5	6
Transactions	Name	Account	Date	Authorized	Net
 2	Test Account	<a href="#">xxxxxxxxxx-1111</a>	08-29-2003 15:40 PDT	\$20.00	\$10.00
 2	Test Account	<a href="#">xxxxxxxxxx-1111</a>	08-29-2003 15:33 PDT	\$20.00	\$40.00
 2	Test Account	<a href="#">xxxxxxxxxx-1111</a>	08-29-2003 14:40 PDT	\$20.00	\$0.00
 3		<a href="#">xxxxxxxxxx-1111</a>	08-29-2003 09:32 PDT	\$20.00	\$0.00
 2	Test Account	<a href="#">xxxxxxxxxx-1111</a>	08-29-2003 07:54 PDT	\$20.00	\$20.00
 1		<a href="#">xxxxxxxxxx-1111</a>	08-28-2003 10:25 PDT	\$0.00	\$0.00
 1	Test Account	<a href="#">xxxxxxxxxx-1111</a>	08-28-2003 10:07 PDT	\$20.00	\$0.00
 1	Test Account	<a href="#">xxxxxxxxxx-1111</a>	08-28-2003 09:35 PDT	\$0.00	\$0.00
 3	Roger Green	<a href="#">xxxxxxxxxx-1111</a>	08-26-2003 10:28 PDT	\$21.84	\$0.00
 1	Roger Green	<a href="#">xxxxxxxxxx-1111</a>	08-26-2003 10:20 PDT	\$0.00	\$0.00
 1	Roger Green	<a href="#">xxxxxxxxxx-1111</a>	08-26-2003 10:16 PDT	\$0.00	\$0.00
Total Chains: 11 Displayed: 1 - 11 1					
<a href="#">Download CSV</a>   <a href="#">chains</a> / <a href="#">transactions</a> / <a href="#">products</a>					

Each chain gets a single line in the report.

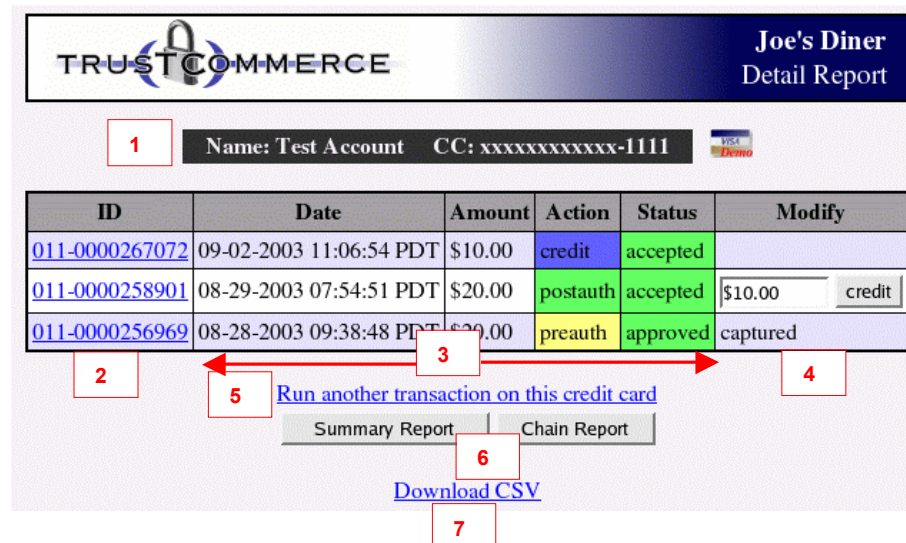
#	Label	Description
1	Transactions	This column shows the number of transactions in the chain and a graphic for the type of credit card used. A single preauth, for example, would only show a "1," since it is a <u>chain</u> only <u>one</u> transaction long. A preauth and a postauth would show "2," and a preauth, postauth, and credit would show "3." Clicking on this number will take you to the <a href="#">Detail Report</a> for that chain.
2	Name	Name is the cardholder name associated with that chain.
3	Account	Account is the credit card number associated with that chain. Note that only the last four digits of the account number are readable.  Clicking on the credit card number will take you to a Chain Report with ONLY transactions from that credit card listed. This is a very useful way to view all of the transactions associated with a single customer.
4	Date	This is the date of the <i>most recent</i> transaction in the chain.
5	Authorized	The "authorized" column lists the total amount of money that has been authorized in that chain. This is the sum of <i>successful</i> , non-expired preauths and sales.
6	Net	Net is the amount of money that has been captured in the chain. This is the sum of successful sales and postauths, minus any credits or chargebacks.

At the bottom of the report are a transaction count and a page counter for navigation.

A link to an MS Excel-ready [download](#) is also available.

### Detail Report

When you click on the number or credit card icon in the leftmost column of the Chain Report, or if you request information about a specific transaction ID, you will be taken to the chain Detail Report.



ID	Date	Amount	Action	Status	Modify
<a href="#">011-0000267072</a>	09-02-2003 11:06:54 PDT	\$10.00	credit	accepted	
<a href="#">011-0000258901</a>	08-29-2003 07:54:51 PDT	\$20.00	postauth	accepted	\$10.00 credit
<a href="#">011-0000256969</a>	08-28-2003 09:38:48 PDT	\$20.00	preauth	approved	captured

Run another transaction on this credit card

Summary Report Chain Report

[Download CSV](#)


The Detail Report presents all information about a transaction chain with each line corresponding to a single transaction within the overall chain.

#	Label	Description
1	Report Title	The report title shows the card holder name and credit card number (last four digits readable).
2	Transaction ID	The leftmost column contains the Transaction ID. Clicking on this number will take you to the <a href="#">Transaction Detail Report</a> for this single transaction line.
3	Transaction Detail	The middle columns contain the transaction details: the date and time of the transaction, the amount, the action, and the status.
4	Modify	On the right-hand side is the modify column. It is from here that you can apply reconciling actions (credits and postauths) to the transaction.
5	Run Another Transaction	Clicking this link will take you to the Virtual Card Terminal with the credit card information already filled in. Simply enter the amount and transaction type, then run the transaction as you normally would with the Virtual Card Terminal.
6	Report Links	Clicking on either of these buttons will take you to the appropriate report containing all transactions relevant to your current search criteria.
7	Download CSV	This link creates a download file with the records from the current query. See the <a href="#">Downloads</a> section for more details.



### Transaction Detail Report

Clicking on the **transaction ID** in the [Chain Detail Report](#) will take you to the Transaction Detail Report. This shows you detailed information about the specific transaction that you have selected.



**Joe's Diner**  
 Transaction Detail Report

011-0000258910

TransID	011-0000258910
Action	sale
Status	approved
Transaction Date	08-29-2003 07:56:56 PDT
Account	<a href="#">xxxxxxxxxx-1111</a>
Expiration Date	2004-04-01
Amount	\$20.00
Avs	Y
Name	Test Account
Address	123 Test St
City	Somewhere
State	CA
Zip	90001
Country	USA
Operator	sjoe

[Associated Transactions](#)  
[Printable Results](#)  

[Store in Citadel](#)  
[chargeback](#)

[download csv](#)

#	Label	Description
1	Account Number	Clicking on this link will take you to a <a href="#">Chain Report</a> showing all transactions associated with that credit card number.
2	Associated Transactions	This will take you to a <a href="#">Chain Report</a> showing all of the other transactions associated with this <a href="#">chain</a> . (Most likely, this is the place from which you just came, so it will have the same purpose as the "back" button in your browser.)
3	Printable Results	This link displays a version of this transaction formatted for you printer. The formatted transaction includes a signature line making it suitable to be used as a receipt.
4	Store in Citadel	Clicking this button will store all of the customer's information, including the credit card number, in the <a href="#">TrustCommerce Citadel</a> , our secure and encrypted database.
5	Chargeback	Click this button if a <a href="#">Chargeback</a> is required against this transaction.
6	Download CSV	This link creates a MS Excel-ready <a href="#">download</a> file with current records.

## Running Reports

Creating activity reports within the TrustCommerce Vault is easy and fast. From the top navigation links, one click displays commonly requested information. From the left navigation, the Advanced Reports generator provides you with all of the search parameters required to find a range of records based on your criteria. TrustCommerce provides the information needed to run your business.

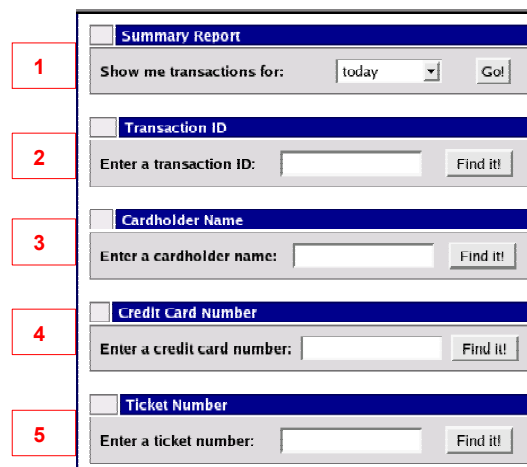
## Top Navigation Reports

Most operational reports can be quickly accessed from the Top Navigation.

### Find a Transaction



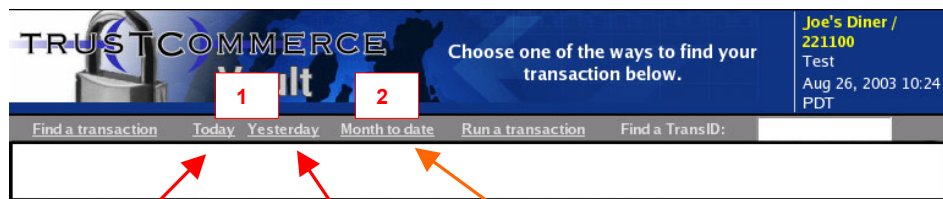
Clicking on the **Find a transaction** link produces a Quick Query that allows you to search for specific transactions from the current month. If the information you are looking for is from a previous month, you will need to use the [Advanced Reports](#) feature.





#	Label	Description
1	Show Transaction for:	The drop down box for this option lets you quickly choose <b>Today, Yesterday, This Week or This Month</b> . The result is a <a href="#">Chain Report</a> of matching transactions.
2	Enter a Transaction ID	Enter the specific <b>Transaction ID</b> that you would like to work with. The result is a <a href="#">Detail Report</a> of all transactions related to the sales of the corresponding transaction ID.
3	Enter a Cardholder Name	Enter all or part of the cardholder name. The result is a <a href="#">Chain Report</a> of all cardholder names that contain the search criteria submitted. For example, "lo" will return <b>Lois Smith</b> and <b>William Trujillo</b> .
4	Enter a Credit Card Number	A successful search requires an exact match of the entire credit card number. The result is a <a href="#">Chain Report</a> of all transactions using the credit card.
5	Enter a Ticket Number	A successful search requires an exact match of the entire ticket number. The result is a <a href="#">Chain Report</a> for the ticket number. <b>Note:</b> Ticket number is a free form text field often used to input the customer invoice number. Check with your organization for rules regarding usage of this field.

### Today, Yesterday and Month to Date Quick Reports



Clicking the **Today** link or the **Yesterday** link produces a chain report (**1** below) of all transactions initiated on the current or previous day. Clicking the **Month to date** link produces a summary of Month to date transaction (**2** below).

#	Item	Description
1	Today and Yesterday Quick Reports	The result of these searches are <a href="#">Chain Reports</a> of all transactions executed "Today" or "Yesterday."
2	Month to Date Quick Report	The result of this search returns a <a href="#">Summary Report</a> for the current month.

## Left Navigation Reports

### Reporting

[Simple Report](#)

[Advanced Report](#)

[Month Summary](#)

### Virtual Terminal

[Credit Card](#)

[ACH](#)

[Citadel](#)

[Settings](#)

[Users](#)

[Downloads](#)

[Support](#)

[Logoff](#)

The left navigation area of the Vault home page provides access to three different reports:

The **Simple Report** is the same as the [Find a Transaction](#) report on the Top Navigation.

The **Advanced Report**, which requires more detailed search criteria and provides a choice of a summary report or a chain report.

The **Monthly Summary** that allows quick recapping of past monthly activity.

You can use this bar to navigate through the different areas of the site at any time.

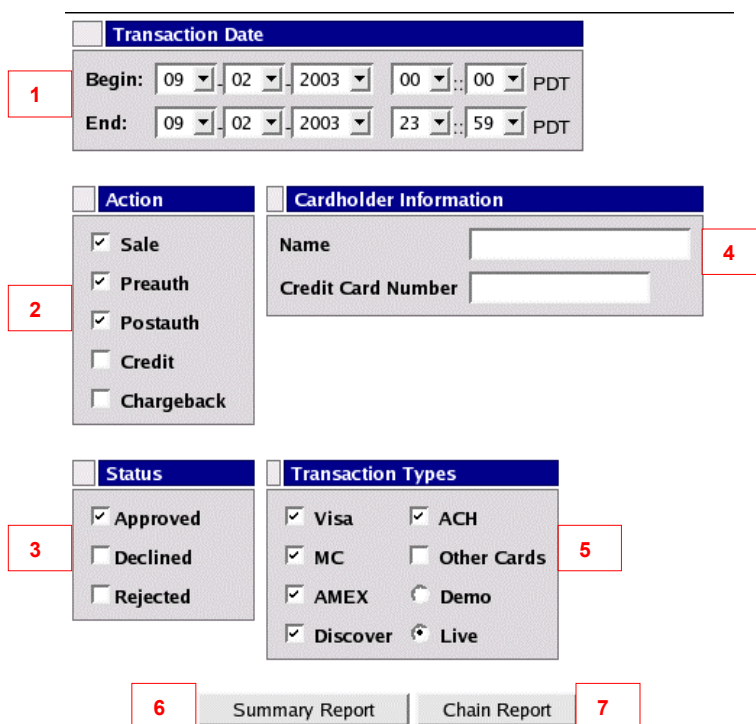
Also available on most pages is a "Get Help" link.



You can click this any time for specific instructions on using the component of the site that you are currently viewing.

## Advanced Reports

The advanced report generator provides an array of search parameters with which to narrow your results. This is useful for finding single transactions when you do not know the exact Transaction ID and for reducing the size of your report if you have a large number of transactions. Clicking on the **Advanced Reports** link in the left navigation will produce the following display:



The screenshot shows the Advanced Reports form with the following components:

- 1**: Transaction Date section with Begin and End date/time pickers.
- 2**: Action section with checkboxes for Sale, Preauth, Postauth, Credit, and Chargeback.
- 3**: Status section with checkboxes for Approved, Declined, and Rejected.
- 4**: Cardholder Information section with text input fields for Name and Credit Card Number.
- 5**: Transaction Types section with checkboxes for Visa, MC, AMEX, Discover, ACH, Other Cards, Demo, and Live.
- 6**: Summary Report button.
- 7**: Chain Report button.

#	Label	Description
1	Transaction Date	This is a date range for the search. Use the drop downs to focus in on the transaction(s) you are looking for.
2	Action	Check the boxes next to each <a href="#">action</a> type you wish to view. By default, sales, preauths, and postauths are checked.
3	Status	Check the appropriate box(es) to filter the search based on the status of the transaction. By default, approved transactions are shown.
4	Cardholder Information	Enter a name (or a part of a name) and/or a complete credit card number into the fields in this box to narrow your search by either parameter.
5	Transaction Types	Use these checkboxes to limit your search to specific card and/or transaction types.
6	Summary Report	Click this button to see a <a href="#">Summary Report</a> based on your selected criteria.
7	Chain Report	Click this button to see a <a href="#">Chain Report</a> based on your selected criteria.

### Month Summary

The Month Summary is a quick way to see how many types of transactions have been executed during a given month. Clicking on the **Month Summary** link in the left navigation will produce the following display.

☐ **Month Summary**

Generate a summary for the month of:

By default, a [Summary Report](#) is generated for the current month. However, you can choose any month and year using the selection boxes on the right. Click on the button labeled **Summary Report** to generate your report.

## Downloads

Downloads from the TrustCommerce Vault are formatted as “CSV” (Comma Separated Values) files. CSV files can be read directly into Excel or other popular spreadsheet programs. After clicking the download link, you will be prompted for a file name and a location. You **MUST** remember this information in order to find your file after the download is complete.

### Chains Download

The Chains download contains all of the information relevant to the chains currently being displayed on your screen. This download does NOT include detailed information related to the individual transactions that make up the chain.

Label	Description
chain	The internal ID associated with the chain
count	The number of transactions in the chain
name	The card holder's name
cc	The card holder's credit card number (last 4 digits only)
trans_date	The date and time of each transaction
auth_amount	The total amount of money that has been authorized in that chain which is calculated as the sum of <i>successful</i> , non-expired preauths and sales
net_amount	The amount of money that has been captured in the chain which is calculated as the sum of successful sales and postauths, minus any credits or chargebacks
ticket	A freeform text field that can be used at transaction creation time to capture an invoice number or any other information that you would like to associate with a transaction.
custid	The Custid in use when the transaction was created

### Transactions Download

The Transactions download contains all of the information relevant to each individual transaction that makes up a chain.

Label	Description
cc	The card holder's credit card number (last four digits only)
media_name	The credit card used for the transaction (VISA or MasterCard for example)

Label	Description
exp	The expiration date in mmyy format; when displayed in Excel, leading zeros will be truncated (0403 will become 403), unless the column is defined as text rather than a number
trans_date	The date and time of each transaction
transid	The Transaction ID for each transaction
ref_transid	If the transaction is part of a chain, the parent transaction will be listed here
amount	The dollar amount of the transaction without a decimal point
auth_amount	The amount authorized by a preauth or sale action
bank_amount	The amount authorized by a postauth or sale action
credit_amount	The amount returned to the customer through a credit action
chargeback_amount	The adjustment amount for your books if you have processed a chargeback
action_name	The action type that caused the creation of the transaction
status_name	The approved/accepted or declined status of the transaction
name	The card holder name submitted with the transaction
address1	The billing address submitted with the transaction (if requested when the transaction was entered)
address2	
city	
state	
zip	
phone	
email	Customer e-mail (if collected)
shiptosame	If prompted for ship to information, will be set to Y or N
shipto_name	The shipping address submitted with the transaction (if requested when the transaction was entered)
shipto_address1	
shipto_address2	

Label	Description
shipto_city	
shipto_state	
shipto_zip	
expired	"t" = true, "f" = false; relevant only to preauths; will be set to "t" if the preauth has expired
reauth	Is this transaction a reauth? A preauth that was a reauth will cause this to be set to "t" (typically blank)
chain	The internal chain ID
chain_head	"t" = true, "f" = false; Set to "t" if this is the first transaction in a chain; otherwise "f"
ticket	If text was entered in the "ticket" field at creation time it will be displayed here
batchnum	If transaction was created as part of a batch upload, the Batch Number will be displayed here
authcode	The auth code provided by your bank
billingid	The Citadel billingID used for the transaction
custid	The merchant Custid
fail_name	This is the decline message displayed to the user.
avs	The AVS return code will be listed. NOTE: All transactions are run through the AVS system – even if the transaction was submitted with AVS = n.

## Products Download

Label	Description
transid	Transaction ID
productcode	The product code or SKU for the transaction
quantity	The quantity ordered
order_shippinghandling	Shipping and handling fees for the entire order
shippingcode	Your code indicative of the shipping method
ordernumber	The order number assigned by your system
price	The unit price of the item
item_shippinghandling	The item shipping price (if relevant)
tax	The total tax on the order
amount	The dollar amount of the transaction (without a decimal point)
auth_amount	The amount authorized by a preauth or sale action
bank_amount	The amount authorized by a postauth or sale action
credit_amount	The amount returned to the customer through a credit action
chargeback_amount	The adjustment amount for your books if the bank has processed a chargeback
action_name	The action type that caused the creation of the transaction
status_name	The approved/accepted or declined status of the transaction
name	The card holder name submitted with the transaction
address1	The billing address submitted with the transaction (if requested when the transaction was entered)
address2	
city	
state	
zip	



Label	Description
phone	
email	Customer e-mail (if collected)
shiptosame	If prompted for ship to information, this will be set to Y or N
shipto_name	The shipping address submitted with the transaction (if requested when the transaction was entered)
shipto_address1	
shipto_address2	
shipto_city	
shipto_state	
shipto_zip	
expired	"t" = true, "f" = false; relevant only to preauths; will be set to "t" if the preauth has expired
reauth	Is this transaction a reauth? A preauth that was a reauth will cause this to be set to "t" (typically blank)
chain	The internal chain ID
chain_head	"t" = true, "f" = false; set to "t" if this is the first transaction in a chain; otherwise "f"
ticket	If text was entered in the "ticket" field at creation time it will be displayed here
batchnum	If transaction was created as part of a batch upload, the Batch Number will be displayed here
authcode	The auth code provided by your bank
billingid	The Citadel billingID used for the transaction
custid	The merchant CustID

## Appendix A - eCommerce Terms

This section outlines terms used in this guide.

### Transaction IDs

All transactions run through the TrustCommerce system are assigned a 13-digit transaction ID in the format **xxx-xxxxxxxxxx**. These IDs are used throughout the vault website and are the best way to refer to specific transactions. They are also used for running two-part transactions, as described below.

### Actions

"Actions" are the short names for the transaction type. Actions include sales, preauths, postauths, credits, and chargebacks. Detailed descriptions for each Action follow.

#### Sales

A sale is the simplest kind of transaction. Cardholder information such as credit card number, expiration date, name, and address are entered, as well as transaction-specific information (i.e. amount). Other data, such as shipping information, may be passed as well. Once the TrustCommerce servers receive this information, the bank will be contacted and the sale will be authorized. This process usually takes less than **two seconds**.

The TrustCommerce System is designed for speed and reliability, with 100% processing availability and average transaction times of less than two seconds - the fastest in the industry.

A sale transaction has several possible outcomes. Normally it should return as "approved." This means that all the information entered was correct and the money will be deposited into your bank account in two to fourteen days, depending on the type of credit card, issuing bank (where your customer's credit was issued), and your bank.

There is no capture or settlement phase to worry about with a sale; once successfully submitted, this type of transaction is complete. The only possible modification you might want to make, at a later date, would be a credit.

#### Preauths/Postauths

Although the sale action is the most straightforward, merchants often need a way to authorize the transaction when the sale is made, and later capture the money when the products or services purchased by the customers are fulfilled and completed.

This introduces two new types of transactions, the preauth and the postauth. The preauth/postauth pair is sometimes referred to as a "chain." A "preauth" (short for pre-authorization) is almost identical to a sale. The only difference is that a preauth only authorizes a transaction; it does not execute it. A preauth does two things: it confirms that the card is valid, and then it reserves the dollar amount specified on that card to be "held" in reserve for your business.

No money has been transferred following a preauth. In order to capture the funds, you must run a postauth (short for post-authorization), passing along the transaction ID returned by the original preauth transaction. You do not need to store the customer's name, card number, or other information; TrustCommerce keeps track of all the relevant data for you. Once a postauth has successfully been submitted, the preauth/postauth transaction pair has had the same effect that a sale transaction would have had by itself.

The preauth/postauth process is more complicated than a sale, so why bother? Let's look at an example scenario:

Ann runs a web store selling widgets. She normally has the widget(s) ordered in stock, so her shipping department can fill and send the order out to the customer the next business day. However, if a widget requested by a customer is not in stock and has to be special-ordered, it frequently takes a week or more before the items can be shipped. She could have her site run the transactions as sales, but this might have several negative effects:

- Customers who are waiting a long time for their order may be surprised to see that their card has already been charged. Ann would have to handle dozens of phone calls from irate customers who were charged weeks earlier but are still waiting on their product.
- In some cases, special orders cannot be filled. This could occur, for example, towards the end of a fiscal year as new models of widgets are being phased in and the old ones discontinued. In some cases the old-model widget is simply unavailable.

Using the preauth/postauth method, Ann's store would only preauth the customer's credit card at time of sale. Once the item is shipped, Ann runs the postauth. The transaction now complete, she can ship the item and everyone is happy. The customer cannot tell the difference between a preauth and a sale. Visa and MasterCard rules and regulations are very specific; you cannot collect the money until you fulfill the order.

If the order takes more than fourteen days to fill, or the time between preauth and postauth is more than fourteen days, you can always reauthorize the transaction with a "reauth".

### Reauth

Reauthorizations are not a "real" transaction type, but rather another preauth run on the same credit card.

### Credits

A credit is the reverse of a sale: it takes money from your merchant account and places it onto a customer's credit card. Like a postauth, the data submitted consists of the transaction ID you would like to credit, and the amount to be credited. This amount is usually the original amount billed, but a partial credit is also possible.

Let's look at an example based on Ann's Widget Store. Ann's Widgets has a standing "We'll Beat Any Advertised Price" offer. A customer previously purchased an item from her company for \$50.00, but a few days later located an advertisement for the same item at a competitor for \$40.00. Ann must now credit \$10.00 back to her customer in order to honor her advertisement. Using the [report generator](#), she locates the sale transaction. In the [Modify Box](#) she sees the credit button and the amount of \$50.00 listed. She changes the amount in the text box to read \$10.00 and clicks the credit button. The credit is successful and the customer receives \$10.00 back on the card. Now, when she views that transaction in future reports, Ann will see that the value of \$40.00 is listed in the credit box. If at a later date the same customer decides to return the item for a full refund, Ann can view the sale transaction and click the credit button again. The customer is credited \$40.00. On future viewings of the sale transaction a "credited" text will appear in the modify box and no further reconciliation can be done.

### Chargebacks

On occasion, even the most meticulous merchants must face chargebacks. This occurs when a customer calls his or her credit card company to dispute a charge and requests that the charge be reversed and credited back to their account. When this occurs, you will indicate a chargeback in the TrustCommerce merchant database. Tracking chargebacks keeps your net deposit and other totals properly matched with the funds deposited through your merchant account into your depository account.

### AVS

AVS stands for Address Verification System. It is an excellent way to reduce credit card fraud for online transactions. If someone is trying to use a lost or stolen credit card on your website, chances are high that they do not know the exact address of the cardholder.

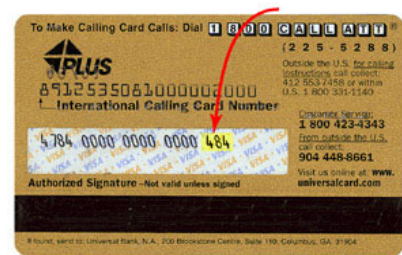
In the Virtual Terminal, the default value for AVS is set to OFF.

Most banks offer a discounted rate for merchants who use AVS for their card-not-present transactions. You should make sure that your TrustCommerce AVS setting matches with the level of AVS you agreed upon with your bank.

AVS is currently only available for purchasers who reside in United States. International orders will not pass AVS.

### CVV

Card Verification Value or Card Verification Value 2 (CVV(II)) is a set of three digits unique to that card and found only on the signature plate on the reverse side of most credit cards. By requiring customers to provide this value, you are adding a very important layer of security to every transaction on your site. CVV is never printed on charge receipts so if a stolen receipt is being used to fraudulently purchase goods online, the transaction will not succeed.



### Reconciliation

Reconciliation refers to anything that merchants must do to close transactions. Reconciliation tasks may include postauths, credits, reauths, and chargebacks. All of these activities can be completed on the TrustCommerce Vault.

### Chains

A chain is a series of transactions that are linked to one another. The most common type of chain is a preauth/postauth pair. A sale followed by a credit would also form a chain, as does an expired preauth that has been reauthed. Chains are usually only two or three transactions long, but can sometimes be longer in length. For example, if you ran a preauth, allowed it to expire, reauthed the preauth, postauthed the second preauth, and then credited that postauth, you would have a chain consisting of four transactions.

## Appendix B - AVS Returns Codes

<b>X</b>	Exact match, 9-digit zip code.
<b>Y</b>	Exact match, 5-digit zip code.
<b>A</b>	Street address match only
<b>W</b>	9-digit zip code match only.
<b>Z</b>	5-digit zip code match only.
<b>N</b>	No match on street address or zip code.
<b>U</b>	AVS unavailable on this card.
<b>G</b>	Non-US card issuer, AVS unavailable.
<b>R</b>	Card issuer system currently down, try again later.
<b>E</b>	Error, ineligible - not a mail/phone order.
<b>S</b>	Service not supported.
<b>0</b>	General decline or other error.

## Appendix C – Security Architecture

The diagram below illustrates how a payment is processed from the consumer terminal to the merchant bank account.

