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ELEMENT PAYMENT SERVICES, INC.

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# EXPRESS

*Version 2.6.1  
March 2011*

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## INTERFACE SPECIFICATION

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**Confidential**

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## 1 Document History

### 1.1 Revisions

Date	Name	Change Description	Version
03.28.2011	Jeff Gross	Added <a href="#">TransactionSetupExpire</a> Update CVV Response Code table	2.6.1
02.07.2011	Jeff Gross	Updated <a href="#">BINQuery</a> Updated <a href="#">BIN Class</a> Added BalanceAmount and BalanceCurrencyCode to <a href="#">Sale</a> and <a href="#">Authorization</a> Added BalanceAmount and BalanceCurrencyCode to <a href="#">Transaction Class</a> Added <a href="#">CreditCardBalanceInquiry</a> Added Response Code (30) to list of <a href="#">Express Response Codes</a>	2.6
11.15.2010	Jeff Gross	Added EncryptedFormat enumeration to <a href="#">Card</a> class Added EncryptedFormat input field to Sale, Authorization, Credit, AVS Only, Force, Reversal, Debit Sale, Debit Reversal, PASS Create, and PASS Update methods.	2.5
08.09.2010	Jeff Gross	Added DeviceInputCode enumeration to <a href="#">TransactionSetup</a> class Added TerminalEncryptionFormat enumeration and TerminalSerialNumber to <a href="#">Terminal</a> class Added EncryptedTrack1Data, EncryptedTrack2Data, EncryptedCardData, and CardDataKeySerialNumber to <a href="#">Card</a> class Added <a href="#">Level III Processing Details</a> Added <a href="#">Level III EnhancedData</a> <a href="#">ExtendedParameters</a> input fields	2.4
05.03.2010	Jeff Gross	Added CommercialCardResponseCode to the <a href="#">Transaction</a> class Added <a href="#">Commercial Card Response Codes</a> table Updated <a href="#">CreditCardSale</a> Updated <a href="#">CreditCardAuthorization</a> Updated <a href="#">CreditCardAuthorizationCompletion</a>	2.3
04.05.2010	Jeff Gross	Added <a href="#">PaymentAccountAutoUpdate</a> Updated <a href="#">PaymentAccountCreate</a> Updated <a href="#">PaymentAccountQuery</a> Added PASS Auto Updater enumerations Updated <a href="#">TransactionSetupMethod</a> enumeration	2.2

		Updated <a href="#">Device</a> enumeration Updated <a href="#">PaymentAccount</a> class Updated <a href="#">PaymentAccountParameters</a> class	
11.03.2009	Brent Moseley, Jeff Gross	Updates for Lodging, Auto Rental, BIN Management	2.1
07.02.2009	Brent Moseley, Jeff Gross	Major documentation rewrite and expansion	2.0
06.26.2009	Jeff Gross	Added <a href="#">CardLogo</a> response parameter	1.4.2
06.08.2009	Jeff Gross	Added <a href="#">AutoRental Class</a> Added <a href="#">Healthcare Class</a> Added <a href="#">Healthcare</a> enumerators Added Healthcare functionality to <a href="#">Sale</a> and <a href="#">Authorization</a> methods Added Auto Rental functionality to <a href="#">Sale</a> , <a href="#">Authorization</a> , <a href="#">Credit</a> , <a href="#">Return</a> , and <a href="#">Force</a> methods	1.4.1
05.29.2009	Jeff Gross	Added ApprovedAmount response value to <a href="#">CreditCardSale</a> and <a href="#">CreditCardAuthorization</a> methods Added PartialApprovedFlag and MerchantVerificationValue to <a href="#">CreditCardSale</a> and <a href="#">CreditCardAuthorization</a> Updated <a href="#">AVS Response Codes</a> table	1.4.0
05.28.2009	Jeff Gross	Added Partial Approval Response Code	1.3.9
04.30.2009	Jeff Gross	Added <a href="#">CreditCardIncrementalAuthorization</a>	1.3.8
04.01.2009	Jeff Gross	Updated <a href="#">DebitCardReversal</a>	1.3.7
03.25.2009	Jeff Gross	Added ValidationCode response value to <a href="#">TransactionSetup</a>	1.3.6
03.10.2009	Jeff Gross	Updated <a href="#">PASS Appendix</a> Updated <a href="#">PaymentAccountUpdate</a> Updated <a href="#">Check Processing Appendix</a>	1.3.5
01.27.2009	Jeff Gross	Updated <a href="#">TransactionSetup Class</a> parameter maximum lengths	1.3.4
01.19.2009	Jeff Gross	Updated Hosted Payments appendix with query string response values	1.3.3
11.26.2008	Jeff Gross	Updated text in API section noting support of standard ASCII characters	1.3.2
11.19.2008	Jeff Gross	Updated <a href="#">AVS Response Codes</a>	1.3.1
07.07.2008	Jeff Gross	Updated <a href="#">Hosted Payments Appendix</a>	1.3.0

06.27.2008	Jeff Gross	Added <a href="#">TransactionSetup</a> Added <a href="#">Device</a> enumerator Added <a href="#">TransactionSetup Class</a> Updated <a href="#">Transaction Class</a> Updated <a href="#">Parameters Class</a> Updated <a href="#">PaymentAccount Class</a> Updated <a href="#">PaymentAccountParameters Class</a> Updated <a href="#">PaymentAccountQuery</a> Updated <a href="#">TransactionQuery</a>	1.2.9
04.07.2008	Jeff Gross	Added <a href="#">ScheduledTaskRetry</a>	1.2.8
01.11.2008	Jeff Gross	Updated <a href="#">ScheduledTaskQuery</a> Added <a href="#">ExtendedBooleanType</a> enumerator Added <a href="#">ExtendedStatusType</a> enumerator Added <a href="#">ExtnededRunFrequency</a> enumerator	1.2.7
07.05.2007	Jason Briedis	Added <a href="#">MagneprintDataDecrypt</a>	1.2.6
07.03.2007	Jeff Gross	Updated <a href="#">PaymentAccountQuery</a>	1.2.5
06.25.2007	Jason Briedis	Updated <a href="#">CreditCardSale</a> Updated <a href="#">CheckSale</a> Updated <a href="#">TransactionStatusCode</a> enumerator Removed <a href="#">CheckQuery</a> Added <a href="#">ScheduledTaskUpdate</a> Added <a href="#">ScheduledTaskDelete</a> Added <a href="#">ScheduledTaskQuery</a> Added <a href="#">Scheduled Tasks Appendix</a>	1.2.4
05.29.2007	Jeff Gross	Updated <a href="#">CreditCardReversal</a> Updated <a href="#">DebitCardReversal</a>	1.2.3
05.18.2007	Jason Briedis	Added <a href="#">CheckVerification</a> Added <a href="#">CheckSale</a> Added <a href="#">CheckCredit</a> Added <a href="#">CheckReturn</a> Added <a href="#">CheckVoid</a> Added <a href="#">CheckReversal</a> Added <a href="#">CheckQuery</a>	1.2.2
03.20.2007	David Garcia	Updated <a href="#">PaymentAccountCreate</a> Updated <a href="#">PaymentAccountDelete</a> Updated <a href="#">PaymentAccountUpdate</a> Updated <a href="#">PaymentAccountQuery</a>	1.2.1
01.15.2007	Jason Briedis	Updated <a href="#">BatchClose</a>	1.2.0
12.27.2006	Jason Briedis	Updated <a href="#">MarketCode</a> enumerator description Added suggested Terminal Settings Updated <a href="#">CreditCardSale</a> return fields	1.1.9

		Added <a href="#">TransactionStatusCode</a> enumerator Updated <a href="#">Transaction Class</a>	
11.30.2006	Jason Briedis	Added <a href="#">DuplicateCheckDisableFlag</a> Updated <a href="#">BatchClose</a> method instructions Updated Transaction class field descriptions Added Duplicate Checking descriptions Added Recurring transaction descriptions Updated <a href="#">BatchClose</a> Updated <a href="#">BatchTotalsQuery</a> Updated Enumerator descriptions	1.1.8
11.21.2006	Jason Briedis	Added <a href="#">DebitCardReversal</a> Added Null Simulator Appendix Updated Express Response Code Values	1.1.7
10.30.2006	Don Schroeder	Removed mandatory requirement certification restriction for solution providers to implement <a href="#">AccountTokenCreate</a> and <a href="#">AccountTokenActivate</a> transactions	1.1.6
10.27.2006	David Garcia	Added <a href="#">PaymentAccountQuery</a> Added <a href="#">Parameters Class</a> Updated Class MaxLengths	1.1.5
9.19.2006	Jason Briedis	Added <a href="#">PaymentAccountCreate</a> Added <a href="#">PaymentAccountDelete</a> Added <a href="#">PaymentAccountUpdate</a> Updated <a href="#">CreditCardAuthorization</a> Updated <a href="#">CreditCardSale</a> Updated <a href="#">CreditCardCredit</a> Updated <a href="#">CreditCardAVSOnly</a>	1.1.4
9.1.2006	David Garcia	Updated <a href="#">TransactionQuery</a>	1.1.3
8.29.2006	Donald T. Schroeder	Updated <a href="#">Response Class</a>	1.1.2
8.28.2006	Jason Briedis	Updated <a href="#">BatchClose</a> Updated <a href="#">BatchTotalsQuery</a> Updated <a href="#">BatchItemQuery</a> Updated <a href="#">CreditCardReturn</a> Updated <a href="#">CreditCardReversal</a> Updated <a href="#">CreditCardVoid</a> Updated <a href="#">CreditCardCredit</a> Updated <a href="#">CreditCardAuthorizationCompletion</a>	1.1.1
8.25.2006	David Garcia	Added <a href="#">AccountTokenCreate</a> Added <a href="#">AccountTokenActivate</a> Updated <a href="#">TransactionQuery</a>	1.1.0

8.24.2006	Donald T. Schroeder	Updated all Methods by removing the optional field TransactionType. Updated <a href="#">HealthCheck</a> C# XML post sample code	1.0.5
8.23.2006	Donald T. Schroeder	Updated <a href="#">CreditCardVoid</a> Updated <a href="#">CreditCardAuthorizationCompletion</a> Updated <a href="#">CreditCardAdjustment</a> Updated <a href="#">Transaction Class</a> Added <a href="#">CreditCardReturn</a>	1.0.4
7.15.2006	Donald T. Schroeder	Updated <a href="#">Terminal Class</a>	1.0.3
7.14.2006	Donald T. Schroeder	Original Draft	1.0.3

## 2 Introduction

**Express High Level Overview:** Section 2 guides the usage of this manual for a variety of audiences (developers, management, those new to the transaction processing industry, etc) and includes an *Express* product overview as well as system requirements for using *Express* in your software applications.

**Interface Overview:** Section 3 describes the features of *Express*, shows an architectural overview, explains the business rules for various types of transactions handled, and has several sections detailing how to process transactions securely.

**Common Fields:** Section 4 starts with an upfront description of commonly used fields, followed by extended parameter information related to specific industries.

**Special Features:** Section 5 gives a detailed description of special features in *Express*, such as duplicate checking, scheduled transactions, check processing, etc.

**Methods:** Section 6 is a low level technical description of all methods in *Express*, and is meant to aid in the development of application software.

**Classes:** Section 7 is a low level technical description of all classes, also for development.

**Enumerations:** Section 8 lists the enumerations used in *Express*.

**Appendix:** Section 9 contains miscellaneous information, such as response code descriptions, suggested terminal settings, sample code, etc.

### Chapter 2 consists of:

- Target Audience
- How to Use this Manual
- What is *Express*?
- Services Offered
- Architecture
- Business Needs Handled by *Express*
- Advantages and Features
- Use and Requirements
- System Requirements

## 2.1 Target Audience

This interface specification is intended for the following groups of users:

- IT decision makers who want to know more about the features and capabilities of *Express* (what services are offered, what needs it addresses, how it is structured, etc). It will also help to clarify what they will need to do to use *Express* in their own custom POS applications. This specification has useful background knowledge for those who are new to the payment processing industry.
- Developers who wish to use *Express* in their software applications to handle a variety of payment types. Information is included to help developers and analysts design, implement, test, and support their applications.

## 2.2 How to Use this Manual

The purpose of this document is to provide a detailed description of how a user or solution provider can integrate with the *Element Express* payment processing platform. The intended audience includes both software developers and IT decision makers.

It is highly recommended to periodically check for the latest version of this document at <http://www.elementps.com/docs/Express-Interface-Specification.pdf>

Experienced technical people will want to review the architecture diagram in section 3.2, followed by studying the common fields used in *Express* as outlined in Section 4. This is a quick way to help you get familiar with the interface elements. Sections 6, 7, and 8 give complete descriptions of the methods, classes, and enumerations available to you when using *Express*. This can aid in quickly developing your payment processing code.

IT decision makers will want to study the Product Overview in section 2.3, as well as the System Requirements and examples of platforms in section 2.4. Section 3 provides a useful description of the features of *Express*, transaction and industry types handled, business rules used in payment processing as well as descriptions of special features such as Hosted Payments and PASS (takes your software a step beyond tokenization).

People new to payment processing will want to study section 3.9 to understand what rules, processes, and information goes into a successful transaction (and what happens when errors occur). They may also want to study the list of merchant types supported by *Express* in section 3.3, and the types of transactions you can run in section 3.4. Security methods in section 3.12 may also prove to be useful knowledge.

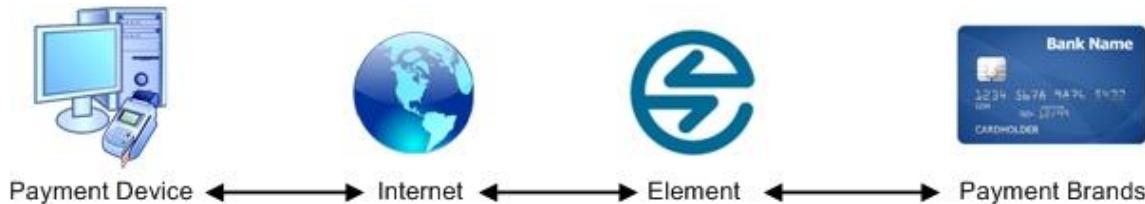
## 2.3 Product Overview

### 2.3.1 What is Express?

*Element Express* is a highly secured, scalable, and reliable payment processing platform providing low cost and high speed transaction processing for card-present (retail, auto rental, restaurant, etc) and card-not-present (ecommerce, mail order, telephone order) merchants. It provides credit card, debit card, and check authorizations processing via the Internet for all card types including Visa, MasterCard, AMEX, Discover, Diners, and JCB. Integrating *Element Express* with your software provides merchants end-to-end encryption of cardholder data, the ability to store sensitive data off-site to meet PCI DSS compliance requirements as well as comprehensive Web-based reporting on their payment card transactions. As an added benefit, because we develop and support the platform entirely in-house, there are no third parties to chase for support.

From a technical standpoint, *Express* is a server-side Web service application where all communication takes place over secure HTTPS links to the internet. Communication is handled via XML or SOAP, both simple and effective methods for handling payment processing via the internet. No distribution of source code or DLLs is required, and any device that can originate an HTTPS connection can utilize payment processing through *Express*.

Integrating and certifying POS and/or e-commerce applications to *Element Express* is quick and easy. The Element Express processing platform doesn't require you or your customers to download, run or support additional code.



### 2.3.2 Services Offered

**Hosted Payment service:** Element offers a Hosted Payments solution which is specifically designed to remove software vendors from the scope of PA-DSS and also limit the financial risk of merchants through the use of fully integrated payment solutions. The software vendor or merchant application is responsible for collecting all of the non-sensitive data needed to perform a payment transaction, while Element's Hosted Payments solution is responsible for collecting, storing, processing, and transmitting all of the sensitive cardholder data.

**PASS:** Payment Account Secure Storage (PASS) reduces the financial risk associated with storing sensitive cardholder data simply by removing the need for the merchant to store the data altogether. Merchants can create payment records on Element's server by initially providing cardholder account number, expiration date, etc. A unique identifier is generated and provided to the vendor or merchant application, which can then be stored and will act as a pointer for all subsequent transactions. The pointer is of no value to any who would attempt to steal sensitive information because the vulnerable cardholder information can never be obtained by using the pointer. This method takes your application a step beyond tokenization in providing data security.

**Recurring Transactions:** Recurring transactions are a unique type of transaction where consumers authorize merchants or solution providers to bill a specific card on a regular basis (e.g. monthly membership fees). Once a merchant has scheduled a payment within their recurring billing system, their application submits the transaction details and a flag indicating a recurring transaction, along with the previously-acquired PASS pointer, to the Element processing platform. Neither the merchant nor the recurring billing application requires access to sensitive cardholder information, thus reducing the financial risk associated with storing this recurring information locally. Note that all transactions are initiated by the merchant's software.

**Scheduled Tasks:** *Express* handles Scheduled Transactions, which is a way to set up recurring payments on an account, or a one-time-future payment. Once set up, transactions occur automatically without intervention from the merchant's billing system (this is the primary difference between scheduled tasks and recurring transactions).

**Duplicate Checking:** This problem-reducing functionality can be used to ensure that no single transaction is accidentally submitted and processed twice by the merchant within the Element payment platform. Duplicate checking is done in real-time as the transactions are authorized. For a merchant account, if the Express platform sees the same card number for the same amount on the same day (same batch as a previously-approved transaction), it will automatically reject that transaction and will not allow it to process a second time. The response will indicate the error.

**Check Processing:** *Express* can handle check processing just as easily as credit / debit cards to make your business more versatile.

### **2.3.3    Architecture**

*Element Express*, designed as a Service Oriented Architecture (SOA), provides both a platform and language independent Application Program Interface (API). Virtually any device that can access the Internet can integrate to *Element Express*. See section 2.3.6 for more details.

### **2.3.4    Business Needs Handled by Express**

*Express* provides credit card, debit card, and check authorization processing via the Internet for all card types including Visa, MasterCard, AMEX, Discover, Diners, and JCB. Businesses can integrate this with their practice management software or other customized applications to handle these types of payments in a safe, secure way. *Express* handles transactions for retail, ecommerce, direct marketing, auto rental, lodging, and healthcare related businesses. We continue to expand *Express* to manage new markets as the need arises. Recurring transactions can be set up for monthly billing of a client's card, PASS can be used for very secure, low risk payment processing, and *Express* can alert you to any transactions that have been accidentally sent twice. *Express* also offers the service of Hosted Payments which takes merchants out of scope of having to collect and store sensitive customer card information.

### **2.3.5    Advantages and Features**

- Simple
- Secure
- Solid Design
- Reliable
- Advanced Technology

We built the *Element Express* Processing Platform with Web services and XML interfaces that ease interoperability. Integrate your application without the effort and cost of a complex SDK or proprietary API.

As a software provider, you've seen it all too often: Connecting with another application or an on-line service provider means an investment in software development kits, training your staff in a new interface and maintaining, troubleshooting and updating the interface over time. Some payment processing solutions even require you, or your merchant, to buy, run and maintain additional software.

We recognized the inherent weaknesses of these approaches and instead built our platform to support standard XML and Web services interfaces. This robust and flexible design allows you to quickly and easily integrate your software with the Element Express Processing Platform. Our Service Oriented Architecture means we can easily add new features, such as support for new security requirements, and these new features are immediately available to you.

### **2.3.6 Use and Requirements**

Integration is quick and easy. Developer's can choose from either the XML based Web Services (SOAP) or pure XML interface. Both interfaces support the same transaction set; the choice is left to the discretion of the developer. Note that only standard ASCII characters (not extended ASCII) are supported within the transaction request. This should be noted because extended ASCII characters (for use in foreign names, etc.) are not supported and will cause the request to fail. See section 2.4 below for more details.

## **2.4 System Requirements**

Any system which can initiate an HTTPS request over the internet can communicate with *Express* to run transactions. This could be a PC with practice management software, a credit card terminal, or any POS application.

*Element Express*, designed as a Service Oriented Architecture (SOA), provides both a platform and language independent Application Program Interface (API).

*Element Express* requires all transactions to be sent using standard 128-bit Secure Socket Layer (SSL) encryption. Additionally, every transaction must be authenticated.

Authentication is achieved though use of an AccountID and AccountToken issued by Element Payment Services, Inc.

Element Payment Services, Inc., as a financial service provider, is required to comply with the Payment Card Industry (PCI) Data Security Standard. The PCI Data Security Standard comprises twelve requirements pertaining to information security, including strong access controls, configuring security parameters appropriately on systems, tracking and monitoring data access, and restricting physical access to the systems containing card data. The full details of the PCI requirements can be found at [www.pcisecuritystandards.org](http://www.pcisecuritystandards.org)

## 3 Application Program Interface (API) Overview

### Chapter 3 consists of:

- Interfaces Supported
- Hardware Interface Diagram
- List of Merchant Types
- List of Transaction Types
- Business Rules for Transaction Types
- Hosted Payments
- PASS (Payment Account Secure Storage)
- Security Methods and Procedures

### 3.1 Interfaces Supported

- **Simple Object Access Protocol (SOAP)**

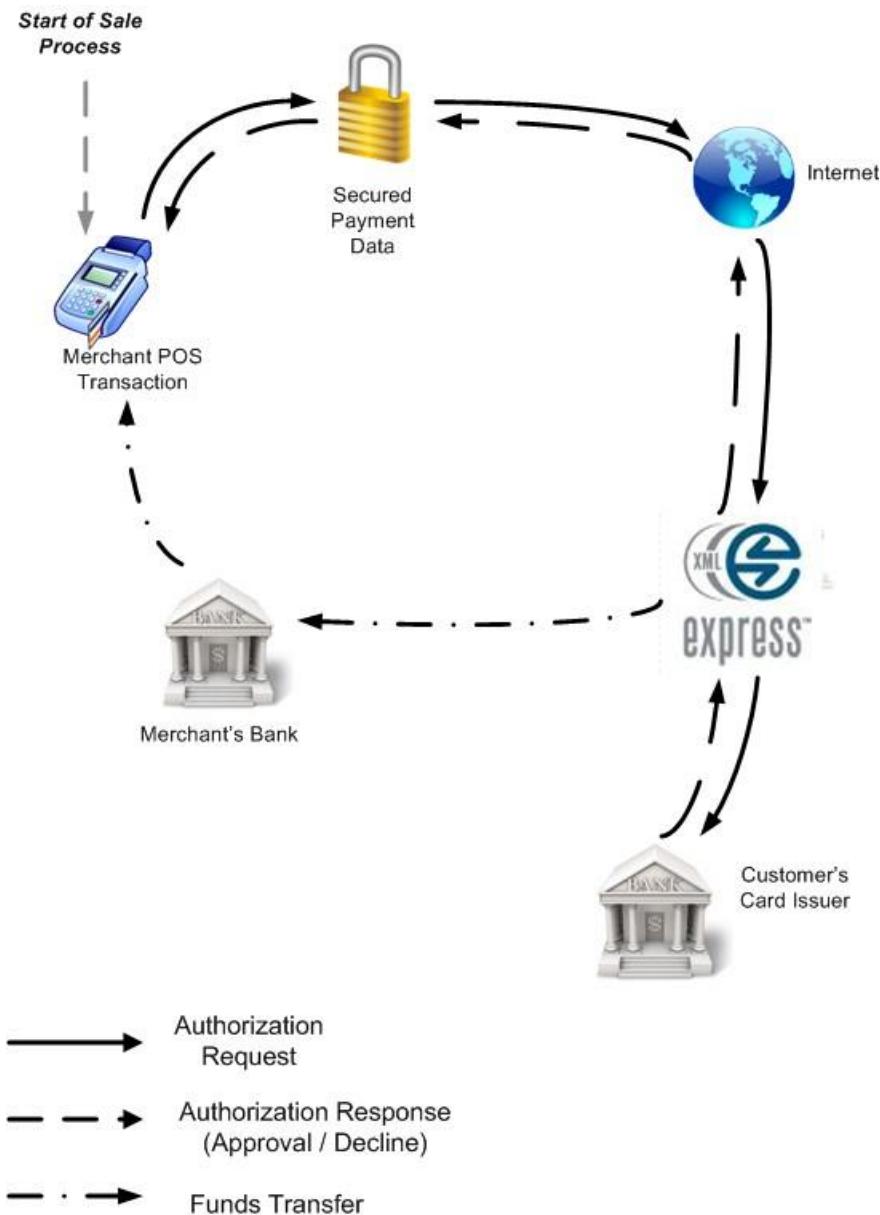
*Element Express* supports version 1.1 of the W3C SOAP specification. Using this as your interface, payment methods can be invoked remotely on Element's servers in a manner similar to Remote Procedure Calls.

- **Extensible Markup Language (XML)**

Requests can also be sent to Element servers via the POST method in the HTTPS protocol to send XML data. XML data will then be returned in the reply.

### 3.2 Hardware Interface Diagram

Below is an illustration showing a high level view of how communication is handled when a merchant runs a POS transaction for payment:



The merchant swipes the customer's card, which generates an authorization request based on the purchase price. The request is then sent via secured payment data along the Internet to *Express*, which then forwards this authorization request to the card issuing bank. Here, the purchase price is verified against the available credit amount, and an "approval" or a "decline" response is generated. *Express* then forwards this back to the merchant's terminal, and the transaction is either accepted or refused. A few days after the sale is completed, funds are transferred to the merchant's bank.

### **3.3 List of Merchant Types**

*Express* can handle transactions for the following types of merchant:

- Retail
- E-commerce
- Direct Marketing
- Auto Rental
- Healthcare
- Lodging

We continue to expand and improve *Express*, with the versatility to handle additional merchant types planned for the future. If you do not see what you need, or have any questions, please contact: [CertificationTeam@elementps.com](mailto:CertificationTeam@elementps.com)

### **3.4 Transactions Supported**

This section describes the types of transactions that are handled by *Express*.

## **3.5 Credit**

### **3.5.1 Sale**

The *Sale* transaction is the most basic and most common transaction, used for the sale/purchase of goods or services. This type of transaction compares the cardholder's credit limit to the amount specified in the transaction. If the amount specified is available, the transaction is approved by the card issuer and an approval code is returned. If the amount is **not** available or the transaction is denied for any other reason by the issuer, an error message containing the reason is returned.

See [\*CreditCardSale\*](#) for more detail.

### **3.5.2 Authorization**

An *Authorization* transaction is used to verify funds when the total amount of the purchase is unknown.

See [\*CreditCardAuthorization\*](#) for more detail.

### **3.5.3 Authorization Completion**

An *Authorization Completion* transaction is used to complete the final amount of a previously Authorized transaction.

Example: Restaurants use Authorization Completions to enter in the final total amount after a customer has added a tip and signed the receipt.

An *Authorization Completion* can be entered for any amount up to an allowable excess limit. The allowable excess limit is determined by the association.

If the final amount exceeds the *Authorization* allowable excess limit, then merchant can either enter a Sale or Force transaction for the full amount.

See [CreditCardAuthorizationCompletion](#) for more detail.

### **3.5.4 AVS Only**

The *Address Verification Service (AVS) Only* transaction may be used by merchants to determine whether to accept a transaction. This type of transaction only returns AVS information and does not request authorization. The format of the AVS information is exactly the same as the format used for *Sale* transactions.

See [CreditCardAVSOnly](#) for more detail.

### **3.5.5 Credit / Return**

A *Credit* transaction is used to refund a cardholder for a previous transaction. A *Return* transaction is like a *Credit* transaction except it requires a *TransactionID* from the original dependent transaction.

Example: A customer returns merchandise and wants a refund.

See [CreditCardCredit](#) and [CreditCardReturn](#) for more detail.

### **3.5.6 Reversal**

There are three types of *Reversal* transactions:

- 1) Communications/System Reversals
- 2) Full Reversals
- 3) Partial Reversals

A Communications/System Reversal is generated when there is a problem delivering the response back to the POS. It is the transaction requestor's responsibility to generate a *Reversal* transaction for all transactions that do not receive responses.

A Point of Sale (POS) Generated Reversal or "Full" reversal may be initiated to remove an approved transaction from a batch, even when the cardholder is not present. Reversals, however, must be done while the batch is open.

A Partial Reversal transaction decreases the total authorized amount of a previously authorized transaction. Partial reversals are required by some card associations to bring the authorized and clearing amounts into specific tolerances.

See [\*CreditCardReversal\*](#) for more detail.

### **3.5.7 Force**

A *Force* transaction is used to add a credit card transaction to a batch after-the-fact.

Generally, *Force* transactions are used to insert previously authorized, but not captured, transactions into a batch. The following examples illustrate when to use a *Force* transaction:

- 1) Timeout – If the merchant is unable to perform an online transaction.
- 2) Referral – If the merchant receives an online referral message in response to an online transaction (i.e. Call ND, Call AE, etc).
- 3) AI Responses – The AI response (Approved with positive ID) usually results from a person using a card for the first time.

See [\*CreditCardForce\*](#) for more detail.

### **3.5.8 Void**

A *Void* transaction is used to completely back out a previous *Sale* transaction. This applies to all transactions that were entered into the current batch, and only for the full dollar amount of the original transaction.

See [\*CreditCardVoid\*](#) for more detail.

### **3.5.9 Adjustment**

The *Adjustment* transaction is used to edit the information on the host for a previously completed credit card transactions (e.g. Level III Line Item Detail).

Depending on the platform, this transaction can also be used to correct the Host batch to match the merchant's paper sales slips when a discrepancy exists.

See [\*CreditCardAdjustment\*](#) for more detail.

### **3.5.10 Incremental Authorization**

*Incremental Authorization* transactions are used to authorize an additional amount to an original Auto Rental industry authorization transaction. This method is used on the TSYS platform only. Only Visa cards support incremental authorizations.

See [\*CreditCardIncrementalAuthorization\*](#) for more detail.

## **3.6 Debit**

### **3.6.1 Sale**

The *Sale* transaction is the most basic and most common transaction, used for the sale/purchase of goods or services. This type of transaction compares the cardholder's funds available to the amount specified in the transaction. If the amount specified is available, the transaction is approved by the cardholder's bank and an approval code is returned. If the amount is **not** available or the transaction is denied for any other reason by the bank, an error message containing the reason is returned.

See [\*DebitCardSale\*](#) for more details.

### **3.6.2 Return**

A *Return* transaction is used to refund a cardholder for a previous transaction. Debit card Returns must be done online.

See [\*DebitCardReturn\*](#) for more details.

### **3.6.3 Reversal**

There is only one type of *Reversal* available for Debit Transactions and that is a Communications/System Reversal.

A Communications/System Reversal is generated when there is a problem delivering the response back to the POS. It is the transaction requestor's responsibility to generate a *Reversal* transaction for all transactions that do not receive responses.

See [\*DebitCardReversal\*](#) for more detail.

### **3.7 Check**

#### **3.7.1 Verification**

A *Verification* transaction is used to verify consumer information as well as account/check information. This method is only for verification. It does not originate the transaction or move funds.

See [\*CheckVerification\*](#) for more detail

#### **3.7.2 Sale**

The *Sale* transaction is the most basic and most common transaction, used for the sale/purchase of goods or services.

See [\*CheckSale\*](#) for more detail.

#### **3.7.3 Credit / Return**

A *Credit* transaction is used to refund a consumer for a previous transaction. A *Return* transaction is like a *Credit* transaction except it requires a TransactionID from the original dependent transaction.

Example: A customer returns merchandise and wants a refund.

See [\*CheckCredit\*](#) and [\*CheckReturn\*](#) for more detail.

#### **3.7.4 Void**

A *Void* transaction is used to completely back out a previous *Sale*, *Credit*, or *Return* transaction. This applies to the full dollar amount of the original transaction.

See [\*CheckVoid\*](#) for more detail.

### **3.7.5 Reversal**

A Communications/System Reversal is generated when there is a problem delivering the response back to the POS. It is the transaction requestor's responsibility to generate a *Reversal* transaction for all transactions that do not receive responses.

See [\*CheckReversal\*](#) for more detail.

## **3.8 Services**

The *Services* platform provides present and future ancillary support methods and services for the *Express* payment processor. One such service includes PASS.

*Payment Account Secure Storage* (PASS) is designed to allow merchants and payment service providers alike the ability to easily comply with PCI DSS with very little time, effort, or financial impact. In addition, PASS reduces an enormous financial risk inherent with storing, processing, and/or transmitting cardholder data. PASS is designed as a secure Web Service comprised of four basic methods:

1. PaymentAccountCreate
2. PaymentAccountUpdate
3. PaymentAccountDelete
4. PaymentAccountQuery (see section 6.2).

These methods are used to create, update, delete, and query payment data storage accounts.

### **3.8.1 Create Payment Account**

The Create method inserts a new payment account record.

See [\*PaymentAccountCreate\*](#) for more detail.

### **3.8.2 Delete Payment Account**

The Delete method removes an existing payment account record.

See [\*PaymentAccountDelete\*](#) for more detail.

### **3.8.3 Query Payment Account**

The Query method retrieves an existing payment account record.

See [\*PaymentAccountQuery\*](#) for more detail.

### **3.8.4    Update Payment Account**

The Update method amends an existing payment account record.

See [PaymentAccountUpdate](#) for more detail.

## **3.9    Business Rules and Process Flow for Transactions**

We have designed *Express* to be not only highly secure, but also language and platform independent. This means a wide variety of payment processing devices, computer and software systems can utilize *Express*. New applications can easily be developed using any of a number of different programming languages to integrate with *Express*. Below is an example of one way this can work:

An authorization request is generated from either a POS device, a software program, or a website to verify that a credit card has sufficient funds (credit) available to cover the amount of a sale. If the card is physically present (such as in a store), it is swiped through the POS device and the card holder information is read from the magnetic stripe.

If the card is not present (mail order, telephone order, internet sale, etc), the information is manually keyed in, and the CVV code is used for additional verification. The address information should be verified first to determine accuracy and deter fraud. A code is then returned with the authorization result that indicates the level of accuracy of the address match and helps secure the most favorable interchange rates.

For all types, transaction information is encrypted and sent as secured payment data to the internet. The authorization request is routed by *Express* to the customer's Card issuing bank, where a check is done to verify that the account has sufficient funds to cover the sale amount and that no fraud or data entry errors have been detected. If accepted, an authorization response of "Approval" is sent back to the POS device or software program and the sale can proceed. If the authorization has been rejected, a "Decline" response is sent and another form of payment may be needed.

For approvals, funds are reserved in the customer's credit card account equal to the total purchase price. Settlement takes place each night, and within a few days, funds from the sale are transferred to the merchant's bank account.

## 3.10 Hosted Payments

### 3.10.1 How does it work?

Element offers two types of Hosted Payments:

1. Hosted Payment Windows for distributed software applications
2. Hosted Payment Pages for Web-based software applications

Both types of Hosted Payments essentially work the same. The software vendor's application is responsible for collecting all of the non-sensitive data needed to perform a payment transaction, while Element's Hosted Payments application is responsible for collecting, storing, transmitting, and processing all of the sensitive cardholder data.

### 3.10.2 Hosted Payment Window

To process a Hosted Payment Window transaction with a typical Point of Sale (POS) software application, a step-by-step demonstration is below:

1. The POS software application collects all of the non-sensitive data related to the purchase.
2. The POS software application submits this non-sensitive data by calling the *TransactionSetup* method. A *TransactionSetupID* (GUID) is returned and used to identify the specific purchase from that point forward.
3. The POS software application displays a window/form containing an embedded browser control. This browser control should be navigated to Element's Hosted Payments system (making sure to include the appropriate *TransactionSetupID*): [https://testtransaction.hostedpayments.com/?TransactionSetupID=\[InsertHere\]](https://testtransaction.hostedpayments.com/?TransactionSetupID=[InsertHere]).
4. Element's Hosted Payment Window collects (via swiped or keyed entry), stores (if applicable), transmits, and processes all sensitive cardholder data, and then displays the results of the transaction within the window. In addition, the results of the transaction are embedded in the response window provided, thus providing synchronous knowledge of the transaction.
5. The POS software application can now programmatically query Element's real-time reporting API (i.e. *TransactionQuery*) using the *TransactionSetupID* for the specific purchase to obtain the asynchronous result of the payment transaction. The *PaymentAccountQuery* method can be used to obtain details about records stored in PASS.

### 3.10.3 Hosted Payment Page

To process a Hosted Payment Page transaction with a typical Web-based software application, a step-by-step demonstration is below:

1. The Web-based software application collects all of the non-sensitive data related to the purchase.
2. The Web-based software application submits this non-sensitive data by calling the TransactionSetup method. A TransactionSetupID (GUID) is returned and used to identify the specific purchase from that point forward.
3. The Web-based software application redirects from their site to Elements Hosted Payments system (making sure to include the appropriate *TransactionSetupID*): [https://testtransaction.hostedpayments.com/?TransactionSetupID=\[InsertHere\]](https://testtransaction.hostedpayments.com/?TransactionSetupID=[InsertHere]).
4. Element's Hosted Payment Page collects (via swiped or keyed entry), stores (if applicable), transmits, and processes all sensitive cardholder data, and then displays the results of the transaction on the payment page. In addition, a redirect link containing the results embedded in the query string is provided, thus providing synchronous knowledge of the transaction. Response values embedded in the query string of the redirect link may include, but may not be limited to, the following:

Parameter Name	Value(s)	Description
HostedPaymentStatus	“Complete” or “Cancelled”	Status of Hosted Payments request
TransactionSetupID	TransactionSetupID	TransactionSetupID (GUID)
TransactionID	TransactionID	Numeric TransactionID
ExpressResponseCode	ExpressResponseCode	Numeric response code
ExpressResponseMessage	ExpressResponseMessage	Text response message
AVSResponseCode	AVSResponseCode	AVS match, no match, or partial match code
CVVResponseCode	CVVResponseCode	CVV match or no match code
ApprovalNumber	ApprovalNumber	Approval code
LastFour	NNNN	Last four digits of card processed
ValidationCode	ValidationCode	Code used to validate original transaction
CardLogo	CardLogo	Payment brand. Possible values include: “Visa”, “Mastercard”, “Discover”, “Amex”, “Diners Club”, “JCB”, “Carte Blanche”, “Other”
ApprovedAmount	ApprovedAmount	Approved amount (*depending on account type, ApprovedAmount may not be returned)
ServicesID	ServicesID	Numeric ServicesID
PaymentAccountID	PaymentAccountID	PaymentAccountID GUID
CommercialCard ResponseCode	CommercialCard ResponseCode	Commercial Card Response Code identifying type of commercial card if merchant profile supports this functionality
TipAmount	TipAmount	Tip Amount is returned if entered into driverless terminal device

5. The Web-based software application can now programmatically query Element's real-time reporting API (i.e. *TransactionQuery*), using *TransactionSetupID* for the specific purchase, to obtain the asynchronous result of the payment

transaction. The *PaymentAccountQuery* method can be used to obtain details about records stored in PASS.

### 3.10.4 Other Notes

#### *ReturnURL Redirect Query String Response*

Please note that the name/value pair parameters appended to the *ReturnURL* during the final redirect response may include additional fields over time. Please code your redirect parsing application to properly allow for this scenario.

#### *ValidationCode Comparison for Fraud Prevention*

This Validation Code should be captured as part of the response initiated by the *TransactionSetup* request, and it should be compared to the Validation Code that is returned from the appended values in the *ReturnURL* when redirecting back to the application after a successful Hosted Payments transaction. If the Validation Code values from both responses match, then it can be confirmed that the response data was returned directly from Element. If the Validation Code values from both responses do not match, then this indicates that the response data is not accurate and the merchant should not proceed with providing a product or service to the customer.

#### *TransactionSetupID Expiration*

A Hosted Payments *TransactionSetupID* is valid for up to ten (10) minutes after its initial creation. Upon exceeding that time limitation, the *TransactionSetupID* will expire, and a new *TransactionSetupID* must be generated to complete the transaction.

#### *CardInputCode*

The *CardInputCode* enumerator within the *TransactionSetup* method identifies the payment transaction entry mode as either swiped or keyed entry. A *CardInputCode* enumerator value of MagstripeRead (2) will require a card to be swiped within the window or page, while all other values will require the card number and expiration date to be keyed within the window or page.

#### *Entry Devices*

Software applications that wish to support card-swiped entry within Hosted Payments are required to support an encrypted card reader or encrypted device provided by Element.

#### *PIN-Debit*

Hosted Payments supports PIN-Debit processing via encrypted PINPad devices only.

## *Hosted Payments Transaction Support*

Hosted Payments supports the following *TransactionSetupMethod* values at this time: *CreditCardSale*, *CreditCardAuthorization*, *CreditCardAVSOnly*, *CreditCardForce*, *PaymentAccountCreate*, *PaymentAccountUpdate*, *Sale*.

### **3.11 Payment Account Secure Storage**

#### **3.11.1 Definition**

*Payment Account Secure Storage* (PASS) is designed to allow merchants and payment service providers alike the ability to easily comply with PCI DSS with very little time, effort, or financial impact. PASS greatly reduces an enormous financial risk inherent with storing, processing, and/or transmitting cardholder data. PASS is designed as a secure Web Service comprised of four basic methods:

1. *PaymentAccountCreate*
2. *PaymentAccountUpdate*
3. *PaymentAccountDelete*
4. *PaymentAccountQuery* (see section 6.2).

These methods are used to create, update, delete, and query payment data storage accounts.

#### **3.11.2 Tokenization Combined with End to End Encryption**

Credit card processing started in the early years with a process called Terminal Draft Capture. This involved storing all transaction information in a terminal and electronically sending that information as a batch to initiate payment. Terminal Draft Capture proved to be very insecure as private networks became more open with the advent of the internet.

Host Draft Capture was later developed as an improved way of securely handling cardholder data. It is based on the concept of remote storage vs. local storage, where data is sent to a more secure remote server and NOT retained in a local terminal. Encryption, a supporting technology that involves “scrambling” the data as it is sent, is employed at each end of the communication process. To further enhance security, tokenization was introduced and involved creating and then passing a token in place of sensitive cardholder data.

PASS is a purpose-built solution to cardholder data security issues that uniquely combines tokenization with end to end encryption. This allows you to offload the huge responsibility of cardholder data storage to a trusted partner. Sensitive information for a customer sale is sent to *Express* only one time (using encryption) to create an initial account record and is then stored on OUR servers. A unique account identifier, called a

GUID, is returned to the merchant and ALL subsequent sales for the customer refer to the GUID (this is the tokenization aspect). In this way, risk is greatly reduced for all subsequent transactions because sensitive account numbers, address info, etc never need be sent twice. The merchant does not have to store sensitive information AT ALL, and implementing PASS is easy, inexpensive, fast, and reliable. The merchant is then free to spend more time running their business and NOT worrying about the threat of data theft and resulting loss of customer confidence.

### **3.11.3 Processing PASS Records as Payments (Transaction)**

To process a transaction using PASS, the method of the transaction (e.g. *CreditCardSale* or *CheckSale*) should be called. However, instead of passing the card/account number and expiration information, the appropriate *PaymentAccountID* identifying the stored record should be submitted. The transaction will be processed in the same way as any normal transaction. Billing address and zip code information will be submitted for AVS automatically if stored in the PASS system. Otherwise, any billing address and zip code sent separately in the request will override the PASS-stored values and will be submitted for AVS.

### **3.11.4 Updating PASS Records**

When performing a *PaymentAccountUpdate* to update the card number or expiration date, each of these Card object fields, along with the full address information (e.g. Address object), must be resubmitted in the update request. However, if updating only an expiration date, note that the card number is not required. When performing a *PaymentAccountUpdate* to update an Address object field only, the Card object fields are not required, but the full address details must be resubmitted in the update request. If all address details of the stored record are not known at that time, the *PaymentAccountQuery* method should be called first to collect this information. Note that the *PaymentAccountType* value cannot be updated once the record is created.

### **3.11.5 Querying PASS Records**

When performing a *PaymentAccountQuery*, the search parameters include a credit card beginning and ending expiration date. This functionality will allow merchants to search any range of card expiration date information so that currently expired and/or future expired cards can be handled appropriately.

### **3.11.6 Currently Supported Payment Types**

Credit Cards and Checks can be processed using PASS technology. Note that *PaymentAccountID*'s can be charged across multiple *AcceptorID*'s as long as each *AcceptorID* is set up under the same corporate *AccountID* for the merchant.

## **3.12 Account Updater**

### **3.12.1 What is Account Updater?**

Element's Account Updater service provides merchants the ability to receive automatic updates to existing records stored with our Payment Account Secure Storage (PASS) product to prevent billing to expired or invalid cards. Depending on how the merchant is signed up to flag expired or invalid cards, Element's system will query the payment brands (Visa and MasterCard) for updated cardholder information. If the information is available, your customer's account on file (PASS billing record) will be automatically updated and available for future billing.

### **3.12.2 How does Account Updater work?**

Merchant locations must first enroll in Element's Account Updater service, which is designed to work through a software application integration to the Element Express platform. Software applications can be set to flag PASS records for update each time a PASS transaction is declined, and can also allow merchants to manually flag for update any PASS records of their choosing. At the end of the day, all cards that have been flagged will be submitted to the Account Updater service. Software applications can query flagged PASS records to determine if a card has been successfully updated. Updates are usually received within four to five business days. If an update was successful, merchants can submit the updated PASS record for future billing. Note that if the software application stores any non-sensitive, truncated card information, then that truncated information may also need to be updated to reflect the updated PASS record on file.

### **3.12.3 Which cards can be flagged for update?**

Only Visa and MasterCard cards can be enrolled in the Account Updater service.

### **3.12.4 Which transaction declines should be flagged for update?**

If manually flagging records, it is recommended that the following ExpressResponseCode decline values be flagged for update:

<b>RC</b>	<b>Type</b>	<b>Description</b>
20	Decline	Card issuer has declined the transaction.
21	Expired Card	Card is expired.
24	Pick Up Card	Card issuer has declined the transaction and wants to recover the card.

### **3.12.5 Which updates are considered valid updates?**

The following PASSUpdaterStatus response values resulting from a PaymentAccountQuery request are considered valid updates:

<b>Match Type</b>	<b>Description</b>
Match: Account Change	Account match was found and account number has changed. The PASS record has been updated with the new credit card number.
Match: Expiration Change	Account match was found and expiration date has changed. The PASS record has been updated with the new expiration date.
Match: Account Closed	Account match was found. Account has been closed. The PASS record will not be updated. This allows a merchant to identify PASS records that will never produce an approval by distinguishing between declines that are legitimate (due to closed accounts) and those resulting because the cardholder is too close to their credit limit to use the card on file.
Match: Contact Cardholder	Account match was found. The PASS record will not be updated. The merchant will need to contact the cardholder to inquire about the status of the account. This information allows a merchant to identify PASS records that will never produce an approval by distinguishing between declines that are legitimate (due to closed accounts) and those resulting because the cardholder is too close to the credit limit to use the card on file.

### **3.12.6 Integration to the Element Express Payment Platform**

To flag an existing PASS record for a one-time manual update (recommended after specified declines), the software application can initiate a PaymentAccountAutoUpdate request using a PASSUpdaterBatchStatus of "IncludedInNextBatch". To flag an existing PASS record to be updated automatically after any future specified decline, the PASSUpdaterOption should be set to "AutoUpdateEnabled". For direct integrations (where PaymentAccountCreate is submitted directly from the software application), software applications can also flag a PASS record for a one-time manual update by submitting the PASSUpdaterBatchStatus of "IncludedInNextBatch" in the PaymentAccountCreate request.

To determine the current status of a previously-flagged record, the software can initiate a PaymentAccountQuery request using PASSUpdaterStatus, PASSUpdaterBatchStatus, PASSUpdaterDateTimeBegin, PASSUpdaterDateTimeEnd, or any other existing query parameter (such as PaymentAccountID, PaymentAccountReferenceNumber, Expiration Date, PaymentBrand, etc.). A full list of possible update responses have been included below:

<b>Match Type</b>	<b>Description</b>
Null	N/A
Update in progress	Update in progress.
Match: No Changes	Account match was found, but there are no changes.
Match: Account Change	Account match was found and account number has changed. Account number has been updated.
Match: Expiration Change	Account match was found and expiration date has changed. Expiration date has been updated.
Match: Account Closed	Account match was found. Account has been closed.
Match: Contact Cardholder	Account match was found. Contact the cardholder to update the account

	information.
No Match: Participating	Account match not found on participating BIN.
No Match: Non-Participating	Account match not found on non-participating BIN.
Invalid Info	Invalid information. e.g. Invalid card number.
No Response	No response. e.g. Request submitted, but not response.
Not Allowed	Not allowed. e.g. Merchant may not be set up for Account Updater service.
Error	Error.
PASS Updater Disabled	PASS Updater is disabled.
Not Updated	Not updated.

If you wish to disable the ability for a currently-flagged record to be updated, the software application can submit a PaymentAccountAutoUpdate request using a PASSUpdaterOption of “AutoUpdateDisabled” and a PASSUpdaterBatchStatus of “NotIncludedInNextBatch”.

### 3.12.7 Notes

- As long as the merchant is enrolled in the Account Updater service, the PaymentAccountCreate looks at the PASSUpdaterBatchStatus (e.g. IncludedInNextBatch) only. PaymentAccountCreate will ignore the PASSUpdaterOption (e.g. Disable).
- On all PaymentAccountAutoUpdate requests, the PASSUpdaterOption of AutoUpdateDisabled overrides any other existing status or value.

## 3.13 Security Methods and Procedures

Element Payment Services, Inc., as a financial service provider, is required to comply with the Payment Card Industry (PCI) Data Security Standard. The PCI Data Security Standard comprises twelve requirements pertaining to information security, including strong access controls, configuring security parameters appropriately on systems, tracking and monitoring data access, and restricting physical access to the systems containing card data.

Integrating *Element Express* with your software provides merchants end-to-end encryption of cardholder data as well as the ability to store sensitive data off-site to meet PCI DSS compliance requirements.

*Element Express* requires all transactions to be sent using standard 128-bit Secure Socket Layer (SSL) encryption. Additionally, every transaction must be authenticated. Authentication is achieved through use of an AccountID and AccountToken issued by Element Payment Services, Inc. The full details of the PCI requirements can be found at <http://www.visa.com/cisp>.

## 4 Interface Specification

### Chapter 4 consists of:

- Common Fields Descriptions
- Extended Parameter Descriptions

#### 4.1 Common Fields Descriptions

This section provides a reference list of fields most commonly used in Express methods and classes.

#### Input Fields

Name	Class	Required	Description
 <a href="#">AcceptorID</a>	<a href="#">Credentials</a>	Required	MerchantID
 <a href="#">AccountID</a>	<a href="#">Credentials</a>	Required	Unique account identifier
 <a href="#">AccountNumber</a>	<a href="#">DemandDepositAccount</a>	Conditional Not needed if PaymentAccountID has been included	Account Number of the consumers bank account.
 <a href="#">AccountToken</a>	<a href="#">Credentials</a>	Required	Secret token used for authentication
 <a href="#">ApplicationID</a>	<a href="#">Application</a>	Required	Unique application identifier
 <a href="#">ApplicationName</a>	<a href="#">Application</a>	Required	Name of application
 <a href="#">ApplicationVersion</a>	<a href="#">Application</a>	Required	Version of application
 <a href="#">BillingAddress1</a>	<a href="#">Address</a>	Optional	The street address used for billing purposes
 <a href="#">BillingZipcode</a>	<a href="#">Address</a>	Optional	The zip code used for billing purposes
 <a href="#">CardNumber</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Account number on card
 <a href="#">CardPresentCode</a>	<a href="#">Terminal</a>	Required	Card Present Code
 <a href="#">CAVV</a>	<a href="#">Card</a>	Optional	Card Authorization Verification Value
 <a href="#">CheckNumber</a>	<a href="#">DemandDepositAccount</a>	Optional	Check Number
 <a href="#">CheckType</a>	<a href="#">DemandDepositAccount</a>	Optional	Check Type (Personal or Business)
 <a href="#">CVV</a>	<a href="#">Card</a>	Optional	Card Verification Value: Visa CVV2, MasterCard CVC2, Discover CID
 <a href="#">CVVPresenceCode</a>	<a href="#">Terminal</a>	Required	Card Verification Value Presence Code
 <a href="#">ExpirationMonth</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Expiration month
 <a href="#">ExpirationYear</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Expiration year

<a href="#">HostBatchID</a>	<a href="#">Batch</a>	Conditional needed when BatchCloseType=Regular	Unique host batch identifier
<a href="#">MarketCode</a>	<a href="#">Transaction</a>	Required	
<a href="#">MotoECICode</a>	<a href="#">Terminal</a>	Required	Mail Order Telephone Order Electronic Indicator Code
<a href="#">PaymentAccountID</a>	<a href="#">ExtParm.PaymentAccount</a>	Optional	
<a href="#">ReferenceNumber</a>	<a href="#">Transaction</a>	Optional	Unique value assigned by the transaction sender
<a href="#">RoutingNumber</a>	<a href="#">DemandDepositAccount</a>	Conditional Not needed if PaymentAccountID has been included	Routing Number of the consumers bank.
<a href="#">SalesTaxAmount</a>	<a href="#">Transaction</a>	Optional	Sales tax amount (use 0.00 for commercial card tax exempt transactions)
<a href="#">TerminalCapabilityCode</a>	<a href="#">Terminal</a>	Required	Terminal Capability Code
<a href="#">TerminalEnvironmentCode</a>	<a href="#">Terminal</a>	Required	Terminal Environment Code
<a href="#">TerminalID</a>	<a href="#">Terminal</a>	Required	Unique terminal identifier
<a href="#">TicketNumber</a>	<a href="#">Transaction</a>	Optional	
<a href="#">Track1Data</a>	<a href="#">Card</a>	Optional	
<a href="#">Track2Data</a>	<a href="#">Card</a>	Optional	
<a href="#">TransactionAmount</a>	<a href="#">Transaction</a>	Required	Amount of transaction

## Output Fields:

### Response Class

Name	Value	Max Length	Description
<a href="#">ApprovalNumber</a>		30	Issuer assigned approval number
<a href="#">AVSResponseCode</a>		2	Address Verification Service Response Code
<a href="#">CardLogo</a>		20	Payment brand: Visa, MasterCard, Discover, Amex, Diners Club, JCB, Carte Blanche, Other
<a href="#">CVVResponseCode</a>		2	Card Verification Value Response Code
<a href="#">ExpressResponseCode</a>	Any valid Express response code	N/A	Express Response Code
<a href="#">ExpressResponseMessage</a>	Any valid Express message	N/A	Express Response Message
<a href="#">ExpressTransactionDate</a>		N/A	Express platform transaction date
<a href="#">ExpressTransactionTime</a>		N/A	Express platform transaction time

 <a href="#">ExpressTransactionTimezone</a>		N/A	Express platform transaction time zone
 <a href="#">HostResponseCode</a>	Any valid host response code	N/A	Host Response Code
 <a href="#">HostResponseMessage</a>	Any valid host response message	N/A	Host Response Message
 <a href="#">HostTransactionDateTime</a>		N/A	Host platform transaction date and time
 <a href="#">QueryData</a>	Any valid query data	N/A	Query information in xml format
 <a href="#">ReportingData</a>	Any valid reporting data	N/A	Transaction information in xml format
 <a href="#">ReportingID</a>	Any valid Express reporting identifier	N/A	Unique reporting identifier
 <a href="#">ServicesID</a>	Any valid Express services identifier	N/A	Unique services identifier
 <a href="#">TransactionID</a>	Any valid Express transaction identifier	N/A	Unique transaction identifier

## Healthcare Extended Parameter Fields

Name	Class	Required	Description
 <a href="#">HealthcareFlag</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	If this is set to True, the Healthcare parameters should be submitted.
 <a href="#">HealthcareFirstAccountType</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	Healthcare account type
 <a href="#">HealthcareFirstAmountType</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	Healthcare amount type
 <a href="#">HealthcareFirstCurrencyCode</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	Currency Code. Use 840 for U.S.
 <a href="#">HealthcareFirstAmountSign</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	Positive or negative amount
 <a href="#">HealthcareFirstAmount</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	Healthcare amount
 <a href="#">HealthcareSecondAccountType</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	Healthcare account type
 <a href="#">HealthcareSecondAmountType</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	Healthcare amount type
 <a href="#">HealthcareSecondCurrencyCode</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	Currency Code. Use 840 for U.S.
 <a href="#">HealthcareSecondAmountSign</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	Positive or negative amount
 <a href="#">HealthcareSecondAmount</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	Healthcare amount
 <a href="#">HealthcareThirdAccountType</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	Healthcare account type
 <a href="#">HealthcareThirdAmountType</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	Healthcare amount type
 <a href="#">HealthcareThirdCurrencyCode</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	Currency Code. Use 840 for U.S.
 <a href="#">HealthcareThirdAmountSign</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	Positive or negative amount
 <a href="#">HealthcareThirdAmount</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	Healthcare amount
 <a href="#">HealthcareFourthAccountType</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	Healthcare account type
 <a href="#">HealthcareFourthAmountType</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	Healthcare amount type

 <a href="#">HealthcareFourthCurrencyCode</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	Currency Code. Use 840 for U.S.
 <a href="#">HealthcareFourthAmountSign</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	Positive or negative amount
 <a href="#">HealthcareFourthAmount</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	Healthcare amount

5: Used when submitting a Healthcare transaction (TSYS platform only).

## Auto Rental Extended Parameter Fields

Name	Class	Required	Description
 <a href="#">AutoRentalAgreementNumber</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	Rental agreement number
 <a href="#">AutoRentalNoShowIndicator</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	No show indicator
 <a href="#">AutoRentalExtraChargesDetail</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	Extra charges detail
 <a href="#">AutoRentalPickupDate</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	Rental pickup date. Format is YYYYMMDD.
 <a href="#">AutoRentalDropoffDate</a>	<a href="#">ExtParm.AutoRental</a>	Reserved for future use	Reserved for future use
 <a href="#">AutoRentalCustomerName</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	Name of the person or business with the reservation
 <a href="#">AutoRentalReturnCity</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	City where vehicle was returned
 <a href="#">AutoRentalReturnState</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	State where vehicle was returned
 <a href="#">AutoRentalReturnLocationID</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	Rental location ID
 <a href="#">AutoRentalDuration</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	Number of rental days (e.g. 03). Pass 01 for no-show rentals.
 <a href="#">AutoRentalPickupLocation</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	Name of business where vehicle was picked up
 <a href="#">AutoRentalPickupCity</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	Name of city, town, or village where vehicle was picked up
 <a href="#">AutoRentalPickupState</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	Abbreviation of state, province, or other country subdivision where vehicle was picked up
 <a href="#">AutoRentalPickupCountryCode</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	Country code where vehicle was picked up. For US, use 840.
 <a href="#">AutoRentalPickupTime</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	Local time when vehicle was picked up. Format HHMMSS.
 <a href="#">AutoRentalReturnCountryCode</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	Country code where vehicle was returned. For US, use 840.
 <a href="#">AutoRentalReturnDate</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	Date when vehicle was returned. Format YYYYMMDD.
 <a href="#">AutoRentalReturnTime</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	Local time when vehicle was returned. Format HHMMSS.
 <a href="#">AutoRentalVehicleClassCode</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	Classification of rental vehicle
 <a href="#">AutoRentalDistance</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	Numeric distance traveled during rental period
 <a href="#">AutoRentalDistanceUnit</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	Unit of measurement applicable to distance traveled
 <a href="#">AutoRentalAuditAdjustmentCode</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	Indicates if adjustment for mileage, fuel, vehicle damage, etc. was made to a rental agreement
	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	Adjustment amount for mileage, fuel, vehicle damage, etc. after a

<a href="#">AutoRentalAuditAdjustmentAmount</a>			vehicle was returned
---	--	--	----------------------

6: Used when submitting an Auto Rental transaction (TSYS platform only).

## Lodging Extended Parameter Fields

Name	Class	Required	Description
<a href="#">LodgingAgreementNumber</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>7</sup>	Hotel Folio number
<a href="#">LodgingCheckInDate</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>7</sup>	Check-in date. Format is YYYYMMDD. Advance check-in = date of reservation No-show = anticipated arrival date
<a href="#">LodgingCheckOutDate</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>7</sup>	Check-out date. Format is YYYYMMDD.
<a href="#">LodgingRoomAmount</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>7</sup>	Nightly rate for one room
<a href="#">LodgingRoomTax</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>7</sup>	Reserved for future use
<a href="#">LodgingNoShowIndicator</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>7</sup>	Indicates a room was reserved, but not actually rented. 0 = Not Applicable 1 = No Show
<a href="#">LodgingDuration</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>7</sup>	Number of hotel stay days (e.g. 03). Pass 01 for no-show. From 01 to 99.
<a href="#">LodgingCustomerName</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>7</sup>	Lodging customer name
<a href="#">LodgingClientCode</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>7</sup>	Reserved for future use
<a href="#">LodgingExtraChargesDetail</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>7</sup>	Indicates any additional ancillary charges. Field can contain multiple indicators. 0 = Not Used 1 = Reserved 2 = Restaurant 3 = Gift Shop 4 = Mini-Bar 5 = Telephone 6 = Other 7 = Laundry
<a href="#">LodgingExtraChargesAmounts</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>7</sup>	Reserved for future use
<a href="#">LodgingPrestigiousPropertyCode</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>7</sup>	Prestigious property code
<a href="#">LodgingSpecialProgramCode</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>7</sup>	Special program code
<a href="#">LodgingChargeType</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>7</sup>	Lodging charge type

7: Used when submitting a Lodging transaction (TSYS platform only).

## EnhancedData Extended Parameter Fields

Name	Class	Max	Required	Description
MerchantVATRegistrationNumber	ExtendedParameters EnhancedData	20	Optional <sup>1</sup>	Government-assigned tax identification number of merchant. (tag must be present, but can be empty)
CustomerVATRegistrationNumber	ExtendedParameters EnhancedData	13	Optional <sup>1</sup>	Tax registration number supplied by cardholder. (tag must be present, but can be empty)
SummaryCommodityCode	ExtendedParameters EnhancedData	4	Required <sup>1</sup>	International description code of overall goods or services.
DiscountAmount	ExtendedParameters EnhancedData	12	Required <sup>1</sup>	Discount amount applied to the line item total. This field should be 0.00 if the unit cost reflects a discount price or if no line item discount applies. DDDDDDDDDD.CC
FreightAmount	ExtendedParameters EnhancedData	12	Required <sup>1</sup>	Freight or shipping portion of the total transaction amount. DDDDDDDDDD.CC
DutyAmount	ExtendedParameters EnhancedData	12	Required <sup>1</sup>	Fee amount associated with the import of the goods. DDDDDDDDDD.CC
DestinationZIPCode	ExtendedParameters EnhancedData	10	Required <sup>1</sup>	Postal/Zip Code of the address where purchased goods will be delivered. Can be the same as ShipFromZIPCode if customer is present and takes immediate possession of the goods.
ShipFromZIPCode	ExtendedParameters EnhancedData	10	Required <sup>1</sup>	Postal/Zip Code of the address from where the purchased goods are being shipped.
DestinationCountryCode	ExtendedParameters EnhancedData	3	Required <sup>1</sup>	Country code where goods are being shipped. U.S. is 840.
UniqueVATInvoiceReferenceNumber	ExtendedParameters EnhancedData	15	Optional <sup>1</sup>	Invoice number associated with VAT invoice. Not applicable for US merchants. (tag must be present, but can be empty)
OrderDate	ExtendedParameters EnhancedData	8	Required <sup>1</sup>	Purchase order date. YYYYMMDD
VATAmount	ExtendedParameters EnhancedData	12	Required <sup>1</sup>	Amount of any sales or value added taxes associated with the purchased item. DDDDDDDDDD.CC
VATRate	ExtendedParameters EnhancedData	4	Required <sup>1</sup>	Tax rate used to calculate VATAmount. Submitted as a percentage. Two-digit implied decimal. For example, if 10.42%, submit 1042
LineItemCount	ExtendedParameters EnhancedData	3	Required <sup>1</sup>	Number of line items included in transaction. Visa (0 to 998), MasterCard (0 to 98)
AlternateTaxAmount	ExtendedParameters EnhancedData	12	Required <sup>1</sup>	Second tax amount (used in countries where more than one tax can be applied). Not applicable for US merchants. DDDDDDDDDD.CC

◆ NationalTaxAmount	ExtendedParameters EnhancedData	12	Required <sup>1</sup>	National tax included in the transaction amount. Not applicable for US merchants. DDDDDDDD.DD
◆ ItemCommodityCode	ExtendedParameters EnhancedData	12	Required <sup>1</sup>	International description code of the individual good or service being supplied. Recommend using national or international list of standardized codes.
◆ ItemDescription	ExtendedParameters EnhancedData	35	Required <sup>1</sup>	Item description.
◆ ProductCode	ExtendedParameters EnhancedData	12	Required <sup>1</sup>	Merchant-defined description code of the item.
◆ Quantity	ExtendedParameters EnhancedData	12	Required <sup>1</sup>	Quantity of the item (up to four decimal places). DDDDDDDD.CCCC
◆ UnitOfMeasure	ExtendedParameters EnhancedData	12	Required <sup>1</sup>	Code for units of measurement used in international trade.
◆ UnitCost	ExtendedParameters EnhancedData	10	Required <sup>1</sup>	Unit cost of the item. DDDDDDDD.CC
◆ LineItemVATAmount	ExtendedParameters EnhancedData	12	Required <sup>1</sup>	Amount of any sales or value added taxes associated with the item.
◆ LineItemVATRate	ExtendedParameters EnhancedData	4	Required <sup>1</sup>	Tax rate used to calculate LineItemVATAmount. Submitted as a percentage. Two-digit implied decimal. For example, if 10.42%, submit 1042
◆ LineItemDiscountAmount	ExtendedParameters EnhancedData	12	Required <sup>1</sup>	Discount amount applied to the line item. This field should be 0.00 if the unit cost reflects a discount price or if no line item discount applies. DDDDDDDDDD.CC
◆ LineItemTotalAmount	ExtendedParameters EnhancedData	12	Required <sup>1</sup>	Total full amount associated with the line item (including tax). DDDDDDDDDD.CC
◆ AlternateTaxIdentifier	ExtendedParameters EnhancedData	15	Optional <sup>1</sup>	Tax identification number of the merchant reporting the alternate tax amount. Not applicable for US merchants. (tag must be present, but can be empty)
◆ VATType	ExtendedParameters EnhancedData	4	Optional <sup>1</sup>	Type of value added taxes being used. Not applicable for US merchants. (tag must be present, but can be empty)
◆ DiscountCode	ExtendedParameters EnhancedData	2	Required <sup>1</sup>	Indicates whether discount was applied to the purchase price of the item. 0 = Not supported 1 = Amount is discounted 2 = Amount is not discounted
◆ NetGrossCode	ExtendedParameters EnhancedData	2	Required <sup>1</sup>	Indicates whether extended item amount included the tax. 0 = Not supported 1 = Item Amount includes tax amount 2 = Item Amount does not include tax amount
◆ ExtendedItemAmount	ExtendedParameters	12	Required <sup>1</sup>	Amount of the item (price)

	EnhancedData			multiplied by quantity). DDDDDDDD.DD.CC
 DebitCreditCode	ExtendedParameters EnhancedData	2	Required <sup>1</sup>	Indicates whether ExtendedItemAmount is a Credit (taking away from the total amount of the sale) or Debit (adding to the total amount of the sale). 0 = Not supported 1 = Extended Item Amount is Credit 2 = Extended Item Amount is Debit
 ItemDiscountRate	ExtendedParameters EnhancedData	12	Required <sup>1</sup>	Discount rate for the line item. Submitted as a percentage. For example, if 10%, submit 10.00.

1: Used when submitting a Level III transaction (TSYS platform only).

### Level III XML Format (Note that EnhancedData and LineItemDetail MUST be in this order):

```

<ExtendedParameters>
  <EnhancedData>
    <MerchantVATRegistrationNumber />
    <CustomerVATRegistrationNumber />
    <SummaryCommodityCode />
    <DiscountAmount />
    <FreightAmount />
    <DutyAmount />
    <DestinationZIPCode />
    <ShipFromZIPCode />
    <DestinationCountryCode />
    <UniqueVATInvoiceReferenceNumber />
    <OrderDate />
    <VATAmount />
    <VATRate />
    <LineItemCount />
    <AlternateTaxAmount />
    <NationalTaxAmount />
    <LineItemDetail>
      <LineItem>
        <ItemCommodityCode />
        <ItemDescription />
        <ProductCode />
        <Quantity />
        <UnitOfMeasure />
        <UnitCost />
        <LineItemVATAmount />
        <LineItemVATRate />
        <LineItemDiscountAmount />
        <LineItemTotalAmount />
        <AlternateTaxIdentifier />
        <VATTType />
        <DiscountCode />
        <NetGrossCode />
        <ExtendedItemAmount />
      </LineItem>
    </LineItemDetail>
  </EnhancedData>
</ExtendedParameters>

```

```
<DebitCreditCode />
<ItemDiscountRate />
</LineItem>
<LineItem>
...
</LineItem>
</LineItemDetail>
</EnhancedData>
</ExtendedParameters>
```

## 5 Transaction Types Detailed Description

### Chapter 5 consists of:

- Duplicate Checking
- Recurring Transactions
- Scheduled Tasks
- Check Processing

#### 5.1 Duplicate Checking

Duplicate Checking is a host based feature that can be turned on or off. It provides a means to identify duplicate transactions by the following parameters:

- a) Same Card Number
- b) Same Transaction Amount
- c) Specific Transaction Category (Sale, Return, etc.)
- d) Within a certain number of Transactions (25) in the same batch

There are two methods that can be used to either override or disable duplicate checking:

##### *DuplicateOverrideFlag:*

Set this flag to true to override the duplicate checking feature if the response from the host indicates a duplicate transaction has been attempted. In other words, if you send a transaction that was determined to be a duplicate by the host; set this flag to true and resend the same transaction and bypass the duplicate checking feature on the host. This is a per transaction request feature.

##### *DuplicateCheckDisableFlag:*

Set this flag to true to disable the duplicate checking feature on the host. If this flag is set to true no duplicate checks will be performed for that transaction. This is a per transaction request feature.

## 5.2 Recurring Transactions

Recurring transactions are a unique type of transaction where consumers authorize merchants or solution providers to bill a specific card on a regular basis (e.g. monthly membership fees). Each recurring transaction may be for the same or fluctuating dollar amounts. To perform recurring transactions merchants must store cardholder information. Cardholder information can either be stored locally or remotely using Element Express Payment Account Secure Storage (PASS) technology.

Note: Storing cardholder information locally is a significant financial risk and is subject to the Payment Card Industry (PCI) Data Security Standards (DSS). Please visit [www.pcisecuritystandards.org](http://www.pcisecuritystandards.org) for more information.

Setting up recurring transactions consists of two parts:

### ***Part 1: Set-Up Transaction:***

For the first transaction in the series, send in the same data as a normal sale transaction. This is Track Data for card present transactions, or Card Number, CVV, and AVS data for E-Commerce and MOTO transactions.

### ***Part 2: Recurring Transactions:***

For all subsequent recurring transactions, send in cardholder account number (not Track Data) as well as Billing Street and Zip Code data; and set the [RecurringFlag](#) to “true.”

Note: PCI DSS prohibits the storing of Track Data and CVV data. Please visit [www.pcisecuritystandards.org](http://www.pcisecuritystandards.org) for more information.

## 5.3 Scheduled Tasks

### **Scheduling a Task (Transaction):**

To schedule a transaction, call the creation method of that transaction as you would normally do. The only difference is you will also pass in the [ScheduledTask](#) object in the [ExtendedParameters](#) array of that method. By doing this, *Express* will schedule the transaction. Please note: *Express* will only schedule the transaction, it will not execute immediately.

When scheduling payment transactions, you may pass a `PaymentAccountID` in for the payment information if you are already using our PASS technology for storing sensitive cardholder or payment information. If you choose to pass in the original card or payment information, *Express* will automatically create a [PaymentAccount](#) (PASS) for you and

store your payment data. Once the Scheduled Task is created, you will be returned both a Scheduled Task ID as well as a Payment Account ID.

### **Scheduling Tasks with varying parameters:**

You may have a scenario where you want to vary the parameters on each method call. For example: charging a cardholder a different amount each month. In order to accomplish this, you would create multiple Scheduled Tasks with a Run Frequency of “OneTimeFuture.”, creating one task for each occurrence. These tasks can be grouped together for reporting purposes by assigning the same ScheduledTaskReferenceNumber to all.

### **Editing / Updating a Scheduled Task:**

The only items that you can update on a Scheduled Task are the members of the ScheduledTask class. You cannot update the actual method call parameters due to the complexity of parameters that get passed into the method. If you wish to modify those, you must delete the task and create a new one with the appropriate parameters.

### **Reporting on the results of Scheduled Tasks:**

The *ScheduledTaskQuery* method can be used to report on the criteria in place for a particular task, as well as report on transactions that have already run based on that task.

### **Currently Supported Transaction Types:**

*CreditCardSale* and *CheckSale* are the only methods that can be scheduled.

## **5.4 Check Processing**

### **Determining the status of a Check transaction:**

Once created using the *CheckSale* method, the status of a check transaction can be determined by submitting a *TransactionQuery* request through the Express reporting interface. The check status will be returned in the *TransactionStatus* response field, and this status value will determine any action(s) that can be taken on the check transaction at that point. Due to the nature of ACH processing, the status of ACH transactions will be updated over a period of several days (and can be longer for transactions that are returned by the bank). Your software application must be prepared to frequently update existing records.

### **Voiding a Check transaction:**

The ability to void a check transaction is dependent on the status of that check transaction. Check transactions with a *TransactionStatus* of “Pending” can be voided using the *CheckVoid* method. Attempting a *CheckVoid* on a check transaction in any other status may result in an error response. After successfully processing a check transaction, the status may be in a “Pending” state until daily back-office processing takes place.

### **Reversing a Check transaction:**

Reversing a check transaction is dependent on the status. Check transactions with a *TransactionStatus* of “Pending” can be reversed using the *CheckReversal* method. Attempting a *CheckReversal* on a check transaction in any other status may result in an error response. After successfully processing a check transaction, the status may be in a “Pending” state until daily back-office processing takes place. Another scenario requiring a *CheckReversal* would be in the event that no response is received from the original check transaction. In that case, a *CheckReversal* should be submitted. If *Express* cannot find the *TransactionID* submitted for the original check transaction, a “Transaction cannot be reversed” response will be returned.

### **Refunding a Check transaction (*CheckReturn*):**

The ability to refund a check transaction is dependent on the status of that check transaction. Check transactions with a *TransactionStatus* of “Originated” or “Settled” can be refunded using the *CheckReturn* method. Attempting a *CheckReturn* on a check transaction in any other status may result in an error response. At this time, the refund amount must be equal to the original sale amount. If a refund for an amount other than the original sale amount is required, the *CheckCredit* method should be used.

## **5.5 Level III Processing**

### **Level III Line Item Detail:**

Element Express supports the ability to process Visa and MasterCard Level III Enhanced and Line Item Detail.

### **Processing Flow:**

#### *Sale Transactions (charge immediately)*

1. The software application will submit a standard CreditCardSale request (without any Level III information). If the card processed is a commercial card, a response value called CommercialCardResponseCode will be returned indicating the card

- is a type of commercial card. This will identify the commercial card as a Business Card, Corporate Card, or Purchasing Card.
2. Where applicable and when Level III information is available, a CreditCardAdjustment request (containing Level III Enhanced and Line Item Details) will be submitted to adjust the original CreditCardSale to include Level III information for settlement. ALL Level III Enhanced and Line Item Details are required when including this Level III Data.
  3. Sale transaction batches out and settles automatically during the overnight hours.

*Authorization and Authorization Completion Transactions (charge when shipped)*

1. The software application will submit a standard CreditCardAuthorization request (without any Level III information). If the card processed is a commercial card, a response value called CommercialCardResponseCode will be returned indicating the card is a type of commercial card. This will identify the commercial card as a Business Card, Corporate Card, or Purchasing Card.
2. Where applicable and when Level III information is available, a CreditCardAuthorizationCompletion request (containing Level III Enhanced and Line Item Details) will be submitted to complete the original CreditCardAuthorization to include Level III information for settlement. ALL Level III Enhanced and Line Item Details are required when including this Level III Data.
3. Completion transaction batches out and settles automatically during the overnight hours.

*Force Transactions (charge immediately)*

1. Upon receiving a voice authorization response, the software application will submit a standard CreditCardForce request (without any Level III information). Depending on the information known about the card, the software may choose to include Level III details by generating a CreditCardAdjustment request to include Level III details as a secondary step in the process. Whenever provided, ALL Level III details are required when including this Enhanced Data.
2. Where applicable and when Level III information is available, a CreditCardAdjustment request (containing Level III Enhanced and Line Item Details) will be submitted to adjust the original CreditCardForce to include Level III information for settlement. ALL Level III Enhanced and Line Item Details are required when including this Level III Data.
3. Force transaction batches out and settles automatically during the overnight hours.

**Level III Notes:**

- Level III Enhanced and Line Item Details supported via XML interface only (not available via SOAP interface).
- Level III Enhanced and Line Item Details supported via TSYs processing platform only.

- Level III Enhanced and Line Item Details supported for Visa and MasterCard transactions only.
- Level III Enhanced and Line Item Details will have a limit on the number of line items included in a single transaction.
- Where necessary (and based on the CommercialCardResponseCode), the CreditCardAdjustment method can be used to update original CreditCardSale, CreditCardAuthorizationCompletion, or CreditCardForce requests to include Level III Details.

## 6 Methods

### Chapter 6 consists of:

- Parameter Usage Table
- List of Methods for Each Transaction Type

#### 6.1 Parameter Usage Table

This chart displays the commonly used input parameters for many of the methods in Express, and is intended for quick reference. Please see the supplied Excel file: *Express Parameter Usage Table.xls*

#### 6.2 Batch

##### 6.2.1 BatchClose

The *BatchClose* method is used to close a currently active processing batch. It may or may not be needed depending on how your merchant account is set up. Merchants set up as Merchant-Initiated Batch Close will need to close their own batches. If you are set up as Time-Initiated Batch Close you do not need to use this method. There are two different *BatchCloseType* settings you can use which are described below.

Regular: This is the most common. Before calling *BatchClose* with this *BatchCloseType*, you will need to know the totals of your Batch. These can come from your own totals, or you can call the *BatchTotalsQuery* method to get the totals you need. You may want to consider calling *BatchTotalsQuery* first and then compare your totals to the hosts before attempting to call *BatchClose*.

Force: If you call *BatchClose* with this *BatchCloseType*, the host batch will be closed without the user sending in any totals.

### 6.2.1.1 Input Fields

Name	Class	Required	Description
<a href="#">ApplicationID</a>	<a href="#">Application</a>	Required	Unique application identifier
<a href="#">ApplicationName</a>	<a href="#">Application</a>	Required	Name of application
<a href="#">ApplicationVersion</a>	<a href="#">Application</a>	Required	Version of application
<a href="#">AccountID</a>	<a href="#">Credentials</a>	Required	Unique account identifier
<a href="#">AccountToken</a>	<a href="#">Credentials</a>	Required	Secret token used for authentication
<a href="#">AcceptorID</a>	<a href="#">Credentials</a>	Required	MerchantID
<a href="#">TerminalID</a>	<a href="#">Terminal</a>	Required	Unique terminal identifier
<a href="#">BatchCloseType</a>	<a href="#">Batch</a>	Required	Type of batch close
<a href="#">HostBatchID</a>	<a href="#">Batch</a>	Required	Unique host batch identifier
<a href="#">HostBatchCount</a>	<a href="#">Batch</a>	Conditional needed when BatchCloseType=Regular	Batch count
<a href="#">HostCreditSaleCount</a>	<a href="#">Batch</a>	Conditional needed when BatchCloseType=Regular	Total numeric count of credit sale items
<a href="#">HostCreditSaleAmount</a>	<a href="#">Batch</a>	Conditional needed when BatchCloseType=Regular	Total dollar amount of credit sales with decimal place: example: 21.52
<a href="#">HostCreditReturnCount</a>	<a href="#">Batch</a>	Conditional needed when BatchCloseType=Regular	Total numeric count of credit return items
<a href="#">HostCreditReturnAmount</a>	<a href="#">Batch</a>	Conditional needed when BatchCloseType=Regular	Total dollar amount of credit returns with decimal place: example: 21.52
<a href="#">HostDebitSaleCount</a>	<a href="#">Batch</a>	Conditional needed when BatchCloseType=Regular	Total numeric count of debit sale items
<a href="#">HostDebitSaleAmount</a>	<a href="#">Batch</a>	Conditional needed when BatchCloseType=Regular	Total dollar amount of debit sales with decimal place: example: 21.52
<a href="#">HostDebitReturnCount</a>	<a href="#">Batch</a>	Conditional needed when BatchCloseType=Regular	Total numeric count of debit return items
<a href="#">HostDebitReturnAmount</a>	<a href="#">Batch</a>	Conditional needed when BatchCloseType=Regular	Total dollar amount of debit returns with decimal place: example: 21.52

### 6.2.1.2 Output Fields

Name	Class	Returned	Description
<a href="#">ExpressResponseCode</a>	<a href="#">Response</a>	Returned	Express Response Code
<a href="#">ExpressResponseMessage</a>	<a href="#">Response</a>	Returned	Express Response Message
<a href="#">HostResponseCode</a>	<a href="#">Response</a>	Returned	Host Response Code

 <a href="#">HostResponseMessage</a>	<a href="#">Response</a>	Returned	Host Response Message
 <a href="#">ExpressTransactionDate</a>	<a href="#">Response</a>	Returned	Express transaction date formatted [YYYYMMDD]
 <a href="#">ExpressTransactionTime</a>	<a href="#">Response</a>	Returned	Express transaction time formatted [HHMMSS]
 <a href="#">ExpressTransactionTimezone</a>	<a href="#">Response</a>	Returned	Express transaction UTC time zone
 <a href="#">TransactionID</a>	<a href="#">Response.Transaction</a>	Returned	Unique transaction identifier
 <a href="#">ProcessorName</a>	<a href="#">Response.Transaction</a>	Returned	Name of processor
 <a href="#">TransactionStatus</a>	<a href="#">Response.Transaction</a>	Returned	Description of status/state of transaction
 <a href="#">TransactionStatusCode</a>	<a href="#">Response.Transaction</a>	Returned	Status/State of transaction
 <a href="#">HostBatchID</a>	<a href="#">Response.Batch</a>	Returned	Unique host batch identifier
 <a href="#">HostBatchCount</a>	<a href="#">Response.Batch</a>	Returned	Total numeric count of all items in the Batch
 <a href="#">HostBatchAmount</a>	<a href="#">Response.Batch</a>	Returned	Total dollar amount of all items
 <a href="#">HostCreditSaleCount</a>	<a href="#">Response.Batch</a>	Returned	Total numeric count of credit sale items
 <a href="#">HostCreditSaleAmount</a>	<a href="#">Response.Batch</a>	Returned	Total dollar amount of credit sales
 <a href="#">HostCreditReturnCount</a>	<a href="#">Response.Batch</a>	Returned	Total numeric count of credit return items
 <a href="#">HostCreditReturnAmount</a>	<a href="#">Response.Batch</a>	Returned	Total dollar amount of credit returns
 <a href="#">HostDebitSaleCount</a>	<a href="#">Response.Batch</a>	Returned	Total numeric count of debit sale items
 <a href="#">HostDebitSaleAmount</a>	<a href="#">Response.Batch</a>	Returned	Total dollar amount of debit sales
 <a href="#">HostDebitReturnCount</a>	<a href="#">Response.Batch</a>	Returned	Total numeric count of debit return items
 <a href="#">HostDebitReturnAmount</a>	<a href="#">Response.Batch</a>	Returned	Total dollar amount of debit returns

### Remarks for closing a batch:

- Batch details are available through the BatchTotalsQuery request method. When manually closing a batch via the BatchClose method, it is recommended that a BatchCloseType of Force be submitted.

## 6.2.2 BatchItemQuery

### 6.2.2.1 Input Fields

Name	Class	Required	Description
 <a href="#">ApplicationID</a>	<a href="#">Application</a>	Required	Unique application identifier
 <a href="#">ApplicationName</a>	<a href="#">Application</a>	Required	Name of application
 <a href="#">ApplicationVersion</a>	<a href="#">Application</a>	Required	Version of application
 <a href="#">AccountID</a>	<a href="#">Credentials</a>	Required	Unique account identifier
 <a href="#">AccountToken</a>	<a href="#">Credentials</a>	Required	Secret token used for authentication
 <a href="#">AcceptorID</a>	<a href="#">Credentials</a>	Required	MerchantID
 <a href="#">TerminalID</a>	<a href="#">Terminal</a>	Required	Unique terminal identifier
 <a href="#">BatchQueryType</a>	<a href="#">Batch</a>	Required	Type of batch query
 <a href="#">HostBatchID</a>	<a href="#">Batch</a>	Optional	If null, current batch is used
 <a href="#">HostItemID</a>	<a href="#">Batch</a>	Optional	If null, last item sent in is returned

### 6.2.2.2 Output Fields

Name	Class	Returned	Description
 <a href="#">ExpressResponseCode</a>	<a href="#">Response</a>	Returned	Express Response Code
 <a href="#">ExpressResponseMessage</a>	<a href="#">Response</a>	Returned	Express Response Message
 <a href="#">HostResponseCode</a>	<a href="#">Response</a>	Returned	Host Response Code
 <a href="#">HostResponseMessage</a>	<a href="#">Response</a>	Returned	Host Response Message
 <a href="#">ExpressTransactionDate</a>	<a href="#">Response</a>	Returned	Express transaction date formatted [YYYYMMDD]
 <a href="#">ExpressTransactionTime</a>	<a href="#">Response</a>	Returned	Express transaction time formatted [HHMMSS]
 <a href="#">ExpressTransactionTimezone</a>	<a href="#">Response</a>	Returned	Express transaction UTC time zone
 <a href="#">HostBatchID</a>	<a href="#">Response.Batch</a>	Returned	Unique host batch identifier
 <a href="#">HostItemID</a>	<a href="#">Response.Batch</a>	Returned	Unique host item identifier
 <a href="#">ApprovalNumber</a>	<a href="#">Response.Transaction</a>	Returned	Total numeric count of credit sales
 <a href="#">TransactionAmount</a>	<a href="#">Response.Transaction</a>	Returned	Amount of transaction
 <a href="#">TransactionID</a>	<a href="#">Response.Transaction</a>	Returned	Unique transaction identifier
 <a href="#">ProcessorName</a>	<a href="#">Response.Transaction</a>	Returned	Name of processor
 <a href="#">TransactionStatus</a>	<a href="#">Response.Transaction</a>	Returned	Description of status/state of transaction

 <a href="#">TransactionStatusCode</a>	<a href="#">Response.Transaction</a>	Returned	Status/State of transaction
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## Remarks

- *BatchItemQuery* only queries against the current open batch.

### 6.2.3 [BatchTotalsQuery](#)

#### 6.2.3.1 Input Fields

Name	Class	Required	Description
 <a href="#">ApplicationID</a>	<a href="#">Application</a>	Required	Unique application identifier
 <a href="#">ApplicationName</a>	<a href="#">Application</a>	Required	Name of application
 <a href="#">ApplicationVersion</a>	<a href="#">Application</a>	Required	Version of application
 <a href="#">AccountID</a>	<a href="#">Credentials</a>	Required	Unique account identifier
 <a href="#">AccountToken</a>	<a href="#">Credentials</a>	Required	Secret token used for authentication
 <a href="#">AcceptorID</a>	<a href="#">Credentials</a>	Required	MerchantID
 <a href="#">TerminalID</a>	<a href="#">Terminal</a>	Required	Unique terminal identifier
 <a href="#">BatchQueryType</a>	<a href="#">Batch</a>	Required	Identifies a Totals or Item query
 <a href="#">HostBatchID</a>	<a href="#">Batch</a>	Optional	If null, current open batch is used
 <a href="#">BatchIndexCode</a>	<a href="#">Batch</a>	Optional	Identifies to use current or previous batches.

#### 6.2.3.2 Output Fields

Name	Class	Returned	Description
 <a href="#">ExpressResponseCode</a>	<a href="#">Response</a>	Returned	Express Response Code
 <a href="#">ExpressResponseMessage</a>	<a href="#">Response</a>	Returned	Express Response Message
 <a href="#">HostResponseCode</a>	<a href="#">Response</a>	Returned	Host Response Code
 <a href="#">HostResponseMessage</a>	<a href="#">Response</a>	Returned	Host Response Message
 <a href="#">ExpressTransactionDate</a>	<a href="#">Response</a>	Returned	Express transaction date formatted [YYYYMMDD]
 <a href="#">ExpressTransactionTime</a>	<a href="#">Response</a>	Returned	Express transaction time formatted [HHMMSS]
 <a href="#">ExpressTransactionTimezone</a>	<a href="#">Response</a>	Returned	Express transaction UTC time zone
 <a href="#">TransactionID</a>	<a href="#">Response.Transaction</a>	Returned	Unique transaction identifier
 <a href="#">ProcessorName</a>	<a href="#">Response.Transaction</a>	Returned	Name of processor

 <a href="#">TransactionStatus</a>	<a href="#">Response.Transaction</a>	Returned	Description of status/state of transaction
 <a href="#">TransactionStatusCode</a>	<a href="#">Response.Transaction</a>	Returned	Status/State of transaction
 <a href="#">HostBatchID</a>	<a href="#">Response.Batch</a>	Returned	Unique host batch identifier
 <a href="#">HostBatchCount</a>	<a href="#">Response.Batch</a>	Returned	Total numeric count of all items in the Batch
 <a href="#">HostBatchAmount</a>	<a href="#">Response.Batch</a>	Returned	Total dollar amount of all items
 <a href="#">HostCreditSaleCount</a>	<a href="#">Response.Batch</a>	Returned	Total numeric count of credit sale items
 <a href="#">HostCreditSaleAmount</a>	<a href="#">Response.Batch</a>	Returned	Total dollar amount of debit returns with decimal place: example: 21.52
 <a href="#">HostCreditReturnCount</a>	<a href="#">Response.Batch</a>	Returned	Total numeric count of credit return items
 <a href="#">HostCreditReturnAmount</a>	<a href="#">Response.Batch</a>	Returned	Total dollar amount of debit returns with decimal place: example: 21.52
 <a href="#">HostDebitSaleCount</a>	<a href="#">Response.Batch</a>	Returned	Total numeric count of debit sale items
 <a href="#">HostDebitSaleAmount</a>	<a href="#">Response.Batch</a>	Returned	Total dollar amount of debit returns with decimal place: example: 21.52
 <a href="#">HostDebitReturnCount</a>	<a href="#">Response.Batch</a>	Returned	Total numeric count of debit return items
 <a href="#">HostDebitReturnAmount</a>	<a href="#">Response.Batch</a>	Returned	Total dollar amount of debit returns with decimal place: example: 21.52

## Remarks

- *BatchTotalsQuery* will only return complete totals for the current open batch.
- The grand total of a previous batch is available. If you wish to get the grand total for the previous batch, set the *BatchIndexCode* to “*FirstPrevious*.”

## 6.3 Credit

### 6.3.1 CreditCardSale

The *Sale* transaction is the most basic and most common transaction, used for the sale/purchase of goods or services. This type of transaction compares the cardholder's available credit to the amount specified in the transaction. If the amount specified is available, the transaction is approved by the card issuer and an approval code is returned. If the amount is **not** available or the transaction is denied for any other reason by the issuer, an error message containing the reason is returned.

#### 6.3.1.1 Input Fields

Name	Class	Required	Description
 <a href="#">ApplicationID</a>	<a href="#">Application</a>	Required	Unique application identifier
 <a href="#">ApplicationName</a>	<a href="#">Application</a>	Required	Name of application
 <a href="#">ApplicationVersion</a>	<a href="#">Application</a>	Required	Version of application
 <a href="#">AccountID</a>	<a href="#">Credentials</a>	Required	Unique account identifier
 <a href="#">AccountToken</a>	<a href="#">Credentials</a>	Required	Token used for authentication
 <a href="#">AcceptorID</a>	<a href="#">Credentials</a>	Required	MerchantID
 <a href="#">TransactionAmount</a>	<a href="#">Transaction</a>	Required	Amount of transaction
 <a href="#">ClerkNumber</a>	<a href="#">Transaction</a>	Optional	Clerk number
 <a href="#">ShiftID</a>	<a href="#">Transaction</a>	Optional	Shift ID
 <a href="#">SalesTaxAmount</a>	<a href="#">Transaction</a>	Optional	Sales tax amount. For Level II on TSYS, submit amount for tax or 0.00 for tax-exempt.
 <a href="#">TipAmount</a>	<a href="#">Transaction</a>	Optional	Tip amount
 <a href="#">ReferenceNumber</a>	<a href="#">Transaction</a>	Optional	Unique value assigned by the transaction sender
 <a href="#">TicketNumber</a>	<a href="#">Transaction</a>	Optional <sup>3</sup>	Unique numeric value assigned by the transaction sender
 <a href="#">MarketCode</a>	<a href="#">Transaction</a>	Required	Market Code
 <a href="#">PartialApprovedFlag</a>	<a href="#">Transaction</a>	Conditional <sup>5</sup>	Indicates whether software supports partial approvals
 <a href="#">MerchantVerificationValue</a>	<a href="#">Transaction</a>	Conditional <sup>5</sup>	Healthcare Merchant Verification Value
 <a href="#">TerminalID</a>	<a href="#">Terminal</a>	Required	Unique terminal identifier
 <a href="#">CardPresentCode</a>	<a href="#">Terminal</a>	Required	Card Present Code
 <a href="#">CardholderPresentCode</a>	<a href="#">Terminal</a>	Required	Cardholder Present Code
 <a href="#">CardInputCode</a>	<a href="#">Terminal</a>	Required	Card Input Code
 <a href="#">CVVPresenceCode</a>	<a href="#">Terminal</a>	Required	Card Verification Value Presence Code

 <a href="#">TerminalCapabilityCode</a>	<a href="#">Terminal</a>	Required	Terminal Capability Code
 <a href="#">TerminalEnvironmentCode</a>	<a href="#">Terminal</a>	Required	Terminal Environment Code
 <a href="#">MotoECICode</a>	<a href="#">Terminal</a>	Required	Mail Order Telephone Order Electronic Indicator Code
 <a href="#">TerminalEncryptionFormat</a>	<a href="#">Terminal</a>	Optional	Terminal encryption format from integrated encryption device
 <a href="#">TerminalSerialNumber</a>	<a href="#">Terminal</a>	Optional	Terminal serial number from integrated encryption device
 <a href="#">PaymentAccountID</a>	<a href="#">ExtParm.PaymentAccount</a>	Optional	Payment Account ID
 <a href="#">Track1Data</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Track 1 data
 <a href="#">Track2Data</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Track 2 data
 <a href="#">MagneprintData</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Magneprint data
 <a href="#">CardNumber</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Account number on card
 <a href="#">ExpirationMonth</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Expiration month
 <a href="#">ExpirationYear</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Expiration year
 <a href="#">EncryptedTrack1Data</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Encrypted Track 1 Data from integrated encryption device
 <a href="#">EncryptedTrack2Data</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Encrypted Track 2 Data from integrated encryption device
 <a href="#">EncryptedCardData</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Encrypted Card Data (keyed) from integrated encryption device
 <a href="#">CardDataKeySerialNumber</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Card Data Key Serial Number from integrated encryption device
 <a href="#">EncryptedFormat</a>	<a href="#">Card</a>	Optional	Encryption format from integrated encryption device
 <a href="#">CVV</a>	<a href="#">Card</a>	Optional	Card Verification Value: Visa CVV2, MasterCard CVC2, Discover CID
 <a href="#">CAVV</a>	<a href="#">Card</a>	Optional	Card Authorization Verification Value
 <a href="#">XID</a>	<a href="#">Card</a>	Optional	Verified by Visa transaction identifier
 <a href="#">BillingName</a>	<a href="#">Address</a>	Optional	The name used for billing purposes. Recommend submitting for Level II processing on TSYS.
 <a href="#">BillingAddress1</a>	<a href="#">Address</a>	Conditional Needed for AVS	The street address used for billing purposes
 <a href="#">BillingAddress2</a>	<a href="#">Address</a>	Optional	The street address used for billing purposes
 <a href="#">BillingCity</a>	<a href="#">Address</a>	Optional	The city name used for billing purposes
 <a href="#">BillingState</a>	<a href="#">Address</a>	Optional	The state name used for billing purposes
 <a href="#">BillingZipcode</a>	<a href="#">Address</a>	Conditional Needed for AVS	The zip code used for billing purposes
 <a href="#">BillingEmail</a>	<a href="#">Address</a>	Optional	The email address used for billing purposes
 <a href="#">BillingPhone</a>	<a href="#">Address</a>	Optional	The phone number used for billing purposes
 <a href="#">ShippingName</a>	<a href="#">Address</a>	Optional	The name used for billing purposes

 <a href="#">ShippingAddress1</a>	<a href="#">Address</a>	Optional	The street address used for Shipping purposes
 <a href="#">ShippingAddress2</a>	<a href="#">Address</a>	Optional	The street address used for Shipping purposes
 <a href="#">ShippingCity</a>	<a href="#">Address</a>	Optional	The city name used for Shipping purposes
 <a href="#">ShippingState</a>	<a href="#">Address</a>	Optional	The state name used for Shipping purposes
 <a href="#">ShippingZipcode</a>	<a href="#">Address</a>	Optional	The zip code used for Shipping purposes. Recommend submitting for Level II processing on TSYS.
 <a href="#">ShippingEmail</a>	<a href="#">Address</a>	Optional	The email address used for Shipping purposes
 <a href="#">ShippingPhone</a>	<a href="#">Address</a>	Optional	The phone number used for Shipping purposes
 <a href="#">ScheduledTaskReferenceNumber</a>	<a href="#">ExtParm.ScheduledTask</a>	Optional <sup>2</sup>	User defined unique reference number that identifies this scheduled task.
 <a href="#">RunFrequency</a>	<a href="#">ExtParm.ScheduledTask</a>	Optional <sup>2</sup>	The frequency you want to task to run.
 <a href="#">RunStartDate</a>	<a href="#">ExtParm.ScheduledTask</a>	Optional <sup>2</sup>	The date you want the task to start.
 <a href="#">RunUntilCancelFlag</a>	<a href="#">ExtParm.ScheduledTask</a>	Optional <sup>2</sup>	A flag stating if this task should keep running at the selected Run Frequency until the user cancel it, or to just run for the given amount of RunCycles.
 <a href="#">RunCycles</a>	<a href="#">ExtParm.ScheduledTask</a>	Optional <sup>2</sup>	The amount of times you want the task to run.
 <a href="#">ScheduledTaskStatus</a>	<a href="#">ExtParm.ScheduledTask</a>	Optional <sup>2</sup>	Active or Disabled
 <a href="#">ScheduledTaskName</a>	<a href="#">ExtParm.ScheduledTask</a>	Optional <sup>2</sup>	User generated name of the task.
 <a href="#">ScheduledTaskGroupID</a>	<a href="#">ExtParm.ScheduledTask</a>	Optional <sup>4</sup>	Express platform generates this.
 <a href="#">HealthcareFlag</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	If this is set to True, the Healthcare parameters should be submitted.
 <a href="#">HealthcareFirstAccountType</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	Healthcare account type
 <a href="#">HealthcareFirstAmountType</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	Healthcare amount type
 <a href="#">HealthcareFirstCurrencyCode</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	Currency Code. Use 840 for U.S.
 <a href="#">HealthcareFirstAmountSign</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	Positive or negative amount
 <a href="#">HealthcareFirstAmount</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	Healthcare amount
 <a href="#">HealthcareSecondAccountType</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	Healthcare account type
 <a href="#">HealthcareSecondAmountType</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	Healthcare amount type
 <a href="#">HealthcareSecondCurrencyCode</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	Currency Code. Use 840 for U.S.
 <a href="#">HealthcareSecondAmountSign</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	Positive or negative amount
 <a href="#">HealthcareSecondAmount</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	Healthcare amount
 <a href="#">HealthcareThirdAccountType</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	Healthcare account type
 <a href="#">HealthcareThirdAmountType</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	Healthcare amount type
 <a href="#">HealthcareThirdCurrencyCode</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	Currency Code. Use 840 for U.S.

<a href="#">HealthcareThirdAmountSign</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	Positive or negative amount
<a href="#">HealthcareThirdAmount</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	Healthcare amount
<a href="#">HealthcareFourthAccountType</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	Healthcare account type
<a href="#">HealthcareFourthAmountType</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	Healthcare amount type
<a href="#">HealthcareFourthCurrencyCode</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	Currency Code. Use 840 for U.S.
<a href="#">HealthcareFourthAmountSign</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	Positive or negative amount
<a href="#">HealthcareFourthAmount</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>5</sup>	Healthcare amount
<a href="#">AutoRentalAgreementNumber</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	Rental agreement number
<a href="#">AutoRentalNoShowIndicator</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	No show indicator
<a href="#">AutoRentalExtraChargesDetail</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	Extra charges detail
<a href="#">AutoRentalPickupDate</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	Rental pickup date. Format is YYYYMMDD.
<a href="#">AutoRentalCustomerName</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	Name of the person or business with the reservation
<a href="#">AutoRentalReturnCity</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	City where vehicle was returned
<a href="#">AutoRentalReturnState</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	State where vehicle was returned
<a href="#">AutoRentalReturnLocationID</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	Rental location ID
<a href="#">AutoRentalDuration</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	Number of rental days (e.g. 03). Pass 01 for no-show rentals.
<a href="#">AutoRentalPickupLocation</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	Name of business where vehicle was picked up
<a href="#">AutoRentalPickupCity</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	Name of city, town, or village where vehicle was picked up
<a href="#">AutoRentalPickupState</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	Abbreviation of state, province, or other country subdivision where vehicle was picked up
<a href="#">AutoRentalPickupCountryCode</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	Country code where vehicle was picked up. For US, use 840.
<a href="#">AutoRentalPickupTime</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	Local time when vehicle was picked up.
<a href="#">AutoRentalReturnCountryCode</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	Country code where vehicle was returned. For US, use 840.
<a href="#">AutoRentalReturnDate</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	Date when vehicle was returned. Format YYYYMMDD.
<a href="#">AutoRentalReturnTime</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	Local time when vehicle was returned
<a href="#">AutoRentalVehicleClassCode</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	Classification of rental vehicle
<a href="#">AutoRentalDistance</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	Distance traveled during rental period
<a href="#">AutoRentalDistanceUnit</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	Unit of measurement applicable to distance traveled
<a href="#">AutoRentalAuditAdjustmentCode</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	Indicates if adjustment for mileage, fuel, vehicle damage, etc. was made to a rental agreement
<a href="#">AutoRentalAuditAdjustmentAmount</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>6</sup>	Adjustment amount for mileage, fuel, vehicle damage, etc. after a vehicle was returned
<a href="#">LodgingAgreementNumber</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>7</sup>	Agreement (Folio) number

 <a href="#">LodgingCheckInDate</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>7</sup>	Check-in date
 <a href="#">LodgingCheckOutDate</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>7</sup>	Check-out date
 <a href="#">LodgingRoomAmount</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>7</sup>	Nightly rate for one room
 <a href="#">LodgingRoomTax</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>7</sup>	Reserved for future use
 <a href="#">LodgingNoShowIndicator</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>7</sup>	No-show indicator
 <a href="#">LodgingDuration</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>7</sup>	Number of hotel stay days (e.g. 03). Pass 01 for no-show.
 <a href="#">LodgingCustomerName</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>7</sup>	Customer name
 <a href="#">LodgingClientCode</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>7</sup>	Reserved for future use
 <a href="#">LodgingExtraChargesDetail</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>7</sup>	Extra charges detail
 <a href="#">LodgingExtraChargesAmounts</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>7</sup>	Reserved for future use
 <a href="#">LodgingPrestigiousPropertyCode</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>7</sup>	Prestigious property code
 <a href="#">LodgingSpecialProgramCode</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>7</sup>	Special program code
 <a href="#">LodgingChargeType</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>7</sup>	Charge type

<sup>1</sup>	Only one of the following field groups needs to be included: CardNumber / ExpirationMonth / ExpirationYear <b>or</b> Track1Data <b>or</b> Track2Data <b>or</b> MagneprintData <b>or</b> PaymentAccountID <b>or</b> EncryptedTrack1Data <b>or</b> EncryptedTrack2Data <b>or</b> EncryptedCardData.
<sup>2</sup>	Required when Scheduled Task object is being included.
<sup>3</sup>	Used for Direct Marketing, MOTO, and E-Commerce transactions. Required when card number is manually keyed.
<sup>4</sup>	Used when desiring to associate a task to an already-existing ScheduledTaskGroupID.
<sup>5</sup>	Submitted if partial approvals are supported by integrated application.
<sup>6</sup>	Used when submitting an Auto Rental transaction (TSYS platform only).
<sup>7</sup>	Used when submitting a Lodging transaction (TSYS platform only).

### 6.3.1.2 Output Fields

Name	Class	Returned	Description
 <a href="#">ExpressResponseCode</a>	<a href="#">Response</a>	Returned	Express Response Code.
 <a href="#">ExpressResponseMessage</a>	<a href="#">Response</a>	Returned	Express Response Message.
 <a href="#">HostResponseCode</a>	<a href="#">Response</a>	Returned	Host Response Code.
 <a href="#">HostResponseMessage</a>	<a href="#">Response</a>	Returned	Host Response Message.
 <a href="#">ExpressTransactionDate</a>	<a href="#">Response</a>	Returned	Express transaction date formatted [YYYYMMDD]
 <a href="#">ExpressTransactionTime</a>	<a href="#">Response</a>	Returned	Express transaction time formatted [HHMMSS]
 <a href="#">ExpressTransactionTimezone</a>	<a href="#">Response</a>	Returned	Express transaction UTC time zone
 <a href="#">HostBatchID</a>	<a href="#">Response.Batch</a>	Returned	Unique batch identifier
 <a href="#">HostItemID</a>	<a href="#">Response.Batch</a>	Returned	Unique batch item identifier

 <a href="#">HostBatchAmount</a>	<a href="#">Response.Batch</a>	Returned	Total amount of items in batch
 <a href="#">AVSResponseCode</a>	<a href="#">Response.Card</a>	Conditional Requires Address Information to be returned	Address Verification Service Response Code
 <a href="#">CVVResponseCode</a>	<a href="#">Response.Card</a>	Conditional Requires CVV input to be returned	Card Verification Value Response Code
 <a href="#">CAVVResponseCode</a>	<a href="#">Response.Card</a>	Conditional Requires CAVV input to be returned	Cardholder Authentication Verification Value Response Code
 <a href="#">CardLogo</a>	<a href="#">Response.Card</a>	Returned	Payment brand
 <a href="#">TransactionID</a>	<a href="#">Response.Transaction</a>	Returned	Unique transaction identifier
 <a href="#">ApprovalNumber</a>	<a href="#">Response.Transaction</a>	Returned	Approval number assigned by card issuing bank.
 <a href="#">ReferenceNumber</a>	<a href="#">Response.Transaction</a>	Conditional Returns input value if supplied	Unique batch item identifier
 <a href="#">AcquirerData</a>	<a href="#">Response.Transaction</a>	Returned	The Acquirer Reference Data returned here must be captured by the POS device and input in subsequent settlement requests
 <a href="#">ProcessorName</a>	<a href="#">Response.Transaction</a>	Returned	Name of processor
 <a href="#">TransactionStatus</a>	<a href="#">Response.Transaction</a>	Returned	Description of status/state of transaction
 <a href="#">TransactionStatusCode</a>	<a href="#">Response.Transaction</a>	Returned	Status/State of transaction
 <a href="#">ApprovedAmount</a>	<a href="#">Response.Transaction</a>	Conditional May or may not be returned, depending on account	Approved amount
 <a href="#">CommercialCardResponseCode</a>	<a href="#">Response.Transaction</a>	Conditional TSYS only	Commercial card response code
 <a href="#">BalanceAmount</a>	<a href="#">Response.Transaction</a>	Conditional May be returned with partial approval support	Balance amount
 <a href="#">BalanceCurrencyCode</a>	<a href="#">Response.Transaction</a>	Conditional May be returned with partial approval support	Balance currency code
 <a href="#">PaymentAccountID</a>	<a href="#">Response.PaymentAccount</a>	Conditional Returned if Scheduled Task class was supplied	A unique system generated identifier.
 <a href="#">PaymentAccountReferenceNumber</a>	<a href="#">Response.PaymentAccount</a>	Conditional Returned if PaymentAccountID supplied	Payment Account Reference Number
 <a href="#">ScheduledTaskID</a>	<a href="#">Response.ScheduledTask</a>	Conditional Returned if Scheduled Task class was supplied	A unique system generated identifier.

 <a href="#">ScheduledTaskName</a>	<a href="#">Response.ScheduledTask</a>	Conditional Returned if passed within Scheduled Task class	User generated name of the task.
 <a href="#">ScheduledTaskGroupID</a>	<a href="#">Response.ScheduledTask</a>	Conditional Returned if passed within Scheduled Task class	Express platform generates this.
 <a href="#">BillingAddress1</a>	<a href="#">Response.Address</a>	Conditional Returns input value if supplied	The street address used for billing purposes
 <a href="#">BillingZipcode</a>	<a href="#">Response.Address</a>	Conditional Returns input value if supplied	The zip code used for billing purposes

### 6.3.2 CreditCardAuthorization

An *Authorization* transaction is used to verify funds when the total amount of the purchase is unknown.

#### 6.3.2.1 Input Fields

Name	Class	Required	Description
 <a href="#">ApplicationID</a>	<a href="#">Application</a>	Required	Unique application identifier
 <a href="#">ApplicationName</a>	<a href="#">Application</a>	Required	Name of application
 <a href="#">ApplicationVersion</a>	<a href="#">Application</a>	Required	Version of application
 <a href="#">AccountID</a>	<a href="#">Credentials</a>	Required	Unique account identifier
 <a href="#">AccountToken</a>	<a href="#">Credentials</a>	Required	Token used for authentication
 <a href="#">AcceptorID</a>	<a href="#">Credentials</a>	Required	MerchantID
 <a href="#">TransactionAmount</a>	<a href="#">Transaction</a>	Required	Amount of transaction
 <a href="#">ClerkNumber</a>	<a href="#">Transaction</a>	Optional	Clerk number
 <a href="#">ShiftID</a>	<a href="#">Transaction</a>	Optional	Shift ID
 <a href="#">SalesTaxAmount</a>	<a href="#">Transaction</a>	Optional	Sales tax amount. For Level II on TSYS, submit amount for tax or 0.00 for tax-exempt.
 <a href="#">TipAmount</a>	<a href="#">Transaction</a>	Optional	Tip amount
 <a href="#">ReferenceNumber</a>	<a href="#">Transaction</a>	Optional	Unique value assigned by the transaction sender
 <a href="#">TicketNumber</a>	<a href="#">Transaction</a>	Optional <sup>2</sup>	Unique numeric value assigned by the transaction sender
 <a href="#">PartialApprovedFlag</a>	<a href="#">Transaction</a>	Conditional <sup>3</sup>	Indicates whether software supports partial approvals
 <a href="#">MerchantVerificationValue</a>	<a href="#">Transaction</a>	Conditional <sup>3</sup>	Healthcare Merchant Verification Value
 <a href="#">MarketCode</a>	<a href="#">Transaction</a>	Required	Market Code
 <a href="#">TerminalID</a>	<a href="#">Terminal</a>	Required	Unique terminal identifier
 <a href="#">CardPresentCode</a>	<a href="#">Terminal</a>	Required	Card Present Code

 <a href="#">CardholderPresentCode</a>	<a href="#">Terminal</a>	Required	Cardholder Present Code
 <a href="#">CardInputCode</a>	<a href="#">Terminal</a>	Required	Card Input Code
 <a href="#">CVVPresenceCode</a>	<a href="#">Terminal</a>	Required	Card Verification Value Presence Code
 <a href="#">TerminalCapabilityCode</a>	<a href="#">Terminal</a>	Required	Terminal Capability Code
 <a href="#">TerminalEnvironmentCode</a>	<a href="#">Terminal</a>	Required	Terminal Environment Code
 <a href="#">MotoECICode</a>	<a href="#">Terminal</a>	Required	Mail Order Telephone Order Electronic Indicator Code
 <a href="#">TerminalEncryptionFormat</a>	<a href="#">Terminal</a>	Optional	Terminal encryption format from integrated encryption device
 <a href="#">TerminalSerialNumber</a>	<a href="#">Terminal</a>	Optional	Terminal serial number from integrated encryption device
 <a href="#">PaymentAccountID</a>	<a href="#">ExtParm.PaymentAccount</a>	Optional	Payment Account ID
 <a href="#">Track1Data</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Track 1 data
 <a href="#">Track2Data</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Track 2 data
 <a href="#">MagneprintData</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Magneprint data
 <a href="#">CardNumber</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Account number on card
 <a href="#">ExpirationMonth</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Expiration month
 <a href="#">ExpirationYear</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Expiration year
 <a href="#">EncryptedTrack1Data</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Encrypted Track 1 Data from integrated encryption device
 <a href="#">EncryptedTrack2Data</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Encrypted Track 2 Data from integrated encryption device
 <a href="#">EncryptedCardData</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Encrypted Card Data (keyed) from integrated encryption device
 <a href="#">CardDataKeySerialNumber</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Card Data Key Serial Number from integrated encryption device
 <a href="#">EncryptedFormat</a>	<a href="#">Card</a>	Optional	Encryption format from integrated encryption device
 <a href="#">CVV</a>	<a href="#">Card</a>	Optional	Card Verification Value: Visa CVV2, MasterCard CVC2, Discover CID
 <a href="#">CAVV</a>	<a href="#">Card</a>	Optional	Card Authorization Verification Value
 <a href="#">XID</a>	<a href="#">Card</a>	Optional	Verified by Visa transaction identifier
 <a href="#">BillingName</a>	<a href="#">Address</a>	Optional	The name used for billing purposes. Recommend submitting for Level II processing on TSYS.
 <a href="#">BillingAddress1</a>	<a href="#">Address</a>	Conditional Needed for AVS	The street address used for billing purposes
 <a href="#">BillingAddress2</a>	<a href="#">Address</a>	Optional	The street address used for billing purposes
 <a href="#">BillingCity</a>	<a href="#">Address</a>	Optional	The city name used for billing purposes
 <a href="#">BillingState</a>	<a href="#">Address</a>	Optional	The state name used for billing purposes

 <a href="#">BillingZipcode</a>	<a href="#">Address</a>	Conditional Needed for AVS	The zip code used for billing purposes
 <a href="#">BillingEmail</a>	<a href="#">Address</a>	Optional	The email address used for billing purposes
 <a href="#">BillingPhone</a>	<a href="#">Address</a>	Optional	The phone number used for billing purposes
 <a href="#">ShippingName</a>	<a href="#">Address</a>	Optional	The name used for billing purposes
 <a href="#">ShippingAddress1</a>	<a href="#">Address</a>	Optional	The street address used for Shipping purposes
 <a href="#">ShippingAddress2</a>	<a href="#">Address</a>	Optional	The street address used for Shipping purposes
 <a href="#">ShippingCity</a>	<a href="#">Address</a>	Optional	The city name used for Shipping purposes
 <a href="#">ShippingState</a>	<a href="#">Address</a>	Optional	The state name used for Shipping purposes
 <a href="#">ShippingZipcode</a>	<a href="#">Address</a>	Optional	The zip code used for Shipping purposes. Recommend submitting for Level II processing on TSYS.
 <a href="#">ShippingEmail</a>	<a href="#">Address</a>	Optional	The email address used for Shipping purposes
 <a href="#">ShippingPhone</a>	<a href="#">Address</a>	Optional	The phone number used for Shipping purposes
 <a href="#">HealthcareFlag</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>3</sup>	If this is set to True, the Healthcare parameters should be submitted.
 <a href="#">HealthcareFirstAccountType</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>3</sup>	Healthcare account type
 <a href="#">HealthcareFirstAmountType</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>3</sup>	Healthcare amount type
 <a href="#">HealthcareFirstCurrencyCode</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>3</sup>	Currency Code. Use 840 for U.S.
 <a href="#">HealthcareFirstAmountSign</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>3</sup>	Positive or negative amount
 <a href="#">HealthcareFirstAmount</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>3</sup>	Healthcare amount
 <a href="#">HealthcareSecondAccountType</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>3</sup>	Healthcare account type
 <a href="#">HealthcareSecondAmountType</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>3</sup>	Healthcare amount type
 <a href="#">HealthcareSecondCurrencyCode</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>3</sup>	Currency Code. Use 840 for U.S.
 <a href="#">HealthcareSecondAmountSign</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>3</sup>	Positive or negative amount
 <a href="#">HealthcareSecondAmount</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>3</sup>	Healthcare amount
 <a href="#">HealthcareThirdAccountType</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>3</sup>	Healthcare account type
 <a href="#">HealthcareThirdAmountType</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>3</sup>	Healthcare amount type
 <a href="#">HealthcareThirdCurrencyCode</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>3</sup>	Currency Code. Use 840 for U.S.
 <a href="#">HealthcareThirdAmountSign</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>3</sup>	Positive or negative amount
 <a href="#">HealthcareThirdAmount</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>3</sup>	Healthcare amount
 <a href="#">HealthcareFourthAccountType</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>3</sup>	Healthcare account type
 <a href="#">HealthcareFourthAmountType</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>3</sup>	Healthcare amount type
 <a href="#">HealthcareFourthCurrencyCode</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>3</sup>	Currency Code. Use 840 for

			U.S.
 <a href="#">HealthcareFourthAmountSign</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>3</sup>	Positive or negative amount
 <a href="#">HealthcareFourthAmount</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>3</sup>	Healthcare amount
 <a href="#">AutoRentalDuration</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>4</sup>	Number of rental days (e.g. 03). Pass 01 for no-show rentals.
 <a href="#">LodgingDuration</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>5</sup>	Number of days
 <a href="#">LodgingPrestigiousPropertyCode</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>5</sup>	Prestigious property code

<sup>1</sup>	Only one of the following field groups needs to be included: CardNumber / ExpirationMonth / ExpirationYear <b>or</b> Track1Data <b>or</b> Track2Data <b>or</b> MagneprintData <b>or</b> PaymentAccountID <b>or</b> EncryptedTrack1Data <b>or</b> EncryptedTrack2Data <b>or</b> EncryptedCardData.
<sup>2</sup>	Used for Direct Marketing, MOTO, and E-Commerce transactions. Required when card number is manually keyed.
<sup>3</sup>	Submitted if partial approvals are supported by integrated application.
<sup>4</sup>	Used when submitting an Auto Rental transaction (TSYS platform only).
<sup>5</sup>	Used when submitting a Lodging transaction (TSYS platform only).

### 6.3.2.2 Output Fields

Name	Class	Returned	Description
 <a href="#">ExpressResponseCode</a>	<a href="#">Response</a>	Returned	Express Response Code.
 <a href="#">ExpressResponseMessage</a>	<a href="#">Response</a>	Returned	Express Response Message.
 <a href="#">HostResponseCode</a>	<a href="#">Response</a>	Returned	Host Response Code.
 <a href="#">HostResponseMessage</a>	<a href="#">Response</a>	Returned	Host Response Message.
 <a href="#">ExpressTransactionDate</a>	<a href="#">Response</a>	Returned	Express transaction date formatted [YYYYMMDD]
 <a href="#">ExpressTransactionTime</a>	<a href="#">Response</a>	Returned	Express transaction time formatted [HHMMSS]
 <a href="#">ExpressTransactionTimezone</a>	<a href="#">Response</a>	Returned	Express transaction UTC time zone
 <a href="#">AVSResponseCode</a>	<a href="#">Response.Card</a>	Conditional Requires Address Information to be returned	Address Verification Service Response Code
 <a href="#">CVResponseCode</a>	<a href="#">Response.Card</a>	Conditional Requires CVV input to be returned	Address Verification Service Response Code
 <a href="#">CAVVResponseCode</a>	<a href="#">Response.Card</a>	Conditional Requires CAVV input to be returned	Cardholder Authentication Verification Value Response Code
 <a href="#">CardLogo</a>	<a href="#">Response.Card</a>	Returned	Payment brand
 <a href="#">TransactionID</a>	<a href="#">Response.Transaction</a>	Returned	Unique transaction identifier
 <a href="#">ApprovalNumber</a>	<a href="#">Response.Transaction</a>	Returned	Approval number assigned by card issuing bank.
 <a href="#">ReferenceNumber</a>	<a href="#">Response.Transaction</a>	Conditional Returns input value if supplied	Unique batch item identifier

 <a href="#">PaymentAccountReferenceNumber</a>	<a href="#">Response.PaymentAccount</a>	Conditional Returned if PaymentAccountID supplied	Payment Account Reference Number
 <a href="#">AcquirerData</a>	<a href="#">Response.Transaction</a>	Returned	The Acquirer Reference Data returned here must be captured by the POS device and input in subsequent settlement requests
 <a href="#">ProcessorName</a>	<a href="#">Response.Transaction</a>	Returned	Name of processor
 <a href="#">TransactionStatus</a>	<a href="#">Response.Transaction</a>	Returned	Description of status/state of transaction
 <a href="#">TransactionStatusCode</a>	<a href="#">Response.Transaction</a>	Returned	Status/State of transaction
 <a href="#">ApprovedAmount</a>	<a href="#">Response.Transaction</a>	Conditional May or may not be returned, depending on account	Approved amount
 <a href="#">CommercialCardResponseCode</a>	<a href="#">Response.Transaction</a>	Conditional TSYS only	Commercial card response code
 <a href="#">BalanceAmount</a>	<a href="#">Response.Transaction</a>	Conditional May be returned with partial approval support	Balance amount
 <a href="#">BalanceCurrencyCode</a>	<a href="#">Response.Transaction</a>	Conditional May be returned with partial approval support	Balance currency code
 <a href="#">BillingAddress1</a>	<a href="#">Response.Address</a>	Conditional Returns input value if supplied	The street address used for billing purposes
 <a href="#">BillingZipcode</a>	<a href="#">Response.Address</a>	Conditional Returns input value if supplied	The zip code used for billing purposes

### 6.3.3 CreditCardAuthorizationCompletion

An *Authorization Completion* transaction is used to complete the final amount of a previously Authorized transaction.

Example: Restaurants use Authorization Completions to enter in the final total amount after a customer has added a tip and signed the receipt.

An *Authorization Completion* can be entered for any amount up to an allowable excess limit. The allowable excess limit is determined by the association.

If the final amount exceeds the *Authorization* allowable excess limit, then merchant can either enter a Sale or Force transaction for the full amount.

#### 6.3.3.1 Input Fields

Name	Class	Required	Description
 <a href="#">ApplicationID</a>	<a href="#">Application</a>	Required	Unique application identifier
 <a href="#">ApplicationName</a>	<a href="#">Application</a>	Required	Name of application
 <a href="#">ApplicationVersion</a>	<a href="#">Application</a>	Required	Version of application
 <a href="#">AccountID</a>	<a href="#">Credentials</a>	Required	Unique account identifier
 <a href="#">AccountToken</a>	<a href="#">Credentials</a>	Required	Token used for authentication
 <a href="#">AcceptorID</a>	<a href="#">Credentials</a>	Required	MerchantID
 <a href="#">TransactionAmount</a>	<a href="#">Transaction</a>	Required	Amount of transaction
 <a href="#">ClerkNumber</a>	<a href="#">Transaction</a>	Optional	Clerk number
 <a href="#">ShiftID</a>	<a href="#">Transaction</a>	Optional	Shift ID
 <a href="#">SalesTaxAmount</a>	<a href="#">Transaction</a>	Optional	Sales tax amount. For Level II on TSYS, submit amount for tax or 0.00 for tax-exempt.
 <a href="#">TipAmount</a>	<a href="#">Transaction</a>	Optional	Tip amount
 <a href="#">ReferenceNumber</a>	<a href="#">Transaction</a>	Optional	Unique value assigned by the transaction sender
 <a href="#">TransactionID</a>	<a href="#">Transaction</a>	Required	TransactionID returned in original transaction.
 <a href="#">TerminalID</a>	<a href="#">Terminal</a>	Required	Unique terminal identifier
 <a href="#">CardPresentCode</a>	<a href="#">Terminal</a>	Required	Card Present Code
 <a href="#">CardholderPresentCode</a>	<a href="#">Terminal</a>	Required	Cardholder Present Code
 <a href="#">CardInputCode</a>	<a href="#">Terminal</a>	Required	Card Input Code
 <a href="#">TerminalCapabilityCode</a>	<a href="#">Terminal</a>	Required	Terminal Capability Code
 <a href="#">TerminalEnvironmentCode</a>	<a href="#">Terminal</a>	Required	Terminal Environment Code
 <a href="#">MotoECICode</a>	<a href="#">Terminal</a>	Required	Mail Order Telephone Order Electronic

			Indicator Code
<a href="#">LodgingAgreementNumber</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>1</sup>	Agreement (Folio) number
<a href="#">LodgingCheckInDate</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>1</sup>	Check-in date
<a href="#">LodgingCheckOutDate</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>1</sup>	Check-out date
<a href="#">LodgingRoomAmount</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>1</sup>	Nightly rate for one room
<a href="#">LodgingRoomTax</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>1</sup>	Reserved for future use
<a href="#">LodgingNoShowIndicator</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>1</sup>	No-show indicator
<a href="#">LodgingDuration</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>1</sup>	Number of days
<a href="#">LodgingCustomerName</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>1</sup>	Customer name
<a href="#">LodgingClientCode</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>1</sup>	Reserved for future use
<a href="#">LodgingExtraChargesDetail</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>1</sup>	Extra charges detail
<a href="#">LodgingExtraChargesAmounts</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>1</sup>	Reserved for future use
<a href="#">LodgingPrestigiousPropertyCode</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>1</sup>	Prestigious property code
<a href="#">LodgingSpecialProgramCode</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>1</sup>	Special program code
<a href="#">LodgingChargeType</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>1</sup>	Charge type
<a href="#">AutoRentalAgreementNumber</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	Rental agreement number
<a href="#">AutoRentalNoShowIndicator</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	No show indicator
<a href="#">AutoRentalExtraChargesDetail</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	Extra charges detail
<a href="#">AutoRentalPickupDate</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	Rental pickup date. Format is YYYYMMDD.
<a href="#">AutoRentalCustomerName</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	Name of the person or business with the reservation
<a href="#">AutoRentalReturnCity</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	City where vehicle was returned
<a href="#">AutoRentalReturnState</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	State where vehicle was returned
<a href="#">AutoRentalReturnLocationID</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	Rental location ID
<a href="#">AutoRentalDuration</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	Number of rental days (e.g. 03). Pass 01 for no-show rentals.
<a href="#">AutoRentalPickupLocation</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	Name of business where vehicle was picked up
<a href="#">AutoRentalPickupCity</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	Name of city, town, or village where vehicle was picked up
<a href="#">AutoRentalPickupState</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	Abbreviation of state, province, or other country subdivision where vehicle was picked up
<a href="#">AutoRentalPickupCountryCode</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	Country code where vehicle was picked up. For US, use 840.
<a href="#">AutoRentalPickupTime</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	Local time when vehicle was picked up.
<a href="#">AutoRentalReturnCountryCode</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	Country code where vehicle was returned. For US, use 840.
<a href="#">AutoRentalReturnDate</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	Date when vehicle was returned. Format YYYYMMDD.
<a href="#">AutoRentalReturnTime</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	Local time when vehicle was returned
<a href="#">AutoRentalVehicleClassCode</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	Classification of rental vehicle

 <a href="#">AutoRentalDistance</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	Distance traveled during rental period
 <a href="#">AutoRentalDistanceUnit</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	Unit of measurement applicable to distance traveled
 <a href="#">AutoRentalAuditAdjustmentCode</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	Indicates if adjustment for mileage, fuel, vehicle damage, etc. was made to a rental agreement
 <a href="#">AutoRentalAuditAdjustmentAmount</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	Adjustment amount for mileage, fuel, vehicle damage, etc. after a vehicle was returned
 <a href="#">Level III EnhancedData</a>	<a href="#">ExtParm EnhancedData</a>	Conditional <sup>3</sup>	See Level III format in Section 4.1 for EnhancedData Extended Parameters input fields. XML only via TSYS.

<sup>1</sup> Used when submitting a Lodging transaction (TSYS platform only).

<sup>2</sup> Used when submitting an Auto Rental transaction (TSYS platform only)

<sup>3</sup> Used when submitting a Level III transaction (TSYS platform only)

### 6.3.3.2 Output Fields

Name	Class	Returned	Description
 <a href="#">ExpressResponseCode</a>	<a href="#">Response</a>	Returned	Express Response Code.
 <a href="#">ExpressResponseMessage</a>	<a href="#">Response</a>	Returned	Express Response Message.
 <a href="#">HostResponseCode</a>	<a href="#">Response</a>	Returned	Host Response Code.
 <a href="#">HostResponseMessage</a>	<a href="#">Response</a>	Returned	Host Response Message.
 <a href="#">ExpressTransactionDate</a>	<a href="#">Response</a>	Returned	Express transaction date formatted [YYYYMMDD]
 <a href="#">ExpressTransactionTime</a>	<a href="#">Response</a>	Returned	Express transaction time formatted [HHMMSS]
 <a href="#">ExpressTransactionTimezone</a>	<a href="#">Response</a>	Returned	Express transaction UTC time zone
 <a href="#">CardLogo</a>	<a href="#">Response.Card</a>	Returned	Payment brand
 <a href="#">HostBatchID</a>	<a href="#">Response.Batch</a>	Returned	Unique batch identifier
 <a href="#">HostItemID</a>	<a href="#">Response.Batch</a>	Returned	Unique batch item identifier
 <a href="#">HostBatchAmount</a>	<a href="#">Response.Batch</a>	Returned	Total amount of items in batch
 <a href="#">TransactionID</a>	<a href="#">Response.Transaction</a>	Returned	Unique transaction identifier
 <a href="#">AcquirerData</a>	<a href="#">Response.Transaction</a>	Returned	The Acquirer Reference Data returned here must be captured by the POS device and input in subsequent settlement requests
 <a href="#">ReferenceNumber</a>	<a href="#">Response.Transaction</a>	Conditional Returns input value if supplied	User defined reference number
 <a href="#">ProcessorName</a>	<a href="#">Response.Transaction</a>	Returned	Name of processor
 <a href="#">TransactionStatus</a>	<a href="#">Response.Transaction</a>	Returned	Description of status/state of transaction
 <a href="#">TransactionStatusCode</a>	<a href="#">Response.Transaction</a>	Returned	Status/State of transaction

### 6.3.4 CreditCardCredit

A *Credit* transaction is used to refund a cardholder for a previous transaction.

Example: A customer returns merchandise and wants a refund.

#### 6.3.4.1 Input Fields

Name	Class	Required	Description
 <a href="#">ApplicationID</a>	<a href="#">Application</a>	Required	Unique application identifier
 <a href="#">ApplicationName</a>	<a href="#">Application</a>	Required	Name of application
 <a href="#">ApplicationVersion</a>	<a href="#">Application</a>	Required	Version of application
 <a href="#">AccountID</a>	<a href="#">Credentials</a>	Required	Unique account identifier
 <a href="#">AccountToken</a>	<a href="#">Credentials</a>	Required	Token used for authentication
 <a href="#">AcceptorID</a>	<a href="#">Credentials</a>	Required	MerchantID
 <a href="#">TransactionAmount</a>	<a href="#">Transaction</a>	Required	Amount of transaction
 <a href="#">ClerkNumber</a>	<a href="#">Transaction</a>	Optional	Clerk number
 <a href="#">ShiftID</a>	<a href="#">Transaction</a>	Optional	Shift ID
 <a href="#">OriginalAuthorizedAmount</a>	<a href="#">Transaction</a>	Optional	Original Authorization Amount
 <a href="#">SalesTaxAmount</a>	<a href="#">Transaction</a>	Optional	Sales tax amount
 <a href="#">ReferenceNumber</a>	<a href="#">Transaction</a>	Optional	Unique value assigned by the transaction sender
 <a href="#">ApprovalNumber</a>	<a href="#">Transaction</a>	Optional	Unique value assigned by the transaction sender
 <a href="#">TerminalID</a>	<a href="#">Terminal</a>	Required	Unique terminal identifier
 <a href="#">CardPresentCode</a>	<a href="#">Terminal</a>	Required	Card Present Code
 <a href="#">CardholderPresentCode</a>	<a href="#">Terminal</a>	Required	Cardholder Present Code
 <a href="#">CardInputCode</a>	<a href="#">Terminal</a>	Required	Card Input Code
 <a href="#">CVVPresenceCode</a>	<a href="#">Terminal</a>	Required	Card Verification Value Presence Code
 <a href="#">TerminalCapabilityCode</a>	<a href="#">Terminal</a>	Required	Terminal Capability Code
 <a href="#">TerminalEnvironmentCode</a>	<a href="#">Terminal</a>	Required	Terminal Environment Code
 <a href="#">MotoECICode</a>	<a href="#">Terminal</a>	Required	Mail Order Telephone Order Electronic Indicator Code
 <a href="#">TerminalEncryptionFormat</a>	<a href="#">Terminal</a>	Optional	Terminal encryption format from integrated encryption device
 <a href="#">TerminalSerialNumber</a>	<a href="#">Terminal</a>	Optional	Terminal serial number from integrated encryption device
 <a href="#">PaymentAccountID</a>	<a href="#">ExtParm.PaymentAccount</a>	Optional	Payment Account ID
 <a href="#">Track1Data</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Track 1 data

 <a href="#">Track2Data</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Track 2 data
 <a href="#">MagneprintData</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Magneprint data
 <a href="#">CardNumber</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Account number on card
 <a href="#">ExpirationMonth</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Expiration month
 <a href="#">ExpirationYear</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Expiration year
 <a href="#">EncryptedTrack1Data</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Encrypted Track 1 Data from integrated encryption device
 <a href="#">EncryptedTrack2Data</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Encrypted Track 2 Data from integrated encryption device
 <a href="#">EncryptedCardData</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Encrypted Card Data (keyed) from integrated encryption device
 <a href="#">CardDataKeySerialNumber</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Card Data Key Serial Number from integrated encryption device
 <a href="#">EncryptedFormat</a>	<a href="#">Card</a>	Optional	Encryption format from integrated encryption device

<sup>1</sup> Only one of the following field groups needs to be included: CardNumber / ExpirationMonth / ExpirationYear **or** Track1Data **or** Track2Data **or** MagneprintData **or** PaymentAccountID **or** EncryptedTrack1Data **or** EncryptedTrack2Data **or** EncryptedCardData.

### 6.3.4.2 Output Fields

Name	Class	Returned	Description
 <a href="#">ExpressResponseCode</a>	<a href="#">Response</a>	Returned	Express Response Code.
 <a href="#">ExpressResponseMessage</a>	<a href="#">Response</a>	Returned	Express Response Message.
 <a href="#">HostResponseCode</a>	<a href="#">Response</a>	Returned	Host Response Code.
 <a href="#">HostResponseMessage</a>	<a href="#">Response</a>	Returned	Host Response Message.
 <a href="#">ExpressTransactionDate</a>	<a href="#">Response</a>	Returned	Express transaction date formatted [YYYYMMDD]
 <a href="#">ExpressTransactionTime</a>	<a href="#">Response</a>	Returned	Express transaction time formatted [HHMMSS]
 <a href="#">ExpressTransactionTimezone</a>	<a href="#">Response</a>	Returned	Express transaction UTC time zone
 <a href="#">CardLogo</a>	<a href="#">Response.Card</a>	Returned	Payment brand
 <a href="#">HostBatchID</a>	<a href="#">Response.Batch</a>	Returned	Unique batch identifier
 <a href="#">HostItemID</a>	<a href="#">Response.Batch</a>	Returned	Unique batch item identifier
 <a href="#">HostBatchAmount</a>	<a href="#">Response.Batch</a>	Returned	Batch Amount
 <a href="#">TransactionID</a>	<a href="#">Response.Transaction</a>	Returned	Unique transaction identifier
 <a href="#">ApprovalNumber</a>	<a href="#">Response.Transaction</a>	Returned	Approval number assigned by card issuing bank.
 <a href="#">ReferenceNumber</a>	<a href="#">Response.Transaction</a>	Conditional Returns input value if supplied	User defined reference number
 <a href="#">ProcessorName</a>	<a href="#">Response.Transaction</a>	Returned	Name of processor
 <a href="#">TransactionStatus</a>	<a href="#">Response.Transaction</a>	Returned	Description of status/state

			of transaction
.TransactionStatusCode	<a href="#">Response.Transaction</a>	Returned	Status/State of transaction
.PaymentAccountReferenceNumber	<a href="#">Response.PaymentAccount</a>	Conditional Returned if PaymentAccountID supplied	Payment Account Reference Number
.BillingAddress1	<a href="#">Response.Address</a>	Conditional Returns input value if supplied	The street address used for billing purposes
.BillingZipcode	<a href="#">Response.Address</a>	Conditional Returns input value if supplied	The zip code used for billing purposes

### 6.3.5 CreditCardReturn

A *CreditCardReturn* transaction is similar to a *CreditCardCredit* transaction in that it is used to refund a cardholder for a previous transaction. Unlike the *CreditCardCredit* transaction, the *CreditCardReturn* transaction requires a TransactionID for the previous dependent transaction.

Example: A customer returns merchandise and wants a refund.

#### 6.3.5.1 Input Fields

Name	Class	Required	Description
 <a href="#">ApplicationID</a>	<a href="#">Application</a>	Required	Unique application identifier
 <a href="#">ApplicationName</a>	<a href="#">Application</a>	Required	Name of application
 <a href="#">ApplicationVersion</a>	<a href="#">Application</a>	Required	Version of application
 <a href="#">AccountID</a>	<a href="#">Credentials</a>	Required	Unique account identifier
 <a href="#">AccountToken</a>	<a href="#">Credentials</a>	Required	Token used for authentication
 <a href="#">AcceptorID</a>	<a href="#">Credentials</a>	Required	MerchantID
 <a href="#">TransactionAmount</a>	<a href="#">Transaction</a>	Required	Amount of transaction
 <a href="#">ClerkNumber</a>	<a href="#">Transaction</a>	Optional	Clerk number
 <a href="#">ShiftID</a>	<a href="#">Transaction</a>	Optional	Shift ID
 <a href="#">SalesTaxAmount</a>	<a href="#">Transaction</a>	Optional	Sales tax amount
 <a href="#">ReferenceNumber</a>	<a href="#">Transaction</a>	Optional	Unique value assigned by the transaction sender
 <a href="#">TransactionID</a>	<a href="#">Transaction</a>	Required	TransactionID returned in original transaction.
 <a href="#">TerminalID</a>	<a href="#">Terminal</a>	Required	Unique terminal identifier
 <a href="#">CardPresentCode</a>	<a href="#">Terminal</a>	Required	Card Present Code
 <a href="#">CardholderPresentCode</a>	<a href="#">Terminal</a>	Required	Cardholder Present Code
 <a href="#">CardInputCode</a>	<a href="#">Terminal</a>	Required	Card Input Code
 <a href="#">TerminalCapabilityCode</a>	<a href="#">Terminal</a>	Required	Terminal Capability Code
 <a href="#">TerminalEnvironmentCode</a>	<a href="#">Terminal</a>	Required	Terminal Environment Code
 <a href="#">MotoECICode</a>	<a href="#">Terminal</a>	Required	Mail Order Telephone Order Electronic Indicator Code

### 6.3.5.2 Output Fields

Name	Class	Returned	Description
 <a href="#">ExpressResponseCode</a>	<a href="#">Response</a>	Returned	Express Response Code.
 <a href="#">ExpressResponseMessage</a>	<a href="#">Response</a>	Returned	Express Response Message.
 <a href="#">HostResponseCode</a>	<a href="#">Response</a>	Returned	Host Response Code.
 <a href="#">HostResponseMessage</a>	<a href="#">Response</a>	Returned	Host Response Message.
 <a href="#">ExpressTransactionDate</a>	<a href="#">Response</a>	Returned	Express transaction date formatted [YYYYMMDD]
 <a href="#">ExpressTransactionTime</a>	<a href="#">Response</a>	Returned	Express transaction time formatted [HHMMSS]
 <a href="#">ExpressTransactionTimezone</a>	<a href="#">Response</a>	Returned	Express transaction UTC time zone
 <a href="#">CardLogo</a>	<a href="#">Response.Card</a>	Returned	Payment brand
 <a href="#">HostBatchID</a>	<a href="#">Response.Batch</a>	Returned	Unique batch identifier
 <a href="#">HostItemID</a>	<a href="#">Response.Batch</a>	Returned	Unique batch item identifier
 <a href="#">HostBatchAmount</a>	<a href="#">Response.Batch</a>	Returned	Batch amount
 <a href="#">TransactionID</a>	<a href="#">Response.Transaction</a>	Returned	Unique transaction identifier
 <a href="#">ApprovalNumber</a>	<a href="#">Response.Transaction</a>	Returned	Approval number assigned by card issuing bank
 <a href="#">ReferenceNumber</a>	<a href="#">Response.Transaction</a>	Conditional Returns input value if supplied	User defined reference number
 <a href="#">ProcessorName</a>	<a href="#">Response.Transaction</a>	Returned	Name of processor
 <a href="#">TransactionStatus</a>	<a href="#">Response.Transaction</a>	Returned	Description of status/state of transaction
 <a href="#">TransactionStatusCode</a>	<a href="#">Response.Transaction</a>	Returned	Status/State of transaction

### 6.3.6 CreditCardAdjustment

The *Adjustment* transaction is used to edit the information on the host for a previously completed credit card transaction (e.g. Level III Line Item Detail).

Depending on the platform, this transaction can also be used to correct the Host batch to match the merchant's paper sales slips when a discrepancy exists.

#### 6.3.6.1 Input Fields

Name	Class	Required	Description
 <a href="#">ApplicationID</a>	<a href="#">Application</a>	Required	Unique application identifier
 <a href="#">ApplicationName</a>	<a href="#">Application</a>	Required	Name of application
 <a href="#">ApplicationVersion</a>	<a href="#">Application</a>	Required	Version of application
 <a href="#">AccountID</a>	<a href="#">Credentials</a>	Required	Unique account identifier
 <a href="#">AccountToken</a>	<a href="#">Credentials</a>	Required	Token used for authentication
 <a href="#">AcceptorID</a>	<a href="#">Credentials</a>	Required	MerchantID
 <a href="#">TransactionAmount</a>	<a href="#">Transaction</a>	Required	Amount of transaction
 <a href="#">ClerkNumber</a>	<a href="#">Transaction</a>	Optional	Clerk number
 <a href="#">ShiftID</a>	<a href="#">Transaction</a>	Optional	Shift ID
 <a href="#">OriginalAuthorizedAmount</a>	<a href="#">Transaction</a>	Optional	Original Authorization Amount
 <a href="#">SalesTaxAmount</a>	<a href="#">Transaction</a>	Optional	Sales tax amount
 <a href="#">ReferenceNumber</a>	<a href="#">Transaction</a>	Optional	Unique value assigned by the transaction sender
 <a href="#">TransactionID</a>	<a href="#">Transaction</a>	Required	TransactionID returned in original transaction.
 <a href="#">TerminalID</a>	<a href="#">Terminal</a>	Required	Unique terminal identifier
 <a href="#">CardPresentCode</a>	<a href="#">Terminal</a>	Required	Card Present Code
 <a href="#">CardholderPresentCode</a>	<a href="#">Terminal</a>	Required	Cardholder Present Code
 <a href="#">CardInputCode</a>	<a href="#">Terminal</a>	Required	Card Input Code
 <a href="#">TerminalCapabilityCode</a>	<a href="#">Terminal</a>	Required	Terminal Capability Code
 <a href="#">TerminalEnvironmentCode</a>	<a href="#">Terminal</a>	Required	Terminal Environment Code
 <a href="#">MotoECICode</a>	<a href="#">Terminal</a>	Required	Mail Order Telephone Order Electronic Indicator Code
 <a href="#">Level III EnhancedData</a>	<a href="#">ExtParm</a> <a href="#">EnhancedData</a>	Optional <sup>1</sup>	See Level III format in Section 4.1 for EnhancedData Extended Parameters input fields. XML only via TSYS.

<sup>1</sup> Used when submitting a Level III transaction (TSYS platform only).

### 6.3.6.2 Output Fields

Name	Class	Returned	Description
 <a href="#">ExpressResponseCode</a>	<a href="#">Response</a>	Returned	Express Response Code.
 <a href="#">ExpressResponseMessage</a>	<a href="#">Response</a>	Returned	Express Response Message.
 <a href="#">HostResponseCode</a>	<a href="#">Response</a>	Returned	Host Response Code.
 <a href="#">HostResponseMessage</a>	<a href="#">Response</a>	Returned	Host Response Message.
 <a href="#">ExpressTransactionDate</a>	<a href="#">Response</a>	Returned	Express transaction date formatted [YYYYMMDD]
 <a href="#">ExpressTransactionTime</a>	<a href="#">Response</a>	Returned	Express transaction time formatted [HHMMSS]
 <a href="#">ExpressTransactionTimezone</a>	<a href="#">Response</a>	Returned	Express transaction UTC time zone
 <a href="#">CardLogo</a>	<a href="#">Response.Card</a>	Returned	Payment brand
 <a href="#">HostBatchID</a>	<a href="#">Response.Batch</a>	Returned	Unique batch identifier
 <a href="#">HostItemID</a>	<a href="#">Response.Batch</a>	Returned	Unique batch item identifier
 <a href="#">TransactionID</a>	<a href="#">Response.Transaction</a>	Returned	Unique transaction identifier
 <a href="#">ReferenceNumber</a>	<a href="#">Response.Transaction</a>	Conditional Returns input value if supplied	User defined reference number
 <a href="#">ProcessorName</a>	<a href="#">Response.Transaction</a>	Returned	Name of processor
 <a href="#">TransactionStatus</a>	<a href="#">Response.Transaction</a>	Returned	Description of status/state of transaction
 <a href="#">TransactionStatusCode</a>	<a href="#">Response.Transaction</a>	Returned	Status/State of transaction

### 6.3.7 CreditCardVoid

A *Void* transaction is used to completely back out a previous *Sale* transaction. This applies to all transactions that were entered into the current batch, and only for the full dollar amount of the original transaction.

#### 6.3.7.1 Input Fields

Name	Class	Required	Description
 <a href="#">ApplicationID</a>	<a href="#">Application</a>	Required	Unique application identifier
 <a href="#">ApplicationName</a>	<a href="#">Application</a>	Required	Name of application
 <a href="#">ApplicationVersion</a>	<a href="#">Application</a>	Required	Version of application
 <a href="#">AccountID</a>	<a href="#">Credentials</a>	Required	Unique account identifier
 <a href="#">AccountToken</a>	<a href="#">Credentials</a>	Required	Token used for authentication
 <a href="#">AcceptorID</a>	<a href="#">Credentials</a>	Required	MerchantID
 <a href="#">ClerkNumber</a>	<a href="#">Transaction</a>	Optional	Clerk number
 <a href="#">ShiftID</a>	<a href="#">Transaction</a>	Optional	Shift ID
 <a href="#">ReferenceNumber</a>	<a href="#">Transaction</a>	Optional	Unique value assigned by the transaction sender
 <a href="#">TransactionID</a>	<a href="#">Transaction</a>	Required	TransactionID returned in original transaction.
 <a href="#">TerminalID</a>	<a href="#">Terminal</a>	Required	Unique terminal identifier
 <a href="#">CardPresentCode</a>	<a href="#">Terminal</a>	Required	Card Present Code
 <a href="#">CardholderPresentCode</a>	<a href="#">Terminal</a>	Required	Cardholder Present Code
 <a href="#">CardInputCode</a>	<a href="#">Terminal</a>	Required	Card Input Code
 <a href="#">TerminalCapabilityCode</a>	<a href="#">Terminal</a>	Required	Terminal Capability Code
 <a href="#">TerminalEnvironmentCode</a>	<a href="#">Terminal</a>	Required	Terminal Environment Code
 <a href="#">MotoECICode</a>	<a href="#">Terminal</a>	Required	Mail Order Telephone Order Electronic Indicator Code

#### 6.3.7.2 Output Fields

Name	Class	Returned	Description
 <a href="#">ExpressResponseCode</a>	<a href="#">Response</a>	Returned	Express Response Code.
 <a href="#">ExpressResponseMessage</a>	<a href="#">Response</a>	Returned	Express Response Message.
 <a href="#">HostResponseCode</a>	<a href="#">Response</a>	Returned	Host Response Code.
 <a href="#">HostResponseMessage</a>	<a href="#">Response</a>	Returned	Host Response Message.
 <a href="#">ExpressTransactionDate</a>	<a href="#">Response</a>	Returned	Express transaction date formatted [YYYYMMDD]
 <a href="#">ExpressTransactionTime</a>	<a href="#">Response</a>	Returned	Express transaction time formatted [HHMMSS]

 <a href="#">ExpressTransactionTimezone</a>	<a href="#">Response</a>	Returned	Express transaction UTC time zone
 <a href="#">CardLogo</a>	<a href="#">Response.Card</a>	Returned	Payment brand
 <a href="#">HostBatchID</a>	<a href="#">Response.Batch</a>	Returned	Unique batch identifier
 <a href="#">HostItemID</a>	<a href="#">Response.Batch</a>	Returned	Unique batch item identifier
 <a href="#">HostBatchAmount</a>	<a href="#">Response.Batch</a>	Returned	Batch amount
 <a href="#">TransactionID</a>	<a href="#">Response.Transaction</a>	Returned	Unique transaction identifier
 <a href="#">ReferenceNumber</a>	<a href="#">Response.Transaction</a>	Conditional Returns input value if supplied	User defined reference number
 <a href="#">ApprovalNumber</a>	<a href="#">Response.Transaction</a>	Returned	
 <a href="#">AcquirerData</a>	<a href="#">Response.Transaction</a>	Returned	The Acquirer Reference Data returned here must be captured by the POS device and input in subsequent settlement requests
 <a href="#">ProcessorName</a>	<a href="#">Response.Transaction</a>	Returned	Name of processor
 <a href="#">TransactionStatus</a>	<a href="#">Response.Transaction</a>	Returned	Description of status/state of transaction
 <a href="#">TransactionStatusCode</a>	<a href="#">Response.Transaction</a>	Returned	Status/State of transaction

### 6.3.8 CreditCardAVSOnly

The *Address Verification Service (AVS) Only* transaction may be used by merchants to determine whether to accept a transaction. This type of transaction only returns AVS information and does not request authorization. The format of the AVS information is exactly the same as the format used for *Sale* transactions.

#### 6.3.8.1 Input Fields

Name	Class	Required	Description
 <a href="#">ApplicationID</a>	<a href="#">Application</a>	Required	Unique application identifier
 <a href="#">ApplicationName</a>	<a href="#">Application</a>	Required	Name of application
 <a href="#">ApplicationVersion</a>	<a href="#">Application</a>	Required	Version of application
 <a href="#">AccountID</a>	<a href="#">Credentials</a>	Required	Unique account identifier
 <a href="#">AccountToken</a>	<a href="#">Credentials</a>	Required	Token used for authentication
 <a href="#">AcceptorID</a>	<a href="#">Credentials</a>	Required	MerchantID
 <a href="#">TransactionAmount</a>	<a href="#">Transaction</a>	Required	0.00 is the amount that should be sent in.
 <a href="#">ClerkNumber</a>	<a href="#">Transaction</a>	Optional	Clerk number
 <a href="#">ShiftID</a>	<a href="#">Transaction</a>	Optional	Shift ID
 <a href="#">ReferenceNumber</a>	<a href="#">Transaction</a>	Optional	Unique value assigned by the transaction sender
 <a href="#">TerminalID</a>	<a href="#">Terminal</a>	Required	Unique terminal identifier
 <a href="#">CardPresentCode</a>	<a href="#">Terminal</a>	Required	Card Present Code
 <a href="#">CardholderPresentCode</a>	<a href="#">Terminal</a>	Required	Cardholder Present Code
 <a href="#">CardInputCode</a>	<a href="#">Terminal</a>	Required	Card Input Code
 <a href="#">TerminalCapabilityCode</a>	<a href="#">Terminal</a>	Required	Terminal Capability Code
 <a href="#">TerminalEnvironmentCode</a>	<a href="#">Terminal</a>	Required	Terminal Environment Code
 <a href="#">MotoECICode</a>	<a href="#">Terminal</a>	Required	Mail Order Telephone Order Electronic Indicator Code
 <a href="#">TerminalEncryptionFormat</a>	<a href="#">Terminal</a>	Optional	Terminal encryption format from integrated encryption device
 <a href="#">TerminalSerialNumber</a>	<a href="#">Terminal</a>	Optional	Terminal serial number from integrated encryption device
 <a href="#">PaymentAccountID</a>	<a href="#">ExtParm.PaymentAccount</a>	Optional	Payment Account ID
 <a href="#">Track1Data</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Track 1 data
 <a href="#">Track2Data</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Track 2 data
 <a href="#">MagneprintData</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Magneprint data
 <a href="#">CardNumber</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Account number on card

 <a href="#">ExpirationMonth</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Expiration month
 <a href="#">ExpirationYear</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Expiration year
 <a href="#">EncryptedTrack1Data</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Encrypted Track 1 Data from integrated encryption device
 <a href="#">EncryptedTrack2Data</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Encrypted Track 2 Data from integrated encryption device
 <a href="#">EncryptedCardData</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Encrypted Card Data (keyed) from integrated encryption device
 <a href="#">CardDataKeySerialNumber</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Card Data Key Serial Number from integrated encryption device
 <a href="#">EncryptedFormat</a>	<a href="#">Card</a>	Optional	Encryption format from integrated encryption device
 <a href="#">BillingName</a>	<a href="#">Address</a>	Optional	The name used for billing purposes
 <a href="#">BillingAddress1</a>	<a href="#">Address</a>	Required	The street address used for billing purposes.
 <a href="#">BillingAddress2</a>	<a href="#">Address</a>	Optional	The street address used for billing purposes
 <a href="#">BillingCity</a>	<a href="#">Address</a>	Optional	The city name used for billing purposes
 <a href="#">BillingState</a>	<a href="#">Address</a>	Optional	The state name used for billing purposes
 <a href="#">BillingZipcode</a>	<a href="#">Address</a>	Required	The zip code used for billing purposes
 <a href="#">BillingEmail</a>	<a href="#">Address</a>	Optional	The email address used for billing purposes
 <a href="#">BillingPhone</a>	<a href="#">Address</a>	Optional	The phone number used for billing purposes
 <a href="#">ShippingName</a>	<a href="#">Address</a>	Optional	The name used for billing purposes
 <a href="#">ShippingAddress1</a>	<a href="#">Address</a>	Optional	The street address used for Shipping purposes
 <a href="#">ShippingAddress2</a>	<a href="#">Address</a>	Optional	The street address used for Shipping purposes
 <a href="#">ShippingCity</a>	<a href="#">Address</a>	Optional	The city name used for Shipping purposes
 <a href="#">ShippingState</a>	<a href="#">Address</a>	Optional	The state name used for Shipping purposes
 <a href="#">ShippingZipcode</a>	<a href="#">Address</a>	Optional	The zip code used for Shipping purposes

<sup>1</sup> Only one of the following field groups needs to be included: CardNumber / ExpirationMonth / ExpirationYear **or** Track1Data **or** Track2Data **or** MagneprintData **or** PaymentAccountID **or** EncryptedTrack1Data **or** EncryptedTrack2Data **or** EncryptedCardData.

### 6.3.8.2 Output Fields

Name	Class	Returned	Description
 <a href="#">ExpressResponseCode</a>	<a href="#">Response</a>	Returned	Express Response Code.
 <a href="#">ExpressResponseMessage</a>	<a href="#">Response</a>	Returned	Express Response Message.

 <a href="#">HostResponseCode</a>	<a href="#">Response</a>	Returned	Host Response Code.
 <a href="#">HostResponseMessage</a>	<a href="#">Response</a>	Returned	Host Response Message.
 <a href="#">ExpressTransactionDate</a>	<a href="#">Response</a>	Returned	Express transaction date formatted [YYYYMMDD]
 <a href="#">ExpressTransactionTime</a>	<a href="#">Response</a>	Returned	Express transaction time formatted [HHMMSS]
 <a href="#">ExpressTransactionTimezone</a>	<a href="#">Response</a>	Returned	Express transaction UTC time zone
 <a href="#">AVSResponseCode</a>	<a href="#">Response.Card</a>	Returned	
 <a href="#">CardLogo</a>	<a href="#">Response.Card</a>	Returned	Payment brand
 <a href="#">AcquirerData</a>	<a href="#">Response.Transaction</a>	Returned	The Acquirer Reference Data returned here must be captured by the POS device and input in subsequent settlement requests
 <a href="#">ApprovalNumber</a>	<a href="#">Response.Transaction</a>	Returned	
 <a href="#">TransactionID</a>	<a href="#">Response.Transaction</a>	Returned	Unique transaction identifier
 <a href="#">ReferenceNumber</a>	<a href="#">Response.Transaction</a>	Conditional Returns input value if supplied	User defined reference number
 <a href="#">ProcessorName</a>	<a href="#">Response.Transaction</a>	Returned	Name of processor
 <a href="#">TransactionStatus</a>	<a href="#">Response.Transaction</a>	Returned	Description of status/state of transaction
 <a href="#">TransactionStatusCode</a>	<a href="#">Response.Transaction</a>	Returned	Status/State of transaction
 <a href="#">PaymentAccountReferenceNumber</a>	<a href="#">Response.PaymentAccount</a>	Conditional Returned if PaymentAccountID supplied	Payment Account Reference Number
 <a href="#">BillingAddress1</a>	<a href="#">Response.Address</a>	Conditional Returns input value if supplied	The street address used for billing purposes
 <a href="#">BillingZipcode</a>	<a href="#">Response.Address</a>	Conditional Returns input value if supplied	The zip code used for billing purposes

### 6.3.9 CreditCardReversal

There are three types of *Reversal* transactions:

- 1) Communications/System Reversals
- 2) Point of Sale (POS) Generated/Full Reversals
- 3) Partial Reversals

A Communications/System Reversal is generated when there is a problem delivering the response back to the POS. It is the transaction requestor's responsibility to generate a *Reversal* transaction for all transactions that do not receive responses.

A Point of Sale (POS) Generated Reversal may be initiated to remove an approved transaction from a batch, even when the cardholder is not present. Reversals, however, must be done while the batch is open.

#### 6.3.9.1 Input Fields

Name	Class	Required	Description
 <a href="#">ApplicationID</a>	<a href="#">Application</a>	Required	Unique application identifier
 <a href="#">ApplicationName</a>	<a href="#">Application</a>	Required	Name of application
 <a href="#">ApplicationVersion</a>	<a href="#">Application</a>	Required	Version of application
 <a href="#">AccountID</a>	<a href="#">Credentials</a>	Required	Unique account identifier
 <a href="#">AccountToken</a>	<a href="#">Credentials</a>	Required	Token used for authentication
 <a href="#">AcceptorID</a>	<a href="#">Credentials</a>	Required	MerchantID
 <a href="#">ReversalType</a>	<a href="#">Transaction</a>	Required	Type of reversal
 <a href="#">ClerkNumber</a>	<a href="#">Transaction</a>	Optional	Clerk number
 <a href="#">ShiftID</a>	<a href="#">Transaction</a>	Optional	Shift ID
 <a href="#">TransactionAmount</a>	<a href="#">Transaction</a>	Required	Original transaction amount if ReversalType= Full or System; New transaction amount if ReversalType=Partial
 <a href="#">TotalAuthorizedAmount</a>	<a href="#">Transaction</a>	Conditional Only needed when ReversalType=Partial	Original transaction amount authorized
 <a href="#">SalesTaxAmount</a>	<a href="#">Transaction</a>	Conditional Used when it was included in the original transaction	Sales tax amount
 <a href="#">ReferenceNumber</a>	<a href="#">Transaction</a>	Optional	Unique value assigned by the transaction sender
 <a href="#">TransactionID</a>	<a href="#">Transaction</a>	Required when ReversalType=Partial or ReversalType=Full. Optional when	TransactionID returned in original transaction.

		ReversalType=System	
 <a href="#">TerminalID</a>	<a href="#">Terminal</a>	Required	Unique terminal identifier
 <a href="#">CardPresentCode</a>	<a href="#">Terminal</a>	Required	Card Present Code
 <a href="#">CardholderPresentCode</a>	<a href="#">Terminal</a>	Required	Cardholder Present Code
 <a href="#">CardInputCode</a>	<a href="#">Terminal</a>	Required	Card Input Code
 <a href="#">TerminalCapabilityCode</a>	<a href="#">Terminal</a>	Required	Terminal Capability Code
 <a href="#">TerminalEnvironmentCode</a>	<a href="#">Terminal</a>	Required	Terminal Environment Code
 <a href="#">MotoECICode</a>	<a href="#">Terminal</a>	Required	Mail Order Telephone Order Electronic Indicator Code
 <a href="#">TerminalEncryptionFormat</a>	<a href="#">Terminal</a>	Optional	Terminal encryption format from integrated encryption device
 <a href="#">TerminalSerialNumber</a>	<a href="#">Terminal</a>	Optional	Terminal serial number from integrated encryption device
 <a href="#">CardNumber</a>	<a href="#">Card</a>	Conditional <sup>1 and 2</sup>	Account number on card
 <a href="#">ExpirationMonth</a>	<a href="#">Card</a>	Conditional <sup>1 and 2</sup>	Expiration month
 <a href="#">ExpirationYear</a>	<a href="#">Card</a>	Conditional <sup>1 and 2</sup>	Expiration year
 <a href="#">Track1Data</a>	<a href="#">Card</a>	Conditional <sup>1 and 2</sup>	Track 1 data
 <a href="#">Track2Data</a>	<a href="#">Card</a>	Conditional <sup>1 and 2</sup>	Track 2 data
 <a href="#">MagneprintData</a>	<a href="#">Card</a>	Conditional <sup>1 and 2</sup>	Magneprint data
 <a href="#">EncryptedTrack1Data</a>	<a href="#">Card</a>	Conditional <sup>1 and 2</sup>	Encrypted Track 1 Data from integrated encryption device
 <a href="#">EncryptedTrack2Data</a>	<a href="#">Card</a>	Conditional <sup>1 and 2</sup>	Encrypted Track 2 Data from integrated encryption device
 <a href="#">EncryptedCardData</a>	<a href="#">Card</a>	Conditional <sup>1 and 2</sup>	Encrypted Card Data (keyed) from integrated encryption device
 <a href="#">CardDataKeySerialNumber</a>	<a href="#">Card</a>	Conditional <sup>1 and 2</sup>	Card Data Key Serial Number from integrated encryption device
 <a href="#">EncryptedFormat</a>	<a href="#">Card</a>	Optional	Encryption format from integrated encryption device
 <a href="#">PaymentAccountID</a>	<a href="#">ExtParm.PaymentAccount</a>	Conditional <sup>1 and 2</sup>	Payment Account ID

<sup>1</sup> Only one of the following field groups needs to be included: TransactionID **or** CardNumber / ExpirationMonth / ExpirationYear **or** Track1Data **or** Track2Data **or** MagneprintData **or** PaymentAccountID **or** EncryptedTrack1Data **or** EncryptedTrack2Data **or** EncryptedCardData.

<sup>2</sup> Used only when ReversalType = System

### 6.3.9.2 Output Fields

Name	Class	Returned	Description
 <a href="#">ExpressResponseCode</a>	<a href="#">Response</a>	Returned	Express Response Code.
 <a href="#">ExpressResponseMessage</a>	<a href="#">Response</a>	Returned	Express Response Message.

 <a href="#">HostResponseCode</a>	<a href="#">Response</a>	Returned	Host Response Code.
 <a href="#">HostResponseMessage</a>	<a href="#">Response</a>	Returned	Host Response Message.
 <a href="#">ExpressTransactionDate</a>	<a href="#">Response</a>	Returned	Express transaction date formatted [YYYYMMDD]
 <a href="#">ExpressTransactionTime</a>	<a href="#">Response</a>	Returned	Express transaction time formatted [HHMMSS]
 <a href="#">ExpressTransactionTimezone</a>	<a href="#">Response</a>	Returned	Express transaction UTC time zone
 <a href="#">CardLogo</a>	<a href="#">Response.Card</a>	Returned	Payment brand
 <a href="#">HostBatchID</a>	<a href="#">Response.Batch</a>	Returned	Unique batch identifier
 <a href="#">HostItemID</a>	<a href="#">Response.Batch</a>	Returned	Unique batch item identifier
 <a href="#">HostBatchAmount</a>	<a href="#">Response.Batch</a>	Returned	Batch amount
 <a href="#">TransactionID</a>	<a href="#">Response.Transaction</a>	Returned	Unique transaction identifier
 <a href="#">ReferenceNumber</a>	<a href="#">Response.Transaction</a>	Conditional Returns input value if supplied	User defined reference number
 <a href="#">ApprovalNumber</a>	<a href="#">Response.Transaction</a>	Returned	
 <a href="#">AcquirerData</a>	<a href="#">Response.Transaction</a>	Returned	The Acquirer Reference Data returned here must be captured by the POS device and input in subsequent settlement requests
 <a href="#">ProcessorName</a>	<a href="#">Response.Transaction</a>	Returned	Name of processor
 <a href="#">TransactionStatus</a>	<a href="#">Response.Transaction</a>	Returned	Description of status/state of transaction
 <a href="#">TransactionStatusCode</a>	<a href="#">Response.Transaction</a>	Returned	Status/State of transaction

## Remarks

- By sending the previously authorized TransactionID in the optional field TransactionID; it is not necessary to store or send CardNumber, Track1Data, Track2Data, ExpirationMonth, ExpirationYear, or AcquirerData.
- *Processing “System” Reversals on the Global East Platform:*

CreditCardSale: If you did not receive a response from a CreditCardSale transaction, call the CreditCardReversal method with a ReversalType of “System”.

CreditCardCredit:

CreditCardReturn:

CreditCardAuthorizationCompletion:

If you did not receive a response from a call to one of these method types, you should just resend the transaction. If you get back an ExpressResponseCode of 22 or 23 (Duplicate AP or Duplicate) then you know the Transaction went through successfully. Otherwise the response you get back will be the correct one for that transaction. (Note: make sure you are not using the duplicate override option when you resend the transaction.)

### 6.3.10 CreditCardForce

A *Force* transaction is used to add a credit card transaction to a batch after-the-fact.

Generally, *Force* transactions are used to insert previously authorized, but not captured, transactions into a batch. The following examples illustrate when to use a *Force* transaction:

- 1) Timeout – If the merchant is unable to perform an online transaction.
- 2) Referral – If the merchant receives an online referral message in response to an online transaction (i.e. Call ND, Call AE, etc).
- 3) AI Responses – The AI response (Approved with positive ID) usually results from a person using a card for the first time.

#### 6.3.10.1 Input Fields

Name	Class	Required	Description
 <a href="#">ApplicationID</a>	<a href="#">Application</a>	Required	Unique application identifier
 <a href="#">ApplicationName</a>	<a href="#">Application</a>	Required	Name of application
 <a href="#">ApplicationVersion</a>	<a href="#">Application</a>	Required	Version of application
 <a href="#">AccountID</a>	<a href="#">Credentials</a>	Required	Unique account identifier
 <a href="#">AccountToken</a>	<a href="#">Credentials</a>	Required	Token used for authentication
 <a href="#">AcceptorID</a>	<a href="#">Credentials</a>	Required	MerchantID
 <a href="#">TransactionAmount</a>	<a href="#">Transaction</a>	Required	Amount of transaction
 <a href="#">ApprovalNumber</a>	<a href="#">Transaction</a>	Required	Original approval number
 <a href="#">ClerkNumber</a>	<a href="#">Transaction</a>	Optional	Clerk number
 <a href="#">ShiftID</a>	<a href="#">Transaction</a>	Optional	Shift ID
 <a href="#">SalesTaxAmount</a>	<a href="#">Transaction</a>	Optional	Sales tax amount
 <a href="#">ReferenceNumber</a>	<a href="#">Transaction</a>	Optional	Unique value assigned by the transaction sender
 <a href="#">TerminalID</a>	<a href="#">Terminal</a>	Required	Unique terminal identifier
 <a href="#">CardPresentCode</a>	<a href="#">Terminal</a>	Required	Card Present Code
 <a href="#">CardholderPresentCode</a>	<a href="#">Terminal</a>	Required	Cardholder Present Code
 <a href="#">CardInputCode</a>	<a href="#">Terminal</a>	Required	Card Input Code
 <a href="#">CVVPresenceCode</a>	<a href="#">Terminal</a>	Required	Card Verification Value Presence Code
 <a href="#">TerminalCapabilityCode</a>	<a href="#">Terminal</a>	Required	Terminal Capability Code
 <a href="#">TerminalEnvironmentCode</a>	<a href="#">Terminal</a>	Required	Terminal Environment Code
 <a href="#">MotoECICode</a>	<a href="#">Terminal</a>	Required	Mail Order Telephone Order

			Electronic Indicator Code
 <a href="#">TerminalEncryptionFormat</a>	<a href="#">Terminal</a>	Optional	Terminal encryption format from integrated encryption device
 <a href="#">TerminalSerialNumber</a>	<a href="#">Terminal</a>	Optional	Terminal serial number from integrated encryption device
 <a href="#">Track1Data</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Track 1 data
 <a href="#">Track2Data</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Track 2 data
 <a href="#">MagneprintData</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Magneprint data
 <a href="#">CardNumber</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Account number on card
 <a href="#">ExpirationMonth</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Expiration month
 <a href="#">ExpirationYear</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Expiration year
 <a href="#">EncryptedTrack1Data</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Encrypted Track 1 Data from integrated encryption device
 <a href="#">EncryptedTrack2Data</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Encrypted Track 2 Data from integrated encryption device
 <a href="#">EncryptedCardData</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Encrypted Card Data (keyed) from integrated encryption device
 <a href="#">CardDataKeySerialNumber</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Card Data Key Serial Number from integrated encryption device
 <a href="#">EncryptedFormat</a>	<a href="#">Card</a>	Optional	Encryption format from integrated encryption device
 <a href="#">AutoRentalAgreementNumber</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	Rental agreement number
 <a href="#">AutoRentalNoShowIndicator</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	No show indicator
 <a href="#">AutoRentalExtraChargesDetail</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	Extra charges detail
 <a href="#">AutoRentalPickupDate</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	Rental pickup date. Format is YYYYMMDD.
 <a href="#">AutoRentalCustomerName</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	Name of the person or business with the reservation
 <a href="#">AutoRentalReturnCity</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	City where vehicle was returned
 <a href="#">AutoRentalReturnState</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	State where vehicle was returned
 <a href="#">AutoRentalReturnLocationID</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	Rental location ID
 <a href="#">AutoRentalDuration</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	Number of rental days (e.g. 03). Pass 01 for no-show rentals.
 <a href="#">AutoRentalPickupLocation</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	Name of business where vehicle was picked up
 <a href="#">AutoRentalPickupCity</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	Name of city, town, or village where vehicle was picked up
 <a href="#">AutoRentalPickupState</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	Abbreviation of state, province, or other country subdivision where vehicle was picked up
 <a href="#">AutoRentalPickupCountryCode</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	Country code where vehicle was picked up. For US, use 840.
 <a href="#">AutoRentalPickupTime</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	Local time when vehicle was picked up.
 <a href="#">AutoRentalReturnCountryCode</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	Country code where vehicle was returned. For US, use 840.
 <a href="#">AutoRentalReturnDate</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	Date when vehicle was returned. Format YYYYMMDD.

 <a href="#">AutoRentalReturnTime</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	Local time when vehicle was returned
 <a href="#">AutoRentalVehicleClassCode</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	Classification of rental vehicle
 <a href="#">AutoRentalDistance</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	Distance traveled during rental period
 <a href="#">AutoRentalDistanceUnit</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	Unit of measurement applicable to distance traveled
 <a href="#">AutoRentalAuditAdjustmentCode</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	Indicates if adjustment for mileage, fuel, vehicle damage, etc. was made to a rental agreement
 <a href="#">AutoRentalAuditAdjustmentAmount</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>2</sup>	Adjustment amount for mileage, fuel, vehicle damage, etc. after a vehicle was returned
 <a href="#">LodgingAgreementNumber</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>3</sup>	Agreement (Folio) number
 <a href="#">LodgingCheckInDate</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>3</sup>	Check-in date
 <a href="#">LodgingCheckOutDate</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>3</sup>	Check-out date
 <a href="#">LodgingRoomAmount</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>3</sup>	Nightly rate for one room
 <a href="#">LodgingRoomTax</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>3</sup>	Reserved for future use
 <a href="#">LodgingNoShowIndicator</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>3</sup>	No-show indicator
 <a href="#">LodgingDuration</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>3</sup>	Number of days
 <a href="#">LodgingCustomerName</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>3</sup>	Customer name
 <a href="#">LodgingClientCode</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>3</sup>	Reserved for future use
 <a href="#">LodgingExtraChargesDetail</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>3</sup>	Extra charges detail
 <a href="#">LodgingExtraChargesAmounts</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>3</sup>	Reserved for future use
 <a href="#">LodgingPrestigiousPropertyCode</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>3</sup>	Prestigious property code
 <a href="#">LodgingSpecialProgramCode</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>3</sup>	Special program code
 <a href="#">LodgingChargeType</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>3</sup>	Charge type

<sup>1</sup>	Only one of the following field groups needs to be included: CardNumber / ExpirationMonth / ExpirationYear <b>or</b> Track1Data <b>or</b> Track2Data <b>or</b> MagneprintData <b>or</b> EncryptedTrack1Data <b>or</b> EncryptedTrack2Data <b>or</b> EncryptedCardData.
<sup>2</sup>	Used when submitting an Auto Rental transaction (TSYS platform only).
<sup>3</sup>	Used when submitting a Lodging transaction (TSYS platform only).

### 6.3.10.2 Output Fields

Name	Class	Returned	Description
 <a href="#">ExpressResponseCode</a>	<a href="#">Response</a>	Returned	Express Response Code.
 <a href="#">ExpressResponseMessage</a>	<a href="#">Response</a>	Returned	Express Response Message.
 <a href="#">HostResponseCode</a>	<a href="#">Response</a>	Returned	Host Response Code.
 <a href="#">HostResponseMessage</a>	<a href="#">Response</a>	Returned	Host Response Message.

 <a href="#">ExpressTransactionDate</a>	<a href="#">Response</a>	Returned	Express transaction date formatted [YYYYMMDD]
 <a href="#">ExpressTransactionTime</a>	<a href="#">Response</a>	Returned	Express transaction time formatted [HHMMSS]
 <a href="#">ExpressTransactionTimezone</a>	<a href="#">Response</a>	Returned	Express transaction UTC time zone
 <a href="#">CardLogo</a>	<a href="#">Response.Card</a>	Returned	Payment brand
 <a href="#">HostBatchID</a>	<a href="#">Response.Batch</a>	Returned	Unique batch identifier
 <a href="#">HostItemID</a>	<a href="#">Response.Batch</a>	Returned	Unique batch item identifier
 <a href="#">TransactionID</a>	<a href="#">Response.Transaction</a>	Returned	Unique transaction identifier
 <a href="#">ReferenceNumber</a>	<a href="#">Response.Transaction</a>	Conditional Returns input value if supplied	User defined reference number
 <a href="#">ProcessorName</a>	<a href="#">Response.Transaction</a>	Returned	Name of processor
 <a href="#">TransactionStatus</a>	<a href="#">Response.Transaction</a>	Returned	Description of status/state of transaction
 <a href="#">TransactionStatusCode</a>	<a href="#">Response.Transaction</a>	Returned	Status/State of transaction
 <a href="#">BillingAddress1</a>	<a href="#">Response.Address</a>	Conditional Returns input value if supplied	The street address used for billing purposes
 <a href="#">BillingZipcode</a>	<a href="#">Response.Address</a>	Conditional Returns input value if supplied	The zip code used for billing purposes

### 6.3.11 CreditCardIncrementalAuthorization

A *CreditCardIncrementalAuthorization* transaction is used to authorize an additional amount to an original Auto Rental industry authorization transaction. This method is used on the TSYS platform only. Only Visa cards support incremental authorizations.

#### 6.3.11.1 Input Fields

Name	Class	Required	Description
 <a href="#">ApplicationID</a>	<a href="#">Application</a>	Required	Unique application identifier
 <a href="#">ApplicationName</a>	<a href="#">Application</a>	Required	Name of application
 <a href="#">ApplicationVersion</a>	<a href="#">Application</a>	Required	Version of application
 <a href="#">AccountID</a>	<a href="#">Credentials</a>	Required	Unique account identifier
 <a href="#">AccountToken</a>	<a href="#">Credentials</a>	Required	Token used for authentication
 <a href="#">AcceptorID</a>	<a href="#">Credentials</a>	Required	MerchantID
 <a href="#">TransactionAmount</a>	<a href="#">Transaction</a>	Required	Additional (incremental) authorization amount requested
 <a href="#">TransactionID</a>	<a href="#">Transaction</a>	Required	TransactionID returned in original authorization.
 <a href="#">ClerkNumber</a>	<a href="#">Transaction</a>	Optional	Clerk number
 <a href="#">ShiftID</a>	<a href="#">Transaction</a>	Optional	Shift ID
 <a href="#">SalesTaxAmount</a>	<a href="#">Transaction</a>	Optional	Sales tax amount
 <a href="#">ReferenceNumber</a>	<a href="#">Transaction</a>	Optional	Unique value assigned by the transaction sender
 <a href="#">MarketCode</a>	<a href="#">Transaction</a>	Required	Market Code
 <a href="#">TerminalID</a>	<a href="#">Terminal</a>	Required	Unique terminal identifier
 <a href="#">CardPresentCode</a>	<a href="#">Terminal</a>	Required	Card Present Code
 <a href="#">CardholderPresentCode</a>	<a href="#">Terminal</a>	Required	Cardholder Present Code
 <a href="#">CardInputCode</a>	<a href="#">Terminal</a>	Required	Card Input Code
 <a href="#">CVVPresenceCode</a>	<a href="#">Terminal</a>	Required	Card Verification Value Presence Code
 <a href="#">TerminalCapabilityCode</a>	<a href="#">Terminal</a>	Required	Terminal Capability Code
 <a href="#">TerminalEnvironmentCode</a>	<a href="#">Terminal</a>	Required	Terminal Environment Code
 <a href="#">MotoECICode</a>	<a href="#">Terminal</a>	Required	Mail Order Telephone Order Electronic Indicator Code
 <a href="#">LodgingDuration</a>	<a href="#">ExtParm.Lodging</a>	Optional <sup>1</sup>	Number of additional days for the hotel stay
 <a href="#">AutoRentalDuration</a>	<a href="#">ExtParm.AutoRental</a>	Optional <sup>2</sup>	Number of additional days for the auto rental

<sup>1</sup> Can be used when submitting a Lodging transaction (TSYS platform only).

<sup>2</sup> Can be used when submitting an Auto Rental transaction (TSYS platform only).

### 6.3.11.2 Output Fields

Name	Class	Returned	Description
 <a href="#">ExpressResponseCode</a>	<a href="#">Response</a>	Returned	Express Response Code.
 <a href="#">ExpressResponseMessage</a>	<a href="#">Response</a>	Returned	Express Response Message.
 <a href="#">HostResponseCode</a>	<a href="#">Response</a>	Returned	Host Response Code.
 <a href="#">HostResponseMessage</a>	<a href="#">Response</a>	Returned	Host Response Message.
 <a href="#">ExpressTransactionDate</a>	<a href="#">Response</a>	Returned	Express transaction date formatted [YYYYMMDD]
 <a href="#">ExpressTransactionTime</a>	<a href="#">Response</a>	Returned	Express transaction time formatted [HHMMSS]
 <a href="#">ExpressTransactionTimezone</a>	<a href="#">Response</a>	Returned	Express transaction UTC time zone
 <a href="#">HostTransactionDateTime</a>	<a href="#">Response</a>	Returned	Host transaction date and time
 <a href="#">CardLogo</a>	<a href="#">Response.Card</a>	Returned	Payment brand
 <a href="#">HostBatchID</a>	<a href="#">Response.Batch</a>	Returned	Unique batch identifier
 <a href="#">HostItemID</a>	<a href="#">Response.Batch</a>	Returned	Unique batch item identifier
 <a href="#">TransactionID</a>	<a href="#">Response.Transaction</a>	Returned	Unique transaction identifier
 <a href="#">ReferenceNumber</a>	<a href="#">Response.Transaction</a>	Conditional Returns input value if supplied	User defined reference number
 <a href="#">ApprovalNumber</a>	<a href="#">Response.Transaction</a>	Returned	Approval number assigned by card issuing bank.
 <a href="#">ProcessorName</a>	<a href="#">Response.Transaction</a>	Returned	Name of processor
 <a href="#">TransactionStatus</a>	<a href="#">Response.Transaction</a>	Returned	Description of status/state of transaction
 <a href="#">TransactionStatusCode</a>	<a href="#">Response.Transaction</a>	Returned	Status/State of transaction
 <a href="#">BillingAddress1</a>	<a href="#">Response.Address</a>	Conditional Returns input value if supplied	The street address used for billing purposes
 <a href="#">BillingZipcode</a>	<a href="#">Response.Address</a>	Conditional Returns input value if supplied	The zip code used for billing purposes

### 6.3.12 CreditCardBalanceInquiry

A *CreditCardBalanceInquiry* transaction is used to obtain a balance amount on a pre-paid debit card. This method may not be available across all platforms.

#### 6.3.12.1 Input Fields

Name	Class	Required	Description
 <a href="#">ApplicationID</a>	<a href="#">Application</a>	Required	Unique application identifier
 <a href="#">ApplicationName</a>	<a href="#">Application</a>	Required	Name of application
 <a href="#">ApplicationVersion</a>	<a href="#">Application</a>	Required	Version of application
 <a href="#">AccountID</a>	<a href="#">Credentials</a>	Required	Unique account identifier
 <a href="#">AccountToken</a>	<a href="#">Credentials</a>	Required	Token used for authentication
 <a href="#">AcceptorID</a>	<a href="#">Credentials</a>	Required	MerchantID
 <a href="#">TransactionAmount</a>	<a href="#">Transaction</a>	Required	Transaction amount. Use 0.00
 <a href="#">ClerkNumber</a>	<a href="#">Transaction</a>	Optional	Clerk number
 <a href="#">ShiftID</a>	<a href="#">Transaction</a>	Optional	Shift ID
 <a href="#">ReferenceNumber</a>	<a href="#">Transaction</a>	Optional	Unique value assigned by the transaction sender
 <a href="#">TicketNumber</a>	<a href="#">Transaction</a>	Optional	Unique numeric value assigned by the transaction sender
 <a href="#">MarketCode</a>	<a href="#">Transaction</a>	Required	Market Code
 <a href="#">TerminalID</a>	<a href="#">Terminal</a>	Required	Unique terminal identifier
 <a href="#">CardPresentCode</a>	<a href="#">Terminal</a>	Required	Card Present Code
 <a href="#">CardholderPresentCode</a>	<a href="#">Terminal</a>	Required	Cardholder Present Code
 <a href="#">CardInputCode</a>	<a href="#">Terminal</a>	Required	Card Input Code
 <a href="#">CVVPresenceCode</a>	<a href="#">Terminal</a>	Required	Card Verification Value Presence Code
 <a href="#">TerminalCapabilityCode</a>	<a href="#">Terminal</a>	Required	Terminal Capability Code
 <a href="#">TerminalEnvironmentCode</a>	<a href="#">Terminal</a>	Required	Terminal Environment Code
 <a href="#">MotoECICode</a>	<a href="#">Terminal</a>	Required	Mail Order Telephone Order Electronic Indicator Code
 <a href="#">PaymentAccountID</a>	<a href="#">ExtParm.PaymentAccount</a>	Conditional <sup>1</sup>	Payment Account ID
 <a href="#">Track1Data</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Track 1 data
 <a href="#">Track2Data</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Track 2 data
 <a href="#">MagneprintData</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Magneprint data
 <a href="#">CardNumber</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Account number on card
 <a href="#">ExpirationMonth</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Expiration month
 <a href="#">ExpirationYear</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Expiration year
 <a href="#">EncryptedTrack1Data</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Encrypted Track 1 Data from

			integrated encryption device
 <a href="#">EncryptedTrack2Data</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Encrypted Track 2 Data from integrated encryption device
 <a href="#">EncryptedCardData</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Encrypted Card Data (keyed) from integrated encryption device
 <a href="#">CardDataKeySerialNumber</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Card Data Key Serial Number from integrated encryption device
 <a href="#">EncryptedFormat</a>	<a href="#">Card</a>	Optional	Encryption format from integrated encryption device

<sup>1</sup> Only one of the following field groups needs to be included: CardNumber / ExpirationMonth / ExpirationYear **or** Track1Data **or** Track2Data **or** MagneprintData **or** PaymentAccountID **or** EncryptedTrack1Data **or** EncryptedTrack2Data **or** EncryptedCardData.

### 6.3.12.2 Output Fields

Name	Class	Returned	Description
 <a href="#">ExpressResponseCode</a>	<a href="#">Response</a>	Returned	Express Response Code.
 <a href="#">ExpressResponseMessage</a>	<a href="#">Response</a>	Returned	Express Response Message.
 <a href="#">HostResponseCode</a>	<a href="#">Response</a>	Returned	Host Response Code.
 <a href="#">HostResponseMessage</a>	<a href="#">Response</a>	Returned	Host Response Message.
 <a href="#">ExpressTransactionDate</a>	<a href="#">Response</a>	Returned	Express transaction date formatted [YYYYMMDD]
 <a href="#">ExpressTransactionTime</a>	<a href="#">Response</a>	Returned	Express transaction time formatted [HHMMSS]
 <a href="#">ExpressTransactionTimezone</a>	<a href="#">Response</a>	Returned	Express transaction UTC time zone
 <a href="#">HostTransactionDateTime</a>	<a href="#">Response</a>	Returned	Host transaction date and time
 <a href="#">CardLogo</a>	<a href="#">Response.Card</a>	Returned	Payment brand
 <a href="#">HostBatchID</a>	<a href="#">Response.Batch</a>	Returned	Unique batch identifier
 <a href="#">HostItemID</a>	<a href="#">Response.Batch</a>	Returned	Unique batch item identifier
 <a href="#">TransactionID</a>	<a href="#">Response.Transaction</a>	Returned	Unique transaction identifier
 <a href="#">ReferenceNumber</a>	<a href="#">Response.Transaction</a>	Conditional Returns input value if supplied	User defined reference number
 <a href="#">ApprovalNumber</a>	<a href="#">Response.Transaction</a>	Returned	Approval number assigned by card issuing bank.
 <a href="#">ApprovedAmount</a>	<a href="#">Response.Transaction</a>	Returned	Approved amount
 <a href="#">ProcessorName</a>	<a href="#">Response.Transaction</a>	Returned	Name of processor
 <a href="#">TransactionStatus</a>	<a href="#">Response.Transaction</a>	Returned	Description of status/state of transaction
 <a href="#">TransactionStatusCode</a>	<a href="#">Response.Transaction</a>	Returned	Status/State of transaction
 <a href="#">BalanceAmount</a>	<a href="#">Response.Transaction</a>	Returned	Balance amount
 <a href="#">BalanceCurrencyCode</a>	<a href="#">Response.Transaction</a>	Returned	Balance currency code

## 6.4 Debit

### 6.4.1 DebitCardSale

The *Sale* transaction is the most basic and most common transaction, used for the sale/purchase of goods or services. This type of transaction compares the cardholder's funds available to the amount specified in the transaction. If the amount specified is available, the transaction is approved by the cardholder's bank and an approval code is returned. If the amount is **not** available or the transaction is denied for any other reason by the bank, an error message containing the reason is returned.

#### 6.4.1.1 Input Fields

Name	Class	Required	Description
 <a href="#">ApplicationID</a>	<a href="#">Application</a>	Required	Unique application identifier
 <a href="#">ApplicationName</a>	<a href="#">Application</a>	Required	Name of application
 <a href="#">ApplicationVersion</a>	<a href="#">Application</a>	Required	Version of application
 <a href="#">AccountID</a>	<a href="#">Credentials</a>	Required	Unique account identifier
 <a href="#">AccountToken</a>	<a href="#">Credentials</a>	Required	Token used for authentication
 <a href="#">AcceptorID</a>	<a href="#">Credentials</a>	Required	MerchantID
 <a href="#">TransactionAmount</a>	<a href="#">Transaction</a>	Required	Amount of transaction
 <a href="#">ClerkNumber</a>	<a href="#">Transaction</a>	Optional	Clerk number
 <a href="#">ShiftID</a>	<a href="#">Transaction</a>	Optional	Shift ID
 <a href="#">SalesTaxAmount</a>	<a href="#">Transaction</a>	Optional	Sales tax amount
 <a href="#">ReferenceNumber</a>	<a href="#">Transaction</a>	Optional	Unique value assigned by the transaction sender
 <a href="#">CashBackAmount</a>	<a href="#">Transaction</a>	Optional	Cash back amount
 <a href="#">TerminalID</a>	<a href="#">Terminal</a>	Required	Unique terminal identifier
 <a href="#">CardPresentCode</a>	<a href="#">Terminal</a>	Required	Card Present Code
 <a href="#">CardholderPresentCode</a>	<a href="#">Terminal</a>	Required	Cardholder Present Code
 <a href="#">CardInputCode</a>	<a href="#">Terminal</a>	Required	Card Input Code
 <a href="#">CVVPresenceCode</a>	<a href="#">Terminal</a>	Required	Card Verification Value Presence Code
 <a href="#">TerminalCapabilityCode</a>	<a href="#">Terminal</a>	Required	Terminal Capability Code
 <a href="#">TerminalEnvironmentCode</a>	<a href="#">Terminal</a>	Required	Terminal Environment Code
 <a href="#">MotoECICode</a>	<a href="#">Terminal</a>	Required	Mail Order Telephone Order Electronic Indicator Code
 <a href="#">TerminalEncryptionFormat</a>	<a href="#">Terminal</a>	Optional	Terminal encryption format from integrated encryption device

 <a href="#">TerminalSerialNumber</a>	<a href="#">Terminal</a>	Optional	Terminal serial number from integrated encryption device
 <a href="#">PINBlock</a>	<a href="#">Card</a>	Required	Encrypted PIN Block
 <a href="#">KeySerialNumber</a>	<a href="#">Card</a>	Required	Key Serial Number
 <a href="#">Track2Data</a>	<a href="#">Card</a>	Conditional Not needed if MagneprintData has been included	Track 2 data
 <a href="#">MagneprintData</a>	<a href="#">Card</a>	Conditional Not needed if Track2Data has been included	Magneprint data
 <a href="#">EncryptedTrack2Data</a>	<a href="#">Card</a>	Conditional Not needed if Track2Data or MagneprintData has been included.	Encrypted Track 2 Data from integrated encryption device
 <a href="#">CardDataKeySerialNumber</a>	<a href="#">Card</a>	Conditional Not needed if Track2Data or MagneprintData has been included.	Card Data Key Serial Number from integrated encryption device
 <a href="#">EncryptedFormat</a>	<a href="#">Card</a>	Optional	Encryption format from integrated encryption device

#### 6.4.1.2 Output Fields

Name	Class	Returned	Description
 <a href="#">ExpressResponseCode</a>	<a href="#">Response</a>	Returned	Express Response Code.
 <a href="#">ExpressResponseMessage</a>	<a href="#">Response</a>	Returned	Express Response Message.
 <a href="#">HostResponseCode</a>	<a href="#">Response</a>	Returned	Host Response Code.
 <a href="#">HostResponseMessage</a>	<a href="#">Response</a>	Returned	Host Response Message.
 <a href="#">ExpressTransactionDate</a>	<a href="#">Response</a>	Returned	Express transaction date formatted [YYYYMMDD]
 <a href="#">ExpressTransactionTime</a>	<a href="#">Response</a>	Returned	Express transaction time formatted [HHMMSS]
 <a href="#">ExpressTransactionTimezone</a>	<a href="#">Response</a>	Returned	Express transaction UTC time zone
 <a href="#">CardLogo</a>	<a href="#">Response.Card</a>	Returned	Payment brand
 <a href="#">HostBatchID</a>	<a href="#">Response.Batch</a>	Returned	Unique batch identifier
 <a href="#">HostItemID</a>	<a href="#">Response.Batch</a>	Returned	Unique batch item identifier
 <a href="#">HostBatchAmount</a>	<a href="#">Response.Batch</a>	Returned	Batch amount
 <a href="#">TransactionID</a>	<a href="#">Response.Transaction</a>	Returned	Unique transaction identifier
 <a href="#">ReferenceNumber</a>	<a href="#">Response.Transaction</a>	Conditional Returns input value if supplied	User defined reference number
 <a href="#">ProcessorName</a>	<a href="#">Response.Transaction</a>	Returned	Name of processor
 <a href="#">TransactionStatus</a>	<a href="#">Response.Transaction</a>	Returned	Description of status/state of transaction

 <a href="#">TransactionStatusCode</a>	<a href="#">Response.Transaction</a>	Returned	Status/State of transaction
 <a href="#">BalanceAmount</a>	<a href="#">Response.Transaction</a>	Conditional May be returned with partial approval support	For future use
 <a href="#">BalanceCurrencyCode</a>	<a href="#">Response.Transaction</a>	Conditional May be returned with partial approval support	For future use

#### 6.4.2 DebitCardReturn

A *Return* transaction is used to refund a cardholder for a previous transaction. Debit card Returns must be done online.

##### 6.4.2.1 Input Fields

Name	Class	Required	Description
 <a href="#">ApplicationID</a>	<a href="#">Application</a>	Required	Unique application identifier
 <a href="#">ApplicationName</a>	<a href="#">Application</a>	Required	Name of application
 <a href="#">ApplicationVersion</a>	<a href="#">Application</a>	Required	Version of application
 <a href="#">AccountID</a>	<a href="#">Credentials</a>	Required	Unique account identifier
 <a href="#">AccountToken</a>	<a href="#">Credentials</a>	Required	Token used for authentication
 <a href="#">AcceptorID</a>	<a href="#">Credentials</a>	Required	MerchantID
 <a href="#">TransactionAmount</a>	<a href="#">Transaction</a>	Required	Amount of transaction
 <a href="#">OriginalAuthorizedAmount</a>	<a href="#">Transaction</a>	Optional	Original Authorization Amount
 <a href="#">ClerkNumber</a>	<a href="#">Transaction</a>	Optional	Clerk number
 <a href="#">ShiftID</a>	<a href="#">Transaction</a>	Optional	Shift ID
 <a href="#">SalesTaxAmount</a>	<a href="#">Transaction</a>	Optional	Sales tax amount
 <a href="#">ReferenceNumber</a>	<a href="#">Transaction</a>	Optional	Unique value assigned by the transaction sender
 <a href="#">TerminalID</a>	<a href="#">Terminal</a>	Required	Unique terminal identifier
 <a href="#">CardPresentCode</a>	<a href="#">Terminal</a>	Required	Card Present Code
 <a href="#">CardholderPresentCode</a>	<a href="#">Terminal</a>	Required	Cardholder Present Code
 <a href="#">CardInputCode</a>	<a href="#">Terminal</a>	Required	Card Input Code
 <a href="#">CVVPresenceCode</a>	<a href="#">Terminal</a>	Required	Card Verification Value Presence Code
 <a href="#">TerminalCapabilityCode</a>	<a href="#">Terminal</a>	Required	Terminal Capability Code
 <a href="#">TerminalEnvironmentCode</a>	<a href="#">Terminal</a>	Required	Terminal Environment Code
 <a href="#">MotoECICode</a>	<a href="#">Terminal</a>	Required	Mail Order Telephone Order Electronic Indicator Code
 <a href="#">TerminalEncryptionFormat</a>	<a href="#">Terminal</a>	Optional	Terminal encryption format from

			integrated encryption device
◆ <a href="#">TerminalSerialNumber</a>	<a href="#">Terminal</a>	Optional	Terminal serial number from integrated encryption device
◆ <a href="#">PINBlock</a>	<a href="#">Card</a>	Required	Encrypted PIN Block
◆ <a href="#">KeySerialNumber</a>	<a href="#">Card</a>	Required	Key Serial Number
◆ <a href="#">Track2Data</a>	<a href="#">Card</a>	Conditional Not needed if MagneprintData has been included	Track 2 data
◆ <a href="#">MagneprintData</a>	<a href="#">Card</a>	Conditional Not needed if Track2Data has been included	Magneprint data

#### 6.4.2.2 Output Fields

Name	Class	Returned	Description
◆ <a href="#">ExpressResponseCode</a>	<a href="#">Response</a>	Returned	Express Response Code.
◆ <a href="#">ExpressResponseMessage</a>	<a href="#">Response</a>	Returned	Express Response Message.
◆ <a href="#">HostResponseCode</a>	<a href="#">Response</a>	Returned	Host Response Code.
◆ <a href="#">HostResponseMessage</a>	<a href="#">Response</a>	Returned	Host Response Message.
◆ <a href="#">ExpressTransactionDate</a>	<a href="#">Response</a>	Returned	Express transaction date formatted [YYYYMMDD]
◆ <a href="#">ExpressTransactionTime</a>	<a href="#">Response</a>	Returned	Express transaction time formatted [HHMMSS]
◆ <a href="#">ExpressTransactionTimezone</a>	<a href="#">Response</a>	Returned	Express transaction UTC time zone
◆ <a href="#">CardLogo</a>	<a href="#">Response.Card</a>	Returned	Payment brand
◆ <a href="#">HostBatchID</a>	<a href="#">Response.Batch</a>	Returned	Unique batch identifier
◆ <a href="#">HostItemID</a>	<a href="#">Response.Batch</a>	Returned	Unique batch item identifier
◆ <a href="#">HostBatchAmount</a>	<a href="#">Response.Batch</a>	Returned	
◆ <a href="#">TransactionID</a>	<a href="#">Response.Transaction</a>	Returned	Unique transaction identifier
◆ <a href="#">ReferenceNumber</a>	<a href="#">Response.Transaction</a>	Conditional Returns input value if supplied	User defined reference number
◆ <a href="#">ProcessorName</a>	<a href="#">Response.Transaction</a>	Returned	Name of processor
◆ <a href="#">TransactionStatus</a>	<a href="#">Response.Transaction</a>	Returned	Description of status/state of transaction
◆ <a href="#">TransactionStatusCode</a>	<a href="#">Response.Transaction</a>	Returned	Status/State of transaction

### 6.4.3 DebitCardReversal

The most common type of Reversal available for Debit Transactions is a Communication/System Reversal.

A Communication/System Reversal is generated when there is a problem delivering the response back to the POS. It is the transaction requestor's responsibility to generate a Reversal transaction for all transactions that do not receive responses.

#### 6.4.3.1 Input Fields

Name	Class	Required	Description
<a href="#">ApplicationID</a>	<a href="#">Application</a>	Required	Unique application identifier
<a href="#">ApplicationName</a>	<a href="#">Application</a>	Required	Name of application
<a href="#">ApplicationVersion</a>	<a href="#">Application</a>	Required	Version of application
<a href="#">AccountID</a>	<a href="#">Credentials</a>	Required	Unique account identifier
<a href="#">AccountToken</a>	<a href="#">Credentials</a>	Required	Token used for authentication
<a href="#">AcceptorID</a>	<a href="#">Credentials</a>	Required	MerchantID
<a href="#">ReversalType</a>	<a href="#">Transaction</a>	Required	Type of reversal. In the case of Debit this is always set to ReversalType = System or ReversalType = Full
<a href="#">ClerkNumber</a>	<a href="#">Transaction</a>	Optional	Clerk number
<a href="#">ShiftID</a>	<a href="#">Transaction</a>	Optional	Shift ID
<a href="#">TransactionID</a>	<a href="#">Transaction</a>	Conditional Used for TSYS Full Reversal only	Unique transaction identifier
<a href="#">TransactionAmount</a>	<a href="#">Transaction</a>	Required	Original transaction amount
<a href="#">SalesTaxAmount</a>	<a href="#">Transaction</a>	Conditional Used when it was included in the original transaction	Sales tax amount
<a href="#">ReferenceNumber</a>	<a href="#">Transaction</a>	Optional	Unique value assigned by the transaction sender
<a href="#">TerminalID</a>	<a href="#">Terminal</a>	Required	Unique terminal identifier
<a href="#">CardPresentCode</a>	<a href="#">Terminal</a>	Required	Card Present Code
<a href="#">CardholderPresentCode</a>	<a href="#">Terminal</a>	Required	Cardholder Present Code
<a href="#">CardInputCode</a>	<a href="#">Terminal</a>	Required	Card Input Code
<a href="#">TerminalCapabilityCode</a>	<a href="#">Terminal</a>	Required	Terminal Capability Code
<a href="#">TerminalEnvironmentCode</a>	<a href="#">Terminal</a>	Required	Terminal Environment Code
<a href="#">MotoECICode</a>	<a href="#">Terminal</a>	Required	Mail Order Telephone Order Electronic Indicator Code
<a href="#">TerminalEncryptionFormat</a>	<a href="#">Terminal</a>	Optional	Terminal encryption format from integrated encryption device

 <a href="#">TerminalSerialNumber</a>	<a href="#">Terminal</a>	Optional	Terminal serial number from integrated encryption device
 <a href="#">CardNumber</a>	<a href="#">Card</a>	Conditional Not needed if optional field TransactionID has been included.	Account number on card
 <a href="#">ExpirationMonth</a>	<a href="#">Card</a>	Conditional Not needed if optional field MagneprintData or Track2Data has been included	Expiration month
 <a href="#">ExpirationYear</a>	<a href="#">Card</a>	Conditional Not needed if optional field MagneprintData or Track2Data has been included	Expiration year
 <a href="#">Track2Data</a>	<a href="#">Card</a>	Conditional Not needed if MagneprintData has been included, OR if CardNumber, ExpirationMonth, and ExpirationYear have been included. Used only when ReversalType = System.	Track 2 data
 <a href="#">MagneprintData</a>	<a href="#">Card</a>	Conditional Not needed if Track2Data has been included, OR if CardNumber, ExpirationMonth, and ExpirationYear have been included. Used only when ReversalType = System.	Magneprint data
 <a href="#">MagneprintData</a>	<a href="#">Card</a>	Conditional Not needed if Track2Data has been included, OR if CardNumber, ExpirationMonth, and ExpirationYear have been included. Used only when ReversalType = System.	Magneprint data
 <a href="#">EncryptedTrack2Data</a>	<a href="#">Card</a>	Conditional	Encrypted Track 2 Data from integrated encryption device
 <a href="#">CardDataKeySerialNumber</a>	<a href="#">Card</a>	Conditional	Card Data Key Serial Number from integrated encryption device
 <a href="#">EncryptedFormat</a>	<a href="#">Card</a>	Optional	Encryption format from integrated encryption device
 <a href="#">TransactionID</a>	<a href="#">Transaction</a>	Conditional Used for TSYS Full Reversal only	Unique transaction identifier DDD

#### 6.4.3.2 Output Fields

Name	Class	Returned	Description
<a href="#">ExpressResponseCode</a>	<a href="#">Response</a>	Returned	Express Response Code.
<a href="#">ExpressResponseMessage</a>	<a href="#">Response</a>	Returned	Express Response Message.
<a href="#">HostResponseCode</a>	<a href="#">Response</a>	Returned	Host Response Code.
<a href="#">HostResponseMessage</a>	<a href="#">Response</a>	Returned	Host Response Message.
<a href="#">ExpressTransactionDate</a>	<a href="#">Response</a>	Returned	Express transaction date formatted [YYYYMMDD]
<a href="#">ExpressTransactionTime</a>	<a href="#">Response</a>	Returned	Express transaction time formatted [HHMMSS]
<a href="#">ExpressTransactionTimezone</a>	<a href="#">Response</a>	Returned	Express transaction UTC time zone
<a href="#">CardLogo</a>	<a href="#">Response.Card</a>	Returned	Payment brand
<a href="#">HostBatchID</a>	<a href="#">Response.Batch</a>	Returned	Unique batch identifier
<a href="#">HostItemID</a>	<a href="#">Response.Batch</a>	Returned	Unique batch item identifier
<a href="#">TransactionID</a>	<a href="#">Response.Transaction</a>	Returned	Unique transaction identifier
<a href="#">ReferenceNumber</a>	<a href="#">Response.Transaction</a>	Conditional Returns input value if supplied	User defined reference number
<a href="#">ProcessorName</a>	<a href="#">Response.Transaction</a>	Returned	Name of processor
<a href="#">TransactionStatus</a>	<a href="#">Response.Transaction</a>	Returned	Description of status/state of transaction
<a href="#">TransactionStatusCode</a>	<a href="#">Response.Transaction</a>	Returned	Status/State of transaction

## Remarks

- *Processing Reversals on the Global East Platform:*

DebitCardSale: If you did not receive a response from a *DebitCardSale* transaction, call the *DebitCardReversal* method with a *ReversalType* of “System”.

DebitCardReturn: If you did not receive a response from a *DebitCardReturn* method call, you should just resend the transaction. If you get back an *ExpressResponseCode* of 22 or 23 (Duplicate AP or Duplicate) then you know the Transaction went through successfully. Otherwise the response you get back will be the correct one for that transaction. (Note: make sure you are not using the duplicate override option or the duplicate disable option when you resend the transaction.)

## 6.5 Check

### 6.5.1 CheckVerification

A *Verification* transaction is used to verify the consumers account information. It does not move funds or originate a transaction.

#### 6.5.1.1 Input Fields

Name	Class	Required	Example
 <a href="#">ApplicationID</a>	<a href="#">Application</a>	Required	Unique application identifier
 <a href="#">ApplicationName</a>	<a href="#">Application</a>	Required	Name of application
 <a href="#">ApplicationVersion</a>	<a href="#">Application</a>	Required	Version of application
 <a href="#">AccountID</a>	<a href="#">Credentials</a>	Required	Unique account identifier
 <a href="#">AccountToken</a>	<a href="#">Credentials</a>	Required	Token used for authentication
 <a href="#">AcceptorID</a>	<a href="#">Credentials</a>	Required	MerchantID
 <a href="#">TransactionAmount</a>	<a href="#">Transaction</a>	Required	Amount of transaction
 <a href="#">ClerkNumber</a>	<a href="#">Transaction</a>	Optional	Clerk number
 <a href="#">ShiftID</a>	<a href="#">Transaction</a>	Optional	Shift ID
 <a href="#">ReferenceNumber</a>	<a href="#">Transaction</a>	Required	Unique value assigned by the transaction sender
 <a href="#">MarketCode</a>	<a href="#">Transaction</a>	Required	Market Code
 <a href="#">TerminalID</a>	<a href="#">Terminal</a>	Required	Unique terminal identifier
 <a href="#">ConsentCode</a>	<a href="#">Terminal</a>	Optional	Consumer consent code
 <a href="#">PaymentAccountID</a>	<a href="#">ExtParm.PaymentAccount</a>	Optional	Payment Account ID
 <a href="#">AccountNumber</a>	<a href="#">DemandDepositAccount</a>	Conditional Not needed if PaymentAccountID has been included	Account Number of the consumers bank account.
 <a href="#">RoutingNumber</a>	<a href="#">DemandDepositAccount</a>	Conditional Not needed if PaymentAccountID has been included	Routing Number of the consumers bank.
 <a href="#">CheckNumber</a>	<a href="#">DemandDepositAccount</a>	Optional	Check Number
 <a href="#">CheckType</a>	<a href="#">DemandDepositAccount</a>	Optional	Check Type (Personal or Business)
 <a href="#">DDAAccountType</a>	<a href="#">DemandDepositAccount</a>	Optional	DDAAccountType (Checking, Savings, etc)
 <a href="#">BillingName</a>	<a href="#">Address</a>	Conditional	The name used for billing purposes. Format 'First Name Last Name'
 <a href="#">BillingAddress1</a>	<a href="#">Address</a>	Optional	The street address used for billing

			purposes
 <a href="#">BillingAddress2</a>	<a href="#">Address</a>	Optional	The street address used for billing purposes
 <a href="#">BillingCity</a>	<a href="#">Address</a>	Optional	The city name used for billing purposes
 <a href="#">BillingState</a>	<a href="#">Address</a>	Optional	The state name used for billing purposes
 <a href="#">BillingZipcode</a>	<a href="#">Address</a>	Optional	The zip code used for billing purposes
 <a href="#">BillingEmail</a>	<a href="#">Address</a>	Optional	The email address used for billing purposes
 <a href="#">BillingPhone</a>	<a href="#">Address</a>	Optional	The phone number used for billing purposes. Format 'XXXXXXXXXX'.
 <a href="#">BirthDate</a>	<a href="#">Identification</a>	Optional	Birth Date. Format 'YYYYMMDD'.
 <a href="#">DriversLicenseNumber</a>	<a href="#">Identification</a>	Optional	Drivers License Number
 <a href="#">DriversLicenseState</a>	<a href="#">Identification</a>	Optional	2 digit state abbreviation.
 <a href="#">TaxIDNumber</a>	<a href="#">Identification</a>	Optional	SSN or Tax ID Number. No dashes.

### 6.5.1.2 Output Fields

Name	Class	Returned	Description
 <a href="#">ExpressResponseCode</a>	<a href="#">Response</a>	Returned	Express Response Code.
 <a href="#">ExpressResponseMessage</a>	<a href="#">Response</a>	Returned	Express Response Message.
 <a href="#">HostResponseCode</a>	<a href="#">Response</a>	Returned	Host Response Code.
 <a href="#">HostResponseMessage</a>	<a href="#">Response</a>	Returned	Host Response Message.
 <a href="#">ExpressTransactionDate</a>	<a href="#">Response</a>	Returned	Express transaction date formatted [YYYYMMDD]
 <a href="#">ExpressTransactionTime</a>	<a href="#">Response</a>	Returned	Express transaction time formatted [HHMMSS]
 <a href="#">ExpressTransactionTimezone</a>	<a href="#">Response</a>	Returned	Express transaction UTC time zone
 <a href="#">HostBatchID</a>	<a href="#">Response.Batch</a>	Conditional	Unique batch identifier
 <a href="#">HostItemID</a>	<a href="#">Response.Batch</a>	Conditional	Unique batch item identifier
 <a href="#">HostTransactionID</a>	<a href="#">Response.Transaction</a>	Conditional	Transaction identifier from the host processor
 <a href="#">TransactionID</a>	<a href="#">Response.Transaction</a>	Returned	Unique transaction identifier
 <a href="#">ReferenceNumber</a>	<a href="#">Response.Transaction</a>	Conditional Returns input value if supplied	Unique batch item identifier
 <a href="#">ProcessorName</a>	<a href="#">Response.Transaction</a>	Returned	Name of processor
 <a href="#">TransactionStatus</a>	<a href="#">Response.Transaction</a>	Returned	Description of status/state of transaction
 <a href="#">TransactionStatusCode</a>	<a href="#">Response.Transaction</a>	Returned	Status/State of transaction
 <a href="#">PaymentAccountReferenceNumber</a>	<a href="#">Response.PaymentAccount</a>	Conditional Returned if	Payment Account Reference Number

		PaymentAccountID supplied	
 <a href="#">BillingAddress1</a>	<a href="#">Response.Address</a>	Conditional Returns input value if supplied	The street address used for billing purposes
 <a href="#">BillingZipcode</a>	<a href="#">Response.Address</a>	Conditional Returns input value if supplied	The zip code used for billing purposes

### 6.5.2 CheckSale

The *Sale* transaction is the most basic and most common transaction, used for the sale/purchase of goods or services.

#### 6.5.2.1 Input Fields

Name	Class	Required	Example
 <a href="#">ApplicationID</a>	<a href="#">Application</a>	Required	Unique application identifier
 <a href="#">ApplicationName</a>	<a href="#">Application</a>	Required	Name of application
 <a href="#">ApplicationVersion</a>	<a href="#">Application</a>	Required	Version of application
 <a href="#">AccountID</a>	<a href="#">Credentials</a>	Required	Unique account identifier
 <a href="#">AccountToken</a>	<a href="#">Credentials</a>	Required	Token used for authentication
 <a href="#">AcceptorID</a>	<a href="#">Credentials</a>	Required	MerchantID
 <a href="#">TransactionAmount</a>	<a href="#">Transaction</a>	Required	Amount of transaction
 <a href="#">ClerkNumber</a>	<a href="#">Transaction</a>	Optional	Clerk number
 <a href="#">ShiftID</a>	<a href="#">Transaction</a>	Optional	Shift ID
 <a href="#">ReferenceNumber</a>	<a href="#">Transaction</a>	Required	Unique value assigned by the transaction sender
 <a href="#">MarketCode</a>	<a href="#">Transaction</a>	Required	Market Code
 <a href="#">TerminalID</a>	<a href="#">Terminal</a>	Required	Unique terminal identifier
 <a href="#">ConsentCode</a>	<a href="#">Terminal</a>	Optional	Consumer consent code
 <a href="#">PaymentAccountID</a>	<a href="#">ExtParm.PaymentAccount</a>	Optional	Payment Account ID
 <a href="#">AccountNumber</a>	<a href="#">DemandDepositAccount</a>	Conditional Not needed if PaymentAccountID has been included	Account Number of the consumer bank account.
 <a href="#">RoutingNumber</a>	<a href="#">DemandDepositAccount</a>	Conditional Not needed if PaymentAccountID has been included	Routing Number of the consumer bank.
 <a href="#">CheckNumber</a>	<a href="#">DemandDepositAccount</a>	Optional	Check Number
 <a href="#">CheckType</a>	<a href="#">DemandDepositAccount</a>	Conditional Required if CheckNumber is	Check Type (Personal or Business)

		included	
 <a href="#">DDAAccountType</a>	<a href="#">DemandDepositAccount</a>	Required	DDAAccountType (Checking, Savings, etc)
 <a href="#">BillingName</a>	<a href="#">Address</a>	Conditional	The name used for billing purposes. Format 'First Name Last Name'
 <a href="#">BillingAddress1</a>	<a href="#">Address</a>	Optional	The street address used for billing purposes
 <a href="#">BillingAddress2</a>	<a href="#">Address</a>	Optional	The street address used for billing purposes
 <a href="#">BillingCity</a>	<a href="#">Address</a>	Optional	The city name used for billing purposes
 <a href="#">BillingState</a>	<a href="#">Address</a>	Optional	The state name used for billing purposes
 <a href="#">BillingZipcode</a>	<a href="#">Address</a>	Optional	The zip code used for billing purposes
 <a href="#">BillingEmail</a>	<a href="#">Address</a>	Optional	The email address used for billing purposes
 <a href="#">BillingPhone</a>	<a href="#">Address</a>	Optional	The phone number used for billing purposes. Format 'XXXXYYZZZZ'.
 <a href="#">BirthDate</a>	<a href="#">Identification</a>	Optional	Birth Date. Format 'YYYYMMDD'.
 <a href="#">DriversLicenseNumber</a>	<a href="#">Identification</a>	Optional	Drivers License Number
 <a href="#">DriversLicenseState</a>	<a href="#">Identification</a>	Optional	2 digit state abbreviation.
 <a href="#">TaxIDNumber</a>	<a href="#">Identification</a>	Optional	SSN or Tax ID Number. No dashes.
 <a href="#">ScheduledTaskReferenceNumber</a>	<a href="#">ExtParm.ScheduledTask</a>	Optional <sup>2</sup>	User defined unique reference number that identifies this scheduled task.
 <a href="#">RunFrequency</a>	<a href="#">ExtParm.ScheduledTask</a>	Optional <sup>2</sup>	The frequency you want the task to run.
 <a href="#">RunStartDate</a>	<a href="#">ExtParm.ScheduledTask</a>	Optional <sup>2</sup>	The date you want the task to start.
 <a href="#">RunUntilCancelFlag</a>	<a href="#">ExtParm.ScheduledTask</a>	Optional <sup>2</sup>	A flag stating if this task should keep running at the selected Run Frequency until the user cancel it, or to just run for the given amount of RunCycles.
 <a href="#">RunCycles</a>	<a href="#">ExtParm.ScheduledTask</a>	Optional <sup>2</sup>	The amount of times you want the task to run.
 <a href="#">ScheduledTaskStatus</a>	<a href="#">ExtParm.ScheduledTask</a>	Optional <sup>2</sup>	Active or Disabled

<sup>1</sup> Not Used

<sup>2</sup> Required when Scheduled Task object is being included.

### 6.5.2.2 Output Fields

Name	Class	Returned	Description
 <a href="#">ExpressResponseCode</a>	<a href="#">Response</a>	Returned	Express Response Code.

 <a href="#">ExpressResponseMessage</a>	<a href="#">Response</a>	Returned	Express Response Message.
 <a href="#">HostResponseCode</a>	<a href="#">Response</a>	Returned	Host Response Code.
 <a href="#">HostResponseMessage</a>	<a href="#">Response</a>	Returned	Host Response Message.
 <a href="#">ExpressTransactionDate</a>	<a href="#">Response</a>	Returned	Express transaction date formatted [YYYYMMDD]
 <a href="#">ExpressTransactionTime</a>	<a href="#">Response</a>	Returned	Express transaction time formatted [HHMMSS]
 <a href="#">ExpressTransactionTimezone</a>	<a href="#">Response</a>	Returned	Express transaction UTC time zone
 <a href="#">HostTransactionID</a>	<a href="#">Response.Transaction</a>	Conditional	Transaction identifier from the host processor
 <a href="#">TransactionID</a>	<a href="#">Response.Transaction</a>	Returned	Unique transaction identifier
 <a href="#">ReferenceNumber</a>	<a href="#">Response.Transaction</a>	Conditional Returns input value if supplied	Unique batch item identifier
 <a href="#">ProcessorName</a>	<a href="#">Response.Transaction</a>	Returned	Name of processor
 <a href="#">TransactionStatus</a>	<a href="#">Response.Transaction</a>	Returned	Description of status/state of transaction
 <a href="#">TransactionStatusCode</a>	<a href="#">Response.Transaction</a>	Returned	Status/State of transaction
 <a href="#">PaymentAccountID</a>	<a href="#">Response.PaymentAccount</a>	Conditional Returned if Scheduled Task class was supplied	A unique system generated identifier.
 <a href="#">PaymentAccountReferenceNumber</a>	<a href="#">Response.PaymentAccount</a>	Conditional Returned if PaymentAccountID supplied	Payment Account Reference Number
 <a href="#">ScheduledTaskID</a>	<a href="#">Response.ScheduledTask</a>	Conditional Returned if Scheduled Task class was supplied	A unique system generated identifier.
 <a href="#">BillingAddress1</a>	<a href="#">Response.Address</a>	Conditional Returns input value if supplied	The street address used for billing purposes
 <a href="#">BillingZipcode</a>	<a href="#">Response.Address</a>	Conditional Returns input value if supplied	The zip code used for billing purposes

### 6.5.3 CheckCredit

A *Credit* transaction is used to refund a consumer for a previous transaction. A Return transaction is like a Credit transaction except it requires a TransactionID from the original dependent transaction.

#### 6.5.3.1 Input Fields

Name	Class	Required	Example
 <a href="#">ApplicationID</a>	<a href="#">Application</a>	Required	Unique application identifier
 <a href="#">ApplicationName</a>	<a href="#">Application</a>	Required	Name of application
 <a href="#">ApplicationVersion</a>	<a href="#">Application</a>	Required	Version of application
 <a href="#">AccountID</a>	<a href="#">Credentials</a>	Required	Unique account identifier
 <a href="#">AccountToken</a>	<a href="#">Credentials</a>	Required	Token used for authentication
 <a href="#">AcceptorID</a>	<a href="#">Credentials</a>	Required	MerchantID
 <a href="#">TransactionAmount</a>	<a href="#">Transaction</a>	Required	Amount of transaction
 <a href="#">ClerkNumber</a>	<a href="#">Transaction</a>	Optional	Clerk number
 <a href="#">ShiftID</a>	<a href="#">Transaction</a>	Optional	Shift ID
 <a href="#">ReferenceNumber</a>	<a href="#">Transaction</a>	Required	Unique value assigned by the transaction sender
 <a href="#">MarketCode</a>	<a href="#">Transaction</a>	Required	Market Code
 <a href="#">TerminalID</a>	<a href="#">Terminal</a>	Required	Unique terminal identifier
 <a href="#">ConsentCode</a>	<a href="#">Terminal</a>	Optional	Consumer consent code
 <a href="#">PaymentAccountID</a>	<a href="#">ExtParm.PaymentAccount</a>	Optional	Payment Account ID
 <a href="#">AccountNumber</a>	<a href="#">DemandDepositAccount</a>	Conditional Not needed if PaymentAccountID has been included	Account Number of the consumers bank account.
 <a href="#">RoutingNumber</a>	<a href="#">DemandDepositAccount</a>	Conditional Not needed if PaymentAccountID has been included	Routing Number of the consumers bank.
 <a href="#">CheckNumber</a>	<a href="#">DemandDepositAccount</a>	Optional	Check Number
 <a href="#">CheckType</a>	<a href="#">DemandDepositAccount</a>	Conditional Required if CheckNumber is included	Check Type (Personal or Business)
 <a href="#">DDAAccountType</a>	<a href="#">DemandDepositAccount</a>	Required	DDAAccountType (Checking, Savings, etc)
 <a href="#">BillingName</a>	<a href="#">Address</a>	Conditional	The name used for billing purposes. Format 'First Name Last Name'
 <a href="#">BillingAddress1</a>	<a href="#">Address</a>	Optional	The street address used for billing purposes
 <a href="#">BillingAddress2</a>	<a href="#">Address</a>	Optional	The street address used for billing purposes

 <a href="#">BillingCity</a>	<a href="#">Address</a>	Optional	The city name used for billing purposes
 <a href="#">BillingState</a>	<a href="#">Address</a>	Optional	The state name used for billing purposes
 <a href="#">BillingZipcode</a>	<a href="#">Address</a>	Optional	The zip code used for billing purposes
 <a href="#">BillingEmail</a>	<a href="#">Address</a>	Optional	The email address used for billing purposes
 <a href="#">BillingPhone</a>	<a href="#">Address</a>	Optional	The phone number used for billing purposes. Format 'XXXXXXXXXX'.
 <a href="#">BirthDate</a>	<a href="#">Identification</a>	Optional	Birth Date. Format 'YYYYMMDD'.
 <a href="#">DriversLicenseNumber</a>	<a href="#">Identification</a>	Optional	Drivers License Number
 <a href="#">DriversLicenseState</a>	<a href="#">Identification</a>	Optional	2 digit state abbreviation.
 <a href="#">TaxIDNumber</a>	<a href="#">Identification</a>	Optional	SSN or Tax ID Number. No dashes.

### 6.5.3.2 Output Fields

Name	Class	Returned	Description
 <a href="#">ExpressResponseCode</a>	<a href="#">Response</a>	Returned	Express Response Code.
 <a href="#">ExpressResponseMessage</a>	<a href="#">Response</a>	Returned	Express Response Message.
 <a href="#">HostResponseCode</a>	<a href="#">Response</a>	Returned	Host Response Code.
 <a href="#">HostResponseMessage</a>	<a href="#">Response</a>	Returned	Host Response Message.
 <a href="#">ExpressTransactionDate</a>	<a href="#">Response</a>	Returned	Express transaction date formatted [YYYYMMDD]
 <a href="#">ExpressTransactionTime</a>	<a href="#">Response</a>	Returned	Express transaction time formatted [HHMMSS]
 <a href="#">ExpressTransactionTimezone</a>	<a href="#">Response</a>	Returned	Express transaction UTC time zone
 <a href="#">HostTransactionID</a>	<a href="#">Response.Transaction</a>	Conditional	Transaction identifier from the host processor
 <a href="#">TransactionID</a>	<a href="#">Response.Transaction</a>	Returned	Unique transaction identifier
 <a href="#">ReferenceNumber</a>	<a href="#">Response.Transaction</a>	Conditional Returns input value if supplied	Unique batch item identifier
 <a href="#">ProcessorName</a>	<a href="#">Response.Transaction</a>	Returned	Name of processor
 <a href="#">TransactionStatus</a>	<a href="#">Response.Transaction</a>	Returned	Description of status/state of transaction
 <a href="#">TransactionStatusCode</a>	<a href="#">Response.Transaction</a>	Returned	Status/State of transaction
 <a href="#">PaymentAccountReferenceNumber</a>	<a href="#">Response.PaymentAccount</a>	Conditional Returned if PaymentAccountID supplied	Payment Account Reference Number
 <a href="#">BillingAddress1</a>	<a href="#">Response.Address</a>	Conditional Returns input value if supplied	The street address used for billing purposes
 <a href="#">BillingZipcode</a>	<a href="#">Response.Address</a>	Conditional Returns input value if supplied	The zip code used for billing purposes

## 6.5.4 CheckReturn

A *Return* transaction is used to refund a consumer for a previous transaction. A Return transaction requires a TransactionID from the original dependent transaction.

### 6.5.4.1 Input Fields

Name	Class	Required	Example
 <a href="#">ApplicationID</a>	<a href="#">Application</a>	Required	Unique application identifier
 <a href="#">ApplicationName</a>	<a href="#">Application</a>	Required	Name of application
 <a href="#">ApplicationVersion</a>	<a href="#">Application</a>	Required	Version of application
 <a href="#">AccountID</a>	<a href="#">Credentials</a>	Required	Unique account identifier
 <a href="#">AccountToken</a>	<a href="#">Credentials</a>	Required	Token used for authentication
 <a href="#">AcceptorID</a>	<a href="#">Credentials</a>	Required	MerchantID
 <a href="#">TerminalID</a>	<a href="#">Terminal</a>	Required	Unique terminal identifier
 <a href="#">ConsentCode</a>	<a href="#">Terminal</a>	Optional	Consumer consent code
 <a href="#">TransactionID</a>	<a href="#">Transaction</a>	Required	TransactionID of the original sale transaction
 <a href="#">TransactionAmount</a>	<a href="#">Transaction</a>	Required	Amount of transaction (must match original transaction amount at this time)
 <a href="#">ReferenceNumber</a>	<a href="#">Transaction</a>	Required	Unique value assigned by the transaction sender
 <a href="#">ClerkNumber</a>	<a href="#">Transaction</a>	Optional	Clerk number
 <a href="#">ShiftID</a>	<a href="#">Transaction</a>	Optional	Shift ID
 <a href="#">MarketCode</a>	<a href="#">Transaction</a>	Required	Market Code

### 6.5.4.2 Output Fields

Name	Class	Returned	Description
 <a href="#">ExpressResponseCode</a>	<a href="#">Response</a>	Returned	Express Response Code.
 <a href="#">ExpressResponseMessage</a>	<a href="#">Response</a>	Returned	Express Response Message.
 <a href="#">HostResponseCode</a>	<a href="#">Response</a>	Returned	Host Response Code.
 <a href="#">HostResponseMessage</a>	<a href="#">Response</a>	Returned	Host Response Message.
 <a href="#">ExpressTransactionDate</a>	<a href="#">Response</a>	Returned	Express transaction date formatted [YYYYMMDD]
 <a href="#">ExpressTransactionTime</a>	<a href="#">Response</a>	Returned	Express transaction time formatted [HHMMSS]
 <a href="#">ExpressTransactionTimezone</a>	<a href="#">Response</a>	Returned	Express transaction UTC time zone
 <a href="#">HostTransactionID</a>	<a href="#">Response.Transaction</a>	Conditional	Transaction identifier from the host processor

 <a href="#">TransactionID</a>	<a href="#">Response.Transaction</a>	Returned	Unique transaction identifier
 <a href="#">ReferenceNumber</a>	<a href="#">Response.Transaction</a>	Returned	Unique value assigned by the transaction sender
 <a href="#">ProcessorName</a>	<a href="#">Response.Transaction</a>	Returned	Name of processor
 <a href="#">TransactionStatus</a>	<a href="#">Response.Transaction</a>	Returned	Description of status/state of transaction
 <a href="#">TransactionStatusCode</a>	<a href="#">Response.Transaction</a>	Returned	Status/State of transaction

### 6.5.5 CheckVoid

A *Void* transaction is used to completely back out a previous *Sale*, *Credit*, or *Return* transaction. This applies to all transactions that were entered into the current batch, and only for the full dollar amount of the original transaction.

#### 6.5.5.1 Input Fields

Name	Class	Required	Example
 <a href="#">ApplicationID</a>	<a href="#">Application</a>	Required	Unique application identifier
 <a href="#">ApplicationName</a>	<a href="#">Application</a>	Required	Name of application
 <a href="#">ApplicationVersion</a>	<a href="#">Application</a>	Required	Version of application
 <a href="#">AccountID</a>	<a href="#">Credentials</a>	Required	Unique account identifier
 <a href="#">AccountToken</a>	<a href="#">Credentials</a>	Required	Token used for authentication
 <a href="#">AcceptorID</a>	<a href="#">Credentials</a>	Required	MerchantID
 <a href="#">TerminalID</a>	<a href="#">Terminal</a>	Required	Unique terminal identifier
 <a href="#">TransactionID</a>	<a href="#">Transaction</a>	Required	TransactionID of the original sale, credit, or return transaction
 <a href="#">ReferenceNumber</a>	<a href="#">Transaction</a>	Required	Unique value assigned by the transaction sender
 <a href="#">ClerkNumber</a>	<a href="#">Transaction</a>	Optional	Clerk number
 <a href="#">ShiftID</a>	<a href="#">Transaction</a>	Optional	Shift ID

#### 6.5.5.2 Output Fields

Name	Class	Returned	Description
 <a href="#">ExpressResponseCode</a>	<a href="#">Response</a>	Returned	Express Response Code.
 <a href="#">ExpressResponseMessage</a>	<a href="#">Response</a>	Returned	Express Response Message.
 <a href="#">HostResponseCode</a>	<a href="#">Response</a>	Returned	Host Response Code.
 <a href="#">HostResponseMessage</a>	<a href="#">Response</a>	Returned	Host Response Message.
 <a href="#">ExpressTransactionDate</a>	<a href="#">Response</a>	Returned	Express transaction date formatted [YYYYMMDD]

 <a href="#">ExpressTransactionTime</a>	<a href="#">Response</a>	Returned	Express transaction time formatted [HHMMSS]
 <a href="#">ExpressTransactionTimezone</a>	<a href="#">Response</a>	Returned	Express transaction UTC time zone
 <a href="#">HostTransactionID</a>	<a href="#">Response.Transaction</a>	Conditional	Transaction identifier from the host processor
 <a href="#">TransactionID</a>	<a href="#">Response.Transaction</a>	Returned	Unique transaction identifier
 <a href="#">ReferenceNumber</a>	<a href="#">Response.Transaction</a>	Returned	Unique value assigned by the transaction sender
 <a href="#">ProcessorName</a>	<a href="#">Response.Transaction</a>	Returned	Name of processor
 <a href="#">TransactionStatus</a>	<a href="#">Response.Transaction</a>	Returned	Description of status/state of transaction
 <a href="#">TransactionStatusCode</a>	<a href="#">Response.Transaction</a>	Returned	Status/State of transaction

### 6.5.6 CheckReversal

There is only one type of *Reversal* available for Check Transactions and that is a Communications/System Reversal.

A Communications/System Reversal is generated when there is a problem delivering the response back to the POS. It is the transaction requestor's responsibility to generate a *Reversal* transaction for all transactions that do not receive responses.

#### 6.5.6.1 Input Fields

Name	Class	Required	Description
 <a href="#">ApplicationID</a>	<a href="#">Application</a>	Required	Unique application identifier
 <a href="#">ApplicationName</a>	<a href="#">Application</a>	Required	Name of application
 <a href="#">ApplicationVersion</a>	<a href="#">Application</a>	Required	Version of application
 <a href="#">AccountID</a>	<a href="#">Credentials</a>	Required	Unique account identifier
 <a href="#">AccountToken</a>	<a href="#">Credentials</a>	Required	Token used for authentication
 <a href="#">AcceptorID</a>	<a href="#">Credentials</a>	Required	MerchantID
 <a href="#">ReversalType</a>	<a href="#">Transaction</a>	Required	Type of reversal. In the case of Check, this value is always set to ReversalType = System
 <a href="#">ClerkNumber</a>	<a href="#">Transaction</a>	Optional	Clerk number
 <a href="#">ShiftID</a>	<a href="#">Transaction</a>	Optional	Shift ID
 <a href="#">TransactionAmount</a>	<a href="#">Transaction</a>	Required	Original transaction amount
 <a href="#">SalesTaxAmount</a>	<a href="#">Transaction</a>	Conditional Used when it was included in the original transaction	Sales tax amount
 <a href="#">ReferenceNumber</a>	<a href="#">Transaction</a>	Required	Unique value assigned by the transaction sender

 <a href="#">TransactionID</a>	<a href="#">Transaction</a>	Optional	TransactionID returned in original transaction
 <a href="#">TerminalID</a>	<a href="#">Terminal</a>	Required	Unique terminal identifier
 <a href="#">PaymentAccountID</a>	<a href="#">ExtParm.PaymentAccount</a>	Optional	Payment Account ID

### 6.5.6.2 Output Fields

Name	Class	Returned	Description
 <a href="#">ExpressResponseCode</a>	<a href="#">Response</a>	Returned	Express Response Code.
 <a href="#">ExpressResponseMessage</a>	<a href="#">Response</a>	Returned	Express Response Message.
 <a href="#">HostResponseCode</a>	<a href="#">Response</a>	Returned	Host Response Code.
 <a href="#">HostResponseMessage</a>	<a href="#">Response</a>	Returned	Host Response Message.
 <a href="#">ExpressTransactionDate</a>	<a href="#">Response</a>	Returned	Express transaction date formatted [YYYYMMDD]
 <a href="#">ExpressTransactionTime</a>	<a href="#">Response</a>	Returned	Express transaction time formatted [HHMMSS]
 <a href="#">ExpressTransactionTimezone</a>	<a href="#">Response</a>	Returned	Express transaction UTC time zone
 <a href="#">TransactionID</a>	<a href="#">Response.Transaction</a>	Returned	Unique transaction identifier
 <a href="#">ReferenceNumber</a>	<a href="#">Response.Transaction</a>	Conditional Returns input value if supplied	User defined reference number
 <a href="#">ProcessorName</a>	<a href="#">Response.Transaction</a>	Returned	Name of processor
 <a href="#">TransactionStatus</a>	<a href="#">Response.Transaction</a>	Returned	Description of status/state of transaction
 <a href="#">TransactionStatusCode</a>	<a href="#">Response.Transaction</a>	Returned	Status/State of transaction

## 6.6 Decryption

### 6.6.1 MagneprintDataDecrypt

*MagneprintDataDecrypt* takes in the encrypted data generated by the Magneprint swipe device. It returns the decrypted values.

#### 6.6.1.1 Input Fields

Name	Class	Required	Description
 <a href="#">ApplicationID</a>	<a href="#">Application</a>	Required	Unique application identifier
 <a href="#">ApplicationName</a>	<a href="#">Application</a>	Required	Name of application
 <a href="#">ApplicationVersion</a>	<a href="#">Application</a>	Required	Version of application
 <a href="#">AccountID</a>	<a href="#">Credentials</a>	Required	Unique account identifier
 <a href="#">AccountToken</a>	<a href="#">Credentials</a>	Required	Token used for authentication
 <a href="#">AcceptorID</a>	<a href="#">Credentials</a>	Required	MerchantID
 <a href="#">TerminalID</a>	<a href="#">Terminal</a>	Required	Unique terminal identifier
 <a href="#">MagneprintData</a>	<a href="#">Card</a>	Required	Encrypted Magneprint swipe data

#### 6.6.1.2 Output Fields

Name	Class	Returned	Description
 <a href="#">ExpressResponseCode</a>	<a href="#">Response</a>	Returned	Express Response Code.
 <a href="#">ExpressResponseMessage</a>	<a href="#">Response</a>	Returned	Express Response Message.
 <a href="#">ExpressTransactionDate</a>	<a href="#">Response</a>	Returned	Express transaction date formatted [YYYYMMDD]
 <a href="#">ExpressTransactionTime</a>	<a href="#">Response</a>	Returned	Express transaction time formatted [HHMMSS]
 <a href="#">ExpressTransactionTimezone</a>	<a href="#">Response</a>	Returned	Express transaction UTC time zone
 <a href="#">CardLogo</a>	<a href="#">Response.Card</a>	Returned	Payment brand
 <a href="#">CardNumber</a>	<a href="#">Response.Card</a>	Conditional Returns if present in Magneprint data	Account number on card
 <a href="#">TruncatedCardNumber</a>	<a href="#">Response.Card</a>	Conditional Returns if present in Magneprint data	Truncated Card Number
 <a href="#">ExpirationMonth</a>	<a href="#">Response.Card</a>	Conditional Returns if	Expiration Month

		present in Magneprint data	
 <a href="#">ExpirationYear</a>	<a href="#">Response.Card</a>	Conditional Returns if present in Magneprint data	Expiration Year
 <a href="#">CardholderName</a>	<a href="#">Response.Card</a>	Conditional Returns if present in Magneprint data	Cardholder Name
 <a href="#">ProcessorName</a>	<a href="#">Response.Transaction</a>	Returned	Name of processor

**Remarks:** Available through the Transaction URL.

## 6.7 Reporting

### 6.7.1 TransactionQuery

The *TransactionQuery* method is used to retrieve transaction information based on Parameters object fields passed in. The ReportingData field will return transaction information in xml format.

#### 6.7.1.1 Input Fields

Name	Class	Required	Description
 <a href="#">ApplicationID</a>	<a href="#">Application</a>	Required	Unique application identifier
 <a href="#">ApplicationName</a>	<a href="#">Application</a>	Required	Name of application
 <a href="#">ApplicationVersion</a>	<a href="#">Application</a>	Required	Version of application
 <a href="#">AccountID</a>	<a href="#">Credentials</a>	Required	Unique account identifier
 <a href="#">AccountToken</a>	<a href="#">Credentials</a>	Required	Secret token used for authentication
 <a href="#">AcceptorID</a>	<a href="#">Credentials</a>	Required	MerchantID
 <a href="#">TransactionDateTimeBegin</a>	<a href="#">Parameters</a>	Required	Begin date/time of transaction range formatted [yyyy-MM-dd HH:mm:ss.fff]
 <a href="#">TransactionDateTimeEnd</a>	<a href="#">Parameters</a>	Required	End date/time of transaction range formatted [yyyy-MM-dd HH:mm:ss.fff]
 <a href="#">TransactionID</a>	<a href="#">Parameters</a>	Optional	Unique transaction identifier
 <a href="#">TerminalID</a>	<a href="#">Parameters</a>	Optional	Unique terminal identifier
 <a href="#">ApplicationID</a>	<a href="#">Parameters</a>	Optional	Unique application identifier
 <a href="#">ApprovalNumber</a>	<a href="#">Parameters</a>	Optional	Issuer assigned approval number
 <a href="#">ApprovedAmount</a>	<a href="#">Parameters</a>	Optional	Approved transaction amount
 <a href="#">ExpressTransactionDate</a>	<a href="#">Parameters</a>	Optional	Express transaction date formatted [YYYYMMDD]
 <a href="#">ExpressTransactionTime</a>	<a href="#">Parameters</a>	Optional	Express transaction time formatted [HHMMSS]
 <a href="#">HostBatchID</a>	<a href="#">Parameters</a>	Optional	Unique host batch identifier
 <a href="#">HostItemID</a>	<a href="#">Parameters</a>	Optional	Unique host batch item identifier
 <a href="#">HostReversalQueueID</a>	<a href="#">Parameters</a>	Optional	Reversal queue identifier
 <a href="#">OriginalAuthorizedAmount</a>	<a href="#">Parameters</a>	Optional	Original dollar amount authorized
 <a href="#">ReferenceNumber</a>	<a href="#">Parameters</a>	Optional	User defined reference number
 <a href="#">ShiftID</a>	<a href="#">Parameters</a>	Optional	Shift identifier
 <a href="#">SourceTransactionID</a>	<a href="#">Parameters</a>	Optional	Unique transaction identifier

			from a previous transaction
◆ <a href="#">TrackingID</a>	<a href="#">Parameters</a>	Optional	Internal transaction tracking identifier
◆ <a href="#">TransactionAmount</a>	<a href="#">Parameters</a>	Optional	Dollar amount of transaction
◆ <a href="#">TransactionSetupID</a>	<a href="#">Parameters</a>	Optional	Transaction Setup ID
◆ <a href="#">TransactionStatus</a>	<a href="#">Parameters</a>	Optional	Status of transaction
◆ <a href="#">TransactionType</a>	<a href="#">Parameters</a>	Optional	Type of transaction
◆ <a href="#">XID</a>	<a href="#">Parameters</a>	Optional	Verify by Visa value
◆ <a href="#">ReverseOrder</a>	<a href="#">Parameters</a>	Optional	Flag to query records in descending order

#### 6.7.1.2 Output Fields

Name	Class	Returned	Description
◆ <a href="#">ExpressResponseCode</a>	<a href="#">Response</a>	Returned	Reporting Response Code
◆ <a href="#">ExpressResponseMessage</a>	<a href="#">Response</a>	Returned	Reporting Response Message
◆ <a href="#">ExpressTransactionDate</a>	<a href="#">Response</a>	Returned	Express transaction date formatted [YYYYMMDD]
◆ <a href="#">ExpressTransactionTime</a>	<a href="#">Response</a>	Returned	Express transaction time formatted [HHMMSS]
◆ <a href="#">ExpressTransactionTimezone</a>	<a href="#">Response</a>	Returned	Express transaction UTC time zone
◆ <a href="#">ReportingData</a>	<a href="#">Response</a>	Returned	Transaction information in xml format. A maximum of 1000 records can be returned.
◆ <a href="#">ReportingID</a>	<a href="#">Response</a>	Returned	Unique reporting identifier

## 6.8 Services

### 6.8.1 PaymentAccountCreate

The *PaymentAccountCreate* method is used to create a new Payment Account record.

#### 6.8.1.1 Input Fields

Name	Class	Required	Description
 <a href="#">ApplicationID</a>	<a href="#">Application</a>	Required	Unique application identifier
 <a href="#">ApplicationName</a>	<a href="#">Application</a>	Required	Name of application
 <a href="#">ApplicationVersion</a>	<a href="#">Application</a>	Required	Version of application
 <a href="#">AccountID</a>	<a href="#">Credentials</a>	Required	Unique account identifier
 <a href="#">AccountToken</a>	<a href="#">Credentials</a>	Required	Secret token used for authentication
 <a href="#">AcceptorID</a>	<a href="#">Credentials</a>	Required	MerchantID
 <a href="#">PaymentAccountType</a>	<a href="#">PaymentAccount</a>	Required	Payment Account Type
 <a href="#">PaymentAccountReferenceNumber</a>	<a href="#">PaymentAccount</a>	Required	Payment Account Reference Number
 <a href="#">PASSUpdaterBatchStatus</a>	<a href="#">PaymentAccount</a>	Optional <sup>2</sup>	Specifies whether or not the PASS record will be included in the next PASS Updater batch
 <a href="#">PASSUpdaterOption</a>	<a href="#">PaymentAccount</a>	Optional <sup>2</sup>	Specifies whether or not the PASS record will be updated automatically
 <a href="#">CardNumber</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Card Number
 <a href="#">ExpirationMonth</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Expiration Month (MM)
 <a href="#">ExpirationYear</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Expiration Year (YY)
 <a href="#">Track1Data</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Track1 Data
 <a href="#">Track2Data</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Track2 Data
 <a href="#">MagneprintData</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Magneprint Data
 <a href="#">EncryptedTrack1Data</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Encrypted Track 1 Data from integrated encryption device
 <a href="#">EncryptedTrack2Data</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Encrypted Track 2 Data from integrated encryption device
 <a href="#">EncryptedCardData</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Encrypted Card Data (keyed) from integrated encryption device
 <a href="#">CardDataKeySerialNumber</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Card Data Key Serial Number from integrated encryption device
 <a href="#">EncryptedFormat</a>	<a href="#">Card</a>	Optional	Encryption format from integrated encryption device

 <a href="#">AccountNumber</a>	<a href="#">DemandDepositAccount</a>	Conditional - (Required if PaymentAccountType is a DDA account)	Account Number
 <a href="#">RoutingNumber</a>	<a href="#">DemandDepositAccount</a>	Conditional - (Required if PaymentAccountType is a DDA account)	Routing Number
 <a href="#">BillingName</a>	<a href="#">Address</a>	Optional	The name used for billing purposes
 <a href="#">BillingAddress1</a>	<a href="#">Address</a>	Optional	The street address used for billing purposes
 <a href="#">BillingAddress2</a>	<a href="#">Address</a>	Optional	The street address used for billing purposes
 <a href="#">BillingCity</a>	<a href="#">Address</a>	Optional	The city name used for billing purposes
 <a href="#">BillingState</a>	<a href="#">Address</a>	Optional	The state name used for billing purposes
 <a href="#">BillingZipcode</a>	<a href="#">Address</a>	Optional	The zip code used for billing purposes
 <a href="#">BillingEmail</a>	<a href="#">Address</a>	Optional	The email address used for billing purposes
 <a href="#">BillingPhone</a>	<a href="#">Address</a>	Optional	The phone number used for billing purposes
 <a href="#">ShippingName</a>	<a href="#">Address</a>	Optional	The name used for shipping purposes
 <a href="#">ShippingAddress1</a>	<a href="#">Address</a>	Optional	The street address used for Shipping purposes
 <a href="#">ShippingAddress2</a>	<a href="#">Address</a>	Optional	The street address used for Shipping purposes
 <a href="#">ShippingCity</a>	<a href="#">Address</a>	Optional	The city name used for Shipping purposes
 <a href="#">ShippingState</a>	<a href="#">Address</a>	Optional	The state name used for Shipping purposes
 <a href="#">ShippingZipcode</a>	<a href="#">Address</a>	Optional	The zip code used for Shipping purposes
 <a href="#">ShippingEmail</a>	<a href="#">Address</a>	Optional	The email address used for Shipping purposes
 <a href="#">ShippingPhone</a>	<a href="#">Address</a>	Optional	The phone number used for Shipping purposes

<sup>1</sup>	If PaymentAccountType = CreditCard then exactly one of the following field groups needs to be included: CardNumber / ExpirationMonth / ExpirationYear <b>or</b> Track1Data <b>or</b> Track2Data <b>or</b> MagneprintData <b>or</b> EncryptedTrack2Data <b>or</b> EncryptedTrack1Data <b>or</b> EncryptedCardData
<sup>2</sup>	Used with Account Updater service only.

### 6.8.1.2 Output Fields

Name	Class	Returned	Description
 <a href="#">ExpressResponseCode</a>	<a href="#">Response</a>	Returned	Express Response Code
 <a href="#">ExpressResponseMessage</a>	<a href="#">Response</a>	Returned	Express Response Message

 <a href="#">ExpressTransactionDate</a>	<a href="#">Response</a>	Returned	Express transaction date formatted [YYYYMMDD]
 <a href="#">ExpressTransactionTime</a>	<a href="#">Response</a>	Returned	Express transaction time formatted [HHMMSS]
 <a href="#">ExpressTransactionTimezone</a>	<a href="#">Response</a>	Returned	Express transaction UTC time zone
 <a href="#">ServicesID</a>	<a href="#">Response</a>	Returned	Unique services identifier
 <a href="#">PaymentAccountID</a>	<a href="#">Response.PaymentAccount</a>	Returned	Unique GUID that identifies the Payment Account.
 <a href="#">PaymentAccountReferenceNumber</a>	<a href="#">Response.PaymentAccount</a>	Returned	Payment Account Reference Number

## Remarks

- The required fields are dependent upon the PaymentAccountType selected.

## 6.8.2 PaymentAccountDelete

The *PaymentAccountDelete* method is used to delete a Payment Account record.

### 6.8.2.1 Input Fields

Name	Class	Required	Description
 <a href="#">ApplicationID</a>	<a href="#">Application</a>	Required	Unique application identifier
 <a href="#">ApplicationName</a>	<a href="#">Application</a>	Required	Name of application
 <a href="#">ApplicationVersion</a>	<a href="#">Application</a>	Required	Version of application
 <a href="#">AccountID</a>	<a href="#">Credentials</a>	Required	Unique account identifier
 <a href="#">AccountToken</a>	<a href="#">Credentials</a>	Required	Secret token used for authentication
 <a href="#">AcceptorID</a>	<a href="#">Credentials</a>	Required	MerchantID
 <a href="#">PaymentAccountID</a>	<a href="#">PaymentAccount</a>	Required	Unique GUID that identifies the Payment Account.

### 6.8.2.2 Output Fields

Name	Class	Returned	Description
 <a href="#">ExpressResponseCode</a>	<a href="#">Response</a>	Returned	Express Response Code
 <a href="#">ExpressResponseMessage</a>	<a href="#">Response</a>	Returned	Express Response Message
 <a href="#">ExpressTransactionDate</a>	<a href="#">Response</a>	Returned	Express transaction date formatted [YYYYMMDD]
 <a href="#">ExpressTransactionTime</a>	<a href="#">Response</a>	Returned	Express transaction time formatted [HHMMSS]
 <a href="#">ExpressTransactionTimezone</a>	<a href="#">Response</a>	Returned	Express transaction UTC time zone
 <a href="#">ServicesID</a>	<a href="#">Response</a>	Returned	Unique services identifier

## Remarks

- This method will mark a Payment Account record for deletion and will be purged from the system within twenty-four hours.

## 6.8.3 PaymentAccountUpdate

The *PaymentAccountUpdate* method is used to update an existing Payment Account record.

### 6.8.3.1 Input Fields

Name	Class	Required	Description
 <a href="#">ApplicationID</a>	<a href="#">Application</a>	Required	Unique application identifier
 <a href="#">ApplicationName</a>	<a href="#">Application</a>	Required	Name of application
 <a href="#">ApplicationVersion</a>	<a href="#">Application</a>	Required	Version of application
 <a href="#">AccountID</a>	<a href="#">Credentials</a>	Required	Unique account identifier
 <a href="#">AccountToken</a>	<a href="#">Credentials</a>	Required	Secret token used for authentication
 <a href="#">AcceptorID</a>	<a href="#">Credentials</a>	Required	MerchantID
 <a href="#">PaymentAccountID</a>	<a href="#">PaymentAccount</a>	Required	Unique GUID that identifies the Payment Account.
 <a href="#">PaymentAccountReferenceNumber</a>	<a href="#">PaymentAccount</a>	Required	Payment Account Reference Number
 <a href="#">PaymentAccountType</a>	<a href="#">PaymentAccount</a>	Required <sup>1</sup>	Payment Account Type
 <a href="#">Track1Data</a>	<a href="#">Card</a>	Conditional <sup>2</sup>	Track1 Data
 <a href="#">Track2Data</a>	<a href="#">Card</a>	Conditional <sup>2</sup>	Track2 Data
 <a href="#">MagneprintData</a>	<a href="#">Card</a>	Conditional <sup>2</sup>	Magneprint Data
 <a href="#">CardNumber</a>	<a href="#">Card</a>	Optional	Card Number
 <a href="#">ExpirationMonth</a>	<a href="#">Card</a>	Conditional - (Required if PaymentAccountType is CreditCard)	Expiration Month (MM)
 <a href="#">ExpirationYear</a>	<a href="#">Card</a>	Conditional - (Required if PaymentAccountType is CreditCard)	Expiration Year (YY)
 <a href="#">EncryptedTrack1Data</a>	<a href="#">Card</a>	Conditional <sup>2</sup>	Encrypted Track 1 Data from integrated encryption device
 <a href="#">EncryptedTrack2Data</a>	<a href="#">Card</a>	Conditional <sup>2</sup>	Encrypted Track 2 Data from integrated encryption device
 <a href="#">EncryptedCardData</a>	<a href="#">Card</a>	Conditional <sup>2</sup>	Encrypted Card Data (keyed) from integrated encryption device
 <a href="#">CardDataKeySerialNumber</a>	<a href="#">Card</a>	Conditional <sup>2</sup>	Card Data Key Serial Number from integrated encryption device
 <a href="#">EncryptedFormat</a>	<a href="#">Card</a>	Optional	Encryption format from integrated encryption device
 <a href="#">AccountNumber</a>	<a href="#">DemandDepositAccount</a>	Conditional - (Required if PaymentAccountType is a DDA account)	Account Number

 <a href="#">RoutingNumber</a>	<a href="#">DemandDepositAccount</a>	Conditional - (Required if PaymentAccountType is a DDA account)	Routing Number
 <a href="#">BillingName</a>	<a href="#">Address</a>	Optional	The name used for billing purposes
 <a href="#">BillingAddress1</a>	<a href="#">Address</a>	Optional	The street address used for billing purposes
 <a href="#">BillingAddress2</a>	<a href="#">Address</a>	Optional	The street address used for billing purposes
 <a href="#">BillingCity</a>	<a href="#">Address</a>	Optional	The city name used for billing purposes
 <a href="#">BillingState</a>	<a href="#">Address</a>	Optional	The state name used for billing purposes
 <a href="#">BillingZipcode</a>	<a href="#">Address</a>	Optional	The zip code used for billing purposes
 <a href="#">BillingEmail</a>	<a href="#">Address</a>	Optional	The email address used for billing purposes
 <a href="#">BillingPhone</a>	<a href="#">Address</a>	Optional	The phone number used for billing purposes
 <a href="#">ShippingName</a>	<a href="#">Address</a>	Optional	The name used for shipping purposes
 <a href="#">ShippingAddress1</a>	<a href="#">Address</a>	Optional	The street address used for Shipping purposes
 <a href="#">ShippingAddress2</a>	<a href="#">Address</a>	Optional	The street address used for Shipping purposes
 <a href="#">ShippingCity</a>	<a href="#">Address</a>	Optional	The city name used for Shipping purposes
 <a href="#">ShippingState</a>	<a href="#">Address</a>	Optional	The state name used for Shipping purposes
 <a href="#">ShippingZipcode</a>	<a href="#">Address</a>	Optional	The zip code used for Shipping purposes
 <a href="#">ShippingEmail</a>	<a href="#">Address</a>	Optional	The email address used for Shipping purposes
 <a href="#">ShippingPhone</a>	<a href="#">Address</a>	Optional	The phone number used for Shipping purposes

<sup>1</sup>	PaymentAccountType cannot be updated
<sup>2</sup>	If PaymentAccountType = CreditCard then exactly one of the following field groups needs to be included: CardNumber / ExpirationMonth / ExpirationYear <b>or</b> Track1Data <b>or</b> Track2Data <b>or</b> MagneprintData <b>or</b> EncryptedTrack2Data <b>or</b> EncryptedTrack1Data <b>or</b> EncryptedCardData

### 6.8.3.2 Output Fields

Name	Class	Returned	Description
 <a href="#">ExpressResponseCode</a>	<a href="#">Response</a>	Returned	Express Response Code
 <a href="#">ExpressResponseMessage</a>	<a href="#">Response</a>	Returned	Express Response Message
 <a href="#">ExpressTransactionDate</a>	<a href="#">Response</a>	Returned	Express transaction date formatted [YYYYMMDD]
 <a href="#">ExpressTransactionTime</a>	<a href="#">Response</a>	Returned	Express transaction time formatted [HHMMSS]
 <a href="#">ExpressTransactionTimezone</a>	<a href="#">Response</a>	Returned	Express transaction UTC time zone
 <a href="#">ServicesID</a>	<a href="#">Response</a>	Returned	Unique services identifier

 <a href="#">PaymentAccountID</a>	<a href="#">Response.PaymentAccount</a>	Returned	Unique GUID that identifies the Payment Account.
 <a href="#">PaymentAccountReferenceNumber</a>	<a href="#">Response.PaymentAccount</a>	Returned	Payment Account Reference Number

## Remarks

- The required fields are dependent upon the PaymentAccountType selected.

## 6.8.4 PaymentAccountQuery

The *PaymentAccountQuery* method is used to query existing Payment Account record(s). The QueryData field will return Payment Account information in xml format.

### 6.8.4.1 Input Fields

Name	Class	Required	Description
 <a href="#">ApplicationID</a>	<a href="#">Application</a>	Required	Unique application identifier
 <a href="#">ApplicationName</a>	<a href="#">Application</a>	Required	Name of application
 <a href="#">ApplicationVersion</a>	<a href="#">Application</a>	Required	Version of application
 <a href="#">AccountID</a>	<a href="#">Credentials</a>	Required	Unique account identifier
 <a href="#">AccountToken</a>	<a href="#">Credentials</a>	Required	Secret token used for authentication
 <a href="#">AcceptorID</a>	<a href="#">Credentials</a>	Required	MerchantID
 <a href="#">PaymentAccountID</a>	<a href="#">PaymentAccountParameters</a>	Optional	Unique GUID that identifies the Payment Account.
 <a href="#">PaymentAccountReferenceNumber</a>	<a href="#">PaymentAccountParameters</a>	Optional	Payment Account Reference Number
 <a href="#">PaymentBrand</a>	<a href="#">PaymentAccountParameters</a>	Optional	Card type query value
 <a href="#">ExpirationMonthBegin</a>	<a href="#">PaymentAccountParameters</a>	Optional	Card expiration month query value
 <a href="#">ExpirationMonthEnd</a>	<a href="#">PaymentAccountParameters</a>	Optional	Card expiration month query value
 <a href="#">ExpirationYearBegin</a>	<a href="#">PaymentAccountParameters</a>	Optional	Card expiration year search value
 <a href="#">ExpirationYearEnd</a>	<a href="#">PaymentAccountParameters</a>	Optional	Card expiration year query value
 <a href="#">TransactionSetupID</a>	<a href="#">PaymentAccountParameters</a>	Optional	Transaction Setup IDs
 <a href="#">PASSUpdaterDateTimeBegin</a>	<a href="#">PaymentAccountParameters</a>	Optional	Begin date/time of range formatted [yyyy-MM-dd HH:mm:ss.fff]
 <a href="#">PASSUpdaterDateTimeEnd</a>	<a href="#">PaymentAccountParameters</a>	Optional	End date/time of range formatted [yyyy-MM-dd HH:mm:ss.fff]
 <a href="#">PASSUpdaterBatchStatus</a>	<a href="#">PaymentAccountParameters</a>	Optional	Specifies whether or not the PASS record will be included in the next PASS Updater batch
 <a href="#">PASSUpdaterStatus</a>	<a href="#">PaymentAccountParameters</a>	Optional	Specifies the match status of the PASS record

#### 6.8.4.2 Output Fields

Name	Class	Returned	Description
 <a href="#">ExpressResponseCode</a>	<a href="#">Response</a>	Returned	Express Response Code
 <a href="#">ExpressResponseMessage</a>	<a href="#">Response</a>	Returned	Express Response Message
 <a href="#">ExpressTransactionDate</a>	<a href="#">Response</a>	Returned	Express transaction date formatted [YYYYMMDD]
 <a href="#">ExpressTransactionTime</a>	<a href="#">Response</a>	Returned	Express transaction time formatted [HHMMSS]
 <a href="#">ExpressTransactionTimezone</a>	<a href="#">Response</a>	Returned	Express transaction UTC time zone
 <a href="#">QueryData</a>	<a href="#">Response</a>	Returned	Records returned in xml format (<Items><Item>...</Item>...</I tems>). A maximum of 1000 records can be returned.
 <a href="#">ServicesID</a>	<a href="#">Response</a>	Returned	Unique services identifier
 <a href="#">PaymentAccountID</a>	<a href="#">Response.PaymentAccount</a>	Returned	Unique GUID that identifies the Payment Account.
 <a href="#">PaymentAccountReferenceNumber</a>	<a href="#">Response.PaymentAccount</a>	Conditional Returned if input value passed	Payment Account Reference Number

#### Remarks

- This method will return the resulting query in xml format based on the input parameters passed in via the PaymentAccountParameters object.
- At least one PaymentAccountParameters value required to query records

## 6.8.5 PaymentAccountAutoUpdate

The *PaymentAccountAutoUpdate* method is used only with the PASS Auto Updater product.

### 6.8.5.1 Input Fields

Name	Class	Required	Description
 <a href="#">ApplicationID</a>	<a href="#">Application</a>	Required	Unique application identifier
 <a href="#">ApplicationName</a>	<a href="#">Application</a>	Required	Name of application
 <a href="#">ApplicationVersion</a>	<a href="#">Application</a>	Required	Version of application
 <a href="#">AccountID</a>	<a href="#">Credentials</a>	Required	Unique account identifier
 <a href="#">AccountToken</a>	<a href="#">Credentials</a>	Required	Secret token used for authentication
 <a href="#">AcceptorID</a>	<a href="#">Credentials</a>	Required	MerchantID
 <a href="#">PaymentAccountID</a>	<a href="#">PaymentAccount</a>	Required	Unique GUID that identifies the Payment Account.
 <a href="#">PASSUpdaterBatchStatus</a>	<a href="#">PaymentAccount</a>	Required	Specifies whether or not the PASS record will be included in the next PASS Updater batch
 <a href="#">PASSUpdaterOption</a>	<a href="#">PaymentAccount</a>	Optional	Specifies whether or not the PASS record will be updated automatically

### 6.8.5.2 Output Fields

Name	Class	Returned	Description
 <a href="#">ExpressResponseCode</a>	<a href="#">Response</a>	Returned	Express Response Code
 <a href="#">ExpressResponseMessage</a>	<a href="#">Response</a>	Returned	Express Response Message
 <a href="#">ExpressTransactionDate</a>	<a href="#">Response</a>	Returned	Express transaction date formatted [YYYYMMDD]
 <a href="#">ExpressTransactionTime</a>	<a href="#">Response</a>	Returned	Express transaction time formatted [HHMMSS]
 <a href="#">ExpressTransactionTimezone</a>	<a href="#">Response</a>	Returned	Express transaction UTC time zone
 <a href="#">ServicesID</a>	<a href="#">Response</a>	Returned	Unique services identifier
 <a href="#">PaymentAccountID</a>	<a href="#">Response.PaymentAccount</a>	Returned	Unique GUID that identifies the Payment Account.

## 6.8.6 ScheduledTaskDelete

The *ScheduledTaskDelete* method is used to delete an existing Scheduled Task.

**Note:** Accessible through the Express Services Interface

### 6.8.6.1 Input Fields

Name	Class	Required	Description
 <a href="#">ApplicationID</a>	<a href="#">Application</a>	Required	Unique application identifier
 <a href="#">ApplicationName</a>	<a href="#">Application</a>	Required	Name of application
 <a href="#">ApplicationVersion</a>	<a href="#">Application</a>	Required	Version of application
 <a href="#">AccountID</a>	<a href="#">Credentials</a>	Required	Unique account identifier
 <a href="#">AccountToken</a>	<a href="#">Credentials</a>	Required	Secret token used for authentication
 <a href="#">AcceptorID</a>	<a href="#">Credentials</a>	Required	MerchantID
 <a href="#">ScheduledTaskID</a>	<a href="#">ScheduledTask</a>	Required	Unique value that identifies the Scheduled Task.

### 6.8.6.2 Output Fields

Name	Class	Returned	Description
 <a href="#">ExpressResponseCode</a>	<a href="#">Response</a>	Returned	Express Response Code
 <a href="#">ExpressResponseMessage</a>	<a href="#">Response</a>	Returned	Express Response Message
 <a href="#">ExpressTransactionDate</a>	<a href="#">Response</a>	Returned	Express transaction date formatted [YYYYMMDD]
 <a href="#">ExpressTransactionTime</a>	<a href="#">Response</a>	Returned	Express transaction time formatted [HHMMSS]
 <a href="#">ExpressTransactionTimeZone</a>	<a href="#">Response</a>	Returned	Express transaction UTC time zone

### Remarks

- This method will delete a Scheduled Task permanently.

## 6.8.7 ScheduledTaskQuery

The *ScheduledTaskQuery* method is used to query existing Scheduled Tasks. The QueryData field will return Scheduled Task information in xml format.

**Note:** Accessible through the Express Services Interface

### 6.8.7.1 Input Fields

Name	Class	Required	Description
 <a href="#">ApplicationID</a>	<a href="#">Application</a>	Required	Unique application identifier
 <a href="#">ApplicationName</a>	<a href="#">Application</a>	Required	Name of application
 <a href="#">ApplicationVersion</a>	<a href="#">Application</a>	Required	Version of application
 <a href="#">AccountID</a>	<a href="#">Credentials</a>	Required	Unique account identifier
 <a href="#">AccountToken</a>	<a href="#">Credentials</a>	Required	Secret token used for authentication
 <a href="#">AcceptorID</a>	<a href="#">Credentials</a>	Required	MerchantID
 <a href="#">ScheduledTaskID</a>	<a href="#">ScheduledTaskParameters</a>	Optional	Unique GUID that identifies the Scheduled Task.
 <a href="#">ScheduledTaskReferenceNumber</a>	<a href="#">ScheduledTaskParameters</a>	Optional	User defined unique reference number that identifies this scheduled task.
 <a href="#">ScheduledTaskName</a>	<a href="#">ScheduledTaskParameters</a>	Optional	User generated name of the task.
 <a href="#">ScheduledTaskGroupID</a>	<a href="#">ScheduledTaskParameters</a>	Optional	Express platform generates this.
 <a href="#">RunStartDate</a>	<a href="#">ScheduledTaskParameters</a>	Optional	The start date. Format is YYYYMMDD.
 <a href="#">RunUntilCancelFlag</a>	<a href="#">ScheduledTaskParameters</a>	Optional	If this is set to true, the task will run every scheduled time until the task is deleted by the user.
 <a href="#">RunFrequency</a>	<a href="#">ScheduledTaskParameters</a>	2	Specifies how often an event should occur.
 <a href="#">ScheduledTaskStatus</a>	<a href="#">ScheduledTaskParameters</a>	2	The status of the task. You can set this to Active or Disabled.
 <a href="#">ScheduledTaskQueryType</a>	<a href="#">ScheduledTaskParameters</a>	Optional	Query type used to provide additional event information (0=Default, 1=RunLog)
 <a href="#">ScheduledTaskRunStatus</a>	<a href="#">ScheduledTaskParameters</a>	Optional	The run status of the task.

### 6.8.7.2 Output Fields

Name	Class	Returned	Description
 <a href="#">ExpressResponseCode</a>	<a href="#">Response</a>	Returned	Express Response Code
 <a href="#">ExpressResponseMessage</a>	<a href="#">Response</a>	Returned	Express Response Message

 <a href="#">ExpressTransactionDate</a>	<a href="#">Response</a>	Returned	Express transaction date formatted [YYYYMMDD]
 <a href="#">ExpressTransactionTime</a>	<a href="#">Response</a>	Returned	Express transaction time formatted [HHMMSS]
 <a href="#">ExpressTransactionTimeZone</a>	<a href="#">Response</a>	Returned	Express transaction UTC time zone
 <a href="#">QueryData</a>	<a href="#">Response</a>	Returned	Records returned in xml format (<Items><Item>...</Item>...</Items>). A maximum of 1000 records can be returned.
 <a href="#">ServicesID</a>	<a href="#">Response</a>	Returned	Unique services identifier
 <a href="#">ScheduledTaskID</a>	<a href="#">Response.ScheduledTask</a>	Returned	Unique value that identifies the Scheduled Task
 <a href="#">ScheduledTaskReferenceNumber</a>	<a href="#">Response.ScheduledTask</a>	Conditional Returned if input value passed	User defined unique reference number that identifies this scheduled task.

## Remarks

- This method will return the resulting query in xml format based on the input parameters passed in via the ScheduledTaskParameters object.
- At least one ScheduleTaskParameters value required to query records

## 6.8.8 ScheduledTaskUpdate

The *ScheduledTaskUpdate* method is used to update an existing Scheduled Task.

**Note:** Accessible through the Express Services Interface

### 6.8.8.1 Input Fields

Name	Class	Required	Description
 <a href="#">ApplicationID</a>	<a href="#">Application</a>	Required	Unique application identifier
 <a href="#">ApplicationName</a>	<a href="#">Application</a>	Required	Name of application
 <a href="#">ApplicationVersion</a>	<a href="#">Application</a>	Required	Version of application
 <a href="#">AccountID</a>	<a href="#">Credentials</a>	Required	Unique account identifier
 <a href="#">AccountToken</a>	<a href="#">Credentials</a>	Required	Secret token used for authentication
 <a href="#">AcceptorID</a>	<a href="#">Credentials</a>	Required	MerchantID
 <a href="#">ScheduledTaskID</a>	<a href="#">ScheduledTask</a>	Required	Unique value that identifies the Scheduled Task.
 <a href="#">ScheduledTaskReferenceNumber</a>	<a href="#">ScheduledTask</a>	Required	
 <a href="#">RunFrequency</a>	<a href="#">ScheduledTask</a>	Required	
 <a href="#">RunUntilCancelFlag</a>	<a href="#">ScheduledTask</a>	Required	
 <a href="#">RunCycles</a>	<a href="#">ScheduledTask</a>	Required only when RunUntilCancelFlag set to false	
 <a href="#">ScheduledTaskStatus</a>	<a href="#">ScheduledTask</a>	Required	
 <a href="#">ScheduledTaskName</a>	<a href="#">ScheduledTask</a>	Optional	User generated name of the task.
 <a href="#">ScheduledTaskGroupID</a>	<a href="#">ScheduledTask</a>	Optional	Express platform generates this.

### 6.8.8.2 Output Fields

Name	Class	Returned	Description
 <a href="#">ExpressResponseCode</a>	<a href="#">Response</a>	Returned	Express Response Code
 <a href="#">ExpressResponseMessage</a>	<a href="#">Response</a>	Returned	Express Response Message
 <a href="#">ExpressTransactionDate</a>	<a href="#">Response</a>	Returned	Express transaction date formatted [YYYYMMDD]
 <a href="#">ExpressTransactionTime</a>	<a href="#">Response</a>	Returned	Express transaction time formatted [HHMMSS]
 <a href="#">ExpressTransactionTimeZone</a>	<a href="#">Response</a>	Returned	Express transaction UTC time zone

### Remarks

- This method will update a Scheduled Task.

## 6.8.9 ⚡ ScheduledTaskRetry

The *ScheduledTaskRetry* method is used to rerun a single, previously non-approved Scheduled Task.

**Note:** Accessible through the Express Services Interface

### 6.8.9.1 Input Fields

Name	Class	Required	Description
ApplicationID	Application	Required	Unique application identifier
ApplicationName	Application	Required	Name of application
ApplicationVersion	Application	Required	Version of application
AccountID	Credentials	Required	Unique account identifier
AccountToken	Credentials	Required	Secret token used for authentication
AcceptorID	Credentials	Required	MerchantID
ScheduledTaskRunLogID	ScheduledTask	Optional	Run log ID of a Scheduled Task

### 6.8.9.2 Output Fields

Name	Class	Returned	Description
ExpressResponseCode	Response	Returned	Express Response Code
ExpressResponseMessage	Response	Returned	Express Response Message
ExpressTransactionDate	Response	Returned	Express transaction date formatted [YYYYMMDD]
ExpressTransactionTime	Response	Returned	Express transaction time formatted [HHMMSS]
ExpressTransactionTimeZone	Response	Returned	Express transaction UTC time zone
ServicesID	Response	Returned	Unique services identifier
TransactionID	Response.Transaction	Returned	Unique transaction identifier
ProcessorName	Response.Transaction	Returned	Name of processor
TransactionStatus	Response.Transaction	Returned	Description of status/state of transaction
TransactionStatusCode	Response.Transaction	Returned	Status/State of transaction
ScheduledTaskID	Response.ScheduledTask	Returned	Unique GUID that identifies the Payment Account.

## 6.9 System

### 6.9.1 HealthCheck

The *HealthCheck* method is the simplest method and is used to both validate communication integrity and determine the availability of the host processing network. A successful response from a *HealthCheck* request does not imply or ensure the success of any subsequent transactions.

#### 6.9.1.1 Input Fields

Name	Class	Required	Description
 <a href="#">ApplicationID</a>	<a href="#">Application</a>	Required	Unique application identifier
 <a href="#">ApplicationName</a>	<a href="#">Application</a>	Required	Name of application
 <a href="#">ApplicationVersion</a>	<a href="#">Application</a>	Required	Version of application
 <a href="#">AccountID</a>	<a href="#">Credentials</a>	Required	Unique account identifier
 <a href="#">AccountToken</a>	<a href="#">Credentials</a>	Required	Secret token used for authentication
 <a href="#">AcceptorID</a>	<a href="#">Credentials</a>	Required	MerchantID

#### 6.9.1.2 Output Fields

Name	Class	Returned	Description
 <a href="#">ExpressResponseCode</a>	<a href="#">Response</a>	Returned	Express Response Code
 <a href="#">ExpressResponseMessage</a>	<a href="#">Response</a>	Returned	Express Response Message
 <a href="#">HostResponseCode</a>	<a href="#">Response</a>	Returned	Host Response Code
 <a href="#">HostResponseMessage</a>	<a href="#">Response</a>	Returned	Host Response Message
 <a href="#">ExpressTransactionDate</a>	<a href="#">Response</a>	Returned	Express transaction date formatted [YYYYMMDD]
 <a href="#">ExpressTransactionTime</a>	<a href="#">Response</a>	Returned	Express transaction time formatted [HHMMSS]
 <a href="#">ExpressTransactionTimezone</a>	<a href="#">Response</a>	Returned	Express transaction UTC time zone

## 6.9.2 AccountTokenCreate

The *AccountTokenCreate* method is used to generate a new *AccountToken* that will replace an existing active *AccountToken*. In order to activate and use this new *AccountToken* for authentication, *AccountTokenActivate* must be called.

### 6.9.2.1 Input Fields

Name	Class	Required	Description
 <a href="#">ApplicationID</a>	<a href="#">Application</a>	Required	Unique application identifier
 <a href="#">ApplicationName</a>	<a href="#">Application</a>	Required	Name of application
 <a href="#">ApplicationVersion</a>	<a href="#">Application</a>	Required	Version of application
 <a href="#">AccountID</a>	<a href="#">Credentials</a>	Required	Unique account identifier
 <a href="#">AccountToken</a>	<a href="#">Credentials</a>	Required	Secret token used for authentication
 <a href="#">AcceptorID</a>	<a href="#">Credentials</a>	Required	MerchantID

### 6.9.2.2 Output Fields

Name	Class	Returned	Description
 <a href="#">ExpressResponseCode</a>	<a href="#">Response</a>	Returned	Express Response Code
 <a href="#">ExpressResponseMessage</a>	<a href="#">Response</a>	Returned	Express Response Message
 <a href="#">ExpressTransactionDate</a>	<a href="#">Response</a>	Returned	Express transaction date formatted [YYYYMMDD]
 <a href="#">ExpressTransactionTime</a>	<a href="#">Response</a>	Returned	Express transaction time formatted [HHMMSS]
 <a href="#">ExpressTransactionTimezone</a>	<a href="#">Response</a>	Returned	Express transaction UTC time zone
 <a href="#">NewAccountToken</a>	<a href="#">Credentials</a>	Returned	New secret token used for authentication
 <a href="#">ProcessorName</a>	<a href="#">Transaction</a>	Returned	Name of processor

### 6.9.3 AccountTokenActivate

The *AccountTokenActivate* method is used to disable the previous AccountToken and activate the new one that was generated when calling *AccountTokenCreate*.

#### 6.9.3.1 Input Fields

Name	Class	Required	Description
 <a href="#">ApplicationID</a>	<a href="#">Application</a>	Required	Unique application identifier
 <a href="#">ApplicationName</a>	<a href="#">Application</a>	Required	Name of application
 <a href="#">ApplicationVersion</a>	<a href="#">Application</a>	Required	Version of application
 <a href="#">AccountID</a>	<a href="#">Credentials</a>	Required	Unique account identifier
 <a href="#">AccountToken</a>	<a href="#">Credentials</a>	Required	Secret token used for authentication
 <a href="#">AcceptorID</a>	<a href="#">Credentials</a>	Required	MerchantID
 <a href="#">NewAccountToken</a>	<a href="#">Credentials</a>	Required	New secret token used for authentication

#### 6.9.3.2 Output Fields

Name	Class	Returned	Description
 <a href="#">ExpressResponseCode</a>	<a href="#">Response</a>	Returned	Express Response Code
 <a href="#">ExpressResponseMessage</a>	<a href="#">Response</a>	Returned	Express Response Message
 <a href="#">ExpressTransactionDate</a>	<a href="#">Response</a>	Returned	Express transaction date formatted [YYYYMMDD]
 <a href="#">ExpressTransactionTime</a>	<a href="#">Response</a>	Returned	Express transaction time formatted [HHMMSS]
 <a href="#">ExpressTransactionTimezone</a>	<a href="#">Response</a>	Returned	Express transaction UTC time zone
 <a href="#">ProcessorName</a>	<a href="#">Transaction</a>	Returned	Name of processor

## 6.10 Hosted Payments

### 6.10.1 TransactionSetup

The *TransactionSetup* method is used in conjunction with Element Express Hosted Payments transaction processing.

#### 6.10.1.1 Input Fields

Name	Class	Required	Description
 <a href="#">ApplicationID</a>	<a href="#">Application</a>	Required	Unique application identifier
 <a href="#">ApplicationName</a>	<a href="#">Application</a>	Required	Name of application
 <a href="#">ApplicationVersion</a>	<a href="#">Application</a>	Required	Version of application
 <a href="#">AccountID</a>	<a href="#">Credentials</a>	Required	Unique account identifier
 <a href="#">AccountToken</a>	<a href="#">Credentials</a>	Required	Token used for authentication
 <a href="#">AcceptorID</a>	<a href="#">Credentials</a>	Required	MerchantID
 <a href="#">TransactionAmount</a>	<a href="#">Transaction</a>	Conditional	Amount of transaction (for AVS Only method, use 0.00)
 <a href="#">ClerkNumber</a>	<a href="#">Transaction</a>	Optional	Clerk number
 <a href="#">ShiftID</a>	<a href="#">Transaction</a>	Optional	Shift ID
 <a href="#">SalesTaxAmount</a>	<a href="#">Transaction</a>	Optional	Sales tax amount
 <a href="#">TipAmount</a>	<a href="#">Transaction</a>	Optional	Tip amount
 <a href="#">ReferenceNumber</a>	<a href="#">Transaction</a>	Optional	Unique value assigned by the transaction sender
 <a href="#">TicketNumber</a>	<a href="#">Transaction</a>	Optional <sup>2</sup>	Unique numeric value assigned by the transaction sender
 <a href="#">MarketCode</a>	<a href="#">Transaction</a>	Conditional <sup>5</sup>	Market Code
 <a href="#">ApprovalNumber</a>	<a href="#">Transaction</a>	Conditional Needed only for Force transaction	Original approval number
 <a href="#">CommercialCardCustomerCode</a>	<a href="#">Transaction</a>	Optional	Commercial card customer code
 <a href="#">TerminalID</a>	<a href="#">Terminal</a>	Required	Unique terminal identifier
 <a href="#">PartialApprovedFlag</a>	<a href="#">Transaction</a>	Conditional <sup>7</sup>	Indicates whether software supports partial approvals
 <a href="#">MerchantVerificationValue</a>	<a href="#">Transaction</a>	Conditional <sup>7</sup>	Healthcare Merchant Verification Value
 <a href="#">CardPresentCode</a>	<a href="#">Terminal</a>	Conditional <sup>5</sup>	Card Present Code
 <a href="#">CardholderPresentCode</a>	<a href="#">Terminal</a>	Conditional <sup>5</sup>	Cardholder Present Code
 <a href="#">CardInputCode</a>	<a href="#">Terminal</a>	Conditional <sup>5</sup>	Card Input Code
 <a href="#">CVVPresenceCode</a>	<a href="#">Terminal</a>	Conditional <sup>5</sup>	Card Verification Value Presence Code
 <a href="#">TerminalCapabilityCode</a>	<a href="#">Terminal</a>	Conditional <sup>5</sup>	Terminal Capability Code
 <a href="#">TerminalEnvironmentCode</a>	<a href="#">Terminal</a>	Conditional <sup>5</sup>	Terminal Environment Code

 <a href="#">MotoECICode</a>	<a href="#">Terminal</a>	Conditional <sup>5</sup>	Mail Order Telephone Order Electronic Indicator Code
 <a href="#">TerminalEncryptionFormat</a>	<a href="#">Terminal</a>	Optional	Terminal encryption format from integrated encryption device
 <a href="#">TerminalSerialNumber</a>	<a href="#">Terminal</a>	Optional	Terminal serial number from integrated encryption device
 <a href="#">PaymentAccountID</a>	<a href="#">PaymentAccount</a>	Conditional Needed only for Payment Account Update transaction	Payment Account ID
 <a href="#">PaymentAccountType</a>	<a href="#">PaymentAccount</a>	Conditional Needed only for Payment Account Create and Update transaction	Payment Account Type
 <a href="#">PaymentAccountReferenceNumber</a>	<a href="#">PaymentAccount</a>	Conditional Needed only for Payment Account Create and Update transaction	Payment Account Reference Number
 <a href="#">BillingName</a>	<a href="#">Address</a>	Optional	The name used for billing purposes
 <a href="#">BillingAddress1</a>	<a href="#">Address</a>	Conditional Needed for AVS	The street address used for billing purposes
 <a href="#">BillingAddress2</a>	<a href="#">Address</a>	Optional	The street address used for billing purposes
 <a href="#">BillingCity</a>	<a href="#">Address</a>	Optional	The city name used for billing purposes
 <a href="#">BillingState</a>	<a href="#">Address</a>	Optional	The state name used for billing purposes
 <a href="#">BillingZipcode</a>	<a href="#">Address</a>	Conditional Needed for AVS	The zip code used for billing purposes
 <a href="#">BillingEmail</a>	<a href="#">Address</a>	Optional	The email address used for billing purposes
 <a href="#">BillingPhone</a>	<a href="#">Address</a>	Optional	The phone number used for billing purposes
 <a href="#">ShippingName</a>	<a href="#">Address</a>	Optional	The name used for billing purposes
 <a href="#">ShippingAddress1</a>	<a href="#">Address</a>	Optional	The street address used for Shipping purposes
 <a href="#">ShippingAddress2</a>	<a href="#">Address</a>	Optional	The street address used for Shipping purposes
 <a href="#">ShippingCity</a>	<a href="#">Address</a>	Optional	The city name used for Shipping purposes
 <a href="#">ShippingState</a>	<a href="#">Address</a>	Optional	The state name used for Shipping purposes
 <a href="#">ShippingZipcode</a>	<a href="#">Address</a>	Optional	The zip code used for Shipping purposes
 <a href="#">ShippingEmail</a>	<a href="#">Address</a>	Optional	The email address used for Shipping purposes
 <a href="#">ShippingPhone</a>	<a href="#">Address</a>	Optional	The phone number used for Shipping purposes
 <a href="#">TransactionSetupMethod</a>	<a href="#">TransactionSetup</a>	Required	Transaction method used
 <a href="#">Device</a>	<a href="#">TransactionSetup</a>	Optional	Entry device used

 <a href="#">Embedded</a>	<a href="#">TransactionSetup</a>	Required	Specifies if card entry page will be embedded in an application
 <a href="#">CVVRequired</a>	<a href="#">TransactionSetup</a>	Optional	Requires user to enter CVV2, CVC2, or CID values
 <a href="#">AutoReturn</a>	<a href="#">TransactionSetup</a>	Optional <sup>4</sup>	Specifies if approval page will be automatically directed to ReturnURL
 <a href="#">DeviceInputCode</a>	<a href="#">TransactionSetup</a>	Optional	Specifies the entry device input type
 <a href="#">CompanyName</a>	<a href="#">TransactionSetup</a>	Optional <sup>4</sup>	Name of merchant
 <a href="#">LogoURL</a>	<a href="#">TransactionSetup</a>	Optional <sup>4</sup>	URL of merchant logo to be displayed
 <a href="#">Tagline</a>	<a href="#">TransactionSetup</a>	Optional <sup>4</sup>	Text displayed next to logo
 <a href="#">WelcomeMessage</a>	<a href="#">TransactionSetup</a>	Optional <sup>4</sup>	Text to display to customer (if not provided, generic message will be displayed)
 <a href="#">ReturnURL</a>	<a href="#">TransactionSetup</a>	Optional <sup>4</sup>	Return URL link displayed after transaction completion or cancelled
 <a href="#">ReturnURLTitle</a>	<a href="#">TransactionSetup</a>	Optional <sup>4</sup>	Text to display for ReturnURL (if not provided generic "return to merchant" message will be displayed)
 <a href="#">OrderDetails</a>	<a href="#">TransactionSetup</a>	Optional <sup>4</sup>	Text to describe purchase or detail information
 <a href="#">ProcessTransactionTitle</a>	<a href="#">TransactionSetup</a>	Optional	Text to describe submit button
 <a href="#">LodgingAgreementNumber</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>6</sup>	Agreement (Folio) number
 <a href="#">LodgingCheckInDate</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>6</sup>	Check-in date
 <a href="#">LodgingCheckOutDate</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>6</sup>	Check-out date
 <a href="#">LodgingRoomAmount</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>6</sup>	Nightly rate for one room
 <a href="#">LodgingRoomTax</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>6</sup>	Reserved for future use
 <a href="#">LodgingNoShowIndicator</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>6</sup>	No-show indicator
 <a href="#">LodgingDuration</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>6</sup>	Number of days
 <a href="#">LodgingCustomerName</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>6</sup>	Customer name
 <a href="#">LodgingClientCode</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>6</sup>	Reserved for future use
 <a href="#">LodgingExtraChargesDetail</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>6</sup>	Extra charges detail
 <a href="#">LodgingExtraChargesAmounts</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>6</sup>	Reserved for future use
 <a href="#">LodgingPrestigiousPropertyCode</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>6</sup>	Prestigious property code
 <a href="#">LodgingSpecialProgramCode</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>6</sup>	Special program code
 <a href="#">LodgingChargeType</a>	<a href="#">ExtParm.Lodging</a>	Conditional <sup>6</sup>	Charge type
 <a href="#">HealthcareFlag</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>7</sup>	If this is set to True, the Healthcare parameters should be submitted.
 <a href="#">HealthcareFirstAccountType</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>7</sup>	Healthcare account type
 <a href="#">HealthcareFirstAmountType</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>7</sup>	Healthcare amount type

 <a href="#">HealthcareFirstCurrencyCode</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>7</sup>	Currency Code. Use 840 for U.S.
 <a href="#">HealthcareFirstAmountSign</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>7</sup>	Positive or negative amount
 <a href="#">HealthcareFirstAmount</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>7</sup>	Healthcare amount
 <a href="#">HealthcareSecondAccountType</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>7</sup>	Healthcare account type
 <a href="#">HealthcareSecondAmountType</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>7</sup>	Healthcare amount type
 <a href="#">HealthcareSecondCurrencyCode</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>7</sup>	Currency Code. Use 840 for U.S.
 <a href="#">HealthcareSecondAmountSign</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>7</sup>	Positive or negative amount
 <a href="#">HealthcareSecondAmount</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>7</sup>	Healthcare amount
 <a href="#">HealthcareThirdAccountType</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>7</sup>	Healthcare account type
 <a href="#">HealthcareThirdAmountType</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>7</sup>	Healthcare amount type
 <a href="#">HealthcareThirdCurrencyCode</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>7</sup>	Currency Code. Use 840 for U.S.
 <a href="#">HealthcareThirdAmountSign</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>7</sup>	Positive or negative amount
 <a href="#">HealthcareThirdAmount</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>7</sup>	Healthcare amount
 <a href="#">HealthcareFourthAccountType</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>7</sup>	Healthcare account type
 <a href="#">HealthcareFourthAmountType</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>7</sup>	Healthcare amount type
 <a href="#">HealthcareFourthCurrencyCode</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>7</sup>	Currency Code. Use 840 for U.S.
 <a href="#">HealthcareFourthAmountSign</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>7</sup>	Positive or negative amount
 <a href="#">HealthcareFourthAmount</a>	<a href="#">ExtParm.Healthcare</a>	Conditional <sup>7</sup>	Healthcare amount
 <a href="#">AutoRentalAgreementNumber</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>8</sup>	Rental agreement number
 <a href="#">AutoRentalNoShowIndicator</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>8</sup>	No show indicator
 <a href="#">AutoRentalExtraChargesDetail</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>8</sup>	Extra charges detail
 <a href="#">AutoRentalPickupDate</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>8</sup>	Rental pickup date. Format is YYYYMMDD.
 <a href="#">AutoRentalCustomerName</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>8</sup>	Name of the person or business with the reservation
 <a href="#">AutoRentalReturnCity</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>8</sup>	City where vehicle was returned
 <a href="#">AutoRentalReturnState</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>8</sup>	State where vehicle was returned
 <a href="#">AutoRentalReturnLocationID</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>8</sup>	Rental location ID
 <a href="#">AutoRentalDuration</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>8</sup>	Number of rental days (e.g. 03). Pass 01 for no-show rentals.
 <a href="#">AutoRentalPickupLocation</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>8</sup>	Name of business where vehicle was picked up
 <a href="#">AutoRentalPickupCity</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>8</sup>	Name of city, town, or village where vehicle was picked up
 <a href="#">AutoRentalPickupState</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>8</sup>	Abbreviation of state, province, or other country subdivision where vehicle was picked up
 <a href="#">AutoRentalPickupCountryCode</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>8</sup>	Country code where vehicle was picked up. For US, use 840.
 <a href="#">AutoRentalPickupTime</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>8</sup>	Local time when vehicle was picked up.
 <a href="#">AutoRentalReturnCountryCode</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>8</sup>	Country code where vehicle was

			returned. For US, use 840.
<a href="#">AutoRentalReturnDate</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>8</sup>	Date when vehicle was returned. Format YYYYMMDD.
<a href="#">AutoRentalReturnTime</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>8</sup>	Local time when vehicle was returned
<a href="#">AutoRentalVehicleClassCode</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>8</sup>	Classification of rental vehicle
<a href="#">AutoRentalDistance</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>8</sup>	Distance traveled during rental period
<a href="#">AutoRentalDistanceUnit</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>8</sup>	Unit of measurement applicable to distance traveled
<a href="#">AutoRentalAuditAdjustmentCode</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>8</sup>	Indicates if adjustment for mileage, fuel, vehicle damage, etc. was made to a rental agreement
<a href="#">AutoRentalAuditAdjustmentAmount</a>	<a href="#">ExtParm.AutoRental</a>	Conditional <sup>8</sup>	Adjustment amount for mileage, fuel, vehicle damage, etc. after a vehicle was returned

1	Required when Scheduled Task object is being included.
2	Used for Direct Marketing, MOTO, and E-Commerce transactions. Required when card number is manually keyed.
3	Used when desiring to associate a task to an already-existing ScheduledTaskGroupID.
4	Used when Embedded flag is set to False.
5	Required on all requests except when creating or updating payment account records.
6	Used when submitting a Lodging transaction (TSYS platform only). If TransactionType is CreditCardSale or CreditCardForce, all Lodging fields are required. If TransactionType is CreditCardAuthorization, only LodgingDuration is required.
7	Submitted if partial approvals are supported by integrated application.
8	Used when submitting an Auto Rental transaction (TSYS platform only). If TransactionType is CreditCardSale or CreditCardForce, all Auto Rental fields are required. If TransactionType is CreditCardAuthorization, only AutoRentalDuration is required.

### 6.10.1.2 Output Fields

Name	Class	Returned	Description
<a href="#">ExpressResponseCode</a>	<a href="#">Response</a>	Returned	Express Response Code.
<a href="#">ExpressResponseMessage</a>	<a href="#">Response</a>	Returned	Express Response Message.
<a href="#">ExpressTransactionDate</a>	<a href="#">Response</a>	Returned	Express transaction date formatted [YYYYMMDD]
<a href="#">ExpressTransactionTime</a>	<a href="#">Response</a>	Returned	Express transaction time formatted [HHMMSS]
<a href="#">ExpressTransactionTimezone</a>	<a href="#">Response</a>	Returned	Express transaction UTC time zone
<a href="#">TransactionSetupID</a>	<a href="#">Response.Transaction</a>	Returned	Transaction Setup ID
<a href="#">TransactionSetupID</a>	<a href="#">Response.PaymentAccount</a>	Returned	Transaction Setup ID
<a href="#">TransactionSetupID</a>	<a href="#">Response.TransactionSetup</a>	Returned	Transaction Setup ID
<a href="#">ValidationCode</a>	<a href="#">Response.TransactionSetup</a>	Returned	Validation Code

### **6.10.2 TransactionSetupExpire**

The *TransactionSetupExpire* method is used to force a TransactionSetupID to expire. Once expired, it can no longer be used.

#### **6.10.2.1 Input Fields**

Name	Class	Required	Description
 <a href="#">ApplicationID</a>	<a href="#">Application</a>	Required	Unique application identifier
 <a href="#">ApplicationName</a>	<a href="#">Application</a>	Required	Name of application
 <a href="#">ApplicationVersion</a>	<a href="#">Application</a>	Required	Version of application
 <a href="#">AccountID</a>	<a href="#">Credentials</a>	Required	Unique account identifier
 <a href="#">AccountToken</a>	<a href="#">Credentials</a>	Required	Token used for authentication
 <a href="#">AcceptorID</a>	<a href="#">Credentials</a>	Required	MerchantID
 <a href="#">TransactionSetupID</a>	<a href="#">TransactionSetup</a>	Required	Transaction Setup ID

#### **6.10.2.2 Output Fields**

Name	Class	Returned	Description
 <a href="#">ExpressResponseCode</a>	<a href="#">Response</a>	Returned	Express Response Code.
 <a href="#">ExpressResponseMessage</a>	<a href="#">Response</a>	Returned	Express Response Message.
 <a href="#">ExpressTransactionDate</a>	<a href="#">Response</a>	Returned	Express transaction date formatted [YYYYMMDD]
 <a href="#">ExpressTransactionTime</a>	<a href="#">Response</a>	Returned	Express transaction time formatted [HHMMSS]
 <a href="#">ExpressTransactionTimezone</a>	<a href="#">Response</a>	Returned	Express transaction UTC time zone

## **6.11 BIN Management**

### **6.11.1 BINQuery**

The *BINQuery* method is used to determine if a card falls into a specific BIN range, such as Debit or Healthcare.

#### **6.11.1.1 Input Fields**

Name	Class	Required	Description
 <a href="#">ApplicationID</a>	<a href="#">Application</a>	Required	Unique application identifier
 <a href="#">ApplicationName</a>	<a href="#">Application</a>	Required	Name of application
 <a href="#">ApplicationVersion</a>	<a href="#">Application</a>	Required	Version of application
 <a href="#">AccountID</a>	<a href="#">Credentials</a>	Required	Unique account identifier

 <a href="#">AccountToken</a>	<a href="#">Credentials</a>	Required	Token used for authentication
 <a href="#">AcceptorID</a>	<a href="#">Credentials</a>	Required	MerchantID
 <a href="#">CardNumber</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Account number on card
 <a href="#">ExpirationMonth</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Expiration month
 <a href="#">ExpirationYear</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Expiration year
 <a href="#">Track1Data</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Track 1 data
 <a href="#">Track2Data</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Track 2 data
 <a href="#">MagneprintData</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Magneprint data
 <a href="#">EncryptedTrack1Data</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Encrypted Track 1 Data from integrated encryption device
 <a href="#">EncryptedTrack2Data</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Encrypted Track 2 Data from integrated encryption device
 <a href="#">EncryptedCardData</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Encrypted Card Data (keyed) from integrated encryption device
 <a href="#">CardDataKeySerialNumber</a>	<a href="#">Card</a>	Conditional <sup>1</sup>	Card Data Key Serial Number from integrated encryption device
 <a href="#">EncryptedFormat</a>	<a href="#">Card</a>	Optional	Encryption format from integrated encryption device
 <a href="#">PaymentAccountID</a>	<a href="#">ExtParm.PaymentAccount</a>	Conditional <sup>1</sup>	A unique system generated identifier.
 <a href="#">TerminalID</a>	<a href="#">Terminal</a>	Conditional <sup>2</sup>	Unique terminal identifier

<sup>1</sup>	Only one of the following field groups needs to be included: CardNumber / ExpirationMonth / ExpirationYear <b>or</b> Track1Data <b>or</b> Track2Data <b>or</b> MagneprintData <b>or</b> PaymentAccountID <b>or</b> EncryptedTrack1Data <b>or</b> EncryptedTrack2Data <b>or</b> EncryptedCardData.
<sup>2</sup>	Used only when submitting request on TSYS platform.

### 6.11.1.2 Output Fields

Name	Class	Returned	Description
 <a href="#">ExpressResponseCode</a>	<a href="#">Response</a>	Returned	Express Response Code.
 <a href="#">ExpressResponseMessage</a>	<a href="#">Response</a>	Returned	Text response message
 <a href="#">ExpressTransactionDate</a>	<a href="#">Response</a>	Returned	Express platform transaction date
 <a href="#">ExpressTransactionTime</a>	<a href="#">Response</a>	Returned	Express platform transaction
 <a href="#">ExpressTransactionTimezone</a>	<a href="#">Response</a>	Returned	Express platform transaction time zone
 <a href="#">BINTypeCode</a>	<a href="#">Response.BIN</a>	Returned	Numeric BIN type code
 <a href="#">BINTypeValue</a>	<a href="#">Response.BIN</a>	Returned	BIN type value
 <a href="#">BINDecorator</a>	<a href="#">Response.BIN</a>	Returned if BIN is found	BIN decorator

## 7 Classes

### Chapter 7 consists of:

- List of Classes used with Express

#### 7.1 Address Class

##### Field Names

Name	Value	Max Length	Description
 BillingName	Any string	100	The name used for billing purposes
 BillingEmail	Any valid email address someone@somewhere.com	80	The email address used for billing purposes
 BillingPhone	Recommended format (123)123-1234	20	The phone number used for billing purposes
 BillingAddress1	Any string	50	The street address used for billing purposes
 BillingAddress2	Any string	50	The street address used for billing purposes
 BillingCity	Any string	40	The name of the city used for billing purposes
 BillingState	Any two digit state code or full state name	30	The name of the state used for billing purposes
 BillingZipcode	Any string	20	The zip code used for billing purposes
 ShippingName	Any string	100	The name used for shipping purposes
 ShippingEmail	Any valid email address someone@somewhere.com	80	The email address used for shipping purposes
 ShippingPhone	Recommended format (123)123-1234	20	The phone number used for shipping purposes
 ShippingAddress1	Any string	50	The street address used for shipping purposes
 ShippingAddress2	Any string	50	The street address used for shipping purposes
 ShippingCity	Any string	40	The name of the city used for shipping purposes
 ShippingState	Any two digit state code or full state name	30	The name of the state used for shipping purposes
 ShippingZipcode	Any string	20	The zip code used for shipping purposes

#### 7.2 Application Class

The *Application Class* is required for every transaction and is used to uniquely identify the sending application. During certification a unique application ID will be assigned for the purpose of tracking all certified transaction types. Only an applications certified transactions types will be allowed in the production environment.

## Field Names

Name	Value	Max Length	Description
ApplicationID	Valid application ID issued by Element	40	Unique application identifier
ApplicationName	Any string	50	Name of application
ApplicationVersion	Required format #.#.# example 1.2.1	50	Version of application

## 7.3 AutoRental Class

The *AutoRental* Class is required for Auto Rental industry transactions and is used to identify auto rental transaction details. This method is used on the TSYS platform only.

## Field Names

Name	Value	Max Length	Description
AutoRentalAgreementNumber	Auto Rental agreement number	14	Auto Rental agreement number
AutoRentalNoShowIndicator	No-show indicator	1	Indicates whether rental vehicle was reserved, but not actually rented. 0 = Not Applicable 1 = No Show
AutoRentalExtraChargesDetail	Auto Rental extra charges	6	Indicates any additional ancillary charges. Field can contain multiple indicators. 0 = No Extra Charge 1 = Gasoline 2 = Extra Mileage 3 = Late Return 4 = One Way Service Fee 5 = Parking or Moving Violation
AutoRentalPickupDate	Rental pickup date	8	Auto Rental pickup date. Format is YYYYMMDD.
AutoRentalDropoffDate	Reserved for future use	8	Reserved for future use.
AutoRentalCustomerName	Customer name	20	Auto Rental customer name
AutoRentalReturnCity	City	18	Auto Rental return city
AutoRentalReturnState	State	3	Auto Rental return state
AutoRentalReturnLocationID	Location ID	10	Auto Rental location ID where vehicle was returned
AutoRentalDuration	Number of rental days (e.g. 03). Pass 01 for no-show rentals.	2	Number of rental days (e.g. 03). Pass 01 for no-show rentals.
AutoRentalPickupLocation	Business location	38	Name of business where vehicle was picked up
AutoRentalPickupCity	City	18	Name of city, town, or village where vehicle was picked up
AutoRentalPickupState	State	3	Abbreviation of state, province, or other country subdivision where vehicle was picked up

 <a href="#">AutoRentalPickupCountryCode</a>	Country	3	Country code where vehicle was picked up. For US, use 840.
 <a href="#">AutoRentalPickupTime</a>	Pickup time	6	Local time when vehicle was picked up. Format HHMMSS.
 <a href="#">AutoRentalReturnCountryCode</a>	Country	3	Country code where vehicle was returned. For US, use 840.
 <a href="#">AutoRentalReturnDate</a>	Return date	8	Date when vehicle was returned. Format YYYYMMDD.
 <a href="#">AutoRentalReturnTime</a>	Return time	6	Local time when vehicle was returned. Format HHMMSS.
 <a href="#">AutoRentalVehicleClassCode</a>	Vehicle class ID	2	Classification of rental vehicle
 <a href="#">AutoRentalDistance</a>	Distance traveled	5	Numeric distance traveled during rental period
 <a href="#">AutoRentalDistanceUnit</a>	Unit of measurement	2	Unit of measurement applicable to distance traveled
 <a href="#">AutoRentalAuditAdjustmentCode</a>	Adjustment code	2	Indicates if adjustment for mileage, fuel, vehicle damage, etc. was made to a rental agreement
 <a href="#">AutoRentalAuditAdjustmentAmount</a>	Adjustment amount	12	Adjustment amount for mileage, fuel, vehicle damage, etc. after a vehicle was returned

## 7.4 Batch Class

### Field Names

Name	Value	Max Length	Description
 HostBatchID	Any valid host batch number	25	Unique host batch identifier
 HostItemID	Any valid host batch item number	25	Unique host batch item identifier
 <a href="#">BatchCloseType</a>	Any valid batch close type	2	Type of batch close
 HostBatchItems		N/A	
 <a href="#">BatchQueryType</a>	Any valid batch query type	2	Batch query type
 HostBatchCount	Any valid host batch count	5	Batch count
 HostBatchAmount	Any valid host batch amount	12	Batch amount
 HostCreditSaleCount	Any valid host credit sale count	5	Total numeric count of credit sales
 HostCreditSaleAmount	Any valid host credit sale amount	12	Total dollar amount of credit sales with no decimal place: example \$21.52 would be 2152
 HostCreditReturnCount	Any valid host credit return count	5	Total numeric count of credit returns
 HostCreditReturnAmount	Any valid host credit return amount	12	Total dollar amount of credit returns with no decimal place: example \$21.52 would be 2152
 HostDebitSaleCount	Any valid host debit sale count	5	Total numeric count of debit sales
 HostDebitSaleAmount	Any valid host debit sale amount	12	Total dollar amount of debit sales with no decimal place: example \$21.52 would be 2152
 HostDebitReturnCount	Any valid host debit return count	5	Total numeric count of debit returns
 HostDebitReturnAmount	Any valid host debit return amount	12	Total dollar amount of debit returns with no decimal place: example \$21.52 would be 2152
 <a href="#">BatchGroupingCode</a>	Reserved for future use	2	See enum description
 <a href="#">BatchIndexCode</a>	Any valid batch index code	2	See enum description
 HostReversalQueueID		25	Reversal queue ID

## 7.5 BIN Class

The *BIN class* is used when performing BINQuery requests.

### Field Names

Name	Value	Max Length	Description
 BINTypeCode	BIN type code	4	Numeric BIN type code 0 = NotFound 1 = Debit 2 = Healthcare 3 = Commercial 4 = Other 5 = PrepaidDebit
 BINTypeValue	BIN type value	75	Text associated with the numeric BIN type code
 BINDecorator	BIN decorator	75	Unique value defined by merchant or vendor and maps to BIN type value

## 7.6 Card Class

The *Card Class* is used to pass cardholder information.

### Field Names

Name	Value	Max Length	Description
 CardNumber	Any valid credit card number	30	Numeric number displayed on front of card
 ExpirationMonth	Two digit month MM	2	Two digit expiration month displayed on front of card e.g. 02
 ExpirationYear	Two digit year YY	2	Two digit expiration month displayed on front of card e.g. 08
 CardholderName	CardHolder name	80	The name of the Card holder as printed on the front of the card.
 Track1Data	Any valid track 1 data string	76	The Track1 data embedded in the magnetic strip on the back of the card
 Track2Data	Any valid track 2 data string	37	The Track2 data embedded in the magnetic strip on the back of the card
 Track3Data	Any valid track 3 data string	Unknown	Reserved for future use.
 MagneprintData	Any valid Magneprint data string	500	The encrypted track data sent from a USB Magtek Magneprint swipe reader with encryption. Do not parse, as encrypted format may vary.

 <a href="#">PINBlock</a>	Any valid pin block	80	The encrypted pin block information sent from a pin encryption device
 <a href="#">AVSResponseCode</a>	Any valid AVS response code	2	AVS response from the Authorization request.
 <a href="#">CVV</a>	Any valid CVV	4	The Card Verification Value found on the card: Visa CVV2, MasterCard CVC2, Discover CID
 <a href="#">CVVResponseCode</a>	Any valid CVV response code	2	CVV response from the Authorization request
 <a href="#">CAVV</a>	Any valid CAVV	60	The credit Cardholder Authentication Verification Value
 <a href="#">CAVVRResponseCode</a>	Any valid CAVV response code	10	CAVV response from the Authorization request
 <a href="#">XID</a>	Any valid XID	60	Verified by Visa value
 <a href="#">KeySerialNumber</a>	Any valid debit Key Serial Number	20	Debit Key Serial Number
 <a href="#">CardLogo</a>	Payment brand	20	Payment brand. Possible values include: "Visa", "Mastercard", "Discover", "Amex", "Diners Club", "JCB", "Carte Blanche", "Other"
 <a href="#">EncryptedTrack1Data</a>	Any valid encrypted Track 1 data string	300	Encrypted Track 1 Data
 <a href="#">EncryptedTrack2Data</a>	Any valid encrypted Track 2 data string	200	Encrypted Track 2 Data
 <a href="#">EncryptedCardData</a>	Any valid encrypted card data string	200	Encrypted Card Data (keyed)
 <a href="#">CardDataKeySerialNumber</a>	Any valid card data key serial number	20	Used when any Encrypted Track or Encrypted Card fields are used
 <a href="#">EncryptedFormat</a>	Any valid EncryptedFormat enumeration	2	Encrypted Format

## Remarks

- Only CardNumber, Track1Data, Track2Data, MagneprintData, EncryptedTrack1Data, EncryptedTrack2Data, EncryptedCardData, or PaymentAccountID are required for any given transaction. If more than one field is populated they will be given the following order of precedence: MagneprintData, EncryptedTrack2Data, EncryptedTrack1Data, EncryptedCardData, Track2Data, Track1Data, PaymentAccountID, CardNumber. To avoid unintended results only populate one field per transaction.

## 7.7 Credentials Class

The *Credentials Class* is required for every transaction and is used to authenticate the sender. AccountID and AccountToken are assigned by EPS, Inc.

### Field Names

Name	Value	Max Length	Description
 AccountID	Valid account ID issued by Element	10	Unique account identifier
 AccountToken	Valid account token issued by Element	140	Secret token used for authentication
 AcceptorID	Valid merchant ID or account number issued by host or financial institution	50	Unique merchant account identifier, most likely a Merchant ID
 NewAccountToken	New valid account token issued by Element	140	New secret token used for authentication

## 7.8 DemandDepositAccount Class

### Field Names

Name	Value	Max Length	Description
 <a href="#">DDAAccountType</a>	Type of Account	2	Type of DDA Account. Checking, Savings, etc.
 AccountNumber	Financial Institution Account Number	20	The Account Number
 RoutingNumber	Financial Institution Routing Number	9	The Routing Number of the financial institution
 CheckNumber	Check Number	8	Check Number
 <a href="#">CheckType</a>	Type of Check	2	Type of check. Business / Personal, etc.
 TruncatedAccountNumber	Masked Account Number	20	Masked Return Value: used for display purposes.
 TruncatedRoutingNumber	Masked Routing Number	9	Masked Return Value: used for display purposes.

### Remarks

- This class is used for passing in DemandDepositAccount information.  
(i.e. Checking Account information.)

## 7.9 ExtendedParameters Class

### Field Names

Name	Value	Max Length	Description
 Key			Name of Key
 Value			Value of Key

### Remarks

- When not used, pass in null value for Web Service interface.

## 7.10 Healthcare Class

### Field Names

Name	Value	Max Length	Description
 <a href="#">HealthcareFlag</a>	Boolean Type	1	If this is set to True, the Healthcare parameters should be submitted.
 <a href="#">HealthcareFirstAccountType</a>		2	
 <a href="#">HealthcareFirstAmountType</a>		2	
 <a href="#">HealthcareFirstCurrencyCode</a>		3	Currency Code. Use 840 for U.S.
 <a href="#">HealthcareFirstAmountSign</a>		2	0 = Positive amount 1 = Negative amount
 <a href="#">HealthcareFirstAmount</a>		12	Healthcare amount
 <a href="#">HealthcareSecondAccountType</a>		2	
 <a href="#">HealthcareSecondAmountType</a>		2	
 <a href="#">HealthcareSecondCurrencyCode</a>		3	Currency Code. Use 840 for U.S.
 <a href="#">HealthcareSecondAmountSign</a>		2	0 = Positive amount 1 = Negative amount
 <a href="#">HealthcareSecondAmount</a>		12	Healthcare amount
 <a href="#">HealthcareThirdAccountType</a>		2	
 <a href="#">HealthcareThirdAmountType</a>		2	
 <a href="#">HealthcareThirdCurrencyCode</a>		3	Currency Code. Use 840 for U.S.
 <a href="#">HealthcareThirdAmountSign</a>		2	0 = Positive amount 1 = Negative amount
 <a href="#">HealthcareThirdAmount</a>		12	Healthcare amount
 <a href="#">HealthcareFourthAccountType</a>		2	
 <a href="#">HealthcareFourthAmountType</a>		2	
 <a href="#">HealthcareFourthCurrencyCode</a>		3	Currency Code. Use 840 for U.S.
 <a href="#">HealthcareFourthAmountSign</a>		2	0 = Positive amount 1 = Negative amount
 <a href="#">HealthcareFourthAmount</a>		12	Healthcare amount

## 7.11 Identification Class

### Field Names

Name	Value	Max Length	Description
BirthDate	Date of Birth	8	Format: YYYYMMDD
DriversLicenseNumber	Drivers License Number	40	The Drivers License Number
DriversLicenseState	Drivers License State	2	2 Digit state indicator of where the license was issued.
TaxIDNumber	SSN or Tax ID	9	No dashes
HealthcareFirstAccountType			Healthcare account type
HealthcareFirstAmountType			Healthcare amount type
HealthcareSecondAccountType			Healthcare account type
HealthcareSecondAmountType			Healthcare amount type
HealthcareThirdAccountType			Healthcare account type
HealthcareThirdAmountType			Healthcare amount type
HealthcareFourthAccountType			Healthcare account type
HealthcareFourthAmountType			Healthcare amount type

### Remarks

- Be sure to format the BirthDate correctly.

## 7.12 Lodging Class

The *Lodging* Class is required for Hotel/Lodging industry transactions and is used to identify lodging transaction details. This method is used on the TSYS platform only.

Name	Value	Max Length	Description
 <a href="#">LodgingAgreementNumber</a>	Hotel folio number	25	Hotel Folio number
 <a href="#">LodgingCheckInDate</a>	Check-in date	8	Check-in date. Format is YYYYMMDD. Advance check-in = date of reservation No-show = anticipated arrival date
 <a href="#">LodgingCheckOutDate</a>	Check-out date	8	Check-out date. Format is YYYYMMDD.
 <a href="#">LodgingRoomAmount</a>	Nightly rate for one room	12	Nightly rate for one room. Must always be greater than 0.00 for room reservation.
 <a href="#">LodgingRoomTax</a>	Room tax	12	Reserved for future use
 <a href="#">LodgingNoShowIndicator</a>	No-show indicator	1	Indicates a room was reserved, but not actually rented. 0 = Not Applicable 1 = No Show
 <a href="#">LodgingDuration</a>	Number of hotel stay days (e.g. 03).	2	Number of hotel stay days (e.g. 03). Pass 01 for no-show. From 01 to 99.
 <a href="#">LodgingCustomerName</a>	Customer name	26	Lodging customer name
 <a href="#">LodgingClientCode</a>	Client code	25	Reserved for future use
 <a href="#">LodgingExtraChargesDetail</a>	Extra charges detail	6	Indicates any additional ancillary charges. Field can contain multiple indicators. 0 = Not Used 1 = Reserved 2 = Restaurant 3 = Gift Shop 4 = Mini-Bar 5 = Telephone 6 = Other 7 = Laundry
 <a href="#">LodgingExtraChargesAmounts</a>	Extra charges amount	250	Reserved for future use
 <a href="#">LodgingPrestigiousPropertyCode</a>	Prestigious property code (Visa)	2	Prestigious property code
 <a href="#">LodgingSpecialProgramCode</a>	Special program code (American Express)	2	Special program code
 <a href="#">LodgingChargeType</a>	Lodging Charge Type	2	Lodging charge type

## 7.13 Parameters Class

### Field Names

Name	Value	Max Length	Description
<a href="#">TransactionDateTimeBegin</a>		30	Begin date/time of transaction range formatted [yyyy-MM-dd HH:mm:ss.fff]
<a href="#">TransactionDateTimeEnd</a>		30	End date/time of transaction range formatted [yyyy-MM-dd HH:mm:ss.fff]
<a href="#">TransactionID</a>		10	Unique transaction identifier
<a href="#">TerminalID</a>		40	Unique terminal identifier
<a href="#">ApplicationID</a>		40	Unique application identifier
<a href="#">ApprovalNumber</a>		30	Issuer assigned approval number
<a href="#">ApprovedAmount</a>		10	Approved transaction amount
<a href="#">ExpressTransactionDate</a>		30	Express transaction date formatted [YYYYMMDD]
<a href="#">ExpressTransactionTime</a>		30	Express transaction time formatted [HHMMSS]
<a href="#">HostBatchID</a>		25	Unique host batch identifier
<a href="#">HostItemID</a>		25	Unique host batch item identifier
<a href="#">HostReversalQueueID</a>		25	Reversal queue identifier
<a href="#">OriginalAuthorizedAmount</a>		10	Original dollar amount authorized
<a href="#">ReferenceNumber</a>		50	User defined reference number
<a href="#">ShiftID</a>		10	Shift identifier
<a href="#">SourceTransactionID</a>		10	Unique transaction identifier from a previous transaction
<a href="#">TerminalType</a>		2	Type of terminal
<a href="#">TrackingID</a>		60	Internal transaction tracking identifier
<a href="#">TransactionAmount</a>		12	Dollar amount of transaction
<a href="#">TransactionSetupID</a>	GUID	50	Unique GUID that identifies the Transaction Setup ID. The Express Platform generates this.
<a href="#">TransactionStatus</a>		60	Status of transaction
<a href="#">TransactionType</a>		60	Type of transaction
<a href="#">XID</a>		60	Verify by Visa value
<a href="#">ReverseOrder</a>		2	Flag to query records in descending order

### Remarks

Used for reporting on transactions

## 7.14 ⚡ PaymentAccount Class

### Field Names

Name	Value	Max Length	Description
⚡ PaymentAccountID		50	Unique GUID that identifies the Payment Account. The Express Platform generates this.
⚡ PaymentAccountType		2	The type of Payment Account.
⚡ PaymentAccountReferenceNumber		50	User generated Reference Number used to identify a Payment Account.
⚡ TransactionSetupID	GUID	50	Unique GUID that identifies the Transaction Setup ID. The Express Platform generates this.
⚡ PASSUpdaterBatchStatus		2	Specifies whether or not the PASS record will be included in the next PASS Updater batch
⚡ PASSUpdaterOption		2	Specifies the match status of the PASS record

### Remarks

Used in transactions utilizing our Payment Account Secure Storage (PASS) service.

## 7.15 PaymentAccountParameters Class

### Field Names

Name	Value	Max Length	Description
PaymentAccountID		50	Unique GUID that identifies the Payment Account. The Express Platform generates this.
PaymentAccountType		2	The type of Payment Account.
PaymentAccountReferenceNumber		50	User generated Reference Number used to identify a Payment Account.
PaymentBrand		50	Card type query value. Must match exactly, and can be: Visa, MasterCard, Discover, Amex, or Diners Club.
ExpirationMonthBegin		2	Card expiration month query value
ExpirationMonthEnd		2	Card expiration month query value
ExpirationYearBegin		2	Card expiration year query value
ExpirationYearEnd		2	Card expiration year query value
TransactionSetupID	GUID	50	Unique GUID that identifies the Transaction Setup ID. The Express Platform generates this.
PASSUpdaterDateTimeBegin		30	Begin date/time of range formatted [yyyy-MM-dd HH:mm:ss.fff]
PASSUpdaterDateTimeEnd		30	End date/time of range formatted [yyyy-MM-dd HH:mm:ss.fff]
PASSUpdaterBatchStatus		2	Specifies whether or not the PASS record will be included in the next PASS Updater batch
PASSUpdaterStatus		2	Specifies the match status of the PASS record

### Remarks

Used in transactions utilizing our Payment Account Secure Storage (PASS) service.

## 7.16 Response Class

The *Response Class* is used to communicate any output messages back to the sender. An *ExpressResponseCode* is returned with every Express method call. This is the first returned variable that should be examined to determine success or failure.

### Field Names

Name	Value	Max Length	Description
 <a href="#">Credentials</a>	Any valid Credentials object	N/A	Used to authenticate the sender
 <a href="#">Card</a>	Any valid Card object	N/A	Used to pass cardholder information
 <a href="#">Batch</a>	Any valid Batch object	N/A	Used to pass batch information
 <a href="#">Transaction</a>	Any valid Transaction object	N/A	Used to pass transaction information
 <a href="#">ExpressResponseCode</a>	Any valid Express response code	N/A	Express Response Code
 <a href="#">ExpressResponseMessage</a>	Any valid Express message	N/A	Express Response Message
 <a href="#">HostResponseCode</a>	Any valid host response code	N/A	Host Response Code
 <a href="#">HostResponseMessage</a>	Any valid host response message	N/A	Host Response Message
 <a href="#">ExpressTransactionDate</a>		N/A	Express platform transaction date
 <a href="#">ExpressTransactionTime</a>		N/A	Express platform transaction time in central time
 <a href="#">ExpressTransactionTimezone</a>		N/A	Express platform transaction time zone
 <a href="#">HostTransactionDateTime</a>		N/A	Host platform transaction date and time
 <a href="#">QueryData</a>	Any valid query data	N/A	Query information in xml format
 <a href="#">ReportingData</a>	Any valid reporting data	N/A	Transaction information in xml format
 <a href="#">ServicesID</a>	Any valid Express services identifier	N/A	Unique services identifier
 <a href="#">ReportingID</a>	Any valid Express reporting identifier	N/A	Unique reporting identifier

## 7.17 ⚡ ScheduledTask Class

The *ScheduledTask* class is used to schedule transactions.

### Field Names

Name	Value	Max Length	Description
⌚ScheduledTaskID		50	Unique value that identifies the Scheduled Task. The Express Platform generates this.
⌚ScheduledTaskReferenceNumber		50	User generated Reference Number used to identify a Scheduled Task.
🕒 <a href="#">Run Frequency</a>	RunFrequency	2	Specifies how often an event should occur.
⌚RunStartDate		8	The start date. Format is YYYYMMDD.
🕒 <a href="#">RunUntilCancelFlag</a>	Boolean Type	2	If this is set to true, the task will run every scheduled time until the task is deleted by the user.
⌚RunCycles	Only required when RunUntilCancelFlag is set to false.	4	Number of times this task should run.
🕒 <a href="#">ScheduledTaskStatus</a>	StatusType	2	The status of the task. You can set this to Active or Disabled.
⌚ScheduledTaskName		50	User generated name of the task.
⌚ScheduledTaskGroupID		50	Express platform generates this.
⌚ScheduledTaskRunLogID		50	Run log ID of a Scheduled Task

## 7.18 ScheduledTaskParameters Class

### Field Names

Name	Value	Max Length	Description
 ScheduledTaskID		50	Unique GUID that identifies the Scheduled Task. The Express Platform generates this.
 ScheduledTaskReferenceNumber		50	User generated Reference Number used to identify a Scheduled Task.
 ScheduledTaskQueryType		2	Query type used to provide additional event information (0=Default, 1=RunLog)
 RunStartDate		8	The start date. Format is YYYYMMDD.
 <a href="#">RunUntilCancelFlag</a>	ExtendedBoolean Type	2	If this is set to true, the task will run every scheduled time until the task is deleted by the user.
 <a href="#">RunFrequency</a>	ExtendedRunFrequency	2	Specifies how often an event should occur.
 <a href="#">ScheduledTaskStatus</a>	ExtendedStatusType	2	The status of the task. You can set this to Active or Disabled.
 <a href="#">ScheduledTaskRunStatus</a>		2	The run status of the task.
 ScheduledTaskName		50	User generated name of the task.
 ScheduledTaskGroupID		50	Express platform generates this.

### Remarks

Used in transactions utilizing our Scheduled Task service.

## 7.19 Terminal Class

### Field Names

Name	Value	Max Length	Description
 <a href="#">TerminalID</a>	Any valid integer value: Example 01	40	Unique Terminal Identifier
 <a href="#">TerminalType</a>	Any valid TerminalType enumeration	2	Type of terminal
 <a href="#">TerminalCapabilityCode</a>	Any valid TerminalCapabilityCode enumeration	2	Terminal Capability Code
 <a href="#">TerminalEnvironmentCode</a>	Any valid TerminalEnvironmentCode enumeration	2	Terminal Environment Code
 <a href="#">CardPresentCode</a>	Any valid CardPresentCode enumeration	2	Card Present Code
 <a href="#">CVVPresenceCode</a>	Any valid CVVPresenceCode enumeration	2	Code that indicates the status of CVV
 <a href="#">CVVResponseType</a>	Any valid CVVResponseType enumeration	2	Card Verification Value Response Type
 <a href="#">CardInputCode</a>	Any valid CardInputCode enumeration	2	Card Input Code
 <a href="#">CardholderPresentCode</a>	Any valid CardholderPresentCode enumeration	2	Cardholder Present Code
 <a href="#">MotoECICode</a>	Any valid MotoECICode enumeration	2	Mail Order Telephone Order Electronic Commerce Indicator Code
 <a href="#">ConsentCode</a>	Any valid ConsentCode enumeration	2	Consumer Consent Code
 <a href="#">TerminalEncryptionFormat</a>	Any valid TerminalEncryptionFormat enumeration	2	Terminal Encryption Format
 TerminalSerialNumber	Any valid TerminalSerialNumber	40	Terminal Serial Number

### Remarks

Please be sure to review section 9.8 “Suggested Terminal Settings”.

## 7.20 Transaction Class

### Field Names

Name	Value	Max Length	Description
TransactionID		10	Unique transaction identifier
TransactionAmount		10	Dollar amount of transaction (Paymentech <= 99999.99)
OriginalAuthorizedAmount		10	Original dollar amount authorized
TotalAuthorizedAmount		12	Total dollar amount authorized
SalesTaxAmount		12	Dollar sales tax amount
TipAmount		12	Dollar tip amount
CashBackAmount		12	Cash back amount
ApprovalNumber		30	Issuer assigned approval number
ClerkNumber		10	Clerk number
ShiftID		10	Shift ID
ReferenceNumber		50	User defined reference number
ReversalType		2	Specifies the type of reversal transaction
MarketCode		2	The Market type of the merchant
AcquirerData		1000	Refer to host.
BillPaymentFlag		2	Specifies if this is a Bill Payment transaction
DuplicateCheckDisableFlag	Boolean Type	2	Disables duplicate checking for this transaction
DuplicateOverrideFlag	Boolean Type	2	Overrides duplicate transaction checking at the host for transactions that were previously returned as being a duplicate
RecurringFlag	Boolean Type	2	Specifies if this is part of a recurring series of transactions
TicketNumber		50	Used for Direct Marketing, MOTO, and E-Commerce transactions. Required when card number is manually keyed.
CommercialCardCustomerCode		25	Commercial card customer code
TransactionStatusCode		2	Status/State of transaction
TransactionStatus		25	Description of status/state of transaction
TransactionSetupID	GUID	50	Unique GUID that identifies the Transaction Setup ID. The Express Platform

			generates this.
ApprovedAmount		10	Approved amount
PartialApprovedFlag	Boolean Type	1	Indicates whether software supports partial approvals
MerchantVerificationValue		10	Merchant Verification Value (TSYS only)
CommercialCardResponseCode		2	Commercial card response code (TSYS only)
BalanceAmount		13	Balance amount. If negative, a minus sign will precede the amount. Format: DDDDDDDDD.DD
BalanceCurrencyCode		3	Balance amount currency code. Numeric. 840 = US dollars 124 = Canadian dollars 978 = Euro

## 7.21 TransactionSetup Class

### Field Names

Name	Value	Max Length	Description
TransactionSetupID	GUID	50	Unique GUID that identifies the Transaction Setup ID. The Express Platform generates this.
TransactionSetupMethod	Any valid TransactionSetupMethod enumeration	2	Transaction method used
Device	Any valid Device enumeration	2	Entry device used
Embedded	Boolean Type	2	Specifies if card entry page will be embedded in an application
CVVRequired	Boolean Type	2	Requires user to enter CVV2, CVC2, or CID values
AutoReturn	Boolean Type	2	Specifies if approval page will be automatically directed to ReturnURL
CompanyName		50	Name of merchant
LogoURL		150	URL of merchant logo to be displayed
Tagline		150	Text displayed next to logo
WelcomeMessage		250	Text to display to customer (if not provided, generic message will be displayed)
ReturnURL		150	Return URL link displayed after transaction completion or cancelled
ReturnURLTitle		100	Text to display for ReturnURL (if not provided generic "return to

			merchant" message will be displayed
OrderDetails		250	Text to describe purchase or detail information
ProcessTransactionTitle		100	Text to describe submit button
ValidationCode		50	Unique code returned from a TransactionSetup and as part of the query string redirect during a successful Hosted Payments request.
DeviceInputCode	Any valid DeviceInputCode enumeration	2	Device input code

## 8 Enumerations

### Chapter 8 consists of:

- List of Enumerations used with Express

#### 8.1 CardholderPresentCode

*CardholderPresentCode* specifies the location of the cardholder at the time of the transaction.

#### Enumeration Names

Name	Description
Default	Default (value = 0)
Unknown	Unknown (value = 1)
Present	Cardholder is present (value = 2)
NotPresent	Cardholder is not present (value = 3)
MailOrder	Mail order (value = 4)
PhoneOrder	Phone order (value = 5)
StandingAuth	Standing Auth (value = 6)
ECommerce	ECommerce (value = 7)

## 8.2 CardInputCode

*CardInputCode* specifies the means in which the Card Number or Track Data was acquired.

### Enumeration Names

Name	Description
 Default	Default (value = 0)
 Unknown	Unknown (value = 1)
 MagstripeRead	Magstripe Read (value = 2)
 ContactlessMagstripeRead	Contactless Magstripe Read (value = 3)
 ManualKeyed	Manual Keyed (value = 4)
 ManualKeyedMagstripeFailure	Manual Keyed Magstripe Failure (value = 5)

## 8.3 CheckType

*CheckType* specifies the type of check being used in the transaction.

### Enumeration Names

Name	Description
 Personal	Personal (value = 0)
 Business	Business (value = 1)

## 8.4 ConsentCode

*ConsentCode* specifies the way the consumers consent for the transaction was received.

### Enumeration Names

Name	Description
 NotSpecified	NotSpecified (value = 0)
 FaceToFace	FaceToFace (value = 1)
 Phone	Phone (value = 2)
 Internet	Internet value = 3)

## 8.5 CVVResponseType

*CVVResponseType* specifies the type of CVV Response codes that are returned by the host. The *Extended* value only applies to Visa cards.

### Enumeration Names

Name	Description
 Regular	Regular (value = 0)
 Extended	Extended (value = 1)

## 8.6 DDAAccountType

*DDAAccountType* specifies the type of DDA Account being used in the transaction.

### Enumeration Names

Name	Description
 Checking	Checking (value = 0)
 Savings	Savings (value = 1)

## 8.7 ReversalType

*ReversalType* specifies the type reversal that is being performed. See the description of reversals in the beginning of this document for more information.

### Enumeration Names

Name	Description
 System	System (value = 0)
 Full	Full (value = 1)
 Partial	Partial (value = 2)

## 8.8 BooleanType

*BooleanType* is a true or false value used for setting various flags in the system.

### Enumeration Names

Name	Description
 False	False (value = 0)
 True	True (value = 1)

## 8.9 CardPresentCode

*CardPresentCode* specifies the location of the card at the time of the transaction.

### Enumeration Names

Name	Description
 Default	Default (value = 0)
 Unknown	Unknown (value = 1)
 Present	Present (value = 2)
 NotPresent	Not Present (value = 3)

## 8.10 CVVPresenceCode

*CVVPresenceCode* specifies the status of the CVV code from the consumer card as it pertains to the transaction. If the CVV code from the card is not included in the transaction, it is recommended that this code be set to the reason why.

### Enumeration Names

Name	Description
 Default	Default (value = 0)
 Not Provided	Not Provided (value = 1)
 Provided	Provided (value = 2)
 Illegible	Illegible (value = 3)
 Customer Illegible	Customer Illegible (value = 4)

## 8.11 BatchCloseType

*BatchCloseType* specifies the process you want to use when closing your batch. See the *BatchClose* method for more information.

### Enumeration Names

Name	Description
 Regular	Regular (value = 0)
 Force	Force (value = 1)

## 8.12 BatchIndexCode

*BatchIndexCode* specifies which Batch you are querying against.

### Enumeration Names

Name	Description
 Current	Current open batch (value = 0)
 FirstPrevious	1 <sup>st</sup> Previous batch (value = 1)

## 8.13 BatchGroupingCode

This enumeration is reserved for future use.

### Enumeration Names

Name	Description
 FullBatch	FullBatch (value = 0)
 SingleBatch	SingleBatch (value = 1)

## 8.14 BatchQueryType

This enumeration is reserved for future use.

### Enumeration Names

Name	Description
 Total	Total (value = 0)
 Item	Item (value = 1)

## 8.15 MarketCode

*MarketCode* specifies the industry type of the merchant. Set this to a value of *Default* if you would like to use the *MarketCode* from the merchant profile.

### Enumeration Names

Name	Description
 Default	Default (value = 0)
 AutoRental	AutoRental (value = 1)
 DirectMarketing	DirectMarketing (value = 2)
 ECommerce	ECommerce (value = 3)
 FoodRestaurant	FoodRestaurant (value = 4)
 HotelLodging	HotelLodging (value = 5)
 Petroleum	Petroleum (value = 6)
 Retail	Retail (value = 7)
 QSR	QSR (value = 8)

## 8.16 MotoECICode

MotoECI Code is used on MOTO and E-Commerce transactions to identify the type of transaction, and the means in which it was obtained.

### Enumeration Names

Name	Description
 Default	Default (value = 0)
 NotUsed	NotUsed (value = 1)
 Single	Single (value = 2)
 Recurring	Recurring (value = 3)
 Installment	Installment (value = 4)
 SecureElectronicCommerce	Secure Electronic Commerce (value = 5)
 NonAuthenticatedSecureTransaction	NonAuthenticated Secure Transaction (value = 6)
 NonAuthenticatedSecureECommerceTransaction	NonAuthenticated Secure Ecommerce Transaction (value = 7)
 NonSecureECommerceTransaction	NonSecure Ecommerce Transaction (value = 8)

## 8.17 PaymentAccountType

*PaymentAccountType* indicates the type of Payment Account that is being created.

### Enumeration Names

Name	Description
 CreditCard	CreditCard (value = 0)
 Checking	Checking (value = 1)
 Savings	Savings (value = 2)
 ACH	ACH (value = 3)
 Other	Other (value = 4)

## 8.18 RunFrequency

*RunFrequency* specifies the how often an event should occur.

### Enumeration Names

Name	Description
 OneTimeFuture	OneTimeFuture (value = 0)
 Daily	Daily (value = 1)
 Weekly	Weekly (value = 2)
 BiWeekly	BiWeekly (value = 3)
 Monthly	Monthly (value = 4)
 BiMonthly	BiMonthly (value = 5)
 Quarterly	Quarterly (value = 6)
 SemiAnnually	SemiAnnually (value = 7)
 Yearly	Yearly (value = 8)

## 8.19 TerminalCapabilityCode

*TerminalCapabilityCode* specifies what the capabilities of the Terminal are. For example: an E-Commerce website would be considered *KeyEntered*.

### Enumeration Names

Name	Description
 Default	Default (value = 0)
 Unknown	Unknown (value = 1)
 NoTerminal	No Terminal (value = 2)
 MagstripeReader	Magstripe Reader (value = 3)
 ContactlessMagstripeReader	Contactless Magstripe Reader (value = 4)
 KeyEntered	Key Entered (value = 5)

## 8.20 TerminalEnvironmentCode

*TerminalEnvironmentCode* specifies what type of conditions the Terminal is operated in. For example: a card reader at a fuel pump would be considered *LocalUnattended*.

### Enumeration Names

Name	Description
 Default	Default (value = 0)
 NoTerminal	No Terminal (value = 1)
 LocalAttended	Local Attended (value = 2)
 LocalUnattended	Local Unattended (value = 3)
 RemoteAttended	Remote Attended (value = 4)
 RemoteUnattended	Remote Unattended (value = 5)
 ECommerce	ECommerce (value = 6)

## 8.21 TerminalType

*TerminalType* specifies what type of Terminal is used to send the transaction in.

### Enumeration Names

Name	Description
 Unknown	Unknown (value = 0)
 PointOfSale	PointOfSale (value = 1)
 ECommerce	ECommerce (value = 2)
 MOTO	MOTO (value = 3)
 FuelPump	FuelPump (value = 4)
 ATM	ATM (value = 5)
 Voice	Voice (value = 6)

## 8.22 TransactionStatusCode

*TransactionStatusCode* identifies the state/status the transaction is in. It provides a means for applications to know the state of a transaction without having to store it locally.

### Enumeration Names

Name	Description
 InProcess	InProcess (value = 0)
 Approved	Approved (value = 1)
 Declined	Declined (value = 2)
 Duplicate	Duplicate (value = 3)
 Voided	Voided (value = 4)
 Authorized	Authorized (value = 5)
 AuthCompleted	AuthCompleted (value = 6)
 Reversed	Reversed (value = 7)
 Success	Success (value = 8)
 Returned	Returned (value = 9)
 Pending	Pending (value = 10)
 Queued	Queued (value = 11)
 Unknown	Unknown (value = 12)
 Error	Error (value = 13)
 Originated	Originated (value = 14)
 Settled	Settled (value = 15)
 PartialApproved	PartialApproved (value = 16)

## 8.23 StatusType

*StatusType* specifies current status of an item.

### Enumeration Names

Name	Description
 Active	Active (value = 0)
 Disabled	Disabled (value = 1)
 Removed	Removed (value = 2)

## 8.24 ExtendedBooleanType

*ExtendedBooleanType* is a true, false, or null value used for setting various flags in the system.

### Enumeration Names

Name	Description
 Null	Null (value = -1)
 False	False (value = 0)
 True	True (value = 1)

## 8.25 ExtendedStatusType

*ExtendedStatusType* specifies current status of an item.

### Enumeration Names

Name	Description
 Null	Null (value = -1)
 Active	Active (value = 0)
 Disabled	Disabled (value = 1)
 Removed	Removed (value = 2)

## 8.26 ExtendedRunFrequency

*ExtendedRunFrequency* specifies the how often an event should occur.

### Enumeration Names

Name	Description
 Null	Null (value = -1)
 OneTimeFuture	OneTimeFuture (value = 0)
 Daily	Daily (value = 1)
 Weekly	Weekly (value = 2)
 BiWeekly	BiWeekly (value = 3)
 Monthly	Monthly (value = 4)
 BiMonthly	BiMonthly (value = 5)
 Quarterly	Quarterly (value = 6)
 SemiAnnually	SemiAnnually (value = 7)
 Yearly	Yearly (value = 8)

## 8.27 ScheduledTaskRunStatus

*ScheduledTaskRunStatus* specifies the current run status of a task.

### Enumeration Names

Name	Description
 Null	Null (value = -1)
 Pending	Pending (value = 0)
 Running	Running (value = 1)
 Completed	Completed (value = 2)
 Error	Error (value = 3)
 SystemRetry	SystemRetry (value = 4)
 ManualRetry	ManualRetry (value = 5)

## 8.28 Device

*Device* specifies the entry device used for the transaction.

### Enumeration Names

Name	Description
 Default	Default (value = 0)
 MagtekEncryptedSwipe	MagtekEncryptedSwipe (value = 1)
 EncryptedInputDevice (Reserved for future use)	EncryptedInputDevice (value = 2)

## 8.29 TransactionSetupMethod

*TransactionSetupMethod* specifies the transaction method used for the transaction.

### Enumeration Names

Name	Description
 Default	Default (value = 0)
 CreditCardSale	CreditCardSale (value = 1)
 CreditCardAuthorization	CreditCardAuthorization (value = 2)
 CreditCardAVSOnly	CreditCardAVSOnly (value = 3)
 CreditCardForce	CreditCardForce (value = 4)
 CheckSale (Reserved for future use)	CheckSale (value = 6)
 PaymentAccountCreate	PaymentAccountCreate (value = 7)
 PaymentAccountUpdate	PaymentAccountUpdate (value = 8)
 Sale (Reserved for future use)	Sale (value = 9)

## 8.30 Healthcare[First][Second][Third][Fourth]AccountType

*Healthcare Account Type* specifies the type of healthcare account.

### Enumeration Names

Name	Description
 NotSpecified	Not Specified (value = 0)
 Savings	Savings (value = 1)
 Checking	Checking (value = 2)
 CreditCard	Credit Card (value = 3)
 Universal	Universal (value = 4)
 StoredValueAccount	Stored Value Account (value = 5)
 CashBenefitsAccount	Cash Benefits Account (value = 6)
 FoodStampsAccount	Food Stamps Account (value = 7)

## 8.31 Healthcare[First][Second][Third][Fourth]AmountType

*Healthcare Amount Type* specifies the type of healthcare amount.

### Enumeration Names

Name	Description
 LedgerBalance	Ledger Balance (value = 0)
 AvailableBalance	Available Balance (value = 1)
 Healthcare	Healthcare (value = 2)
 Transit	Transit (value = 3)
 Copayment	Copayment (value = 4)
 OriginalAmount	Original Amount (value = 5)
 PartialAuthorizedAmount	Partial Authorized Amount (value = 6)
 Prescription	Prescription (value = 7)
 Vision	Vision (value = 8)
 Clinic	Clinic (value = 9)
 Dental	Dental (value = 10)
 CashOver	Cash Over (value = 11)
 OriginalCashOver	Original Cash Over (value = 12)

## 8.32 Healthcare[First][Second][Third][Fourth]AmountSign

*Healthcare Amount Sign* specifies the healthcare amount sign.

### Enumeration Names

Name	Description
 Positive	Positive (value = 0)
 Negative	Negative (value = 1)

## 8.33 LodgingSpecialProgramCode

*LodgingSpecialProgramCode* specifies whether a cardholder is participating in a special program.

### Enumeration Names

Name	Description
 Default	Default (value = 0)
 Sale	Sale (value = 1)
 NoShow	No Show (value = 2)
 AdvanceDeposit	Advance Deposit (value = 3)

## 8.34 LodgingChargeType

*LodgingChargeType* specifies a hotel charge type.

### Enumeration Names

Name	Description
 Default	Default (value = 0)
 Restaurant	Restaurant (value = 1)
 GiftShop	Gift Shop (value = 2)

## 8.35 LodgingPrestigiousPropertyCode

*LodgingPrestigiousPropertyCode* specifies whether a hotel is participating in Visa's prestigious property program.

### Enumeration Names

Name	Description
 NonParticipant	Non-Participant (value = 0)
 DollarLimit500	Prestigious Property with \$500 Limit (value = 1)
 DollarLimit1000	Prestigious Property with \$1000 Limit (value = 2)
 DollarLimit1500	Prestigious Property with \$1500 Limit (value = 3)

## 8.36 AutoRentalVehicleClassCode

*AutoRentalVehicleClassCode* specifies the classification of rental vehicle.

### Enumeration Names

Name	Description
 Unused	Unused (value = 0)
 Mini	Mini (value = 1)
 Subcompact	Subcompact (value = 2)
 Economy	Economy (value = 3)
 Compact	Compact (value = 4)
 Midsize	Midsize (value = 5)
 Intermediate	Intermediate (value = 6)
 Standard	Standard (value = 7)
 Fullsize	Fullsize (value = 8)
 Luxury	Luxury (value = 9)
 Premium	Premium (value = 10)
 MiniVan	Mini Van (value = 11)
 Van12Passenger	12-Passenger Van (value = 12)
 MovingVan	Moving Van (value = 13)
 Van15Passenger	15-Passenger Van (value = 14)
 CargoVan	Cargo Van (value = 15)
 Truck12Foot	12-Foot Truck (value = 16)

 Truck20Foot	20-Foot Truck (value = 17)
 Truck24Foot	24-Foot Truck (value = 18)
 Truck26Foot	26-Foot Truck (value = 19)
 Moped	Moped (value = 20)
 Stretch	Stretch (value = 21)
 Regular	Regular (value = 22)
 Unique	Unique (value = 23)
 Exotic	Exotic (value = 24)
 TruckSmallMedium	Small or Medium Truck (value = 25)
 Truck Large	Large Truck (value = 26)
 SUVSmall	Small SUV (value = 27)
 SUVMedium	Medium SUV (value = 28)
 SUVLarge	Large SUV (value = 29)
 SUVExotic	Exotic SUV (value = 30)
 FourWheelDrive	Four-Wheel Drive (value = 31)
 Special	Special (value = 32)
 Miscellaneous	Miscellaneous (value = 33)

### 8.37 AutoRentalDistanceUnit

*AutoRentalDistanceUnit* specifies the distance unit of measurement.

#### Enumeration Names

Name	Description
 Unused	Unused (value = 0)
 Miles	Miles (value = 1)
 Kilometers	Kilometers (value = 2)

## 8.38 AutoRentalAuditAdjustmentCode

*AutoRentalAuditAdjustmentCode* specifies if an adjustment for mileage, fuel, vehicle damage, etc. was made to a rental agreement.

### Enumeration Names

Name	Description
 NoAdjustments	No Adjustments (value = 0)
 MultipleAdjustments	Multiple Adjustments (value = 1)
 OneAdjustmentCardmemberNotified	One Adjustment Cardmember Notified (value = 2)
 OneAdjustmentCardmemberNotNotified	One Adjustment Cardmember Not Notified (value = 3)

## 8.39 PASSUpdaterBatchStatus

*PASSUpdaterBatchStatus* specifies whether or not the PASS record will be included in the next PASS Updater batch. Used with PASS Auto Updater.

### Enumeration Names

Name	Description
 Null	Null (value = 0)
 IncludedInNextBatch	Included in next batch (value = 1)
 NotIncludedInNextBatch	Not included in next batch (value = 2)

## 8.40 PASSUpdaterOption

*PASSUpdaterOption* specifies whether or not the PASS record will be updated automatically. Used with PASS Auto Updater.

### Enumeration Names

Name	Description
 Null	Null (value = 0)
 AutoUpdateEnabled	Auto update enabled (value = 1)
 AutoUpdateDisabled	Auto update disabled (value = 2)

## 8.41 PASSUpdaterStatus

*PASSUpdaterStatus* specifies the match status of the PASS record. Used with PASS Auto Updater.

### Enumeration Names

Name	Description
 Null	Null (value = 0)
 UpdateInProgress	Update in progress (value = 1)
 MatchNoChanges	Match, no changes (value = 2)
 MatchAccountChange	Match, account change (value = 3)
 MatchExpirationChange	Match, expiration change (value = 4)
 MatchAccountClosed	Match, account closed (value = 5)
 MatchContactCardholder	Match, contact cardholder (value = 6)
 NoMatchParticipating	No match, participating (value = 7)
 NoMatchNonParticipating	No match, non-participating (value = 8)
 InvalidInfo	Invalid info (value = 9)
 NoResponse	No response (value = 10)
 NotAllowed	Not allowed (value = 11)
 Error	Error (value = 12)
 PASSUpdaterDisabled	PASS Updater disabled (value = 13)
 NotUpdated	Not updated (value = 14)

## 8.42 DeviceInputCode

*DeviceInputCode* specifies the entry device input type used for the transaction.

### Enumeration Names

Name	Description
 NotUsed	Not Used (value = 0)
 Unknown	Unknown (value = 1)
 Terminal	Terminal (value = 2)
 Keyboard	Keyboard (value = 3)

## 8.43 TerminalEncryptionFormat

*TerminalEncryptionFormat* specifies the encryption format of the device used for the transaction.

### Enumeration Names

Name	Description
 Default	Default (value = 0)
 Format1	Format 1 (value = 1)
 Format2	Format 2 (value = 2)
 Format3	Format 3 (value = 3)
 Format4	Format 4 (value = 4)

## 8.44 EncryptedFormat

*EncryptedFormat* specifies the encryption format of the device used for the transaction.

### Enumeration Names

Name	Description
 Default	Default (value = 0)
 Format1	Format 1 (value = 1)
 Format2	Format 2 (value = 2)
 Format3	Format 3 (value = 3)
 Format4	Format 4 (value = 4)

## 9 Appendix

### This Appendix consists of:

- Response code descriptions
- Sample code
- NULL processor
- Suggested terminal settings
- Interface URL's

### 9.1 Express Response Codes

An *ExpressResponseCode* is returned with every Express method call. This is the first returned variable that should be examined to determine success or failure. An *ExpressResponseCode* = 0 indicates an approval or successful request. An *ExpressResponseCode* = 5 indicates a partial approval request (TSYS only). An *ExpressResponseCode* <> 0 or 5 indicates a decline or non-approval.

Code	Description
0	Approved / Success
5	Partial Approval
20	Decline
21	Expired card
22	Duplicate approved
23	Duplicate
24	Pick up card
25	Referral / Call Issuer
30	Balance Not Available
90	Not defined
101	Invalid data
102	Invalid account
103	Invalid request
104	Authorization failed
105	Not Allowed
120	Out of Balance
1001	Communication error
1002	Host error
1009	Error

## 9.2 AVS Response Codes

<b>Code</b>	<b>Description</b>
A	Address: Address matches, zip does not match. For Discover, address and zip code matches.
B	Incompatible formats (postal code): Street addresses match. Postal code not verified due to incompatible formats (Acquirer sent both street address and postal code)
C	Incompatible formats (all information): Street address and postal code not verified due to incompatible formats. (Acquirer sent both street address and postal code).
D	Street addresses and postal codes match
E	Edit error: For example, AVS not allowed for this transaction
F	International Transaction: Street address and postal code match
G	Global non-AVS participant.
I	International Transaction: Address information not verified for international transaction.
J	American Express only. Card Member Information and Ship-To information Verified – Fraud Protection Program.
K	American Express only. Card Member Information and Ship-To Information Verified – Standard.
M	Match: Street addresses and postal codes match.
N	No: Address and zip code do not match
P	Postal codes match. Street address not verified due to incompatible formats (Acquirer sent both street address and postal code)
R	Retry: System unavailable or timed out
S	Service not Supported: Issuer does not support AVS and Visa, INAS, or the issuer processing center
T	Nine-digit zip code matches, address does not match
U	Unavailable: Address information not verified for domestic transactions
W	Whole zip: Nine-digit zip code matches, address does not match. For Discover, no data provided.
X	Exact: Address and nine-digit zip code match
Y	Yes: Address and five-digit zip code match. For Discover, only address matches.
Z	Zip: Five-digit zip code matches, address does not match
0	No address verification has been requested (TSYS only).

## 9.3 CVV Response Codes

<b>Code</b>	<b>Description</b>
M	Match
N	No Match
P	Not Processed
S	CVV value should be on the card, but the merchant has indicated that it is not present (Visa & Discover only)
U	Issuer is not certified for CVV processing

X	Server provider did not respond
---	---------------------------------

## 9.4 CAVV Response Codes

Code	Description
Space	CAVV not present
0	CAVV authentication results invalid
1	CAVV failed validation – authentication
2	CAVV passed validation – authentication
3	CAVV passed validation – attempt
4	CAVV failed validation – attempt
6	CAVV not validated, issuer not participating in CAVV validation
7	CAVV failed validation – attempt (US issued card, non-US merchant)
8	CAVV passed validation – attempt (US issued card, non-US merchant)
9	CAVV failed validation – attempt (US issued card, non-US merchant, issuer authentication server not available)
A	CAVV passed validation – attempt (US issued card, non-US merchant, issuer authentication server not available)
B	CAVV passed validation – information only, no liability shift

## 9.5 Commercial Card Response Codes

The *CommercialCardResponseCode* value is returned for Visa and MasterCard commercial cards on the TSYS platform only.

Code	Description
B	Business Card
D	Visa Commerce (reserved for future use)
R	Corporate Card
S	Purchasing Card
0	Non-commercial Card
Space	Non-commercial Card or request error

## 9.6 Sample Code

### 9.6.1 HealthCheck

```
[C#] Web Service

//Declare variables
ElementExpress.Express express = new ElementExpress.Express ();
ElementExpress.Credentials credentials = new ElementExpress.Credentials ();
ElementExpress.Application application = new ElementExpress.Application ();
ElementExpress.Response response = new ElementExpress.Response ();
ElementExpress.Transaction transaction = new ElementExpress.Transaction ();

//Setup the Application and Credential objects
application.ApplicationID = "Inset Application ID Here";
application.ApplicationName = "Insert Application Name Here";
application.ApplicationVersion = "Insert Application Version Here";
credentials.AccountID = "Insert AccountID Here";
credentials.AccountToken = "Insert AccountToken Here";
credentials.AcceptorID = "Insert MerchantID Here";

//Output the returned values to the Response object
response = express.HealthCheck (credentials, application);

MessageBox.Show ("ExpressMessage= " + response.ExpressResponseMessage+ "\n HostMessage= " +
response.HostResponseMessage);
```

```
[C#] XML Post
```

```
//Setup the XML request
System.Net.WebRequest request = System.Net.WebRequest.Create
("https://testtransaction.elementexpress.com/");
request.Method = "POST";
request.ContentType = "text/xml";
System.IO.StreamWriter writer = new System.IO.StreamWriter (request.GetRequestStream ());
writer.Write ("<HealthCheck xmlns='https://testtransaction.elementexpress.com'>");
writer.Write ("<Credentials>");
writer.Write ("<AccountID>Insert Account ID Here</AccountID>");
writer.Write ("<AccountToken>Insert Acct Token Here</AccountToken>");
writer.Write ("<AcceptorID>Insert Acceptor ID Here</AcceptorID>");
writer.Write ("</Credentials>");
writer.Write ("<Application>");
writer.Write ("<ApplicationID>Insert App ID Here</ApplicationID>");
writer.Write ("<ApplicationName>Insert App Name Here</ApplicationName>");
writer.Write ("<ApplicationVersion>Insert App Version Here</ApplicationVersion>");
writer.Write ("</Application>");
writer.Write ("</HealthCheck>");
writer.Close ();

//Output the XML response
System.Net.WebResponse response = request.GetResponse ();
System.IO.StreamReader reader = new System.IO.StreamReader (response.GetResponseStream ());
string sXml = reader.ReadToEnd().Trim();

MessageBox.Show (sXml);
request.GetRequestStream ().Close ();
```

```

response.GetResponseStream ().Close ();

[VB6] XML Post

Dim oXmlHttp As New MSXML2.XMLHTTP
Dim sXml As String

sXml = sXml & "<HealthCheck>"
sXml = sXml & "<Credentials>"
sXml = sXml & "<AccountID>Insert AccountID here</AccountID>"
sXml = sXml & "<AccountToken>Insert AccountToken here</AccountToken>"
sXml = sXml & "<AcceptorID>Insert AcceptorID here</AcceptorID>"
sXml = sXml & "</Credentials>"
sXml = sXml & "<Application>"
sXml = sXml & "<ApplicationID>Insert ApplicationID here</ApplicationID>"
sXml = sXml & "<ApplicationName>Insert ApplicationName here</ApplicationName>"
sXml = sXml & "<ApplicationVersion>Insert ApplicationVersion here</ApplicationVersion>"
sXml = sXml & "</Application>"
sXml = sXml & "</HealthCheck>"

oXmlHttp.open "POST", "https://testtransaction.elementexpress.com", False
oXmlHttp.setRequestHeader "Content-Type", "text/xml"
oXmlHttp.send sXml

MsgBox oXmlHttp.responseText

Set oXmlHttp = Nothing

```

### 9.6.2 CreditCardSale

```

[C#] Web Service

//Declare variables
ElementExpress.Express express = new ElementExpress.Express ();
ElementExpress.Application application = new ElementExpress.Application ();
ElementExpress.Credentials credentials = new ElementExpress.Credentials ();

ElementExpress.Card card = new ElementExpress.Card ();
ElementExpress.Terminal terminal = new ElementExpress.Terminal ();
ElementExpress.Transaction transaction = new ElementExpress.Transaction ();
ElementExpress.Response response = new ElementExpress.Response ();

//Setup the Application, Credential, Terminal
//Transaction, and Card objects
application.ApplicationID = "Inset Application ID Here";
application.ApplicationName = "Insert Application Name Here";
application.ApplicationVersion = "Insert Application Version Here";
credentials.AccountID = "Insert AccountID Here";
credentials.AccountToken = "Insert AccountToken Here";
credentials.AcceptorID = "Insert MerchantID Here";
terminal.TerminalID = "01";
terminal.CardholderPresentCode = ElementExpress.CardholderPresentCode.Present;
terminal.CardInputCode = ElementExpress.CardInputCode.ManualKeyedMagstripeFailure;
terminal.TerminalCapabilityCode = ElementExpress.TerminalCapabilityCode.MagstripeReader;
terminal.TerminalEnvironmentCode = ElementExpress.TerminalEnvironmentCode.LocalAttended;
terminal.CardPresentCode = ElementExpress.CardPresentCode.Present;
terminal.MotoECICode = ElementExpress.MotoECICode.NotUsed;
transaction.MarketCode = ElementExpress.MarketCode.Retail;
transaction.TransactionAmount = "6.54";
card.CardNumber = "5499990123456781";
card.ExpirationMonth = "09";
card.ExpirationYear = "08";

```

```
//Output returned values to the Response object
response = express.CreditCardSale(credentials, application, terminal, card, transaction,
null, null);

MessageBox.Show ("ExpressMessage=" + response. ExpressResponseMessage + "\n HostMessage="
+ response. HostResponseMessage);
```

## 9.7 NULL Processor

The NULL Processor is a host simulator that provides a means for integrators to develop and test their applications by passing in certain parameters to receive expected results.

The below table works with the following transaction types: *CreditCardSale*, *CreditCardAuthorization*, *CreditCardCredit*, *CreditCardReturn*, *DebitCardSale* and *DebitCardReturn*.

Dollar Amount	Express Response Code/Message	Host Response Code/Message
\$1.00	0 / APPROVED	000 / AP
\$.20	20 / DECLINED	007 / DECLINED
\$.21	21 / EXPIRED CARD	054 / EXPIRED CARD
\$.22	22 / DUPLICATE AP	094 / AP DUP
\$.23	23 / DUPLICATE	094 / DUPLICATE
\$.24	24 / PICK UP CARD	004 / PICK UP CARD
\$.25	25 / CALL ISSUER	002 / CALL ND
\$.90	90 / UNDEFINED	
\$1.01	101 / INVALID DATA	
\$1.02	102 / INVALID ACCOUNT	
\$1.03	103 / INVALID REQUEST	
\$1.04	104 / AUTH FAILED	
\$1.05	105 / NOT ALLOWED	058 / UNAUTH TRANS
\$1.20	120 / OUT OF BALANCE	0NB / INV BAL/SETTL
\$10.01	1001 / COMM ERROR	
\$10.02	1002 / HOST ERROR	
\$10.09	1009 / ERROR	
Any other amount	0 / APPROVED	000 / AP

#### **AVS Response Values**

<b>Billing Address 1</b>	<b>Billing Zipcode</b>	<b>AVS Response Code / Meaning</b>
4	Any Other Zipcode	A / Address Match
4	30329	M / Address and Zipcode Match
Any Other Address	Any Other Zipcode	N / No Match
4	30330	Y / Address and Zipcode Match
Any Other Address	30330	Z / Zipcode Match

#### **CVV Response Values**

<b>CVV Value</b>	<b>CVV Response Code / Meaning</b>
123	M / Match
321	N / No Match
333	P / Not Processed

## **9.8 Terminal Settings**

### **Suggested Terminal Settings**

#### *Swiped Transactions*

<b>Parameter</b>	<b>Value</b>	<b>Enumeration</b>
TerminalEnvironmentCode	2	LocalAttended
TerminalCapabilityCode	3	MagstripeReader
CardholderPresentCode	2	Present
CardPresentCode	2	Present
CardInputCode	2	MagstripeRead
MotoECICode	1	NotUsed

#### *Keyed Transactions (Except E-Commerce)*

<b>Parameter</b>	<b>Value</b>	<b>Enumeration</b>
TerminalEnvironmentCode	2	LocalAttended
TerminalCapabilityCode	5	KeyEntered
CardholderPresentCode	3	NotPresent
CardPresentCode	3	NotPresent
CardInputCode	4	ManualKeyed
MotoECICode	1 or 2	NotUsed or SingleTransaction (MOTO only)

#### *E-Commerce (Consumer is entering card information)*

Parameter	Value	Enumeration
TerminalEnvironmentCode	6	ECommerce
TerminalCapabilityCode	5	KeyEntered
CardholderPresentCode	7	ECommerce
CardPresentCode	3	NotPresent
CardInputCode	4	ManualKeyed
MotoECICode	7	NonAuthenticatedSecureECommerceTransaction

### *Recurring Transactions*

Parameter	Value	Enumeration
TerminalEnvironmentCode	2	LocalAttended
TerminalCapabilityCode	5	KeyEntered
CardholderPresentCode	6	StandingAuth
CardPresentCode	3	NotPresent
CardInputCode	4	ManualKeyed
MotoECICode	3	Recurring

## 9.9 Interface URL's

Interface	Platform	Type	URL
Transaction	Test	XML	<a href="https://testtransaction.elementexpress.com">https://testtransaction.elementexpress.com</a>
Transaction	Test	SOAP	<a href="https://testtransaction.elementexpress.com/express.asmx">https://testtransaction.elementexpress.com/express.asmx</a>
Reporting	Test	XML	<a href="https://testreporting.elementexpress.com">https://testreporting.elementexpress.com</a>
Reporting	Test	SOAP	<a href="https://testreporting.elementexpress.com/express.asmx">https://testreporting.elementexpress.com/express.asmx</a>
Services	Test	XML	<a href="https://testservices.elementexpress.com">https://testservices.elementexpress.com</a>
Services	Test	SOAP	<a href="https://testservices.elementexpress.com/express.asmx">https://testservices.elementexpress.com/express.asmx</a>