



Batch Transmission

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For the latest update, visit our website:
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Chapter 1

Welcome

Forte Payment Systems' Payments Gateway platform (PG platform) processes credit card, EFT, and recurring transactions after capturing purchase information via swipe or key entry.

To access the platform, customers generally use either a secure real-time connection or batch transaction submission. Customers using real-time connections do not need instruction in file specifications; hence, this guide will assist technical staff supporting batch transaction uploads and downloads.

The platform uses a flexible format that allows merchants to batch transaction data whenever they like, grouping and identifying transactions in any manner they prefer so that reporting and tracking are completely user defined and can be as simple and intuitive as necessary. This guide provides the following:

- Basic instructions on how to upload and download files correctly
- Correct file layouts and other technical information needed to prepare files for transfer to the platform

How to Use this Guide

A key part of the PG platform involves the transfer of files between your system and Forte. This guide provides information on how to upload and download files and the appropriate file formats and is intended for a technical team or developer who has experience with the following concepts:

- Basic programming
- Basic understanding of integration and formats
- Formats and protocols required by your in-house swipe card system
- Transferring files using secure FTP protocols

In addition to file layouts and field descriptions, this guide also includes examples for CSV (comma separated value) and fixed formatted files, as well as many reference tables and lists for values and codes that you will find very helpful as reference tools.

For technical assistance, please contact technicians at Forte at 866.290.5400.

How this Guide is Organized

Chapter 1: Welcome

Chapter 2: Uploading and Downloading

This chapter provides the basics of logging on to the platform and managing your file transfer processes. While designed to be user friendly, this guide is not intended for use by individuals who do not possess a basic understanding of file transfer methods and protocols.

Chapter 3: File Specifications

This chapter provides detailed file layouts, field descriptions, usage notes and code examples. If you have a question about a file layout that is not answered by this section, you should contact Technical Support for assistance.

Chapter 4: Appendices

This chapter contains an invaluable series of code lists and tables you will refer to again and again.

Index

The Index provides a cross reference for virtually every topic covered in this manual, including a listing of every field and the locations of every record or file in this guide where that field is listed or described.

Chapter 2

Uploading and Downloading

By Popular Request

Forté receives more requests for documentation about how to upload and download files than about any other topic. We recommend that you not only read this section, but also that you save a copy on your PC for future reference. If you are viewing this file using Acrobat Reader, select **File > Save As** from the top menu.

Understanding the Process

The steps involved in uploading and downloading files are simple, but frequently cause confusion among users. The following is a high-level overview. Step-by-step, detailed instructions follow and explain each aspect of this process.

1. Upload the file to the system using the **PUT** command. Upload to the *ul* (“upload”) directory and use a file extension that begins with the letter “U,” followed by a two-digit batch number for the file name. For example, file CZ30011.U01.
2. Rename the file (using the **RENAME** command) to signal to the PG platform that the file is ready for processing. The file should remain in the *ul* directory. The file name can remain the same **except** that you must change the first letter of the file extension. Instead of a letter “u” for “upload” use a letter “r” for “ready.” For example, file CZ30011.r01 would be ready for processing (indicated by the “r” appearing immediately after the decimal). If the file name were CZ30011.u01, the file would not be ready; it would just have been uploaded.
3. The platform “picks up” the file for processing and the file will appear to be removed from the *ul* folder.
4. During the processing cycle, the platform places batch confirmation and response files in the *dl* (“download”) directory.

NOTE: If the correct file naming conventions or proper extensions are not used, your transactions will NOT be processed.

Step-by-Step Instructions

Setting Up for Secure File Transfer

The PG platform supports two common secure transfer protocols: Secure File Transfer Protocol (SFTP) and File Transfer Protocol (FTP) when connected via a SSL (Secure Socket Layer) connection in either explicit or implicit modes. This ensures that your transaction data is secure.

Before you can upload transaction batches to the platform, you must set up a program/system and libraries that support SFTP (such as OpenSSH) or FTP/SSL (such as Catalyst File Transfer).

If you are using public key authentication, you must first set up your private and public keys, then send your public key to the Forte's Integration Mailing List (integration@forte.net). Forte uses your public key to set up your account and ensure that we can correctly receive and send encrypted files using your encryption protocol.

If you are using password-based security, Forte sends your FTP password when setting up your account. If you do not know your password or have problems logging in, contact Forte's Customer Service department for assistance at 866-290-5400 option #1

Logging In

The following parameters should be used in your client or custom application for logging in:

Server: ftp.paymentsgateway.net

User ID: uxxxxx where xxxxx = your assigned Transmitter ID

NOTE: You must type the letter "u" in front of your Transmitter ID. If you were assigned a four-digit Transmitter ID you need to add a zero to the beginning of that number. For example, if your Transmitter ID is 2233, you would type the following:

u02233

If your Transmitter ID is 12233, you would type the following:

u12233

Password: Your assigned FTP password, if using password authentication

Port:

SFTP	22
FTP/SSL implicit	990
FTP/SSL explicit	21
FTP/SSL PASV range	28,000-30,000

Navigating the Directories

When you log into the server, you will be located in the home directory for your company. In the home directory you will find 2 sub-directories: *UL* or *ul* (Upload) and *DL* or *dl* (Download).

The **ul** (upload) directory is used for uploading or dropping off files for processing.

The **dl** (download) directory is used for downloading or getting response files.

How to Upload Files

- Step 1: Log in to the FTP Server.
- Step 2: Access the *ul* directory.
- Step 3: Use the **PUT** command to upload your file to the *ul* directory. (Remember that your file name extension cannot start with the letter **R**.) We require that you use a file extension in the following format:

.U##

Where **U** stands for “upload” and “##” is replaced with a two-digit batch number.

- Step 4: Use the **Rename** command to rename the file, making sure that the file extension follows the following format:

.R##

Where **R** stands for “ready” (for processing) and “##” is replaced with a two-digit batch file number.

We require that you use the following file name layout.

Using our Filename Layout: **abcdddd.eff**

Field	Description
a	File Format
b	Compress/Encryption Method
c	Filespec Version
dddd	Transmitter ID
e	Status of File/Upload Use U for upload and R for Ready (do not use when uploading your file)
ff	Batch File Number

Field	Description
	We require a numeric batch file number starting with one.

Please see the following tables for field values and options and look for an example at the end of this section.

File Format (Field a)

Value	Description
C	Comma Delimited Format (CSV)
F	Fixed Format
N	NACHA Format

Compression/Encryption Method (Field b)

Value	Method
A	None
Z	Zipped w/Password
Y	Zipped w/o Password
P	PGP encrypted
R	RSA encrypted and zipped Note: When you use R as your compression/encryption method, you must zip the file, then encrypt it. When receiving a response to R , decrypt first, then unzip the file.
S	RSA encrypted only

Filespec Version (Field c)

Value	Version
2	Filespec 2.25
3	Filespec 3.x

Status of File Upload

Value	Compression/Encryption Method
U	Uploading File
R	Ready to Process (Upload Complete)
Y	Zipped w/o Password
P	PGP encrypted

File Naming Example: cz301013.R01

C	=	Comma Delimited (CSV) format
Z	=	Compressed with WinZip with password protection
3	=	Filespec version 3.x
01013	=	Assigned Transmitter ID
R	=	Ready for processing
01	=	First batch file of the day

If this file had a **U** immediately following the decimal, it would not be “ready.” The file would need to be renamed before the system would recognize it and “pick it up” for processing.

Downloading Files

For organizations submitting transactions using batch methods, response files are placed in the *DL* directory as they become available and may be downloaded at any time. You may use these files with reporting or analysis tools of your choice.

- Step 1: Log in to the FTP server.
- Step 2: Access the *dl* directory.
- Step 3: Download your file(s) using the **DOWNLOAD** command.
- Step 4: Delete successfully downloaded file(s) from the SFTP server.

There are two types of response files that are downloaded from the FTP server:

- Files that begin with a **B** are batch confirmation files. Batch confirmation files contain only a list of transactions that have been received and processed.
- Files that begin with an **S** are settlement files. Settlement files can contain:
 - a) Reject and funding information – CC, EFT in separate files
 - b) Approval and decline information for items processed via batch files – CC
 - c) Results of verification-only transactions processed via batch files – EFT transaction_type “*VER*”

NOTE: If working in real time, you will not receive batch confirmation (**B**) files or settlement (**S**) files containing results of real-time verification-only transactions. For real-time transactions, settlement (**S**) files will only display for items that have been approved and settled.

If submitting transactions using a batch file method, you will receive a batch confirmation file which should be available shortly after uploading. Typically, if there is activity during any given day, you may receive numerous sets of settlement (**S**) files:

- shortly after upload, approval and decline response information for CC items processed via batch files
- 1 a.m. Pacific for prior day’s approved and settled CC transactions
- 8 a.m. Pacific for settled EFT transactions
- 1 p.m. Pacific for settled EFT transactions
- 10 p.m. Pacific for settled EFT transactions

The naming scheme for the response files is as follows:

XYMMDD.###.

See the following table for details about this format.

Important Note: Response files will be retained on the server for a limited period of time, Forte is not responsible for response files that have been left on the server for over a week.

Response File Naming Scheme:

Field	Values
X	B for Batch confirmations or S for Settlement files.
YY	Year file created (02 = 2002)
MM	Month file created (1 – 12)
DD	Day file created (1 – 31)
###	Starts with 001 for each file creation event such that if a file does not exist, it will be created. Existing files in the <i>d/</i> folder will never be overwritten.

Chapter 3

File Specifications

How to Use This Chapter

This section includes detailed file/record layout specifications. Included are examples for CSV (comma separated value) and fixed file formats, notes about each record and how it is used, and notes about fields, their uses and values.

Sequence of Records

Record Name	Notes
File Header Record	One per file
1st Batch Header Record	One per batch
1st Entry Detail Record 2nd Entry Detail Record etc...	Each entry detail may have an optional Addenda Record immediately following.
Last Entry Detail Record	
1st Batch Footer Record	
2nd Batch Header Record	Batches and entry details continue.
1st Entry Detail Record etc...	A new batch is required if any of the batch header data changes for a particular transaction.
Last Entry Detail Record	
2nd Batch Footer Record	End of batches.
File Footer Record	End of File - last logical record.

File Header Record

Field Name	Type	Start	Length	Req?	Description
record_type	A	1	1	Y	Record Type '1' = File Header
transmit_id	N	2	6	Y	Your assigned Transmitter ID
pg_password	A	8	20	Y	Your FTP password for the PG platform
creation_date	D	28	8	Y	File Creation Date
creation_time	T	36	6	Y	File Creation Time
file_format_code	A	42	3	Y	See FileFormatCode Table
file_reference_code	A	45	15	N	User definable code to uniquely identify this file

Each file that the PG platform sends or receives has a single file header record like the first line of the file that is formatted in accordance with the "File Header Record" displayed above. The following two examples also display the File Header Record:

CSV Format

The following is an example for the Comma Separated Value (CSV) format:

```
"1",1000,"crazy5horse",20021101,091503,"CSV",""
```

Fixed Format

```
1001000crazy5horse 20021101091503FIX
```

123456789012345678901234567890123456789012345678901234567890
1 2 3 4 5 6

NOTE: Numeric values are padded on the left side with either spaces or zeros when using a fixed format (e.g., using 001000 for the transmit_id). Alphanumeric fields are padded on the right side with spaces (e.g., crazy5horse followed by 9 spaces for the pg_password field).

Field Descriptions

record_type	The first field on each line of the file. A value of 1 is used in this position to indicate that this is a File Header Record.
transmit_id	A unique identification number assigned to you as a transmitter or receiver of transactions for the PG platform. This 4–6 digit value is used to identify the source or destination of transaction data.
pg_password	Stores your password. By including this field, an extra level of authentication can be performed to help assure that only authorized transactions are processed. Response files do not include this value or masks it.
creation_date	Indicates the file creation date and is formatted as follows: YYYYMMDD. In the example provided, the date shown is November 1, 2002.
creation_time	Indicates the file creation time in the following format: HHMMSS. In the example provided, the time shown is 9:15am and 3 seconds.
file_format_code	This field indicates the file format (refer to Appendix A for a list of alternatives).
file_reference_code	This optional field can be used to create a unique name or identifier with up to 15 alpha-numeric characters. This field data is included in some response files that are returned to you, allowing you to more easily match the transaction back to the original file that was transmitted. If this field is omitted, the creation date and time will be inserted into this field. Include this value on a per transaction basis in user-defined fields.

File Footer Record

Field Name	Type	Start	Length	Req?	Description
record_type	A	1	1	Y	Record Type '9' = File Footer
transmit_id	N	2	6	Y	Your assigned Transmitter ID
batch_count	N	8	6	Y	Total number of batches in this file
file_debit_amount	\$	14	12	Y	Total value of debit entries in this file
file_credit_amount	\$	26	12	Y	Total value of credit entries in this file
file_debit_count	N	38	6	Y	Total number of debit items in this file
file_credit_count	N	44	6	Y	Total number of credit items in this file
file_reference_code	A	50	15	N	Code used in header to identify this file

Each file that is sent or received will have a single file footer record as the last line of the file and is formatted in accordance with the File Footer Record layout. The following two examples display a File Footer Record:

CSV Format

```
"9",1000,2,1200,100.50,1,2,""
```

Fixed Format

```
9001000000002 1200.00 0000100.50000001000002
```

1234567890123456789012345678901234567890123456789012345678901234567890
1 2 3 4 5 6 7

NOTES:

- When using a fixed format, numeric values are padded on the left side with either spaces and/or zeros.
- Amount fields ALWAYS include the decimal point and do not include a comma or a dollar (\$) symbol.
- In this example, both the \$1200.00 debit and the credit for \$100.50 are padded with a combination of spaces and zeros on the left.

Field Descriptions

Record_type	The first field on each line of the file. A value of 9 is used in this position to indicate that this is a File Footer Record.
Transmit_id	The same value used in the header record to help confirm the file's integrity.
Batch_count	A count of the total number of batches found within this file. Files are broken up into batches of like types and are used to separate dissimilar transactions (such as keeping the Credit Card Sales separate from the ACH Credit Direct Deposit transactions.)
File_debit_amount	The sum of all ACH/EFT Debit or Credit Card Sale transaction amounts.
File_credit_amount	The sum of all ACH/EFT Credit or Credit Card Refund transaction amounts.
File_debit_count	A count of all ACH/EFT Debit or Credit Card Sale transactions.
File_credit_count	A count of all ACH/EFT Credit or Credit Card Refund transactions.
File_reference_code	The same value used in the header record to confirm the file's integrity.

Batch Header Record

Field Name	Type	Start	Length	Req?	Description
record_type	A	1	1	Y	Record Type '2' = Batch Header
transaction_type	A	2	3	Y	See Transaction Type Table
merchant_id	N	5	6	Y	Merchant's assigned identification code
merchant_name	A	11	20	N	Name of the company for this batch of transactions
batch_entry_description	A	31	10	N	Description of transactions (e.g., PAYROLL)
batch_reference_code	A	41	15	N	User-definable data to identify this batch
batch_number	N	56	6	Y	Sequentially assigned Batch # in this file

Each file that is sent or received may have multiple batches within them which begin with a batch header record and end with a batch footer record. Batches are typically used to group “like transactions” and separate different transactions types.

For example, two batches may separate Credit Card transactions from Payroll transactions while yet another batch within a file might contain Check Conversion transactions or transactions for a different Merchant ID. Below are two of examples of batch header records that are formatted in accordance with the Batch Header Record table.

CSV Format

"2","PPD",10100,"Test Merchant","GOLD MEMBERSHIP","TSING2342",1

Fixed Format

2PPD 10100Test Merchant GOLD MEMBETSING2342 000001

1234567890123456789012345678901234567890123456789012345678901234567890
1 2 3 4 5 6 7

In this fixed example, the batch_entry_description field is longer than the allocated space of 10 characters; therefore the last few characters have been truncated.

When using a CSV format you may enter more characters than allowed by "maximum" field lengths, but when the file is processed, the system will truncate the values to the maximum length allowable and the field will store only "GOLD MEMBE" as shown in the fixed format example.

Field Descriptions

Record_type	The first field on each line of the file. A value of 2 is used in this position to indicate that this record is a Batch Header Record.
Transaction_type	Identifies which transactions will be included within the detail records of this particular batch. A table of the allowable transaction types can be found in Appendix A.
Merchant_id	Displays the merchant ID, typically 5-6 digits and assigned to each merchant account. Multiple Merchant IDs may be used by a single company to designate different locations, divisions, or for other business reasons. It's also possible to have a single transmitting company send over batches of transactions for multiple merchant companies. Typical applications include service bureaus, third-party processors, and ASPs.
Merchant_name	Name of the merchant company that corresponds to the Merchant ID number.
Batch_entry_descript	Can be used to send up to 10 characters of data to describe the batch of entered transactions. This description can appear on the statements of the individuals or companies to which the transactions relate. This data, along with (typically) the merchant company name, merchant customer support telephone number, and transaction dollar are typically included on the consumer/customer statements.

Batch_reference_code	An optional field that allows entry of up to 15 alphanumeric characters and may be used to uniquely identify this batch and its transactions. In some cases, this field is part of the data returned with response files. Include this value on a per transaction basis in user-defined fields.
Batch_number	A sequentially numbered batch number found within this file. The first batch number in each file should be a one (1) as in our example.

Batch Footer Record

Field Name	Type	Start	Length	Req?	Description
record_type	A	1	1	Y	Record Type '8' = Batch Footer
transaction_type	A	2	3	Y	See the TransactionType Table
merchant_id	N	5	6	Y	Merchant's assigned identification code
batch_entry_count	N	11	7	Y	Total number of detail records in this batch
batch_debit_amount	\$	18	12	Y	Value of Debit Items in this batch
batch_credit_amount	\$	30	12	Y	Value of Credit Items in this batch
batch_debit_count	N	42	6	Y	Number of Debit Items in this batch
batch_credit_count	N	48	6	Y	Number of Credit Items in this batch
batch_reference_code	A	54	15	Y	User-defined reference code used in batch header
batch_number	N	69	6	Y	Same batch number assigned in batch header

Below are two examples of batch footer records that are formatted in accordance with the Batch Footer Record table provided above.

CSV Format

```
"8","PPD",10100,1,1200,0,1,0,"TSING2342",1
```

Fixed Format

```
8PPD 101000000001      1200.00      0.00      1      0TSING2342      000001
```

1	2	3	4	5	6	7	8
---	---	---	---	---	---	---	---

Field Descriptions

Record_type	The first field on each line of the file. Use a value of 8 in this position to indicate that this is a Batch Footer Record.
Transaction_type	This field should match the value found in the batch header record. It validates the batch's integrity.
Merchant_id	This field should match the value found in the batch header record. It validates the batch's integrity.
Batch_entry_count	A count of all the detail records found within this batch. Do not include addenda records in the count.
Batch_debit_amount	The sum of all ACH/EFT Debit or Credit Card Sale amounts found within this batch.
Batch_credit_amount	The sum of all ACH/EFT Credit or Credit Card Refund amounts found within this batch.
Batch_debit_count	A count of all ACH/EFT Debit or Credit Card Sale transactions found within this batch.
Batch_credit_count	A count of all ACH/EFT Credit or Credit Card Refund amounts found within this batch.
Batch_reference_code	This field should match the value found in the batch header record. It validates the batch's integrity.
Batch_number	This field should match the value found in the batch header record. It validates the batch's integrity.

Using Tokens

When using CMI token values in EFT and credit card transactions, you can use one of three following methods to convey the token data:

- Provide a client token in the form *CT=<cid>* in the **customer_name** field (**account type**, **transit routing number**, **account number** not required as system will use the client's default EFT payment method)
- Provide a payment method token in the form *PM=<pmid>* in the **transit_routing_number** field (**customer_name** required ; **checking_savings**, **account_number** not required)
- Provide both a client token and payment method token (in the case of the client having multiple payment methods) to specify which payment method to use for the transaction (**account type**, **account number** not required)

NOTE: Batch transmission only supports integer tokens created in Forte's Secure Web Pay, Advanced Gateway Interface, or Virtual Terminal solutions.

EFT INPUT Detail Record

Field Name	Type	Start	Length	Req?	Description
record_type	A	1	1	Y	Record Type 3 = EFT Detail Record
new_resubmit	A	2	1	Y	Use one of the following values: N = new item R = resubmitted item
principal_fee	A	3	1	Y	Use one of the following values: P = Principal F = Fee
debit_credit	A	4	1	Y	Use one of the following values: D = Debit C = Credit
checking_savings	A	5	1	Y	Use one of the following values: C = Checking S = Savings
customer_name or client_token	A	6	22	Y	Name of the Account Holder or Client Token (CT = <cid>) ¹
transit_routing_number or payment_method_token	A	28	9	Y	Bank's TRN# or Payment Method Token (PM = <pmid>) ²
account_number	A	37	17	Y	Account Number
total_amount	\$	54	10	Y	Total amount of the transaction
addenda_indicator	A	64	1	Y	1 = Addenda records present for this detail item

Field Name	Type	Start	Length	Req?	Description
item_description	A	65	15	N	Description of this transaction for this specific month (such as this month's invoice#, etc.)
external_customer_id	A	80	15	N	Merchant-assignable field to identify the customer
external_transaction_id	A	95	15	N	Merchant-assignable field to identify this transaction
external_transaction_id2	A	110	15	N	Second merchant-assignable data field
entered_by	A	125	10	N	Name of the person who entered this transaction
customer_address	A	135	35	N	Customer's street address
customer_address2	A	170	35	N	Second line of a street address (e.g., Apartment #305)
customer_city	A	205	25	N	Customer's city
customer_stateprov	A	230	10	N	State or province
customer_postalcode	A	240	10	N	Postal (zip) code
customer_country_code	A	250	2	N	See Country Code Table for possible values.
customer_phone_number	A	252	15	N	Customer's phone number
customer_email_address	A	267	25	N	Customer's email address
customer_ssn	A	292	9	N	Customer's Social Security Number
customer_dob	D	301	8	N	Customer's Date of Birth
customer_dl	A	309	20	N	Customer's Driver's License information

^{1,2} <cid>, <pmid>: client id or payment method id values returned by CMI services. In fixed file formats, overflow is permitted of <pmid> to the account_number field.

The following pages provide examples of EFT Input Detail Records that are formatted in accordance with the EFT Input Detail Record table above.

CSV Format - standard

```
"3","N","P","D","C","John Smith","121000248","00032342132",1200.00,"","Inv#2343","232242","2343","3422382","","","","","","","","","","",""
```

CSV Format - client token only

```
"3","N","P","D","","","CT=1234","","",1200.00,"","Inv#2343","232242","2343","3422382","","","","","","","","","","",""
```

CSV Format - payment method token only

```
"3","N","P","D","","","John Smith","PM=731874","","",1200.00,"","Inv#2343","232242","2343","3422382","","","","","","","","","","",""
```

CSV Format - both client and payment method tokens

```
"3","N","P","D","","","CT=1234","PM=731879","","",1200.00,"","Inv#2343","232242","2343","3422382","","","","","","","","","","",""
```

Fixed Format

```
3NPDCJOHN SMITH           12100024800032342132           1200.000Inv#2343           232242           2343           3422382
```

1234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
1 2 3 4 5 6 7 8 9 0 1 2
1 1 1

NOTE:

- Test fields are left justified and space-padded.
- Numeric fields are right justified and either space- or zero-padded.

Field Descriptions

Record_type	The first field on each line of the file. A value of 3 is used in this position to indicate that this record is an EFT detail record.
New_resubmit	Populate this field with an N if this is a new transaction or an R if it is a resubmit of a previously rejected or returned transaction.
Principal_fee	Populate this field with a P for any transaction other than an NSF fee, in which case enter an F .
Debit_credit	Populate with a D or C depending upon whether you are performing a “sale” type of transaction (Debit) or a “refund” (Credit) transaction.
Checking_savings	Indicate whether the account specified in the transaction is a Checking account with a C or a Savings account with an S .
Transit_routing_number	This field stores the 9-digit transit routing number (also known as an ABA number) for the transaction. Find this number at the bottom of a check between the : symbols.
Account_number	Populate this field with your client’s checking or savings account number.
Total_amount	Enter the total amount of the transaction. Be sure to include the decimal point, but do NOT include the \$ symbol, a comma, or a negative symbol (-).
Addenda_indicator	If this detail record also has one or more addenda records associated with it, specify a 1 here. Otherwise leave it blank or put a 0 here.
Item_description	<p>This is a special field related only to ACH transactions. This field may appear on the customer’s checking account statement to indicate the purpose of the debit. This field stores information specific to each individual transaction.</p> <p>Example: If Steve Robinson goes to his local gym and authorizes a \$30/month debit for monthly membership, this field would likely have an entry of “January 2006” rather than “membership.” Entries in this field should be very specific to the charge for each month and clearly convey to the customer why you are charging his/her account.</p> <p>NOTE: Please ensure that you correctly train your staff to use this field. They must understand that the contents of this field appear on the customer’s bank statement.</p>

External_customer_id	Use this user-defined field for your own purposes such as a cross reference to external systems. Forte stores the contents of this field with the transaction and echoes back this information in the response file.
External trans IDs	<p>Use these user-defined fields for your own purposes, such as cross references to external systems. Forte stores the contents of these fields with the transaction and echoes this information in the response file.</p> <p>These fields were originally intended to link a Forte transaction to a transaction or record in an external system. If used in this way, this field can cross reference the PG platform and the external system accounts so that the transaction information can be posted to your external system.</p>
Entered_by	A user-defined field that is generally configured to store the ID number or name of the person entering the transaction. Forte stores the contents of these fields with the transaction and echoes this information in the response file. Forte recommends using this field for auditing purposes.
Customer info fields	<p>Use this user-defined field for your own purposes. Forte stores the contents of this field with the transaction and echoes this information in the response file.</p> <p>Originally, this field stored customer record information and was used to perform address verifications, AVS, and other miscellaneous functions.</p>

Credit Card INPUT Detail Record

Field Name	Type	Start	Length	Req?	Description
record_type	A	1	1	Y	Record Type 4 = Credit Card Detail Record
customer_name or CMI client token	A	2	22	Y	Name of the Account Holder or CMI Client Token (CT=<cid>) ¹
payment_card_type	A	24	4	Y ²	See payment card table
payment_card_number or CMI payment method token	A	28	16	Y ²	Card account number or CMI Payment Method Token (PM=<pmid>) ²
payment_card_expdate_month	N	44	2	Y ²	Expiration month of card (e.g., 01=January)
payment_card_expdate_year	N	46	4	Y ²	Expiration year of card (e.g., 2001)
total_amount	\$	50	10	Y	Total amount of the transaction
addenda_indicator	A	60	1	Y	Set to 0 or "". Credit card addenda records currently not supported.
payment_card_verification	A	61	3	N	CVV2 data
sales_tax_amount	\$	64	10	N	Sales tax amount - used for corporate cards
customer_acct_code	A	74	15	N	Account code used for corporate cards

Field Name	Type	Start	Length	Req?	Description
external_customer_id	A	89	15	N	Merchant-assignable field to identify the customer
external_transaction_id	A	104	15	N	Merchant-assignable field to identify this transaction
external_transaction_id2	A	119	15	N	Second merchant-assignable data field
entered_by	A	134	10	N	Name of person who entered this transaction
customer_address	A	144	35	N	Customer's street address
customer_address2	A	179	35	N	Second line of the street address (e.g., APT 305)
customer_city	A	214	25	N	Customer's city
customer_stateprov	A	239	10	N	State or province
customer_postalcode	A	249	10	N	Postal (zip) code
customer_country_code	A	259	2	N	See Country Code Table for possible values
customer_phone_number	A	261	15	N	Customer's phone number
customer_email_address	A	276	25	N	Email address
customer_ssn	A	301	9	N	Customer's Social Security Number
customer_dob	D	310	8	N	Customer's Date of Birth
customer_dl	A	318	20	N	Customer's Driver's License information

1,2 <cid>, <pmid>: client id or payment method id values returned by CMI services.

The following pages contain examples of Credit Card Input Detail records formatted in accordance with the table above.

CSV Format - standard

"4","John Smith","MAST","5123123412341234",12,2005,50.50,"0",333,,,"","243324","23423412","","Csmith","","","","","","","","","",""

CSV Format - client token only

"4","CT=8312950","","",,50.50,"0",333,,,"","243324","23423412","","Csmith","","","","","","","","","",""

CSV Format - payment method token only

"4","John Smith","","PM=731874",,50.50,"0",333,,,"","243324","23423412","","Csmith","","","","","","","","",""

CSV Format - both client and payment method tokens

"4","CT=8312950","","PM=731874",,50.50,"0",333,,,"","243324","23423412","","Csmith","","","","","","","","",""

Fixed Format - standard

4	John Smith	MAST	512312341234123412	2005		50.50	0333			243324	23423412		Csmith
1	2	3	4	5	6	7	8	9	0	1	2	3	4
									1	1	1	1	1

NOTES:

- Test fields are left-justified and space-padded.
- Numeric fields are right-justified and either space- or zero-padded.

Field Descriptions

Record_type	The first field on each line of the file. Use a 4 in this position to indicate that this is a credit card detail record.
Payment_card_type	See the Payment Card Table. Generally, the first four digits of the card name represent this field (e.g., MAST = Mastercard or AMER = American Express, etc.).
Payment_card_number	The credit card number for this transaction. If the number contains less than 16 digits, pad the field with spaces at the end.
Total_amount	The total amount of the transaction (including sales tax and shipping). To ensure a correct format include the decimal point, but NOT the dollar sign (\$), comma (,) or negative (-) symbol.
Addenda_indicator	If this detail record has one or more addenda records associated with it, specify a 1 here. Otherwise, the field should be blank or contain a zero.
Payment_card_verification	The verification code for the credit card. Locate this code on the back of the credit card immediately following the credit card number. This code serves as an additional form of verification, since the number is available only if the card is physically present when entered.
Sales_tax_amount credit card) transactions	The sales tax amount used with PCARD (corporate credit card) transactions
Customer_acct_code	The accounting codes used with PCARD (corporate credit card) transactions
External_customer_id	<p>Use this user-defined field for your own purposes, such as a cross reference to external systems. Forte stores the contents of this field with the transactions and echoes back the information to you in the response file.</p> <p>You can use this field as it was originally intended to store the customer ID number for any external system you might have. When used this way, you can use this field to cross reference the PG platform and external system accounts so that transaction information can be posted to your external system.</p>

External trans IDs

Use these user-defined fields for your own purposes, such as cross references to external systems. Forte stores the contents of these fields with the transaction and echoes back the information to you in the response file.

You can use these fields as they were originally intended to link a Forte transaction to a transaction or record number in an external system. When used this way, you can use this field to cross reference the PG platform and external system accounts so that transaction information can be posted to your external system.

Entered_by

A user-defined field that is generally configured to store the ID number or name of the person entering the transaction. Forte stores the contents of these fields with the transaction and echoes this information in the response file. Forte recommends using this field for auditing purposes.

Customer info fields

Use this user-defined field for your own purposes. Forte stores the contents of this field with the transaction and echoes this information in the response file.

Originally, this field stored customer record information and was used to perform address verifications, AVS, and other miscellaneous functions.

Paper Draft Detail Record

Field Name	Type	Start	Length	Req?	Description
record_type	A	1	1	Y	Record Type 5 = Paper Draft Detail Record
draft_type	A	2	1	Y	See the Paper Draft Types Table
draft_format	A	3	1	Y	1 = standard check draft format
draft_bank_name	A	4	15	N	Name of the bank the draft is originated from
branch_location	A	19	20	N	Location of the bank (city and state)
branch_phone_number	A	39	15	N	Phone number of the bank
transit_routing_number	A		9	Y	The bank's TRN number or ABA number
account_number	A		17	Y	The customer's account number
total_amount	\$		10	Y	Total amount of the transaction
check_number	N		7	Y	Check number
check_fractional	A		15	N	Check branch routing information
external_customer_id	A		15	N	Merchant-assignable field to identify the customer
external_transaction_id	A		15	N	Merchant-assignable field to identify this transaction
external_transaction_id2	A		15	N	Second merchant-assignable data field
payer_name	A		35	Y/N	Name of the draft payer
payer_address	A		35	Y/N	Payer's street address
payer_address2	A		35	N	Second line of the street address (e.g., APT 305)
payer_city	A		25	Y/N	Payer's city

Field Name	Type	Start	Length	Req?	Description
payer_stateprov	A		10	Y/N	State or province
payer_postalcode	A		10	Y/N	Postal (zip) code
payer_country_code	A		2	N	See the Country Code Table for possible values.
payer_phone_number	A		15	N	Payer's phone number
payer_email_address	A		25	N	Payer's email address
payer_dl	A		20	N	Payer's Driver's License Information
payee_name	A		35	Y/N	Name of the draft payee of
payee_address	A		35	Y/N	Payee's street address
payee_address2	A		35	N	Second line of the payee's street address (e.g., APT 305)
payee_city	A		25	Y/N	Payee's city
payee_stateprov	A		10	Y/N	Payee's state or province
payee_postalcode	A		10	Y/N	Payee's postal (zip) code
payee_country_code	A		2	N	See the Country Code Table for possible values
payee_email_address	A		25	N	email address

NOTES:

Payee information is not required when draft_type = 1.

Payer information is not required when draft_type = 2.

Payee and Payer information is required when draft_type = 3.

Addenda Record

Field Name	Type	Start	Length	Req?	Description
record_type	A	1	1	Y	Record Type A = Addenda Record
addenda_type_code	A	2	1	Y	Use one of the following values: 3 = EFT Addenda 4 = CC Addenda Record
payment_info	A	3	80	Y	Addenda data
addenda_sequence	N	83	4	Y	Each addenda record is sequentially numbered from 1–8

EFT RESPONSE Detail Record

Field Name	Type	Start	Length	Req?	Description
record_type	A	1	1	Y	Record Type E = EFT Detail Record
response_type	A	2	1	Y	See Response Type Table
response_code	A	3	3	Y	See Response Code Table
trace_code	A	6	36	Y	Unique transaction code
authorization_code	A	42	8	N	Authorization Code
response_date	D	50	8	Y	Response or Effective date
debit_credit	A	58	1	Y	Use one of the following values: D = Debit C = Credit
checking_savings	A	59	1	Y	Use one of the following values: C = Checking S = Savings
customer_name	A	60	22	Y	Name of the account holder
transit_routing_number	A	82	9	Y	The bank's TRN number or ABA number
account_number	A	91	17	Y	Account number
total_amount	\$	108	10	Y	Total amount of the transaction
addenda_indicator	A	118	1	Y	1 = Addenda records present for this detail item
item_description	A	119	15	N	Description of this transaction (this value should be very specific, such as this month's invoice number, etc.)
external_customer_id	A	134	15	N	Merchant-assignable field to identify the customer

Field Name	Type	Start	Length	Req?	Description
external_transaction_id	A	149	15	N	Merchant-assignable field to identify this transaction
external_transaction_id2					Second merchant-assignable data field (batch confirmation response files)
or	A	164	15	N	or
entered_by					Name of person who entered this transaction (settlement response files)
additional_info	A	179	40	N	Additional response information about transaction
customer_address	A	219	35	N	Customer's address
customer_address2	A	254	35	N	Second line of the customer's address
customer_city	A	289	25	N	Customer's city
customer_stateprov	A	314	10	N	Customer's state or province
customer_postalcode	A	324	10	N	Customer's postal (zip) code
customer_country_code	A	334	2	N	Customer's country code
customer_phone_number	A	336	15	N	Customer's phone number
customer_email_address	A	351	25	N	Customer's email address
transaction_indicator	A	376	1	N	See the Transaction Indicator Table
transaction_source	A	377	1	N	See the Transaction Source Table

The following page displays two examples of EFT Response detail records formatted in accordance with the table above. The host processing servers returns response files that indicate updates to the status of the transactions or set of transactions.

Field Descriptions

Record_type	The first field on each line of the file. Use an E in this position to indicate that this record is an EFT RESPONSE Detail record.
Response_type	The type of status update record being sent. The Appendix contains a complete list of response types.
Response_code	Any additional information about the transaction (such as the reason the item may have been returned unpaid).
Trace_code	The unique transaction number associated with this transaction. In batch confirmation response files, this field is blank. The value is present in settlement response files.
Authorization_code	In settlement response files, this field contains the approval code. In batch mode this field is blank.
Debit_credit	Use a D or C to convey whether the transmitted transaction was a “sale” (Debit) or a “refund” (Credit).
Checking_savings	Indicates whether the transmitted transaction came from a Checking account (C) or a Savings account (S).
Transit_routing_number	The 9-digit transit routing number (also known as the ABA number) for the transaction. Find this number at the bottom of a check between the : : symbols.
Account_number	Populate this field with your client’s checking or savings account number.
Total_amount	The total amount of the transaction. To ensure the correct format, include the decimal point but NOT the dollar sign (\$), comma (,) or negative (-) symbol.

Addenda_indicator

If this detail record also has one or more addenda records associated with it, this field should contain a 1. Otherwise, it should be blank or contain a zero.

Item_description A special field related only to ACH transactions. This field may appear on the customer's checking account statement to indicate the purpose of the debit. This field stores information specific to each transaction.

Example: If Steve Robinson goes to his local gym and authorizes a \$30/month debit for monthly membership, this field would likely have an entry of "January 2006" rather than "membership." This field should provide a clear and accurate description of the charge for the month.

NOTE: Correctly train your staff on using this field and ensure they understand that the contents of this field will appear on the customer's bank statement.

External_customer_id

Use this user-defined field for your own purposes, such as a cross reference to an external system. Forte stores the contents of this field with the transaction and echoes back the information to you in the response file.

You can use this field as it was originally intended to store the customer ID number for any external system you might have. If used in this way, you can use this field to cross reference the PG platform and external system accounts so that transaction information can be posted to your external system.

External trans IDs

Use these user-defined fields for your own purposes, such as cross references to external systems. Forte stores the contents of these fields with the transaction and echoes back the information to you in a response file.

You can use these fields as they were originally intended to link a Forte transaction to a transaction or record in an external system. If used in this way, you can use this field to cross reference the PG platform and external system accounts so that the transaction information can be posted to your external system.

Entered_by	Use this user-defined field to store the ID number or name of the person entering the transaction. Forte stores the contents of this field with the transaction and echoes back the information to you in a response file. Forte recommends using this field for auditing purposes.
Additional_info	Results for AVS and other miscellaneous functions, if performed
Customer info fields	Use this user-defined field for you own purposes. Forte stores the contents of this field with the transaction and echoes back the information to you in the response file.
	Use this field as it was originally intended to store record information about your customer and use it to perform address verifications, AVS, and other miscellaneous functions.
Transaction_indicator	Indicates whether this transaction is a Single transaction (S) or part of a group of Recurring transactions (R).
Transaction_source	Indicates whether this transaction originated from an online or real-time transaction (L for live) or a batch file transfer (B).

Credit Card RESPONSE Detail Record

Field Name	Type	Start	Length	Req?	Description
record_type	A	1	1	Y	Record Type C = Credit Card Detail Record
response_type	A	2	1	Y	See the Response Type Table
response_code	A	3	3	Y	See the Response Code Table
trace_number	A	6	36	Y	The unique Transaction ID
authorization_code	A	42	8	N	The Authorization Code
response_date	D	50	8	Y	Response or Effective date
customer_name	A	58	22	Y	Name of the account holder
payment_card_type	A	80	4	Y	See the Payment Card Table
payment_card_number	A	84	16	Y	Masked card account number
payment_card_expdate_month	N	100	2	Y	Expiration month of the card (e.g., 01 = January)
payment_card_expdate_year	N	102	4	Y	Expiration year of the card (e.g., 2001)
total_amount	\$	106	10	Y	Total amount of the transaction
addenda_indicator	A	116	1	Y	1 = Addenda records present for this detail item
external_customer_id	A	117	15	N	Merchant-assignable field to identify the customer

Field Name	Type	Start	Length	Req?	Description
external_transaction_id	A	132	15	N	Merchant-assignable field to identify this transaction
external_transaction_id2	A	147	15	N	Second merchant-assignable data field
additional_info	A	162	40	N	Additional response information about the transaction
customer_address	A	202	35	N	Customer's address
customer_address2	A	237	35	N	Second line of customer's address
customer_city	A	272	25	N	Customer's city
customer_stateprov	A	297	10	N	Customer's state or province
customer_postalcode	A	307	10	N	Customer's postal (zip) code
customer_country_code	A	317	2	N	Customer's country code
customer_phone_number	A	319	10	N	Customer's phone number
customer_email_address	A	329	25	N	Customer's email address
transaction_indicator	A	354	1	N	See the Transaction Indicator Table
transaction_source	A	355	1	N	See the Transaction Source Table

The following page contains two examples of Credit Card Response detail records formatted as described in the table above. The host processing server returns response files, which are then used to indicate an update to the status of a transaction or set of transactions.

CSV Format – response (“S”) file containing approval and decline information for batched credit card transactions

```
"C","A","A01","0D0B43AB-E174-11D5-A3D1-0002B31B3DEB","123456",20021106,"JOHN SMITH",  
"MAST","0000000000001111",12,2005,100.00,"0","232242","2343","3422382","","","","","","","","","S","B"
```

Fixed Format

```
CAA010D0B43AB-E174-11D5-A3D1-0002B31B3DEB12345620021106JOHN SMITH          MAST000000000000111122005      100.000      232242      2343      34223  
123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890  
          1          2          3          4          5          6          7          8          9          0          1          2          3          4          5          6          7          8  
                                     1          1          1
```

Note that in the fixed format example, the last few fields are not included due to a lack of space on this page. In the actual response file, this information would be present and complete.

Field Descriptions

Record_type	The first field on each line of the file. Use C in this position to indicate that this record is a Credit Card RESPONSE detail record.
Response_type	Indicates the type of status update record being sent. See the Appendix for a complete list of response types.
Response_code	Additional information about the transaction (such as the reason the item may have been returned unpaid).
Trace_code	The unique transaction number associated with each transaction (within the PG platform).
Authorization_code	The approval code
Total_amount	The total amount of the transaction
Addenda_indicator	If this detail record has one or more addenda records associated with it, this field displays a 1 .
External_customer_id	Use this user-defined field for your own purposes, such as a cross reference to external systems. Forte stores the contents of this field with the transaction and echoes back the information to you in a response file. Use this field as it was originally intended to store the customer ID number for any external system you might have. If used in this way, you can use this field to cross reference the PG platform and external system accounts so that transaction information can be posted to your external system.
External trans IDs	Use these user-defined fields for your own purposes, such as cross reference to external systems. Forte stores the contents of these fields with the transaction and echoes back the information to you in the response file. Use these fields as they were originally intended to link a Forte transaction to a transaction or record number in an external system. If used in this way, you can use this field to cross-reference the PG platform and external system account so that transaction information can be posted to your external system.
Entered_by	A user-defined field generally configured to store the ID number or name of the person entering the transaction. Forte stores the contents of this field with the transaction and echoes back the information to you in a response file. Forte recommends using this field for auditing purposes.
Additional_info	Results for AVS and other miscellaneous functions, if performed
Customer info fields	Use this user-defined field for you own purposes. Forte stores the contents of this field with the transaction and echoes back the information to you in a response file. Use this field as it was originally intended to store record information about your customer, which can then be used to perform address verification, AVS, and other miscellaneous functions.

Transaction_indicator	Indicates whether this transaction is a Single transaction (S) or part of a group of Recurring transactions (R). See Appendix A for more information.
Transaction_source	Indicates whether this transaction originated from an online or real-time (L for live) transaction or a batch file transfer (B). See Appendix A for more information.

COMPLETE TRANSMIT FILE - CSV example

```
"1",1000,"crazy5horse",20021101,091503,"CSV","File42332"  
"2","PPD",10100,"Test Merchant","GOLD MEMBERSHIP","TSING2342",1  
"3","N","P","D","C","John Smith","121000248","00032342132",1200.00,"","Inv#2343","232242","2343","3422382","","","","","","","","","","",""  
"8","PPD",10100,1,1200,0,1,0,"TSING2342",1  
"2","CCR",10100,"Test Merchant","REFUND","CCREF132",2  
"4","John Smith","MAST","5123123412341234",12,2005,50.50,"0",333,,,"","243324","23423412","","Csmith","","","","","","","","",""  
"4","Example Guy#2","VISA","4111111111111111",03,2004,50.00,"0",333,,,"","2424","23412","","SUPR1","","","","","","","","",""  
"8","CCR",10100,2,0,100.50,0,2,"CCREF132",2  
"9",1000,2,1200,100.50,1,2,"File42332"
```

Note that you can include both Credit Card transactions and ACH/EFT transactions in a single file. They merely need to be included in a separate batch.

COMPLETE TRANSMIT FILE – Fixed Format example

```
1001000crazy5horse      20021101091503FIX
2PPD 10100Test Merchant    GOLD MEMBETSING2342    000001
3NPDCJOHN SMITH          12100024800032342132    1200.000Inv#2343    232242    2343    3422382
8PPD 101000000001      1200.00    0.00    1    0TSING2342    000001
2CCR 10100Test Merchant    GOLD MEMBECCREF1    000002
4John Smith              MAST5123123412341234122005    50.500333    243324    23423412    Csmith
4Test Guy#2              VISA41111111111111111032004    50.000333    2424    23412    SUPR1
8CCR 101000000002      0000.00    100.50    0    2CCREF1    000002
9001000000002      1200.00    0000100.50000001000002
```

12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890																	
1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8
									1	1	1						

Chapter 4

Appendices

APPENDIX A - TABLES

EFT Transaction Types

Type	Description
ARC	Accounts Receivable Entry
BOC	Back Office Conversion Entry
PPD	P rearranged Payment and Deposit Entry
CCD	Cash Concentration or Disbursement
POP	Point of Purchase Entry
RCK	Returned Check Entry
VER	Verification Only Transaction
WEB	Internet Initiated Entry
TEL	Telephone Initiated Entry
CTX	Corporate Trade Exchange (FEDI)
CIE	Customer Initiated Entry
POS	Point of Sale Entry

Credit Card Transaction Types

Type	Description
CCS	Credit Card Sale
CCR	Credit Card Refund
RCS	Recurring Credit Card Sale
RCR	Recurring Credit Card Refund

Credit Card Types

Type	Description
VISA	VISA
MAST	MasterCard
AMER	American Express
DISC	Discover
DINE	Diner's Club
JCB	JCB

Verification Transaction Types

Type	Description
VER	Verification Only Transaction

Field Types

Field Type	Name	Justification	Comments
A	Alphanumeric	Left	Upper and Lowercase accepted
N	Numeric	Right	Numbers only. No decimals or commas.
\$	Amount	Right	xxxx.xx with two digits after the decimal. No commas or \$.
D	Date	Full	YYYYMMDD (e.g., 19990101 = Jan 1, 1999)
T	Time	Full	HHMMSS = a 24-hour format (e.g., 132501 = 1:25pm)

Response Types

Field Type	Name	Description
A	Approved Verification	Used with Forte Verify processing only
B	Batch Confirm	Transaction received for processing
D	Declined Verification	Used with Forte Verify processing only
F	Funded	Transaction has been funded

Field Type	Name	Description
M	Memo Post	Used by merchants enrolled to receive a memo post details in settlement files (for ACH items only) NOTE: The response_code field will have a value of "".
R	Rejected	Transaction rejected/declined.
Z	Z Reject	Previously funded transaction has been rejected.

File Format Indicators

Type	Description
CSV	Comma Delimited
FIX	Fixed Format

Transaction Source Indicators

Value	Description
L	Live or real-time connection
B	Batched item

Transaction Indicator Codes

Value	Description
S	Single Transaction
F	First Item in Recurring Set
R	Auto-Scheduled Recurring Item

Paper Draft Types

Value	Description
1	Payable to Merchant
2	Payable from Merchant
3	Third-Party Paper Draft

APPENDIX B – RESPONSE CODES

EFT/ACH Response Codes

Code	Name	Description
A01	Approved	This transaction has been approved for processing.
S01	Funded-1 st attempt	This transaction has funded on the first attempt.
S02	Funded-2 nd attempt	This transaction has funded on the second attempt.
S03	Funded-3 rd attempt	This transaction has funded on the third attempt.
X02	Voided	This transaction has been voided.
R01	Insufficient Funds	The balance is not sufficient to cover the value of the transaction.
R02	Account Closed	A previously open account has been closed.
R03	No Account	The account is closed or doesn't match the name submitted.
R04	Invalid Account Number	The account number structure is invalid.
R05	Prenote Not Received	Pre-notification was not received.
R06	Returned Per ODFI	ODFI has requested RDFI to return this item.
R07	Authorization Revoked	Account holder has revoked the company's authorization.
R08	Payment Stopped	Account holder has stopped payment on this single transaction.
R09	Uncollected Funds	Balance is sufficient, but can't be released until uncollected items are collected.
R10	No Authorization	Account holder advises that the transaction is not authorized.
R11	Check Safekeeping Return	Return of a check safekeeping entry return.
R12	Branch Sold	The account is now at a branch that was sold to another financial institution.
R13	RDFI Not Qualified	RDFI not qualified to participate.
R14	Deceased	The account holder is deceased.
R15	Beneficiary Deceased	The beneficiary entitled to benefits is deceased.
R16	Account Frozen	Funds are unavailable due to action by RDFI or other legal action.

Code	Name	Description
R20	Non Transaction Account	Policies/regulations restrict activity to this account.
R23	Payment Refused	The account holder refuses the transaction because the amount is inaccurate or for another legal reason.
R24	Duplicate Entry	The transaction appears to be a duplicate item.
R26	Mandatory Error	The transaction is missing data from a mandatory field.
R28	Invalid TRN	The Transit Routing Number is invalid.
R29	Corporate Not Authorized	The corporate receiver has notified RDFI that the Corp entry is not authorized.
R31	ODFI Permits Late Return	ODFI agrees to accept a return.
R50	Invalid Company ID	The OwnerCompany ID field is not valid.
R56	Invalid Transaction Date	The date specified is invalid.
R57	Stale Date	The transaction is too old for processing.
R95	Over Limit	This transaction is over your authorized limit.
R96	Account on Hold	This company account is on hold.
R97	RDFI Does not Participate	RDFI does not allow this type of transaction.
R98	Invalid Password	The password supplied was invalid.
R99	Declined Unpaid Items	This account or ID has been declined due to unpaid items.

Credit Card Response Codes

Code	Name	Description
A01	Approved	This transaction has been approved for funding.
U01	Auth Revoked	The merchant is not allowed to process transactions for this customer.
U02	Account Not Approved	This is a known bad account.
U03	Daily Trans Limit	Exceeded Merchant Daily Limit.
U04	Monthly Trans Limit	Exceeded Merchant Monthly Limit.
U05	eAVS Failure Zipcode	eAVS State/Zipcode Check failed.
U06	eAVS Failure Area Code	eAVS State/Area Code check failed.

Code	Name	Description
U07	eAVS Failure Email	eAVS Anonymous email check failed.
U08	Daily Velocity	Merchant has exceeded the maximum number of transactions per hour, which may indicate a security problem. This error rarely occurs but if you receive it, contact Forte immediately.
U09	Window Velocity	Merchant has exceeded the maximum number of transactions per hour, which may indicate a security problem. This error rarely occurs, but if you receive it, contact Forte immediately.
U10	Duplicate Transaction	Transaction has the same attributes as another transaction within a specified timeframe.
U20	Invalid Credit Card #	The Credit Card number is invalid.
U23	Invalid Expiration Date	Malformed expiration date.
U51	Merchant Status	The merchant is not currently "live."
U52	Type Not Allowed	The merchant is not set up for Credit Card transactions.
U54	Invalid Merchant Config	Call customer service.
U80	PreAuth Decline	The transaction was declined from a pre-authorize service.
U81	PreAuth Timeout	Preauthorizer not responding ("VER" transaction_type).
U82	PreAuth Error	Preauthorizer error ("VER" transaction_type).
U83	Auth Decline	Transaction was declined due to authorizer declination.
U84	Auth Timeout	Authorizer not responding.
U85	Auth Error	Authorizer Error.
U86	AVS Failure	AVS check failed.
U87	Auth Busy	Authorizing vendor busy, but item may be resubmitted.
U88	PreAuth Busy	Preauthorizer vendor busy, but item may be resubmitted ("VER" transaction_type).
U89	Auth Unavail	Authorizing vendor service unavailable.
U90	PreAuth Unavail	Preauthorizer service unavailable ("VER" transaction_type).

APPENDIX C – RESPONSE FILES and FIELD MAPPINGS

When results are available, the real-time PG platform returns them (typically via DSI or HTML front end).

Response File Organization: Transmitter and Merchant IDs

To understand how response files are organized, you must understand the various ways transmitter and merchant IDs are used to reflect real business environments.

A Transmitter ID is a unique identification number used to identify a Forte customer authorized to transmit transactions. Each ACH customer may have only one Transmitter ID.

A Merchant ID is a unique identifier for a specific merchant, location, or account that transmits transactions. Each Forte customer may have more than one Merchant ID, all associated with a single Transmitter ID. If a customer has multiple Merchant IDs, they are often used to designate different locations, lines of business, accounts, etc.

For example, a retail clothing chain will have a single Transmitter ID, but may choose to have one Merchant ID for each location.

What is the benefit of having multiple Merchant IDs?

When Forte creates response files, the Merchant ID is one of the fields included for each transaction. Reports and response files created by Forte are sorted by Merchant ID, so it is easy to see totals for each location or line of business. Using the reporting or analysis tool of your choice, you may also do further analysis using this field and others included in the file.

In addition, there is no additional cost for these capabilities and information. It does not matter how many Merchant IDs you use; you are charged on a per-transaction basis with no regard for how the information was sent to Forte.

Field Names and Mapping

Generally the fields match up fairly closely on a name-to-name basis (e.g., **pg_merchant_id** real-time field = the **merchant_id** FileSpec v3.61 field) with a few exceptions:

Real-Time Name	FileSpec 3.61 Name
pg_consumer_id	external_customer_id
ecom_consumerorderid	external_transaction_id
ecom_walletid	external_transaction_id2
ecom_payment_check_checkno	item_description
pg_merchant_data_1	Addenda Record #1
pg_merchant_data_2	Addenda Record #2
Etc... Through:	etc... Through:
pg_merchant_data_9	Addenda Record #9

APPENDIX D – Forte Verify Test Script

This guide provides details on the setup and testing of the PG platform, and not specifically the Forte Verify system. However, the information provided in this guide can be very helpful during the integration process or any time you make changes to and test the Forte Verify system.

The following is a test script for Forte Verify. If you need assistance to use this test script properly, please contact Customer Support at Forte.

Result	Description	Test Account Number
NEG	P15:HIGH RISK	99915
NEG	P16:DECLINE – NO MATCH DATA	99916
NEG	P20:NEG REPORT ITEMS	99920
POS	P21:NO NEG REPORTS	99921
NEG	P23:INVALID ACCT/ABA NUMBER	99923
NEG	P41:NEGATIVE INFO	99941
UNK	P50:NO INFO	99999009600 or 99950
POS	P70:VALIDATED	99999009900 or 99970
POS	P71:LOW RISK APPROVAL	99971
POS	P72:VALIDATED	99972
POS	P73:MEDIUM RISK APPROVAL	99973
UNK	P80:PREAUTH VENDOR BUSY	99999190000 or 99980
UNK	P90:PREAUTH VENDOR UNAVAIL	99999009000 or 99990
UNK	P91:PREAUTH VENDOR ERROR	99999003000 or 99991
UNK	P92:PREAUTH SERVER UNAVAIL	99999009200 or 99992
UNK	P93:ISSUER UNAVAILABLE	99993

APPENDIX E - FEDERAL BANKING HOLIDAYS

The following list displays the US federal holidays on which banks are closed for settlement. If transactions are submitted or are to settle on a federal holiday or a weekend, the transactions will be delayed until the next business banking day.

Holiday	Date Observed
New Years	January 1st
Martin Luther King's Birthday	3rd Monday in January
President's Day	3rd Monday in February
Memorial Day	Last Monday in May
Independence Day	July 4th
Labor Day	1st Monday in September
Columbus Day	2nd Monday in October
Veteran's Day	November 11th
Thanksgiving Day	4th Thursday in November
Christmas Day	December 25th

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