

The logo for the Collections Information Repository (CIR) features the letters 'CIR' in a large, bold, white sans-serif font. The background is a dark blue rectangle with a subtle pattern of white stars and faint outlines of scales of justice.

Collections Information Repository
(Formerly the Transaction Reporting System)

Specification for CIR XML Extract Files

April 22, 2013
Version 4.00

Department of the Treasury
Financial Management Service 



CIR Program Office
5700 RiverTech Court
Riverdale, Maryland 20737
(301) 887-6079
Fax: (301) 887-6631

Table of Contents

1.	REVISION HISTORY	1
2.	INTRODUCTION	2
2.1	Scope of this Document	2
2.2	Intended Audience.....	2
2.3	Related Documents	3
2.4	Definitions, Abbreviations, and Acronyms	3
3.	OVERVIEW OF THE COLLECTIONS INFORMATION REPOSITORY (CIR)	11
3.1	What Is CIR and What Will It Do?	11
3.2	Availability of Data in CIR	11
3.3	CIR Context	13
3.4	Reports vs. Extract Files.....	14
4.	SECURITY/USER ACCESS.....	16
4.1	Roles/Functions	16
4.2	ALC Security.....	16
4.3	Personally Identifiable Information (PII).....	16
5.	EXTRACT FILE GENERATION	17
5.1	Schedule.....	17
5.2	Data Selection	18
6.	RECEIVING AN EXTRACT FILE	19
6.1	Downloading Extract Files using the CIR Application	19
6.2	Automatic Delivery of Extract Files	19
7.	EXTRACT FILE SPECIFICATION	20
7.1	Understanding this Specification Section	20
7.2	Global Formatting Details	21
7.3	Using the Specification Document.....	21
7.4	EDA Schema	21
7.5	TRS Trading Partner Agreement Schema *	24
7.6	Summary Only Specification	36
7.7	Detail Only Specification.....	41
7.8	Summary and Detail Specification.....	48
7.9	Attribute Definition	57
8.	TIPS/HINTS FOR CREATING AND PROCESSING XML EXTRACTS	83
8.1	Recommendations when Creating XML Extract Definitions.....	83
8.2	Special Characters	84
9.	CUSTOMER SERVICE.....	85
10.	APPENDIX A: FEDWIRE TAG NAMES	86
11.	APPENDIX B: ACH CODES.....	92
11.1	ACH Standard Entry Class Codes.....	92

11.2	ACH Transaction Codes and Descriptions	93
11.3	ACH Reason Codes and Descriptions	95
11.4	ACH Content Element Names.....	98
12.	APPENDIX C: SAMPLE FILES	101

Table of Figures

Figure 1:	CIR Data Model.....	10
Figure 2:	CIR Overview	13
Figure 3:	Current Business Message Listing from EDA Website.....	22
Figure 4:	Schema List from EDA Web Site	23
Figure 5:	XML 4.3 Schema Page from EDA Website.....	24
Figure 6:	TPA definition for Fedwire Sections and Elements	26
Figure 7:	TRS_TradingPartnerAgreement Hierarchy	29
Figure 8:	XML Entities for Summary Only Extract.....	36
Figure 9:	EDA Schema v4.3 - Picture for Detail Only.....	41

Table of Tables

Table 1:	Revision History.....	1
Table 2:	Table of Terms	3
Table 3:	Table of Data Entities	8
Table 4:	Overview of STP Provided Data.....	12
Table 5:	PII Data.....	16
Table 6:	CIR Processing Schedule for Creating Extract Files.....	17
Table 7:	Example of an Extract Type Specification Table showing Entities and Attributes	20
Table 8:	Fedwire Message Section Detailed Information.....	27
Table 9:	Entities and Attributes for TPA	30
Table 10:	Entities and Attributes for Summary Only Extract	37
Table 11:	Entities and Attributes for Detail Only Extract	42
Table 12:	Entities and Attributes for Summary and Detail Extract	48
Table 13:	Dictionary of Attributes	57
Table 14:	FedWire Tag Names	86
Table 15:	ACH Entry Class Codes	92
Table 16:	NACHA Transaction Codes.....	93
Table 17:	NACHA Reason Codes and Descriptions	95
Table 18:	ACH Content Element Names.....	98

1. Revision History

Table 1: Revision History

Revision Number	Revision Date	Change Requested (Description)	Reason for Change Request	Project CCB Approval Date
V 1.00	12/15/09	Initial version	N/A	N/A
V 1.01	05/10/10	<ul style="list-style-type: none"> Table 4 – added column for Collection System Name for each STP. Added a row for FRB CA\$H-LINK Section 5.1/Schedule – Added notation that for STPs that provide data to FRB CA\$H-LINK, the recommendation is to use Daily frequency rather than STP end-of –day. In the attribute and element tables added a note for Organization Level that Organization Code repeats once per level Removed Foreign Check Indicator from the TPA for TRS_Summary for Foreign Currency. This is reported in the FinancialReportingDetails Attribute Definitions – Changed the population of Initial Location for ECP to Source FAID Added that Fiscal Month is prefixed by two dashes Changed Card Number to indicate that for both Pay.gov and Card Acquiring Service only the last 4 digits of the card number are provided Updated values for Credit Gateway Added Section 8.1 Recommendations when creating XML Extract Definitions 	N/A	N/A
V 1.02	05/17/10	<ul style="list-style-type: none"> Section 4.3 – Added ACH ContentString and ContentElement Value to the table of PII data that can be restricted Attribute Definitions – updated based on latest STP boarding projects 	N/A	N/A
V 2.0	05/19/10	<ul style="list-style-type: none"> Promoted to version 2.0 after reviews 	N/A	N/A
V 2.01	09/30/10	<ul style="list-style-type: none"> Added changes to include EFTPS 	N/A	N/A
V 2.02	10/15/10	<ul style="list-style-type: none"> Updated with clarifications for EFTPS 	N/A	N/A
V 3.0	10/20/10	<ul style="list-style-type: none"> Removed references to FDS and updated language about CIR schedule. 	N/A	N/A
V 3.01	01/25/13, 03/08/13, 04/15/13	<ul style="list-style-type: none"> Rename TRS to CIR where appropriate Updated OTCnet, CAS and Pay.gov information Updated the Table of Terms to the latest version and current tense. Updated section 3.3 CIR Context diagram Updated sections 3.4.2 and 5.1 with more information about scheduling extracts and activity extracted. Updated Fedwire Tags 3610 and 8200 	N/A	N/A
V4.00	04/22/13	<ul style="list-style-type: none"> Promoted to version 4.00 after reviews. 	N/A	N/A

2. Introduction

The Collections Information Repository (CIR) XML Extract Files process provides the ability for a user or system to receive an extract of all voucher and detail transaction data within a predefined file format. The primary use of these extracts is for system-to-system interfaces where the data will be imported into an agency system or other Receiving Trading Partner's (RTP) system.

The purpose of the XML Extract Files Specification is to provide a document that allows the members of the Information Technology (IT) staff to understand and process the output that is produced as a result of an agency or other RTP user defining a scheduled extract within CIR.

CIR is required to utilize the standard Financial Management Service (FMS) XML Schema format for receiving and sending collection data. The schema is developed and managed by the Enterprise Data Architecture (EDA) Team within FMS. The first iteration of XML extract files uses version 4.3 of the FMS XML Schema which can be accessed from the following website: <http://fms.treas.gov/eda/xml/index.html>. This specification document assumes that agencies will also access this site for detailed schema information.

2.1 Scope of this Document

Agencies have the capability to define three different extract types with different frequencies and selection criteria in CIR. The three extract types are:

- ❖ Summary Only – Only voucher-level information is extracted
- ❖ Detail Only – Only individual collection transaction-level information is extracted (credit card transactions, wires, ACH transactions)
- ❖ Summary and Detail – Voucher-level information along with any associated detail transactions is extracted.

Each of these three types has a single extract format. Within the extract definition, selection criteria can be used to determine which instances of data are selected. For more information on extract file definition, please refer to the CIR Web Application Reference Manual.

The specification for each extract type is defined in this document. Since CIR was developed as a series of projects, it should be expected that as interfaces and data migration with Sending Trading Partners (STPs) occurs, additional information will be available in the extract file, and this specification will be updated. Primarily these changes are expected to be in Section 7.9 Attribute Definition, where additional metadata is provided that describes the specific meaning of a field for a particular STP. In this way the extract specification will evolve as more data is received into CIR.

2.2 Intended Audience

The intended users of this document are the technical staff at the Federal Agencies, FMS, and Financial Institutions who are using CIR. Since these extract files are intended primarily for system-to-system use because of the need to process the XML, this document should allow the members of the Information Technology (IT) staff to develop software to process the XML extract produced by CIR.

It is also expected that users of this document have a basic understanding of the CIR application, or have access to the CIR web site or the CIR Web Application Reference Manual for further information.

2.3 Related Documents

- ❖ CIR website – Provides an overview, common questions, and general information on CIR – <http://www.fms.treas.gov/cir/index.html>
- ❖ EDA website – Provides detailed documentation on the current and the archived schemas – <http://fms.treas.gov/eda/xml/index.html>
- ❖ CIR Web Application Reference Manual

2.4 Definitions, Abbreviations, and Acronyms

2.4.1 General Terms

The table below displays the terms referenced in this document.

Table 2: Table of Terms

Term	Definition
ACH	Automated Clearing House Network – A nationwide batch-oriented electronic funds transfer system that provides for the inter-bank clearing of electronic payments for participating depository financial institutions.
ALC	Agency Location Code – A numeric symbol used to identify an agency accounting location or regional financial office on accounting reports and documents. The ALC consists of an eight-digit agency accounting station, a four-digit disbursing office symbol, or a three-digit Treasury Financial Center symbol. An ALC is also a data type within CIR and is used to restrict access to data secured by an ALC.
BETC	Business Event Type Code – An eight-character code used in the CARS (formerly GWA or the Governmentwide Accounting system) to indicate the type of activity being reported, such as payments, collections, and borrowings.
BO	Business Objects – Commercial off-the-shelf software used by CIR to facilitate report creation.
Bureau of the Fiscal Service	(Formally Financial Management Service – FMS) – aka Fiscal Service – A bureau of the United States Department of the Treasury that provides central payment services to federal agencies, operates the Federal Government’s collections and deposit systems, provides governmentwide accounting and reporting services, and manages the collection of delinquent debt owed to the government. Bureau of Fiscal Service also supports Federal Agencies’ financial management improvement efforts in the areas of education, consulting, and accounting operations
Business Date	The Business Date represents the date used to identify the CIR Business Cycle associated to transmissions received from Sending Trading Partners (STPs). The Business Date in CIR corresponds to the Process Date in CA\$HLINK II.
CAFE	Central Accounting Front-End System – An FMS system that captures data files from source systems and directs them to STAR until CARS (formerly GWA) becomes the system of record and STAR is retired. CAFE receives data from CIR.

Term	Definition
CASHLINK II	An FMS system used to manage the collection of US government funds throughout the world and to provide deposit information to federal agencies.
Card Acquiring Service	An FMS service, formerly referred to as the Plastic Card Network (PCN), through which FMS collects obligations via credit or debit card transactions. Card Acquiring Service sends data to CIR.
CARS	Central Accounting Reporting System (fka GWA) – Provides the central accounting and reporting functions and processes associated with budget execution, accountability, and cash/other asset management.
CAS	See Card Acquiring Service
CASHTRACK	An FMS system that supports the cash forecasting business line.
CCMM	Collections and Cash Management Modernization – A comprehensive, multi-year effort to streamline, modernize, and improve the processes and systems supporting FMS's and Treasury's collections and cash management programs.
CGAC	Common Governmentwide Accounting Classification – A uniform structure and set of definitions for classifying the financial effects of government business activities.
Channel	Delivery method used by a remitter to initiate payment to an agency. Channel identifies the original point of payment initiation, the first interface between the end consumer/citizen and the government. Payment channels include mail, over the counter, internet, and telephone.
C-Key	Classification Key – A unique agency accounting code assigned to a transaction. Agencies will establish C-Keys in the Shared Accounting Module (SAM) for collection transactions that will be used to derive the appropriate values of Treasury Account Symbol (TAS)/Business Event Type Code (BETC).
CIR	Collections Information Repository – (fka Transaction Reporting System – TRS) – is a new name for the FMS-wide transaction broker, data warehouse, and reporting solution that will provide Trading Partners and FMS with a single touch point for the exchange of all financial transaction information across all collection systems.
Connect:Direct	Communications software used to connect the CIR network to the networks of the collection systems and Federal Program Agencies.
COTS	Commercial off-the-shelf – COTS is a term for software or hardware products that are ready-made and available for sale, lease, or license to the general public. They are often used as alternatives to in-house developments or one-off government-funded developments (GOTS). The use of COTS is being mandated across many government and business programs, as they may offer significant savings in procurement and maintenance.

Term	Definition
Credit Gateway	The Credit Gateway is a deposit program that the U.S. Treasury's Financial Management Service (FMS) uses for the receipt of federal agency Fedwire and Automated Clearing House (ACH) credit transactions. The Gateway interfaces directly with Federal Reserve Bank systems to process transactions. The Gateway sends data to CIR.
CSV	Comma Separated Values – CSV is a file format where each value in the file is separated from the next by using a comma.
Deposit Information	Information regarding funds credited or debited to a Treasury account. Is also known as a voucher/deposit ticket.
DT or DTN	Deposit Ticket Number
DV or DVN	Debit Voucher Number
ECP	Electronic Check Processing – An FMS program that clears check transactions by converting them to an image or ACH transaction. ECP interfaces with lockbox financial agents to electronically clear paper checks. ECP sends data to CIR.
EDA	Enterprise Data Architecture – Refers to the FMS team that serves as FMS's central focal point, consultant, and technical advisor on matters and issues related to data exchange, data administration and data standards.
EFTPS	Electronic Federal Tax Payment System – An FMS system to help business and individual taxpayers conveniently pay all their federal taxes electronically. EFTPS sends data to CIR.
Enterprise Architecture	A conceptual blueprint that defines the structure and operation of an organization. The intent of enterprise architecture is to determine how an organization can most effectively achieve its current and future objectives.
FDS	Fedwire Deposit System – An FMS wire transfer collection system whereby remitters can instruct their banks to transfer payments by the Federal Reserve Communications System to Treasury's main account at the Federal Reserve Bank of New York.
Fedwire	A nationwide program offered by the Federal Reserve Banks to provide real-time electronic funds transfers.
Financial Agent	A financial institution designated by the Secretary of the Treasury as a depository and financial agent of the US Government. A designated financial agent of FMS provides financial services to Federal Program Agencies and the public. A depository agent is specifically authorized to accept deposits of public money.
Financial Transaction	Represents a financial instrument used for payment. A financial transaction may be equivalent to a single check or credit card payment.
Fiscal Service	See Bureau of the Fiscal Service.

Term	Definition
FMS	Financial Management Service - A bureau of the United States Department of the Treasury that provides central payment services to federal agencies, operates the Federal Government's collections and deposit systems, provides governmentwide accounting and reporting services, and manages the collection of delinquent debt owed to the government. FMS also supports Federal Agencies' financial management improvement efforts in the areas of education, consulting, and accounting operations. See Bureau of Fiscal Service.
FPA	Federal Program Agency – A permanent or semi-permanent organization of government that is responsible for the oversight and administration of specific functions.
FRB	Federal Reserve Bank – The Federal Reserve System (also the Federal Reserve; informally The Fed) is the central banking system of the United States.
FRB CASH-LINK	An FMS system that consolidates and reports information regarding Federal government collections and disbursements in Federal Reserve Banks.
GWA	Governmentwide Accounting – Provides the central/financial accounting and reporting infrastructure for federal payments, claims, collections, central accounts and other financial transactions. GWA has been replaced by CARS.
GWA Classifications	Breakdown of funds collected by Treasury Account Symbol (TAS)/Business Event Type Code (BETC) or C-Key for reporting to Governmentwide Accounting (GWA).
IT	Information Technology
OPS	CIR Operations - The Operations center that manages the day-to-day operations of the CIR Product in the Production Environment.
OTC	Over the Counter – OTC collections describes those funds that are received directly from the general public or other remitters by Federal Program Agencies.
OTCnet	The Over the Counter Channel Application (OTCnet) enables federal Agencies to integrate check capture and deposit reporting activities, consolidating management of all check and cash deposits through one Web-based application. OTCnet processes transactions previously processed through TGA net, PCC OTC and TGA banks. OTCnet sends data to CIR.
PATAX/TIP	Paper Tax System/Treasury Investment Program – An FMS system that collects, adjusts, and reports all advices of credit that represent paper federal tax deposits in commercial financial institutions. PATAX/TIP sent data to CIR until the system was decommissioned in 2011.
Pay.gov	An FMS system that enables end-users to make electronic payments to Federal Program Agencies over the Internet. Pay.gov sends data to CIR.
PCC OTC	Paper Check Conversion Over the Counter – An FMS program which converts personal and business checks into electronic funds transfers.
PDF	Portable Document Format

Term	Definition
PII	Personally Identifiable Information – PII is any information about an individual maintained by an agency, including, but not limited to, education, financial transactions, medical history, and criminal or employment history and information which can be used to distinguish or trace an individual's identity, such as their name, social security number, date and place of birth, mother's maiden name, biometric records, etc., including any other personal information which is linked or linkable to an individual.
Program Data	Unstructured agency-specific data associated with collections. Typically, it includes remittance information posted to receivables.
RTP	Receiving Trading Partner - A system that receives data from CIR.
SAM	Shared Accounting Module – An FMS program that allows agencies to classify all Fund Balance with Treasury transactions and adjustments to the appropriate Treasury Account Symbol (TAS) and Business Event Type code (BETC) at the time the transactions or adjustments are reported to the Treasury. SAM provides CIR with supporting reference data (ALC information and ABA information).
Settlement	The discharge of financial obligations with respect to a funds transfer between two or more parties.
STAR	The Federal government's legacy central accounting system, operated by FMS.
STP	Sending Trading Partner – A system that provides data to CIR.
TAS	Treasury Account Symbol – Receipt, appropriation, expenditure and other fund account symbols and titles as assigned by the Department of the Treasury and Office of Management and Budget that identify a specific Treasury account.
TCMS	Treasury Cash Management System – This FMS program provides federal cash concentration services, settlement of all inflows and outflows affecting the Treasury's General Account, and cash accounting and reporting functions. TCMS receives data from CIR.
TGANet	Treasury General Account Deposit Reporting Network – An FMS program that enables Federal Program Agency users to report over the counter (OTC) receipts in a secure, web-based system. TGAnet sends data to CIR.
TPA	Trading Partner Agreement – A sub-schema that may be used within the TPE. CIR maintains this TPA sub-schema.
TPE	Trading Partner Extension – A container within the EDA XML Schema for additional collections data, for example, program data. The Trading Partner Agreement sub-schema is implemented through the TPE.
TRS	Transaction Reporting System – TRS is an FMS-wide transaction broker, data warehouse, and reporting solution that will provide Trading Partners and FMS with a single touch point for the exchange of all financial transaction information across all collection systems. TRS was renamed to CIR in early 2013.

Term	Definition
Voucher	A summary record that represents a grouping of detailed financial transactions. This is the level at which financial transactions are reported in CA\$HLINK II and FRB CA\$H-LINK as deposit tickets or debit vouchers.
VPN	Virtual Private Network - A network that uses a public telecommunication infrastructure, such as the Internet, to provide remote offices or individual users with secure access to an organization's network.
XML	eXtensible Markup Language - A general-purpose markup language that supports a wide variety of applications. Its primary purpose is to facilitate the sharing of data across different information systems, particularly systems connected via the Internet.
XPath	XML Path - A language that describes a way to locate and process items in Extensible Markup Language (XML) documents by using an addressing syntax based on a path through the document's logical structure or hierarchy.
XSD	XML Schema Definition - Formally describes the elements in an Extensible Markup Language (XML) document.

2.4.2 Data Terms

The following terms describe the key types of data that CIR receives, stores, and provides in the extract files.

Table 3: Table of Data Entities

Entity	Description
Business Transaction	Captures collections information about the specific business event.
Financial Transaction	Individual collections transactions received by CIR (credit card transaction, cleared check, etc.) associated to the transfer of funds between a payer and payee for a particular business event.
Deposit Information (Summary)	A summarized record of financial transactions for a particular agency, also known as a voucher/deposit ticket.
GWA Classifications	Breakdown of funds collected by Treasury Account Symbol (TAS)/Business Event Type Code (BETC) or C-Key/Value information for reporting to Governmentwide Accounting (GWA). Classification information can be reported at a Deposit Information Level (Summary) or at the Business Transaction Level (Detail).
Program Data	Captures unstructured agency-specific data associated to Deposit Information Record, Deposit Information Classification Record, or Business Transaction Record. Examples of this type of data include: remittance information, claim information, bill numbers and lockbox information.

Entity	Description
Fedwire	Captures the entire Fedwire message associated to the Financial Transaction.
ACH	Captures all the ACH Entry Detail and Addenda data associated to the Financial Transaction.
Plastic Card	Captures card data elements associated to the Financial Transaction.

Figure 1: CIR Data Model below provides a visual representation of this data. In addition to the relationships shown, the Financial Transaction and Business Transactions can have a relationship with other Financial and Business transactions. Some examples of this are:

- ❖ An originating ACH Debit could also have an ACH return that was processed at a later point
- ❖ Electronic Check Processing (ECP) sends updated program data associated to a business transaction at a later point.

CIR captures the information in order to link transactions and provides that as one of the attributes in the XML extract file.

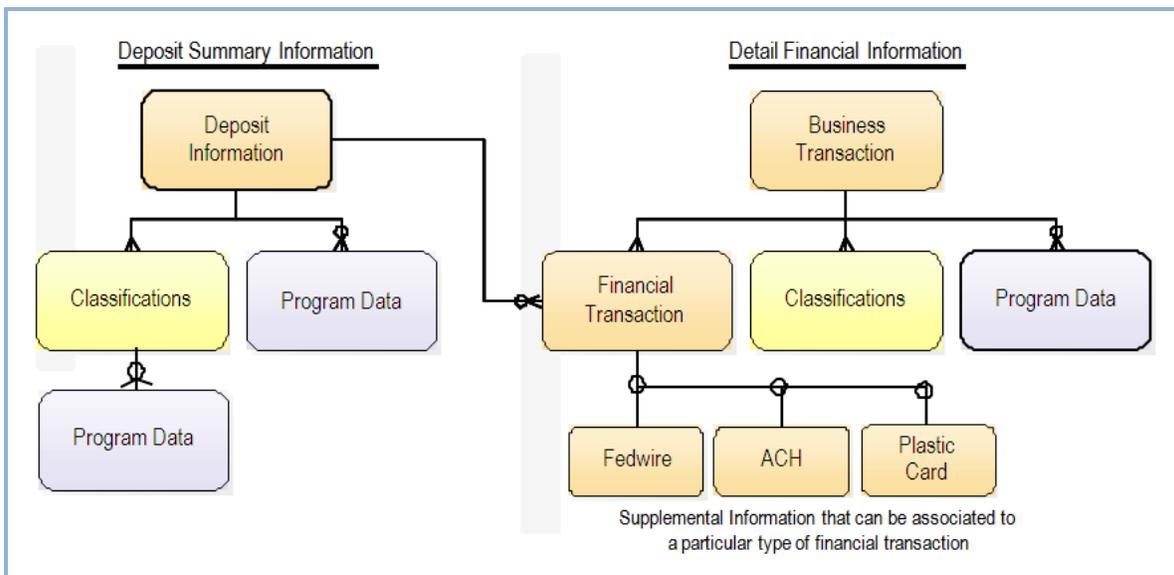


Figure 1: CIR Data Model

3. Overview of the Collections Information Repository (CIR)

3.1 What Is CIR and What Will It Do?

CIR is a collections reporting tool, supplying the latest information on deposits and detail of collections transactions to Federal agencies. The system allows financial transaction information from all collections systems and settlement mechanisms to be exchanged in a single system.

CIR is a key component of the Collections and Cash Management Modernization (CCMM) initiative, a multi-year effort to simplify and modernize FMS's and the US Treasury's collections and cash management programs.

CIR is an FMS-wide transaction broker, data repository, and reporting solution, and

- ❖ Provides a single touch-point for the exchange of all financial transactions across all collections systems
- ❖ Offers a centralized repository containing detailed and summarized records of all revenue collections transactions processed by FMS systems
- ❖ Facilitates CCMM
- ❖ Supports reporting of classification information to the Central Accounting Reporting System (CARS) formerly known as GWA
- ❖ Normalizes financial transaction reporting and standardize the availability of financial information across all settlement mechanisms and collections systems.

3.2 Availability of Data in CIR

CIR was deployed using a phased-implementation strategy. Using this approach, different collections sources began reporting financial transaction information to CIR at different times over a multiple year time period, completing in 2012.

With the implementation of XML Extract Files, data from the following STPs is available in CIR.

- ❖ Card Acquiring Service
- ❖ Credit Gateway ACH
- ❖ Credit Gateway Fedwire
- ❖ Electronic Check Processing (ECP)
- ❖ Electronic Federal Tax Payment System (EFTPS)
- ❖ FRB CA\$H-LINK – Miscellaneous FRB Deposits
- ❖ Navy Cash – Stored Value Card
- ❖ OTCnet
- ❖ Pay.gov

The extract data that CIR generates is dependent on the information sent by each STP. The presence of attributes on the extract file indicates that CIR will provide the information to agencies if and only if the various STPs provide that information to CIR. If an attribute is not provided to CIR, then that attribute will not appear on the extract file (since the contents would be null, and null fields are not extracted).

The following table provides key information about the types of data currently provided to CIR by each of the STPs.

Table 4: Overview of STP Provided Data

STP	Collection System Name	Key Characteristics
OTCnet	OTCnet	Sends summary-level information for Bank Deposits, including program data associated to both the summary and the account classification. The Bank Deposits can be commercial or non-commercial. Sends summary-level and detail-level transaction information for Electronic Check Deposits (or E-Check Deposits), including program data.
Card Acquiring Service	Card Acquiring Service	Sends summary-level and detail-level transaction information with additional plastic card details for Over-the-Counter transactions. Does not send any program data.
Electronic Check Processing (ECP)	ECP	Sends summary-level and detail-level transaction information. Sends program data associated to a business transaction.
Pay.gov	Pay.gov	Sends summary-level and detail-level transaction information. Sends program data associated to a business transaction (forms and bills).
Credit Gateway ACH	ACH CG	Sends summary-level and detail-level transaction information with additional ACH details. Program data is contained within the ACH details and is not separated into the program data section.
Credit Gateway Fedwire	Fedwire CG	Sends summary-level and detail-level transaction information with additional Fedwire details. Program data is contained within fields of the Fedwire details and is not separated into the program data section.
FRB CA\$H-LINK	FRBCL	Non-commercial transactions are provided to CIR and are also sent by the STPs to FRB CA\$H-LINK. CIR matches the vouchers from FRB CA\$H-LINK with those sent from the STP. In rare occasions CIR receives a transaction from FRB CA\$H-LINK that does not match any voucher from the STP. Those vouchers are stored in CIR and reported to CARS (formerly GWA). They contain only summary-level information with no program data.
Electronic Federal Tax Payment System	EFTPS	Sends summary-level deposit information for ACH and Fedwires (all non-commercial). Does not send any program data.

STP	Collection System Name	Key Characteristics
FRB CASH-LINK Miscellaneous Deposit Activity	FRBCL MISC	Sends summary-level deposit information for miscellaneous collections processed and settled at Federal Reserve Banks
Navy Cash – Stored Value Card	NAVYCASH	Sends summary-level deposit information for Stored Value Card activity processed through Navy Cash Program

3.3 CIR Context

The following diagram illustrates a high-level view of CIR describing the flow of information at the current time. This flow is expected to evolve as the full vision of CCMM is implemented.

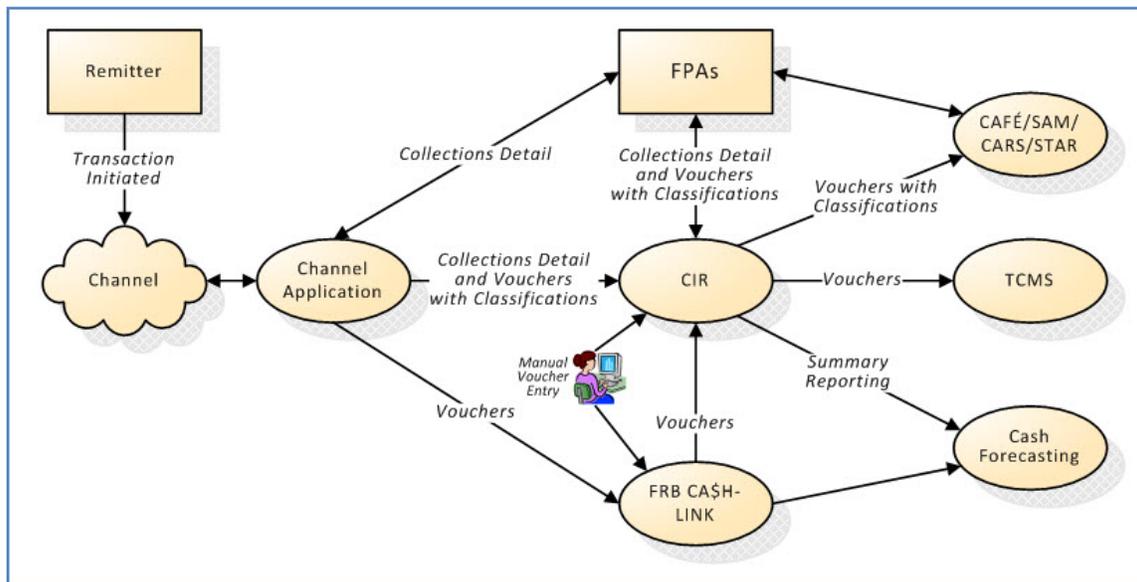


Figure 2: CIR Overview

- ❖ CIR receives and stores collections data (details and summaries) from the various channel applications.
- ❖ CIR provides TCMS with information on all commercial vouchers to perform cash concentration activities.
- ❖ CIR provides CASHTRACK with information on all vouchers to perform cash forecasting activities.
- ❖ CIR provides financial accounting entries to CAFE/CARS, including classification information (CKeys or Treasury Account Symbols/Business Event Type Codes (TAS/BETCs)).
- ❖ Agencies can access CIR to view and download collection information including classification information for their Agency Location Codes.

3.4 Reports vs. Extract Files

CIR provides the capability for users to download both reports and XML extract files. Both reports and extract files can be downloaded to a user's computer through the CIR application. However, since extract files are produced using XML, their primary use is for system-to-system interfaces.

3.4.1 Reports

CIR reports provide the ability for a user to view and download a formatted subset of data, predetermined by the report, such as by voucher number, ALC, business date, or other search criteria. CIR generates reports via a commercial off-the-shelf product called Business Objects (BO). The CIR reports are not intended to be used for extracting extremely large volumes of detail transactions.

Reports can be accessed online and downloaded to the user's computer in the following formats:

- ❖ PDF
- ❖ Excel
- ❖ CSV

Users are able to schedule reports to run on a predefined frequency (for example, daily or weekly).

3.4.2 Extract Files (XML File Transmission)

CIR XML Extract Files provides the ability for a user or system to receive an extract of all summary and detail transaction data within a predefined file format. The primary use of these extracts is for system-to-system interfaces or downloading and importing into another system.

CIR is required to utilize the standard FMS XML Schema format for receiving and sending collection data. The schema is developed and managed by the Enterprise Data Architecture (EDA) Team within FMS. The version of the FMS XML Schema that is used for the CIR XML Extract is the FMS XML Schema 4.3 and can be accessed from the following website:

<http://fms.treas.gov/eda/xml/index.html>.

Agencies have the capability to define three different extract types with different frequencies and selection criteria (ALCs, accounts, date range, input systems, etc.). The three extract types are:

- ❖ Summary Only – Only voucher-level information is extracted
- ❖ Detail Only – Only individual collection transaction-level information is extracted (credit card transactions, wires, ACH transactions)
- ❖ Summary and Detail – Voucher-level information along with any associated detail transactions is extracted.

All extracts are automatically scheduled based on the extract definition which supports four frequencies (Daily, Weekly, Monthly, and STP end of day). The frequency determines when the extract will be created based on the Schedule Start Date entered on the Extract File Definition. The Schedule Start and End dates are used to indicate when the extract will run to retrieve the activity based on the frequency defined, and does not represent the dates of the activity to be pulled into the extract. If the End date is not entered, the extract will be generated indefinitely until the status or end date is provided.

Currently the Extract process can only pull data for activity going forward, and not in the past. However, a user may define a monthly extract with a scheduled start date in the "current" month, and when the monthly extract runs on the last day of the month, the extract will select all activity for the "current" month. For example, a monthly extract may be set up on January 16, and when

the monthly extract runs on January 31, the extract will contain activity for the calendar month of January.

See Section 5.1 of this document for additional information on Scheduling Extracts.

4. Security/User Access

4.1 Roles/Functions

When CIR users are created in the CIR system, they are associated with certain functions. In order to view and download files, a user will need the function "**View Files**". This function provides a list of extract files that have been created for a specific access group. A user will only be able to view and download extract files that were defined by a user within their own access group.

4.2 ALC Security

The ALCs that a user can select for an extract are limited to those ALCs included in the permissions for that user's access group. If no ALCs are selected, when the extract is generated, the data is limited to the ALCs associated to the access group via permissions. This means that if subsequent to the definition of an extract file, the permission set is updated and one or more ALCs are removed, those ALCs will not be included in the extract file.

4.3 Personally Identifiable Information (PII)

As part of the extract definition, the user selects a parameter to include or exclude PII data. If the user selects to exclude the PII data, then the following attributes within the following entities are not included in the file. For the ACH Content Strings, the element is required in the TPA subschema and so will be included but will be filled with spaces.

Table 5: PII Data

Entities	Attributes
UserData (only if marked as containing Privacy Data in which case the entire occurrence of the UserData is not extracted)	UserDataContent
Payer	AccountNumber AccountPartyIdentifier PartyName Address lines 1-5 BankInfo/AccountNumber
Plastic	Card Number
FedWireMessageSection	FedWireMessageSectionValue
FedwireDataElement	FedwireDataElementValue
ACHEntry/ACHContentString	ContentString
ACHBatch/ACHContentString	ContentString
Addendum/ACHContentString	ContentString
ACHContentElement	ACHContentElementValue

If the user selects to include PII, all the attributes are included on the extract file. However, for a user to view or download an extract file that includes PII, the user must have been defined with a permission to access PII.

5. Extract File Generation

5.1 Schedule

CIR produces the extracts based on the extract file frequency defined in the XML Extract File definition. The extract file frequency is listed below with a brief description of when the extracts are actually run by CIR, as well as an explanation of the contents of the extract file for each frequency. The contents of the file will also be limited by the criteria defined in the Extract File Definition and the Extract Type. All activity received over a weekend or holiday will have the next business processing day assigned. For example, Monday business processing day will always include activity received over the weekend. If Monday is a holiday, then Tuesday business processing day will include all activity received over the weekend and holiday.

Table 6: CIR Processing Schedule for Creating Extract Files

Extract File Frequency	CIR Processing Schedule for Creating an Extract File	Activity Reported in the Extract File
Daily	Each business day at approximately 12:00 AM (midnight), Monday through Friday, except for Federal Reserve Bank (FRB) holidays	All activity from the current business processing day.
Weekly	Each Saturday at approximately 4:00 AM	All activity from the Monday prior to the Saturday when the weekly extract was run through the Friday prior to the Saturday when the weekly extract was run. For example, on Saturday 2/02/2013 the weekly extract is run and contains activity for Monday 1/28/2013 through Friday 2/01/2013.
Monthly	Each month on the last business day of the month after CIR processing completes.	All activity for the current calendar month, reporting all activity from the first business day of the month through the last business day of the month. For example, on Friday 3/29/2013, the monthly extract is run and contains activity for the calendar month March 2013 (3/01/2013 through 3/29/2013). There is no activity to report for Saturday March 30 and Sunday March 31).
STP End of Day	The End of Day option should be used only for STPs who provide their end of day file early in the day. Currently this is limited to Card Acquiring Service and Credit Gateway ACH. Daily after receiving and processing the	All activity since the last STP End of Day file was received.

Extract File Frequency	CIR Processing Schedule for Creating an Extract File	Activity Reported in the Extract File
	<p>end-of-day file for an STP.</p> <p>Card Acquiring Service – Each day an end-of-day file is received (every day) at approximately 5:00 AM</p> <p>Credit Gateway ACH – Each day an end-of-day file is received at approximately 9:00 AM, Monday through Friday except for FRB holidays</p>	

5.2 Data Selection

Data is selected based on the defined extract selection criteria. If no value is selected for particular selection criterion then all possible values will be selected for inclusion in extract. Criteria selections only need to be made if the extract should not contain all values. If no data is found that meets the criteria, then a file is generated with just a Transmission record, where the total amount and total count are both zero.

6. Receiving an Extract File

There are two ways for an agency or other RTP to receive an extract file. A user can view the file name, then select and download the file through the CIR application, if it is smaller than 10 megabytes (MB). The file name will be in the following format:

BaseFileName_YYYYMMDD_file_id.xml where

- ❖ **BaseFileName** = Base Extract Name defined in the XML Extract Definition in CIR concatenated with the Access Group ID
- ❖ **YYYYMMDD** = Business Date for the end of the extract period. For a Daily this is the single Business Date being extracted. For a Weekly this is the last Business Date of the week. For a Monthly this is the last Business Date of the month.
- ❖ **File_id** = Unique ID assigned by CIR

Alternatively a user can work with CIR to establish an automated communication path. Currently the CIR solution for automated communications utilizes a secure Virtual Private Network (VPN) over the Internet, using Connect:Direct, Secure + as the transmission software.

6.1 Downloading Extract Files using the CIR Application

Within the CIR application, under the Management > File menu, there is a View Files function. This function allows a user to search for and download an extract file created by CIR. CIR restricts the list of available files to extract files created by a user within the same user group. A user can view the file status and view and/or download the extract file, provided the file is less than 10 MB. If a user attempts to view or download a file that is larger than 10 MB, the CIR application displays an error message indicating that the file is too large for downloading online. For additional information, see the CIR Web Application Reference Manual, specifically Section 8 – File Processing.

6.2 Automatic Delivery of Extract Files

Agencies can request that CIR automatically send the extract file to their system. This requires the establishment of a network connection between CIR and the agency. The CIR standard for this connection is VPN over the Internet using Connect:Direct. If an agency is interested in setting up a network connection with CIR, the agency should contact the CIR Call Center.

The CIR Call Center is available between 7:00 AM - 9:00 PM Eastern Time, Monday through Friday except Federal Reserve Bank holidays. The CIR Call Center can be reached at 1-800-346-5465 or within the Washington, DC metropolitan area and internationally at 301-887-6600. The CIR Call Center can also be reached by email at CIR@pnc.com.

Someone from the CIR Team will then contact the agency to discuss the next steps.

7. Extract File Specification

Downloading and interpreting a CIR XML Extract File requires an understanding of XML coding.

7.1 Understanding this Specification Section

As previously discussed, the format of the output files is XML using the FMS EDA schema. The version of the schema used with the implementation of XML files is version 4.3. In the future, as additional data is received by CIR and as FMS EDA updates the schema, additional versions are likely to be supported. Section 7.4 gives an overview of the EDA XML schema.

Within the EDA schema, there is a container named "Trading Partner Extensions (TPE)", where additional data can be defined. CIR defines additional data through the CIR Trading Partner Agreement (TPA) sub-schema. These extensions are available as a child container for all the standard schema entities. Section 7.5 Trading Partner Agreement Schema provides detailed information on the contents of the TPA.

There is a separate section for each of the three extract types: Summary Only, Summary and Detail, and Detail Only. Within each section, there is a specification table that shows the entities and attributes provided in the extract. On any given extract, if there is no data for an attribute, that attribute is not provided in the XML output. If there is no data for any attribute in a container, that container is not provided in the XML output.

A table within each section contains the schema containers that will be included in that extract type along with the list of attributes. Field lengths and specifications are not included as they are fully documented on the EDA web site as part of the schema materials. Table 7: Example of an Extract Type Specification Table illustrates a sample row from one of these tables.

- ❖ Column 1: XML Schema Entity – Name of the XML container.
- ❖ Column 2: Entity Description – In some instances this may differ from the generic description provided in the EDA documentation to include information on how that container is used within CIR.
- ❖ Column 3: Attributes/Elements – A list of attributes/elements that will be provided by CIR for that container. As indicated earlier if an attribute has not been provided by the channel application sending data to CIR, or is not appropriate for an individual transaction (for example a check number on a wire transaction), that attribute will not be included in the extract file for that transaction.

Table 7: Example of an Extract Type Specification Table showing Entities and Attributes

XML Schema Entity	Entity Description	Attributes/Elements
Transmission	A collection of financial transactions for the purpose of creating or updating detail or summary information.	ID TransmissionTimestamp BusinessTransmissionCategory InputSystem SequenceNumber TotalAmount TotalCount

7.2 Global Formatting Details

The following general rules apply to all data attributes extracted from CIR.

- ❖ All amounts include an explicit decimal point but not commas or dollar signs unless otherwise noted. Zeros that follow a decimal point are not included.
 - \$2,145.55 -> 2145.55
 - \$2,145.50 -> 2145.5
 - \$2,145.00 -> 2145
 - \$0.00 -> 0
- ❖ All fields defined as string with maximum values will be limited to the actual length received (additional spaces are not added), unless otherwise noted.
- ❖ Summary/Voucher number is always a six-digit number where it is possible to have leading zeros.
- ❖ All date fields will be formatted YYYY-MM-DD.
- ❖ All date/time fields will be formatted YYYY-MM-DDTHH:MM:SS where "T" is a literal.

7.3 Using the Specification Document

This specification document is engineered to be used in conjunction with the EDA website and the CIR TPA documentation. If the XML file will be processed using a software solution capable of reading XSDs, then the following provides an example of how this document could be used:

- ❖ Download 4.3 Transmission Message XSDs from EDA website - <http://fms.treas.gov/eda/xml/index.html>.
- ❖ Download the CIR TPA from the CIR website - <http://www.fms.treas.gov/cir/index.html>
- ❖ Use the tables in Sections 7.6, 7.7 and 7.8 to identify which containers and attributes will be provided on the extract file based on the Extract Type.
- ❖ When determining how to map the data into your system, use the attribute definitions provided in Section 7.9 for more detailed information on each attribute.

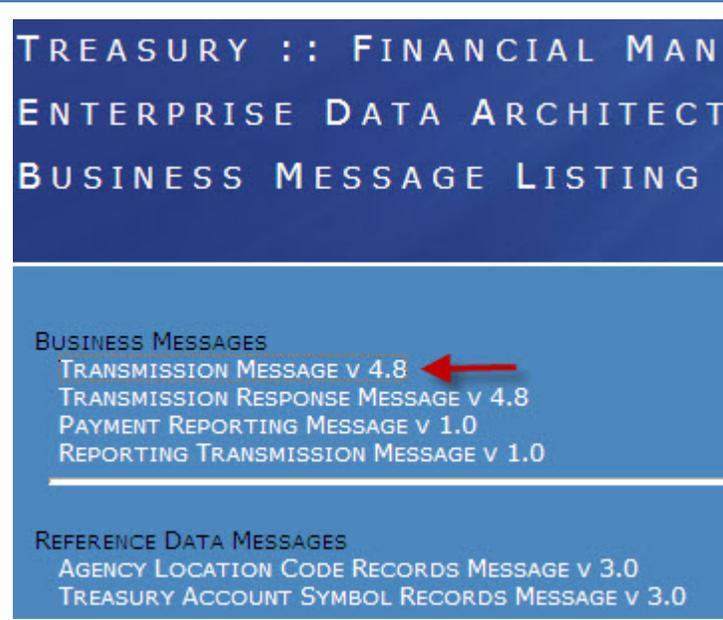
If developing a software solution that will not read XSDs, the steps would be similar. However, to obtain field types and lengths, the EDA website and the CIR TPA documentation would be used.

7.4 EDA Schema

As stated previously, the 4.3 schema is the standard FMS XML Schema format for receiving and sending collection data. The schema is developed and managed by the EDA Team within FMS.

For more information see <http://fms.treas.gov/eda/index.html>.

For specific information on the EDA schema, see <http://fms.treas.gov/eda/index.html> and select "FMS Business Data Exchanges", and the following screen will be returned:



The screenshot shows a web page with a dark blue header containing the text: "TREASURY :: FINANCIAL MAN", "ENTERPRISE DATA ARCHITECT", and "BUSINESS MESSAGE LISTING". Below the header is a light blue section titled "BUSINESS MESSAGES" containing a list of message types: "TRANSMISSION MESSAGE V 4.8", "TRANSMISSION RESPONSE MESSAGE V 4.8", "PAYMENT REPORTING MESSAGE V 1.0", and "REPORTING TRANSMISSION MESSAGE V 1.0". A red arrow points to the "TRANSMISSION MESSAGE V 4.8" entry. Below this is another light blue section titled "REFERENCE DATA MESSAGES" containing "AGENCY LOCATION CODE RECORDS MESSAGE V 3.0" and "TREASURY ACCOUNT SYMBOL RECORDS MESSAGE V 3.0".

The screen displays the current active FMS EDA Schema version.

To access additional schema versions, click the "Transmission Message" that is displayed under the heading "Business Messages" and then additional schema versions will be displayed.

Figure 3: Current Business Message Listing from EDA Website

The next figure shows a snapshot of the available schemas from this website. The CIR XML extract uses the Transmission Message Schema Release 4.3.

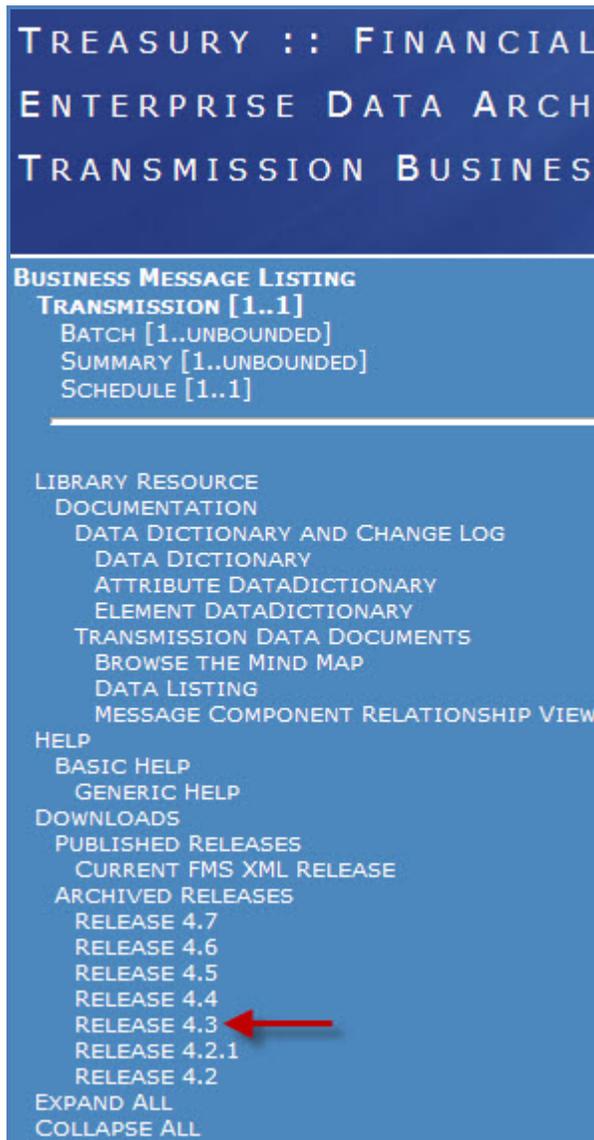


Figure 4: Schema List from EDA Web Site

Note in the above figure, the EDA Schema Release 4.3 is listed under "ARCHIVED RELEASES" and is therefore available for download only as a zip file containing 7 files:

- Common_ComplexTypes.xsd
- Common_Groups.xsd
- Common_SimpleTypes.xsd
- Errata.txt
- Non_FMS_Standards.xsd
- Transmission.xsd
- TransmissionRs.xsd

For additional information on the FMS v4.3 schema in the EDA website, see <http://www.fms.treas.gov/eda/xml/FMSv43/Transmission/index.html>

TREASURY :: FINANCIAL MANAGEMENT SERVICE
ENTERPRISE DATA ARCHITECTURE
TRANSMISSION BUSINESS MESSAGE

BUSINESS MESSAGE LISTING

TRANSMISSION [1..1]
 BATCH [1..UNBOUNDED]
 SETTLEMENTDEBITTRANSACTIONS [1..1]
 SUMMARY [1..UNBOUNDED]
 REPORTINGSUMMARIES [1..UNBOUNDED]
 SCHEDULE [1..1]

- ▣ LIBRARY RESOURCE
- ▣ DOCUMENTATION
 - ▣ DATA DICTIONARY AND CHANGE LOG
 - DATA DICTIONARY
 - ATTRIBUTE DATADICTIONARY
 - ELEMENT DATADICTIONARY
 - ▣ TRANSMISSION DATA DOCUMENTS
 - DOWNLOAD THE MIND MAP
 - BROWSE THE MIND MAP
 - DATA LISTING
 - MESSAGE COMPONENT
 - RELATIONSHIP VIEW
- ▣ HELP
 - ▣ BASIC HELP
 - GENERIC HELP
- ▣ DOWNLOADS
 - ▣ PUBLISHED RELEASES
 - CURRENT
 - TRANSMISSION/TRANSMISSIONRS
 - MESSAGE RELEASE
 - ▣ ARCHIVED RELEASES
 - RELEASE 4.2
 - RELEASE 4.1
 - RELEASE 4.0
 - RELEASE 3.0
 - RELEASE 2.2
 - RELEASE 2.1
- EXPAND ALL
- COLLAPSE ALL

NAMESPACE

urn:us:gov:treas:fms:BusinessTransaction:v4.3

DEFINITION

A collection of financial transaction records for the purpose of creating or updating detail or summary information.

ELEMENT INFORMATION

The <Transmission> element contains 5 children elements and has a choice content model. The choice content model means that there is a exclusive-or relationship between the children elements of the <Transmission> element. In this particular case, the <Transmission> element may or may not have children appear in the XML instance document, but if it does have children appear in the XML instance document then it must be only one of its children for each content iteration (because this content model can repeat unbounded).

ATTRIBUTE INFORMATION

NAME	USE	DATATYPE	DEFINITION
ID	[1..1]	String [0, 80]	An identifier for the record. For a receiving system, this value can be used to reconcile updates to an existing record and qualify new records. For a sending system, this value can be used to reconcile acknowledgements for the submitted records.

Figure 5: XML 4.3 Schema Page from EDA Website

On this website you will have the ability to:

- ❖ View the schema
- ❖ View a full data dictionary for the schema
- ❖ Download the schema (XSDs)
- ❖ View a data listing of the schema (schema path with all containers and attributes in a spreadsheet listing)
- ❖ View how each attribute is used via an attribute data dictionary

7.5 TRS Trading Partner Agreement Schema *

This section describes the additional containers and attributes defined in the sub-schema owned by CIR, based on version 2.3 of the TRS Trading Partner Agreement Schema. The sections that describe each Extract Type specify which containers and attributes are included within each extract file. See also the full TPA schema documentation provided via the TRS TPA XSDs for TPA version 2.3 on the CIR website.

* Note that the name of the TRS Trading Partner Agreement Schema has not changed.

7.5.1 TPA and Extract Types

CIR contains additional information not directly supported in the EDA schema. This information is associated to several different levels in the EDA schema hierarchy. The TPA is organized with one parent container for each owning entity within the EDA schema. This includes:

- ❖ Additional information for Summary
- ❖ Additional information for a Business Transaction
- ❖ Additional information for a Financial Transaction

In addition, CIR receives Program Data from the channels. This is additional free-format information, for example remittance data or input forms. This Program Data is also extracted using the TPA. Program Data can be sent in the hierarchy under the following levels in the EDA schema:

- ❖ Summary
- ❖ Summary/Account Classification
- ❖ Business Transaction

7.5.2 TPA Documentation

CIR provides the XML Schema Definition (XSDs) for the TPA on the CIR website. This documentation supplies all the information needed for understanding and processing the TPA.

A sample of the documentation for one of the TPA structures is shown below. This example shows the detailed containers for a Fedwire transaction and is part of a Summary and Detail or Detail Only extract where Fedwires are included in the selection criteria.

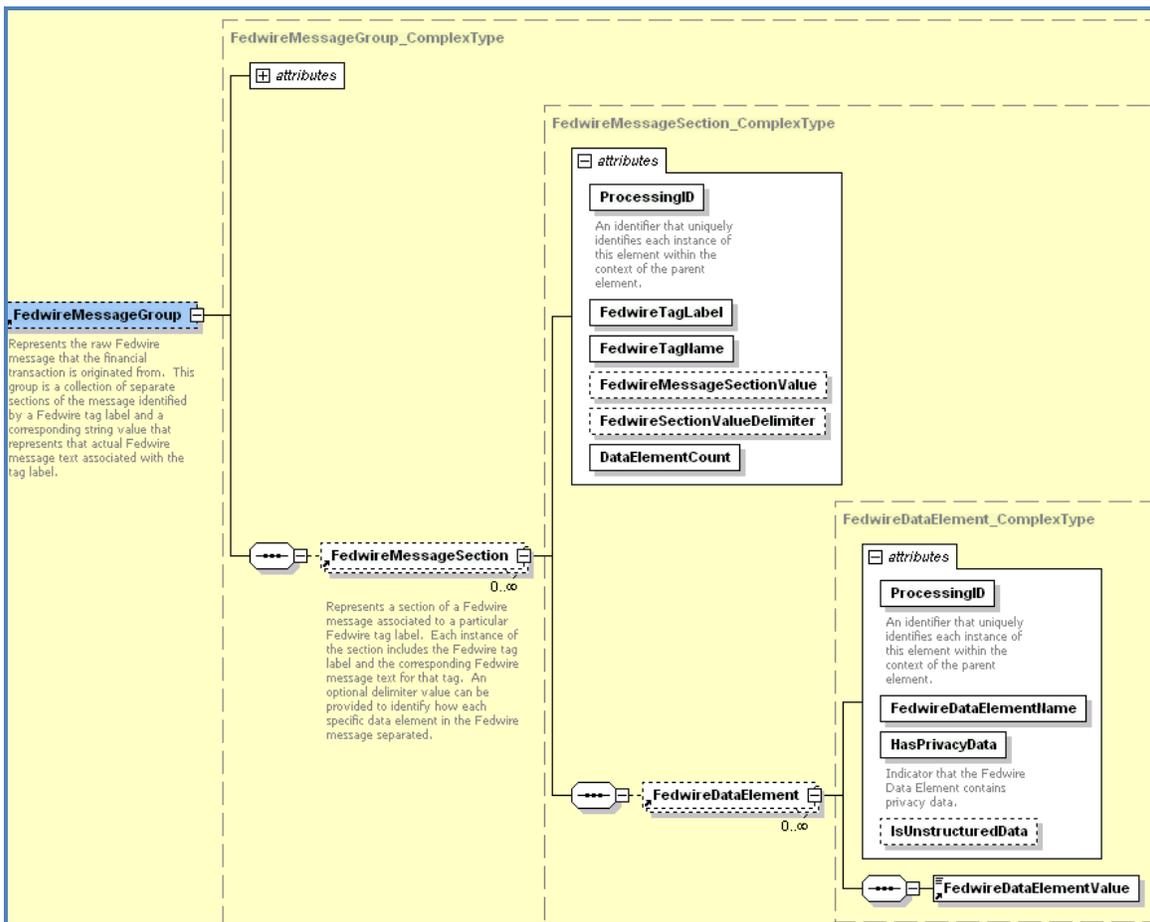


Figure 6: TPA definition for Fedwire Sections and Elements

For each of the complex types a table details all of the specifications for that container. Table 8: Fedwire Message Section Detailed Information contains the detailed information within that document.

Table 8: Fedwire Message Section Detailed Information

type	FedwireMessageSection_ComplexType			
children	FedwireDataElement			
used by	complexType FedwireMessageGroup_ComplexType			
attributes	Name	Type	Use	annotation
	ProcessingID	Identifier_SimpleType	required	documentation An identifier that uniquely identifies each instance of this element within the context of the parent element.
	FedwireTagLabel	FedwireTagLabel_SimpleType	required	
	FedwireTagName	FedwireTagName_SimpleType	required	
	FedwireMessageSectionValue	FedwireMessageSectionValue_SimpleType	optional	
	FedwireSectionValueDelimiter	FedwireSectionValueDelimiter_SimpleType		
	DataElementCount	xsd:integer	required	
annotation	documentation Represents a section of a Fedwire message associated to a particular Fedwire tag label. Each instance of the section includes the Fedwire tag label and the corresponding Fedwire message text for that tag. An optional delimiter value can be provided to identify how each specific data element in the Fedwire message separated.			

Row Definitions

- ❖ Type - Indicates the XML format type of the element
- ❖ Children – Indicates any child containers within the XML hierarchy.
- ❖ Used by - Parent container(s)
- ❖ Attributes – List of attributes within the element
 - Name – Attribute Name
 - Type – XML defined type. To determine the field type and length, check the properties of the XML defined type. For example, FedwireTagLabel_SimpleType is defined as a string with a max length of 6.
 - Use – Required or Optional. Required indicates that if CIR provides the element on output, that attribute will always be present. Optional indicates that even if CIR provides the element on output, the attribute will only be present if CIR has received data.
 - Annotation – Provides definitions and comments for each attribute
- ❖ Annotation - Provides definitions and comments for the element

7.5.3 List of TPA Containers

Table 9: Entities and Attributes for TPA provides a list of the TPA hierarchy with the attributes for each level of the hierarchy. As stated earlier there are four main parent containers. Figure 7: TRS_TradingPartnerAgreement Hierarchy provides a visual depiction of the TPA hierarchy with the four parent containers. The XPath for each container and the associated extract types that include the container are listed below. Note that the TPA Container names did not change when TRS was renamed to CIR, and remain the same as documented.

- ❖ **TRS_Summary** – This will be provided for both Summary and Summary and Detail Extract Types.
The XPath for both is:
/Transmission/Summary/TradingPartnerExtensions/TradingPartnerExtension/TRS_TradingPartner_Agreement/TRS_Summary/.
- ❖ **TRS_BusinessTransaction** – This will be provided for both Summary and Detail and Detail only extracts.
The XPath for Summary and Detail is:
/Transmission/Summary/Batch/BusinessTransaction/TradingPartnerExtensions/TradingPartnerExtension/TRS_TradingPartner_Agreement/TRS_BusinessTransaction.
The XPath for Detail only is:
/Transmission/Batch/BusinessTransaction/TradingPartnerExtensions/TradingPartnerExtension/TRS_TradingPartner_Agreement/TRS_BusinessTransaction.
- ❖ **TRS_FinancialTransaction** – This will be provided for both Summary and Detail and Detail only extracts.
The XPath for Summary and Detail is:
/Transmission/Summary/Batch/BusinessTransaction/FinancialTransaction/TradingPartnerExtensions/TradingPartnerExtension/TRS_TradingPartner_Agreement/TRS_FinancialTransaction.
The XPath for Detail only is:
/Transmission/Batch/BusinessTransaction/FinancialTransaction/TradingPartnerExtensions/TradingPartnerExtension/TRS_TradingPartner_Agreement/TRS_FinancialTransaction.
- ❖ **ProgramData** – This will be provided for all three extract types. Program data can be provided to CIR by the sending application at one of four levels.
 - Associated to a Summary (voucher level) – TGAnet is the only sending application currently providing data at this level. This will be provided for both Summary and Summary and Detail Extract Types. The XPath for both is:
/Transmission/Summary/TradingPartnerExtensions/TradingPartnerExtension/TRS_TradingPartner_Agreement/ProgramData.
 - Associated to a Summary Account Classification (voucher level classification) – TGAnet is the only sending application currently providing data at this level. This will be provided for both Summary and Summary and Detail Extract Types. The XPath for both is:
/Transmission/Summary/AccountClassification/TradingPartnerExtensions/TradingPartnerExtension/TRS_TradingPartner_Agreement/ProgramData.

- o Associated to a Business Transaction – ECP and Pay.gov currently provide data at this level. This will be provided for both Summary and Detail and Detail only extracts.
The XPath for Summary and Detail is:
/Transmission/Summary/Batch/BusinessTransaction/TradingPartnerExtensions/TradingPartnerExtension/TRS_TradingPartner_Agreement/ProgramData.
The XPath for Detail only is:
/Transmission/Batch/BusinessTransaction/TradingPartnerExtensions/TradingPartnerExtension/TRS_TradingPartner_Agreement/ProgramData/.

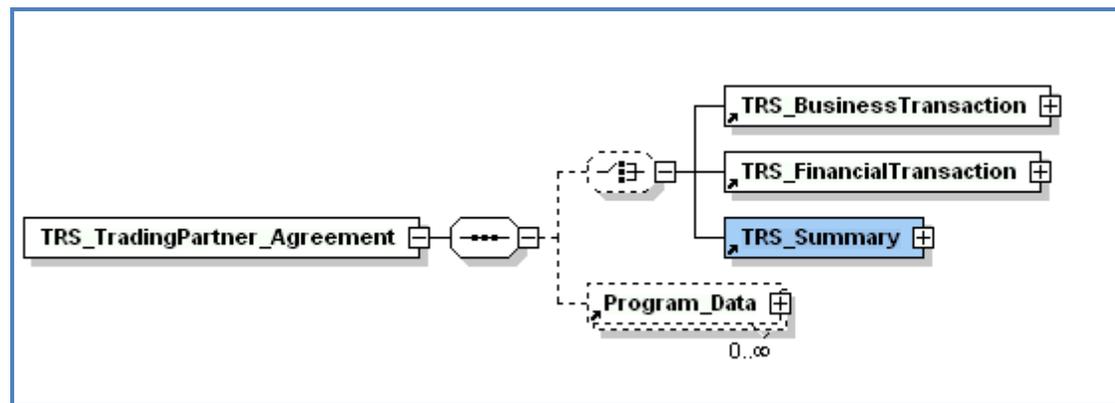


Figure 7: TRS_TradingPartnerAgreement Hierarchy

Table 9: Entities and Attributes for TPA illustrates the XPath for each TPA container along with the attributes for that container. The level number shown in the heading corresponds to the number of levels in the XPath following TRS_TradingPartner_Agreement. For example, OrganizationCode has an XPath of TRS_TradingPartner_Agreement/TRS_Summary/OrganizationStructureCollection/OrganizationCode and so is the third level under TPA and therefore is under the column marked with a 3. The entities are listed in the order they will appear in the output extract file.

Note that the TPA Schema Entity names did not change when TRS was renamed to CIR, and remain the same.

Table 9: Entities and Attributes for TPA

TPA Schema Entity				Entity Description	Attributes/Elements
1	2	3	4		
TRS_Summary				Container for additional attributes associated to a summary (voucher).	ID PARSCode BusinessDate AgencyAccountIdentifier ReceiptsFromDate ReceiptsToDate
	OrganizationStructureCollection			CIR uses the Account Location Code (ALC) for securing data. OTCnet has an organizational hierarchy that allows for unlimited levels. This group is used to extract the organizational information sent by OTCnet that is associated to a voucher. Note: CGAC has defined a new organizational structure which is currently not used by any collection channel and is extracted in the OrganizationLevels EDA schema entity.	Count
		OrganizationCode		Represents the code associated with an internal organization code provided to a trading partner from an agency. (Used only by OTCnet)	OrganizationCodeLevel OrganizationCode text <i>Organization Code and Level occurs once per level (up to n levels)</i>
	AccountCode			Additional attributes used to further classify the accounting for a collection. These fields are all defined in the Common Governmentwide Accounting Classification (CGAC) Structure.	RevenueSourceCode BusinessLineSubFunctionCode
	ForeignCurrency			A container for describing foreign currency information associated to a summary.	Amount OriginalCurrencyCode ExchangeRate ConversionMethodCode
	Contact			A container for contact information if a channel application sends contact information associated to a voucher. Currently no channel is providing contacts at the summary level.	ID Name GroupName Comment ContactType PhoneNumber

TPA Schema Entity 1 2 3 4		Entity Description	Attributes/Elements
TRS_BusinessTransaction		Container for additional attributes associated to a detailed business transaction.	ID GroupID BillDate ReceiptDate BusinessDate
	AccountCode	Additional attributes used to further classify the accounting for a collection. These fields are all defined in the Common Governmentwide Accounting Classification (CGAC) Structure.	RevenueSourceCode BusinessLineSubFunction CategoryCode
	Contact	A container for contact information if a channel application sends contact information associated to a detail transaction. For example, associated to a Fedwire could be contact information for the individual who initiated the transaction or contact information for the individual who approved the transaction. The extract may contain zero to many contact information groups – for example on a Fedwire if there was an initiating contact and an authorizing contact then there would be two Contact containers.	ID Name GroupName Comment ContactType PhoneNumber
TRS_FinancialTransaction		Container for additional attributes associated to a detailed financial transaction.	ID GroupID
	ThirdParty	Contains the name and the type when a third party is involved in the payment of the collection. For example, a bulk payer for taxes.	PartyName PartyType
	ForeignCurrency	A container for describing foreign currency information associated to a detailed transaction.	Amount OriginalCurrencyCode ExchangeRate ConversionMethodCode ForeignCheckIndicator

TPA Schema Entity				Entity Description	Attributes/Elements
1	2	3	4		
		PlasticCardInformationGroup		<p>Container for additional attributes associated to a plastic card.</p> <p>Note: A detailed transaction can have only one of the following groups (and may have none of them – for example a collection via check would have none of these groups)</p> <ul style="list-style-type: none"> ❖ PlasticCardInformationGroup ❖ FedwireMessageGroup ❖ ACHEEntry 	None – only a container
		InterchangeInformation		A container for information about the transaction fee on plastic cards charged by the issuing bank that is paid by the merchants who accept the cards for payment.	OriginalInterchangeIndicator
			InterchangeReimbursementFeeInformation	Reimbursement of interchange fees.	InterchangeCode InterchangeReimbursementFeeAmount InterchangeReimbursementFeeAmountSignIndicator
			InterchangeAdjustmentInformation	Adjustments to interchange fees.	InterchangeAdjustmentReasonCode InterchangeAdjustmentAmount InterchangeAdjustmentAmountSignIndicator
		AuthorizationResponseInformation		Information related to the issuing financial institution's reply to an authorization request.	AuthorizationCharacteristicsIndicator AuthorizationCode AuthorizationSource AVSResponseCode
		MerchantInformation		Information related to the merchant where the payment was received.	MerchantStoreNumber MerchantCategoryCode MerchantNumber

TPA Schema Entity				Entity Description	Attributes/Elements
1	2	3	4		
		AdditionalPlasticCardInformation		Additional information related to the use of a plastic card.	CardProductType ClientBatchNumber CashBackAmount CardNetworkType CardProductCode NetworkResponseField ChargebackReferenceNumber CardResponseCode ChargebackRecordNumber DraftLocatorNumber
		PlasticTransactionEntryDetail		Additional information related to the use of a plastic card.	CATIndicator POSEntryMode RegisterNumber EmployeeIdentifier TerminalNumber TransactionTimeZone TransactionTime
		FedwireMessageGroup		Represents the raw Fedwire message that the financial transaction is originated from. This group is a collection of separate sections of the message identified by a Fedwire tag label and a corresponding string value that represents that actual Fedwire message text associated with the tag label. A financial transaction will have zero to 1 FedwireMessageGroups.	ProcessingID FedwireMessageSectionCount
		FedwireMessageSection		Represents a section of a Fedwire message associated to a particular Fedwire tag label. Each instance of the section includes the Fedwire tag label and the corresponding Fedwire message text for that tag. An optional delimiter value can be provided to identify how each specific data element in the Fedwire message separated.	ProcessingID FedwireTagLabel FedwireTagName FedwireMessageSectionValue FedwireSectionValueDelimiter DataElementCount

TPA Schema Entity				Entity Description	Attributes/Elements
1	2	3	4		
			FedwireDataElement	Contains the name/value pairs for each element on the Fedwire message.	ProcessingID FedwireDataElementName FedwireDataElementValue text HasPrivacyData
	ACHEntry			A container to hold information necessary to relate the ACH Entry to the Receiver. The ACHEntry element contains data associated to every entry detail record. The ACHEntry element has 4 children elements: ACHContentString, ACHContentElement, ACHBatch and Addendum.	ID TransactionCode EntryDate EntryDescription StandardEntryClassCode AddendumCount ACHTraceNumber ContentElementCount
		ACHContentString		The ACHContentString element is used to capture the 94-character string of content data from the ACH entry detail record.	HasPrivacyData ContentString text
		ACHContentElement		The ACHContentElement is a container consisting of one to many name-value pairs for capturing the fielded contents of ACH entry detail records. The ACHContentElement element is provided for each ACH entry detail record.	ID ACHContentElementName ACHContentElementSize ACHContentElementPadCharacter HasPrivacyData ACHContentElementValue text
		ACHBatch		The ACHBatch element contains data associated to the batch header record associated to an entry detail record.	ID ServiceClassCode ACHTraceNumber ContentElementCount
			ACHContentString	The ACHContentString element is used to capture the 94-character string of content data from the ACH Batch record.	HasPrivacyData ContentString text

TPA Schema Entity				Entity Description	Attributes/Elements
1	2	3	4		
			ACHContentElement	The ACHContentElement is a container consisting of one to many name-value pairs for capturing the fielded contents of ACH batch header records. The ACHContentElement element is provided for each ACHBatch element.	ID ACHContentElementName ACHContentElementSize ACHContentElementPadCharacter HasPrivacyData ACHContentElementValue text
		Addendum		The Addendum element is a container for reporting data contained in addenda records associated to an entry detail record. There can be multiple occurrences of Addendum data.	ID Sequence TypeCode ACHTraceNumber ContentElementCount
			ACHContentString	The ACHContentString element is used to capture the 94-character string of content data from the Addendum record.	HasPrivacyData ContentString text
			ACHContentElement	The ACHContentElement is a container consisting of one to many name-value pairs for capturing the fielded contents of the Addendum records. The ACHContentElement element is provided for each ACH Addendum element.	ID ACHContentElementName ACHContentElementSize ACHContentElementPadCharacter HasPrivacyData ACHContentElementValue text
Program_Data				The ProgramData element is a container for unstructured agency-specific data associated with collections. Typically, it includes remittance information posted to receivables. There can be multiple occurrences of program data.	ID UserDataCount
	UserData			The UserData element has the actual content of the unstructured agency-specific data along with labels that describe what information is provided in UserDataContent.	ID SourceLabel AgencyLabel HasPrivacyData UserDataContent text

7.6 Summary Only Specification

This section contains the specification for a Summary Only Extract Type. Figure 8: XML Entities for Summary Only Extract illustrates the schema hierarchy for Summary Only. Some entities are not expanded in the diagram below. See the full EDA Schema documentation on the EDA website for more details.

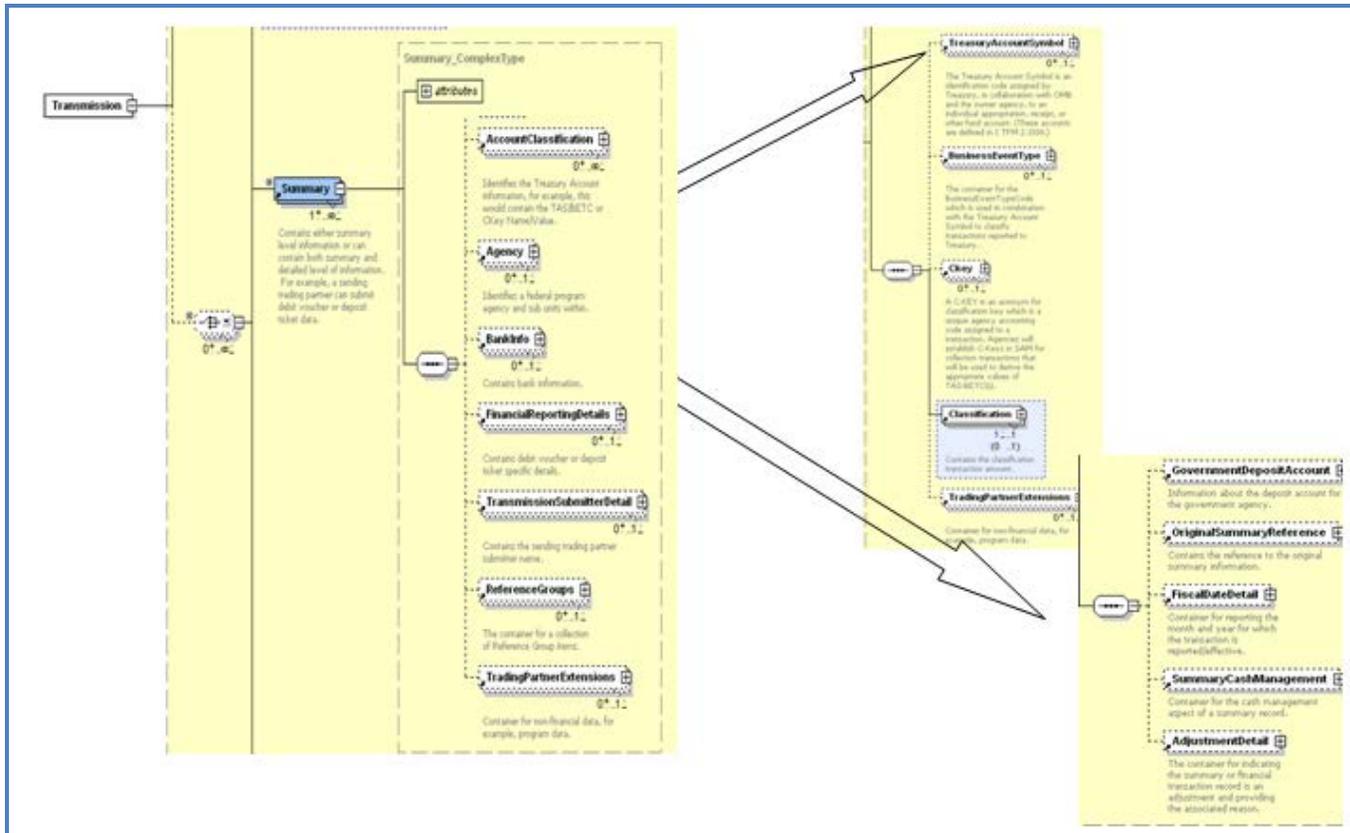


Figure 8: XML Entities for Summary Only Extract

Table 10: Entities and Attributes for Summary Only Extract contains the entities and descriptions for the entities that will be extracted for the Summary Only Extract Type. The level number shown in the heading corresponds to the number of levels in the XPath. For example the XPath for the first reference to BankInfo in the table below is /Transmission/Summary/BankInfo/. Therefore BankInfo is at the 3rd level and appears under the column marked with a 3. The entities are listed in the order they will appear in the output extract file.

Table 10: Entities and Attributes for Summary Only Extract

EDA XML Schema Entity							Entity Description	Attributes/Elements
1	2	3	4	5	6	7		
Transmission							A collection of financial transactions for the purpose of creating or updating detail or summary information.	ID TransmissionTimestamp BusinessTransmissionCategory InputSystem SequenceNumber TotalAmount TotalCount
	Summary						A summary of one to many Financial Transactions to replicate an SF 215 (deposit ticket) or SF 5515 (debit voucher).	ID SummaryDate SummaryNumber SummaryType TotalAmount TotalCount DepositDate IsCredit
		AccountClassification					Contains the Treasury Account Information.	ID TaxClassCode TreasuryAccountSymbolText IsCredit

EDA XML Schema Entity							Entity Description	Attributes/Elements	
1	2	3	4	5	6	7			
			TreasuryAccountSymbol					The Treasury Account Symbol is an identification code assigned by Treasury, in collaboration with OMB and the owner agency, to an individual appropriation, receipt, or other fund account.	Sub-levelPrefixCode AllocationTransferAgencyIdentifier AgencyIdentifier BeginningPeriodOfAvailability EndingPeriodOfAvailability AvailabilityTypeCode MainAccountCode Sub-accountCode
			BusinessEventType					The container for the BusinessEventTypeCode which is used in combination with the Treasury Account Symbol to classify transactions reported to Treasury.	BusinessEventTypeCode
			Ckey					A CKey is an acronym for classification key which is a unique agency accounting code assigned to a transaction.	ClassName ClassValue
			Classification					Contains the classification transaction amount.	Amount
				TradingPartnerExtensions				Container for program and user data associated to a classification.	ID
					TradingPartnerExtension			Program and User data associated to a classification.	ID @any (contains TPA with program/user data)
						TRS_Trading_Partner_Agreement (TPA) (Note: the TPA entity name did not change when TRS was renamed to CIR)		Contains any Program Data associated to the summary provided to CIR by the collection channel.	Program Data within TPA See Section 7.5.3 List of TPA Containers
		Agency						Identifies a federal program agency and sub units within.	AgencyIdentifier BudgetBureauCode AgencyLocationCode OfficeLocationCode

EDA XML Schema Entity							Entity Description	Attributes/Elements	
1	2	3	4	5	6	7			
			OrganizationLevels					The container for an Organization Level item. This is based on the Common Governmental Account Codes (CGAC) which allows for 7 levels of codes, each 6 characters long. CGAC Organization Levels are currently not used by any of the collection systems sending data to CIR. (Future use)	TotalCount
				OrganizationLevel				Identifies the particular level within an organization. (Future use)	ID InternalOrganizationCode <i>Organization Code occurs once per level (up to 7 levels)</i>
			CashFlowReference					Contains the cashflow reference information.	CashFlowName CashFlowIdentifier
		BankInfo						Contains bank information, for example ABA routing number and account number.	BankName RoutingNumber IsNonDomestic
		FinancialReportingDetails						Contains debit voucher or deposit ticket specific details.	FinancialInstitutionText IsForeignCheck
			GovernmentDepositAccount					Information about the deposit account for the government agency, for example the CA\$HLINK Account Number (CAN).	CashlinkAccountNumber AccountKeyCode CostCenterWorkUnitCode
			OriginalSummaryReference					Contains the reference to the original summary information (for example on a voucher that was adjusting a previous voucher number, this would contain the original voucher number).	SummaryDate SummaryNumber
			FiscalDateDetail					Container for reporting the month and year for which the transaction is reported/effective.	FiscalYear FiscalMonth
			SummaryCashManagement					Container for the cash management aspect of a summary record.	Deferred1DayAmount Deferred2DayAmount IsCommercialVoucher

EDA XML Schema Entity							Entity Description	Attributes/Elements
1	2	3	4	5	6	7		
			AdjustmentDetail				The container for indicating the summary or financial transaction record is an adjustment, return or correction and providing the associated reason.	AdjustmentReasonText AdjustmentReasonCode
			TransmissionSubmitterDetail				Contains the sending trading partner submitter name.	InputSystem
			ReferenceGroups/ReferenceGroup				Reference Groups provide a generic mechanism for additional reference information about a detail or summary transaction. CIR will only send an occurrence of Reference Groups under a Summary if one or more of the reference fields have been received by CIR. The attributes shown are only populated if they contain data.	ReferenceNumber ReferenceName ReferenceCode ReferenceText IsCurrentReference
			TradingPartnerExtensions				Container for non-structured data.	
			TradingPartnerExtension				Container for program/user data and TPA associated to the Summary. Extract files will always have only one instance of Trading Partner Extension.	ID @any (contains TPA with program/user data and CIR sub-schema data)
			TRS_TradingPartner_Agreement (TPA) (Note: the TPA entity name did not change when TRS was renamed to CIR)				CIR specific addition – contains additional information related to a summary. There are two possible containers TRS_Summary and Program_Data. Within these containers the additional data includes: Foreign Currency Information Account Code Information Organizational Information Program and User Data	See Section 7.5.3 List of TPA Containers

7.7 Detail Only Specification

This section contains the specification for a Detail Only Extract Type. Figure 9: EDA Schema v4.3 - Picture for Detail Only illustrates the schema hierarchy for Detail Only. Some entities are not expanded in the diagram below. See the full EDA Schema documentation on the EDA website for more details.

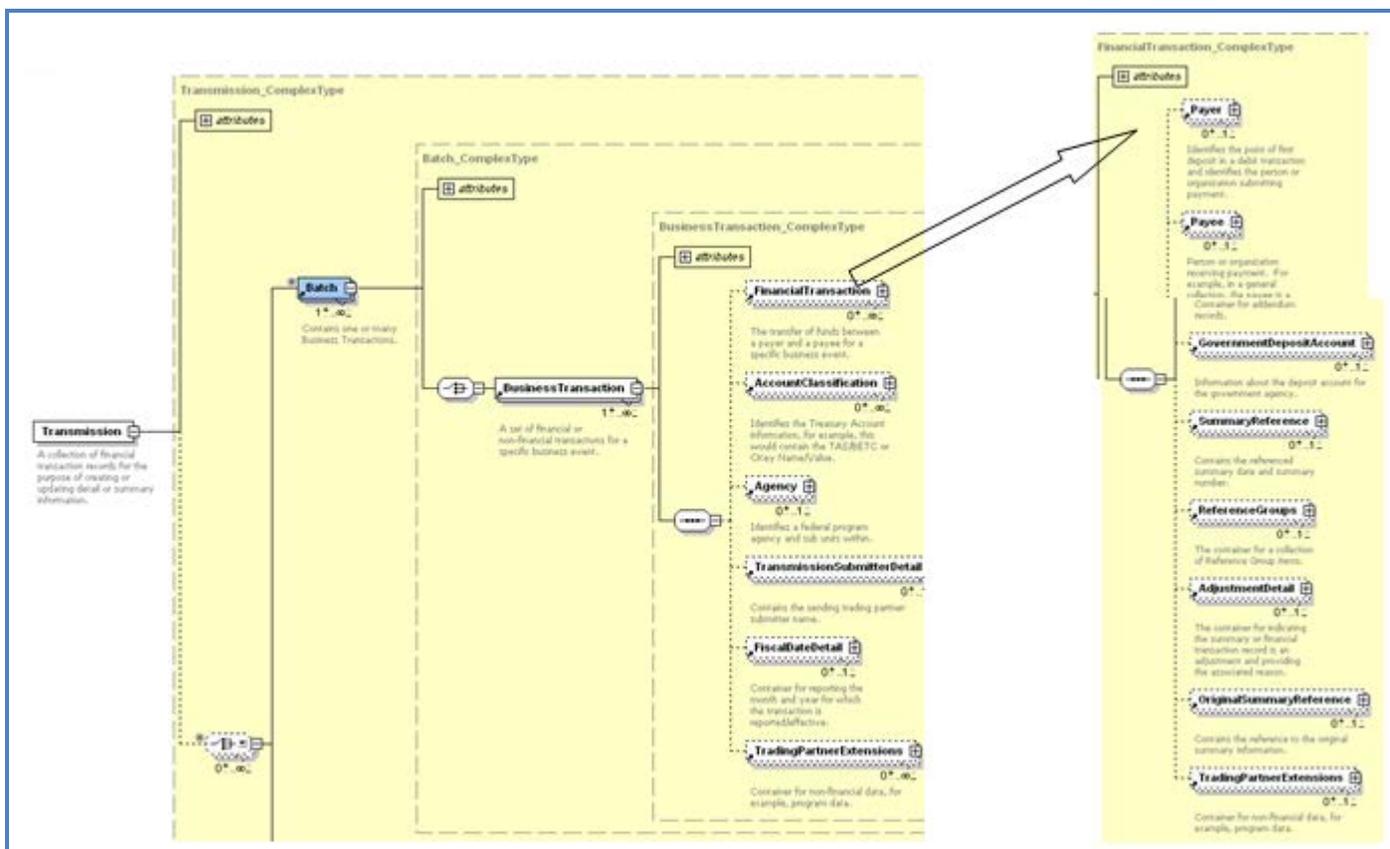


Figure 9: EDA Schema v4.3 - Picture for Detail Only

Table 11: Entities and Attributes for Detail Only Extract contains the entities and descriptions for the entities that will be extracted for the Detail Only Extract Type. The indentation in the first column corresponds to the XPath. For example the XPath for the first reference to BankInfo in the table below is /Transmission/Batch/BusinessTransaction/FinancialTransaction/Payer/BankInfo/. The entities are listed in the order they will appear in the output extract file.

Table 11: Entities and Attributes for Detail Only Extract

EDA XML Schema Entity								Entity Description	Attributes/Elements
1	2	3	4	5	6	7	8		
Transmission								A collection of financial transactions for the purpose of creating or updating detail or summary information.	ID TransmissionTimestamp BusinessTransmissionCategory InputSystem SequenceNumber TotalAmount TotalCount
	Batch							Contains one-to-many Business Transactions.	ID
		BusinessTransaction						Represents a single unit of work. May contain one or many Financial Transactions.	ID TotalAmount TotalCount AgencyAccountIdentifier IsUpdate InitiationDate InitialLocation FinancialAgentInitialIdentifier
			FinancialTransaction					Represents the transfer of funds between payer and payee in a given day.	ID Code Type SubType Status FinancialTransactionType TraceNumber ChannelType SettlementMechanism PaymentMedium

EDA XML Schema Entity								Entity Description	Attributes/Elements
1	2	3	4	5	6	7	8		
									IsCredit IsRecurring IsTax TransactionDate SettlementDate DepositDate
				Payer				Identifies the point of first deposit in a debit transaction and identifies the person or organization submitting payment.	AccountPartyType PartyIdentifier PartyName
					BankInfo			Contains bank information for the payer.	BankName RoutingNumber AccountNumber CheckSerialNumber BankAccountType CheckMediumType IsNonDomestic
						Image		If an image of the transaction was stored, contains a reference to the file name.	ID FileName
					Plastic			Contains attributes if the payment was made using a plastic card.	MonthYearExpire CardNumber CardType IsCredit
					Address			Contains the address of the payer.	IsNonDomestic AddressLine (0 to 5) City State PostalCode Country
				Payee				Person or organization receiving payment.	PartyIdentifier PartyName
					BankInfo			Contains bank information for the payee.	BankName RoutingNumber AccountNumber

EDA XML Schema Entity								Entity Description	Attributes/Elements
1	2	3	4	5	6	7	8		
					Address			Contains the address of the payee, which will always be an Agency.	IsNonDomestic AddressLine (0 to 5) City State PostalCode Country
					Payment			The financial amount of a transaction.	Amount
					GovernmentDepositAccount			Information about the deposit account for the government agency, for example the CASHLINK Account Number (CAN).	CashlinkAccountNumber
					SummaryReference			Contains the voucher number and date for the voucher that this financial transaction was included within. Transactions that are not included in any voucher will not have this information (for example: Fedwire non-value transactions).	SummaryDate SummaryNumber
					ReferenceGroups/ReferenceGroup			Reference Groups provide a generic mechanism for additional reference information about a detail or summary transaction. CIR will only send an occurrence of Reference Groups under Financial Transaction if one or more of the reference fields have been received by CIR. An example of how the reference fields can be populated are: ReferenceName = "Financial Transaction Original Reference ID" ReferenceNumber = the value of the ID	ReferenceNumber ReferenceName
					AdjustmentDetail			The container for indicating the summary or financial transaction record is an adjustment, correction or return of a previous transaction. The container provides the associated reason.	AdjustmentReasonText AdjustmentReasonCode
					OriginalSummaryReference			Contains the reference to the original summary information (for example on a	SummaryNumber

EDA XML Schema Entity								Entity Description	Attributes/Elements
1	2	3	4	5	6	7	8		
								voucher that was adjusting a previous voucher number, this would contain the original voucher number).	
				TradingPartnerExtensions				Container for non-structured data.	ID
					TradingPartnerExtension			Container for program/user data and TPA associated to the Financial Transaction.	ID @any (contains TPA with program/user data and CIR sub-schema data)
						TRS_TradingPartner_Agreement (TPA) (Note: the TPA entity name did not change when TRS was renamed to CIR)		CIR specific addition – contains additional information related to a Financial Transaction including: Foreign Currency Information Plastic Card Information Fedwire Information ACH Information	See Section 7.5.3 List of TPA Containers
			AccountClassification					Contains the Treasury Account information.	ID TaxClassCode TreasuryAccountSymbolText IsCredit
				TreasuryAccountSymbol				The Treasury Account Symbol is an identification code assigned by Treasury, in collaboration with OMB and the owner agency, to an individual appropriation, receipt, or other fund account.	Sub-levelPrefixCode AllocationTransferAgencyIdentifier AgencyIdentifier BeginningPeriodOfAvailability EndingPeriodOfAvailability AvailabilityTypeCode MainAccountCode Sub-accountCode
				BusinessEventType				The container for the BusinessEventTypeCode which is used in combination with the Treasury Account Symbol to classify transactions reported to Treasury.	BusinessEventTypeCode

EDA XML Schema Entity								Entity Description	Attributes/Elements
1	2	3	4	5	6	7	8		
				Ckey				A CKey is an acronym for classification key which is a unique agency accounting code assigned to a transaction.	ClassName ClassValue
				Classification				Contains the classification transaction amount.	Amount
					TradingPartnerExtensions			Container for program and user data associated to a classification.	ID
						TradingPartnerExtension		Program and User data associated to a classification.	ID @any (contains TPA with program/user data)
							TRS_TradingPartner_Agreement (TPA) (Note: the TPA entity name did not change when TRS was renamed to CIR)	Program and User data associated to a classification.	See Section 7.5.3 List of TPA Containers
				Agency				Identifies a federal program agency and sub units within.	AgencyIdentifier BudgetBureauCode AgencyLocationCode OfficeLocationCode
				OrganizationLevels				The container for an Organization Level item. This is based on the Common Governmental Account Codes (CGAC) which allows for 7 levels of codes, each 6 characters long. CGAC Organization Levels are currently not used by any of the collection systems sending data to CIR. (Future use)	TotalCount
					OrganizationLevel			Identifies the particular level within an organization. (Future use)	ID InternalOrganizationCode <i>Organization Code occurs once per level (up to 7 levels)</i>
				CashFlowReference				Contains the cashflow reference information.	CashFlowName CashFlowIdentifier

EDA XML Schema Entity								Entity Description	Attributes/Elements	
1	2	3	4	5	6	7	8			
			TransmissionSubmitterDetail						Contains the sending trading partner submitter name.	InputSystem
			FiscalDateDetail						Container for reporting the month and year for which the transaction is reported/effective.	FiscalYear FiscalMonth
			TradingPartnerExtensions						Container for non-financial or non-structured data, for example, program data. Supports 1 to many Trading Partner Extension entities below.	ID
				TradingPartnerExtension					Container for program/user data and TPA associated to the Summary.	ID @any (contains TPA with program/user data and CIR sub-schema data)
				TRS_TradingPartner_Agreement (TPA) (Note: the TPA entity name did not change when TRS was renamed to CIR)					CIR specific addition – contains additional information related to a Business Transaction including Account Code Information.	See Section 7.5.3 List of TPA Containers

7.8 Summary and Detail Specification

This section contains the specification for a Summary and Detail Extract Type. For this Extract Type the information for Business and Financial Transactions is embedded within each Summary. The details of each of the rows in the following tables therefore are identical to the entries for summary only and detail only except for the hierarchy. Therefore they are represented below by inserting the detail only entries in the correct place within the table previously defined for summary only.

Table 12: Entities and Attributes for Summary and Detail Extract

EDA XML Schema Entity							Entity Description	Attributes/Elements
1	2	3	4	5	6	7		
Transmission							A collection of financial transactions for the purpose of creating or updating detail or summary information.	ID TransmissionTimestamp BusinessTransmissionCategory InputSystem SequenceNumber TotalAmount TotalCount
	Summary						A summary of one or many Business Transactions to replicate an SF 215 (deposit ticket) or SF 5515 (debit voucher).	ID SummaryDate SummaryNumber SummaryType TotalAmount TotalCount DepositDate IsCredit

Insertion of the Detail Only Path within the Summary and Detail Hierarchy

EDA XML Schema Entity								Entity Description	Attributes/Elements
1	2	3	4	5	6	7	8		
	Batch							Contains one to many Business Transactions.	ID
		BusinessTransaction						Represents a single unit of work. May contain one or many Financial Transactions.	ID TotalAmount

EDA XML Schema Entity								Entity Description	Attributes/Elements	
1	2	3	4	5	6	7	8			
									TotalCount AgencyAccountIdentifier IsUpdate InitiationDate InitialLocation FinancialAgentInitialIdentifier	
			FinancialTransaction						Represents the transfer of funds between payer and payee in a given day.	ID Code Type SubType Status FinancialTransactionType TraceNumber ChannelType SettlementMechanism PaymentMedium IsCredit IsRecurring IsTax TransactionDate SettlementDate DepositDate
				Payer					Identifies the point of first deposit in a debit transaction and identifies the person or organization submitting payment.	AccountPartyType PartyIdentifier PartyName
					BankInfo				Contains bank information for the payer.	BankName RoutingNumber AccountNumber CheckSerialNumber BankAccountType CheckMediumType IsNonDomestic

EDA XML Schema Entity								Entity Description	Attributes/Elements
1	2	3	4	5	6	7	8		
							Image	If an image of the transaction was stored, contains a reference to the file name.	ID FileName
							Plastic	Contains attributes if the payment was made using a plastic card.	MonthYearExpire CardNumber CardType IsCredit
							Address	Contains the address of the payer.	IsNonDomestic AddressLine (0 to 5) City State PostalCode Country
							Payee	Person or organization receiving payment.	PartyIdentifier PartyName
							BankInfo	Contains bank information for the payee.	BankName RoutingNumber AccountNumber
							Address	Contains the address of the payee.	IsNonDomestic AddressLine (0 to 5) City State PostalCode Country
							Payment	The financial amount of a transaction.	Amount
							GovernmentDepositAccount	Information about the deposit account for the government agency, for example the CASHLINK Account Number (CAN).	CashlinkAccountNumber
							SummaryReference	Contains the voucher number and date for the voucher that this financial transaction was included within. Transactions with a status of "Non-accountable" will not have this information because they are not included in	SummaryDate SummaryNumber

EDA XML Schema Entity								Entity Description	Attributes/Elements
1	2	3	4	5	6	7	8		
								any voucher.	
							ReferenceGroups/ReferenceGroup	Reference Groups is a container for one or more Reference Group. CIR will only send an occurrence of Reference Group under Financial Transaction if one or more of the reference fields have been received by CIR. An example of how the reference fields can be populated are: ReferenceName = "Financial Transaction Original Reference ID" ReferenceNumber = the value of the ID	ReferenceNumber ReferenceName
							AdjustmentDetail	The container for indicating the summary or financial transaction record is an adjustment, correction or return of a previous transaction. The container provides the associated reason.	AdjustmentReasonText AdjustmentReasonCode
							OriginalSummaryReference	Contains the reference to the original summary information (for example on a voucher that was adjusting a previous voucher number, this would contain the original voucher number).	SummaryNumber
							TradingPartnerExtensions	Container for non-structured data.	ID
							TradingPartnerExtension	Container for program/user data and TPA associated to the Financial Transaction.	ID @any (contains TPA with program/user data and CIR sub-schema data)
							TRS_TradingPartner_Agreement (TPA) (Note: the TPA entity name did not change when TRS was renamed to CIR)	CIR specific addition – contains additional information related to a Financial Transaction including: Foreign Currency Information Plastic Card Information Fedwire Information ACH Information	See Section 7.5.3 List of TPA Containers

EDA XML Schema Entity								Entity Description	Attributes/Elements	
1	2	3	4	5	6	7	8			
			AccountClassification						Contains the Treasury Account information.	ID TaxClassCode TreasuryAccountSymbolText IsCredit
				TreasuryAccountSymbol					The Treasury Account Symbol is an identification code assigned by Treasury, in collaboration with OMB and the owner agency, to an individual appropriation, receipt, or other fund account.	Sub-levelPrefixCode AllocationTransferAgencyIdentifier AgencyIdentifier BeginningPeriodOfAvailability EndingPeriodOfAvailability AvailabilityTypeCode MainAccountCode Sub-accountCode
				BusinessEventType					The container for the BusinessEventTypeCode which is used in combination with the Treasury Account Symbol to classify transactions reported to Treasury.	BusinessEventTypeCode
				Ckey					A CKey is an acronym for classification key which is a unique agency accounting code assigned to a transaction.	ClassName ClassValue
				Classification					Contains the classification transaction amount.	Amount
					TradingPartnerExtensions				Container for program and user data associated to a classification.	ID
						TradingPartnerExtension			Program and User data associated to a classification.	ID @any (contains TPA with program/user data)
							TRS_TradingPartner_Agreement (TPA) (Note: the TPA entity name did not change when TRS was renamed to CIR)		Program and User data associated to a classification.	See Section 7.5.3 List of TPA Containers

EDA XML Schema Entity								Entity Description	Attributes/Elements	
1	2	3	4	5	6	7	8			
			Agency						Identifies a federal program agency and sub units within.	AgencyIdentifier BudgetBureauCode AgencyLocationCode OfficeLocationCode
				OrganizationLevels					The container for an Organization Level item. This is based on the Common Governmental Account Codes (CGAC) which allows for 7 levels of codes, each 6 characters long. CGAC Organization Levels are currently not used by any of the collection systems sending data to CIR. (Future use)	TotalCount
					OrganizationLevel				Identifies the particular level within an organization. (Future use)	ID InternalOrganizationCode <i>Organization Code occurs once per level (up to 7 levels)</i>
				CashFlowReference					Contains the cashflow reference information.	CashFlowName CashFlowIdentifier
			TransmissionSubmitterDetail						Contains the sending trading partner submitter name.	InputSystem
			FiscalDateDetail						Container for reporting the month and year for which the transaction is reported/effective.	FiscalYear FiscalMonth
			TradingPartnerExtensions						Container for non-financial or non-structured data, for example, program data. Supports 1 to many Trading Partner Extension entities below.	ID
				TradingPartnerExtension					Container for program/user data and TPA associated to the Summary.	ID @any (contains TPA with program/user data and CIR sub-schema data)
				TRS_TradingPartner_Agreement (TPA) (Note: the TPA entity name did not change when TRS was renamed to CIR)					CIR specific addition – contains additional information related to a Business Transaction including Account Code Information.	See Section 7.5.3 List of TPA Containers

Continuation of the containers and attributes related to the Summary level.

EDA XML Schema Entity							Entity Description	Attributes/Elements	
1	2	3	4	5	6	7			
		AccountClassification						Contains the Treasury Account information.	ID TaxClassCode TreasuryAccountSymbolText IsCredit
			TreasuryAccountSymbol					The Treasury Account Symbol is an identification code assigned by Treasury, in collaboration with OMB and the owner agency, to an individual appropriation, receipt, or other fund account.	Sub-levelPrefixCode AllocationTransferAgencyIdentifier AgencyIdentifier BeginningPeriodOfAvailability EndingPeriodOfAvailability AvailabilityTypeCode MainAccountCode Sub-accountCode
			BusinessEventType					The container for the BusinessEventTypeCode which is used in combination with the Treasury Account Symbol to classify transactions reported to Treasury.	BusinessEventTypeCode
			Ckey					A CKey is an acronym for classification key which is a unique agency accounting code assigned to a transaction.	ClassName ClassValue
			Classification					Contains the classification transaction amount.	Amount
				TradingPartnerExtensions				Container for program and user data associated to a classification.	ID
					TradingPartnerExtension			Program and User data associated to a classification.	ID @any (contains TPA with program/user data)
						TRS_TradingPartner_Agreement (TPA) (Note: the TPA entity name did not change when TRS was renamed to CIR)	Contains any Program Data associated to the summary provided to CIR by the collection channel.	Program Data within TPA See Section 7.5.3 List of TPA Containers	

EDA XML Schema Entity							Entity Description	Attributes/Elements	
1	2	3	4	5	6	7			
		Agency						Identifies a federal program agency and sub units within.	AgencyIdentifier BudgetBureauCode AgencyLocationCode OfficeLocationCode
			OrganizationLevels					The container for an Organization Level item. This is based on the Common Governmental Account Codes (CGAC) which allows for 7 levels of codes, each 6 characters long. CGAC Organization Levels are currently not used by any of the collection systems sending data to CIR. (Future use)	TotalCount
				OrganizationLevel				Identifies the particular level within an organization. (Future use)	ID InternalOrganizationCode <i>Organization Code occurs once per level (up to 7 levels)</i>
			CashFlowReference					Contains the cashflow reference information.	CashFlowName CashFlowIdentifier
		BankInfo						Contains bank information, for example ABA routing number and account number.	BankName RoutingNumber IsNonDomestic
		FinancialReportingDetails						Contains debit voucher or deposit ticket specific details.	FinancialInstitutionText IsForeignCheck
			GovernmentDepositAccount					Information about the deposit account for the government agency, for example the CA\$HLINK Account Number (CAN).	CashlinkAccountNumber AccountKeyCode CostCenterWorkUnitCode
			OriginalSummaryReference					Contains the reference to the original summary information (for example on a voucher that was adjusting a previous voucher number, this would contain the original voucher number).	SummaryDate SummaryNumber
			FiscalDateDetail					Container for reporting the month and year for which the transaction is reported/effective.	FiscalYear FiscalMonth
			SummaryCashManagement					Container for the cash management aspect of a summary record.	Deferred1DayAmount Deferred2DayAmount IsCommercialVoucher

EDA XML Schema Entity							Entity Description	Attributes/Elements
1	2	3	4	5	6	7		
			AdjustmentDetail				The container for indicating the summary or financial transaction record is an adjustment, return or correction and providing the associated reason.	AdjustmentReasonText AdjustmentReasonCode
			TransmissionSubmitterDetail				Contains the sending trading partner submitter name.	InputSystem
			ReferenceGroups/ReferenceGroup				Reference Groups is a container for one or more Reference Group. CIR will only send an occurrence of Reference Groups if one or more of the reference fields have been received by CIR. Contains reference information (for example prior IMAD on an adjustment or return). All the attributes shown are not always populated.	ReferenceNumber ReferenceName ReferenceCode ReferenceText IsCurrentReference
			TradingPartnerExtensions				Container for non-structured data.	ID
			TradingPartnerExtension				Container for program/user data and TPA associated to the Summary. Extract files will always have only one instance of Trading Partner Extension.	ID @any (contains TPA with program/user data and CIR sub-schema data)
			TRS_TradingPartner_Agreement (TPA) (Note: the TPA entity name did not change when TRS was renamed to CIR)				CIR specific addition – contains additional information related to a summary. There are two possible containers TRS_Summary and Program_Data. Within these containers the additional data includes: Foreign Currency Information Account Code Information Organizational Information Program and User Data	See Section 7.5.3 List of TPA Containers

7.9 Attribute Definition

Table 13: Dictionary of Attributes provides a data dictionary for all the attributes that can appear in the XML extract file. Because an attribute may have a slightly different meaning when used in a different container (entity), the table provides one definition for each combination of Entity and Attribute. For example, The SummaryNumber within a Summary entity represents the current transaction's voucher number while SummaryNumber in OriginalSummaryReference entity represents the voucher that is being adjusted or corrected by the current transaction.

The column "Additional Collection System Information" provides supplemental information when an attribute is used in different ways by different collection systems, or is only used by a specific collection system.

- ❖ If there is no entry in this column, the standard definition supplies all the information needed to understand the attribute.
- ❖ If there is a value in quotes within the column that is the actual value that the particular collection system is providing.
- ❖ If there are no quotes, this is the attribute name in the collection system. For example, the additional collection system information for AccountClassification/Ckey for ClassName shows CAS containing "Merchant ID". This indicates that the literal "Merchant ID" will be in the ClassName. The additional collection system information for Business Transaction for AgencyAccountIdentifier shows Pay.gov ACH containing the Pay.gov Agency ID. This indicates that Pay.gov will populate the AgencyAccountIdentifier with the value of the Pay.gov Agency ID.

The additional abbreviations used in this table (and not defined in the glossary) are:

- ❖ CAS: Card Acquiring Service
- ❖ CG ACH: Credit Gateway ACH
- ❖ CG Fed: Credit Gateway Fedwire

Table 13: Dictionary of Attributes

Entity	Attribute	Standard definition	Additional Collection System Information
AccountClassification/BusinessEventType	BusinessEventTypeCode	The type of activity (gross disbursement, offsetting collection, investment in Treasury securities, etc.) and the effect of a transaction on the Fund Balance With Treasury (FBWT). Is used in combination with the Treasury Account Symbol to classify transactions reported to Treasury through all Governmentwide Accounting (GWA-compliant) Financial Management Systems.	

Entity	Attribute	Standard definition	Additional Collection System Information
AccountClassification	ID	The identifier for an account classification record provided to CIR by the sending channel application.	
AccountClassification	IsCredit	The sign of the Classification Amount. If the Classification Amount is greater than zero a value of '1' would be assigned and would be considered a 'credit'. If the AccountClassification Amount is less than zero a value of '0' would be assigned and would be considered a 'debit'.	
AccountClassification	TaxClassCode	The specific tax class from a specific set of values, as determined by FMS. List of possible values is identified in the EDA schema.	
AccountClassification	TreasuryAccountSymbolText	A single text describing the Treasury account information by concatenating the values on the following attributes: Sub-levelPrefixCode, AllocationTransferAgencyIdentifier, AgencyIdentifier, BeginningPeriodOfAvailability, EndingPeriodOfAvailability, AvailabilityTypeCode, MainAccountCode, and Sub-accountCode.	Currently not used
AccountClassification/Ckey	ClassName	The string that contains the actual CKey Name. For example, the CKey Name could be 'Tax Class', and the CKey Values could be '01', '02', etc.	OTCnet: "Agency Accounting Code" CAS: "Merchant ID" ECP: "ECP ALC+2" or "Tax Class" Pay.gov: "Pay.gov ALC+2" for most transactions, "Merchant ID" for some credit card transactions CG ACH: "CG ACH" CG Fed: "CG Fedwire" EFTPS: "IRS TAX CLASS" FRBCL MISC: Populated with a literal value that pertains to the reporting program and subprogram, separated by a "pipe" character. The data that is sent is restricted to a length of 25 characters. Some examples include: "BPD SCHED OF FED DEBT ALC", "DEBIT GATEWAY-AGENCY DIRE", "PCC OTC ALC", "SVC EAGLE CASH ALC", "BPD ADMIN ALC", "OTCNET E-CHECK DEPOSIT AL", "CURRENCY BUREAUS ALC"

Entity	Attribute	Standard definition	Additional Collection System Information
AccountClassification/CKey	ClassValue	The string that contains the actual CKey Value.	OTCnet: Agency Accounting Code CAS: Merchant ID ECP: ALC+2 Pay.gov: ALC+2 (for most transactions), Merchant ID for some credit card transactions CG ACH: Credit Gateway sub-account CG Fed: Credit Gateway sub-account EFTPS: "TAX-CLASS-(n)-AMT" where n is the Tax Class Code (1, 2, 3, 4, 5, 7, 8, 9) FRBCL MISC: ALC
AccountClassification/Classification	Amount	The transaction amount associated to the accounting classification assigned by the input system.	
AccountClassification/TreasuryAccountSymbol	AgencyIdentifier	Used in conjunction with the main account code, the department, agency, or establishment of the US government that is responsible for the TAS.	
AccountClassification/TreasuryAccountSymbol	AllocationTransferAgencyIdentifier	The agency receiving funds through an allocation transfer.	
AccountClassification/TreasuryAccountSymbol	AvailabilityTypeCode	Identifies no-year accounts (X), clearing/suspense accounts (F), Treasury central summary general ledger accounts (A), and merged-surplus accounts (M).	
AccountClassification/TreasuryAccountSymbol	BeginningPeriodOfAvailability	In annual and multiyear accounts, identifies the first year of availability under law that an account may incur new obligations.	
AccountClassification/TreasuryAccountSymbol	EndingPeriodOfAvailability	In annual and multiyear accounts, identifies the last year of availability under law that an account may incur new obligations.	
AccountClassification/TreasuryAccountSymbol	MainAccountCode	Identifies the type and purpose of the fund.	
AccountClassification/TreasuryAccountSymbol	Sub-accountCode	Identifies an available receipt or other Treasury-defined subdivision of the main account.	
AccountClassification/TreasuryAccountSymbol	Sub-levelPrefixCode	When populated, represents a programmatic breakdown of the account for Treasury publication purposes.	

Entity	Attribute	Standard definition	Additional Collection System Information
AccountCode	BusinessLineSubFunction	Identifies the mechanisms the government uses to achieve its purpose, the support functions necessary to conduct government operations, and the resource management functions that support all areas of the government's business. This is defined in the CGAC Structure.	Currently not used
AccountCode	CategoryCode	A value used to further classify the accounting for a collection that is defined in the CGAC Structure. Only associated to detail transactions.	
AccountCode	RevenueSourceCode	A value that classifies revenue and receipt transactions by the type or source of revenue. This is defined in the CGAC Structure.	Currently not used
ACHBatch	ACHTraceNumber	The ACH Batch Number assigned by the originating depository financial institution (ODFI).	Only provided for CG ACH: ACH Batch Number
ACHBatch	ContentElementCount	The count of items in the ACH Batch Content Elements container.	Only provided for CG ACH
ACHBatch	ID	A unique identifier used for the ACH Batch to satisfy the XML hierarchy.	Only provided for CG ACH: Batch unique id
ACHBatch	ServiceClassCode	A general classification of dollar entries to be exchanged.	Only provided for CG ACH
ACHContentElement	ACHContentElementName	The NACHA defined data element name that describes the contents which will be populated in the ACHContentElementValue. See Appendix B for a list of possible values.	Only provided for CG ACH
ACHContentElement	ACHContentElementPadCharacter	The padding character used when formatting the data element within the NACHA format.	Only provided for CG ACH
ACHContentElement	ACHContentElementSize	The length of the element as defined by NACHA.	Only provided for CG ACH
ACHContentElement	ACHContentElementValue	The raw contents of the element as identified by the ACHContentElementName value.	Only provided for CG ACH
ACHContentElement	HasPrivacyData	Indicator that the ACH Content Element contains privacy data.	Only provided for CG ACH
ACHContentElement	ID	An identifier used to provide the placement of the element in the rebuilt content string to satisfy the XML hierarchy.	Only Provided for CG ACH
ACHContentString	ContentString	The 94-character NACHA formatted record value.	Only provided for CG ACH: Entry Detail, Batch Header, Addenda(s)

Entity	Attribute	Standard definition	Additional Collection System Information
ACHContentString	HasPrivacyData	Indicator that the ACH Content String contains privacy data.	Only provided for CG ACH
ACHEntry	ACHTraceNumber	A number assigned by the ODFI that uniquely identifies each entry within a batch in an ACH input file. First eight positions are the Routing Number of ODFI and the last seven positions is an item number assigned in ascending order to the entries within each batch.	Only provided for CG ACH: ACH Entry Detail Trace Number
ACHEntry	AddendumCount	The count of the records in the Addendum node.	Only provided for CG ACH
ACHEntry	ContentElementCount	The count of items in the ACH Entry Content Elements container.	Only provided for CG ACH
ACHEntry	EntryDate	The intended settlement date, as provided by the Originator.	Only provided for CG ACH: ACH Batch Effective Entry Date
ACHEntry	EntryDescription	A description of the purpose of the entry or transaction. Reversal transactions will be identified with a value of "REVERSAL".	Only provided for CG ACH: ACH Batch Entry Description
ACHEntry	ID	A unique identifier used for the ACH Entry to satisfy the XML hierarchy.	Only provided for CG ACH: ACH Entry unique id
ACHEntry	StandardEntryClassCode	An acronym to specifically identify the type of entry or transaction. List of ACH values is identified in Section 11.1 in Appendix A.	Only provided for CG ACH: ACH Batch Standard Entry Class Code (SEC)
ACHEntry	TransactionCode	A code that identifies various types of debit and credit transactions. Portions of the code value can also be used to identify the account type associated with the transaction.	Only provided for CG ACH: ACH Entry Detail Transaction Code
Addendum	ACHTraceNumber	A number assigned by the ODFI that uniquely identifies each entry within a batch in an ACH input file. First eight positions are the Routing Number of ODFI and the last seven positions is an item number assigned in ascending order to the entries within each batch. For Addenda Records, the Trace Number will be identical to the Trace Number in the associated Entry Detail Record	Only provided for CG ACH: ACH Addenda Trace Number
Addendum	ContentElementCount	The count of items in the ACH Addendum Content Elements container.	Only Provided for CG ACH
Addendum	ID	A unique identifier used for the addendum record within the ACH Entry to satisfy the XML hierarchy.	Only provided for CG ACH: ACH Addenda unique id

Entity	Attribute	Standard definition	Additional Collection System Information
Addendum	Sequence	A sequence number used to order the addendum records in the ACH Entry.	Only provided for CG ACH: ACH Addenda sequence number
Addendum	TypeCode	A code that specifically identifies the type, format and contents of the Addendum record.	Only provided for CG ACH: ACH Addenda Type Code
AdditionalPlasticCardInformation	CardNetworkType	The type of network the plastic card used for a payment. Valid Values: VISA, MCRD, AMEX, DISC	Only provided for CAS and Pay.gov (credit card transactions only)
AdditionalPlasticCardInformation	CardProductCode	The type of card used for the transaction. For example, AX (American Express)	Only provided for CAS and Pay.gov (credit card transactions only)
AdditionalPlasticCardInformation	CardProductType	A code valid only for Visa, Discover and MasterCard that provides information on the type of card.	Only provided for CAS and Pay.gov (credit card transactions only). An example of the code is "CC" for Visa Classic Credit
AdditionalPlasticCardInformation	CardResponseCode	A value that corresponds with the results of the transaction. This value represents whether the CVV2 matches or has been processed.	Only provided for CAS and Pay.gov (credit card transactions only)
AdditionalPlasticCardInformation	CashBackAmount	Amount of money that is added to the total purchase price of a transaction (paid by debit card). The customer receives the extra amount in cash along with their goods.	Only provided for CAS and Pay.gov (credit card transactions only)
AdditionalPlasticCardInformation	ChargebackRecordNumber	Record number for any single customer transaction that is questioned, used to relate all disputes and subsequent records.	Only provided for CAS and Pay.gov (credit card transactions only)
AdditionalPlasticCardInformation	ChargebackReferenceNumber	The network reference number related to the chargeback.	Only provided for CAS and Pay.gov (credit card transactions only)
AdditionalPlasticCardInformation	ClientBatchNumber	A six character client Batch Number if supplied.	Only provided for CAS and Pay.gov (credit card transactions only)
AdditionalPlasticCardInformation	DraftLocatorNumber	Customer supplied reference data used for matching and/or tracking transactions.	Only provided for CAS and Pay.gov (credit card transactions only)

Entity	Attribute	Standard definition	Additional Collection System Information
AdditionalPlasticCardInformation	NetworkResponseField	<p>A string of fields used to define the card provider's response. Different strings are used for Visa, for MasterCard, and for all other provider response codes.</p> <p>For Visa: 15 character Transaction ID + 4 character Validation Code and a 2 character Authorization Response Code</p> <p>For MasterCard: 9 Character Banknet Reference Number + 4 character Banknet Settlement Date + 8 characters that are reserved for future use.</p> <p>For all other providers: Business Date -MMDDCCYY format + 12 character Retrieval Reference Number + 1 character CAVV Response + 1 character Void Indicator + 3 character Origin Type + 2 character Visa Card Level Results/Visa Product Code.</p>	Only provided for CAS and Pay.gov (credit card transactions only)
Address	AddressLine	Address line for the payer or payee giving or receiving the payment. There are 0 to 5 address lines.	
Address	City	City name for the payer or payee giving or receiving the payment.	
Address	Country	Country for the payer or payee giving or receiving the payment. Standard ISO 2-letter country code.	
Address	IsNonDomestic	Indicates whether the address for the payer or payee is within the US.	
Address	PostalCode	A code of letters and/or digits added to an address line of the financial institution giving or receiving the payment.	
Address	State	The US state code or Canadian province for the payer or payee giving or receiving the payment.	
AdjustmentDetail	AdjustmentReasonCode	Code to identify the reason for an adjustment and could be populated for adjustments, returns and corrections.	
AdjustmentDetail	AdjustmentReasonText	The descriptive reason for an adjustment, return or correction.	

Entity	Attribute	Standard definition	Additional Collection System Information
Agency	AgencyIdentifier	A three-character code that identifies the major departments and independent agencies of the Federal government	Currently not used
Agency	AgencyLocationCode	Identifies the accounting office within an agency that reports disbursements and collections to Treasury.	
Agency	BudgetBureauCode	Identifies the bureau associated to the agency.	Currently not used
Agency	OfficeLocationCode	A code assigned by the agency that provides a lower level of classification within ALC.	ECP: ALC + 2 Pay.gov: ALC + 2 OTCnet Bank Deposit: OTC Endpoint (Short Name) OTCnet E-Check Deposits: ALC + 2.
AuthorizationResponseInformation	AuthorizationCharacteristicsIndicator	A one-character code that defines if the card was presented for authorization, whether the merchant name and location were provided, if the card was not provided what authorization was used.	Only provided for CAS and Pay.gov (credit card transactions only). An example of the code is 'A' means Card present
AuthorizationResponseInformation	AuthorizationCode	A three-character code that defines how the authorization for the card was read. The first two positions refer to how the card was read and the third position refers to the capture of the PIN.	Only provided for CAS and Pay.gov (credit card transactions only). An example of the code and the meaning for the first 2 positions is "02" means Magnetic Stripe Read. An example of the code for the third position is "1" means Terminal Can Accept and Capture PINS
AuthorizationResponseInformation	AuthorizationSource	A one-character code that identifies the authorization source for the card transaction.	Only provided for CAS and Pay.gov (credit card transactions only). An example of the code is "9" means Automated Referral Service Response
AuthorizationResponseInformation	AVSResponseCode	A one-character code that the merchant received when processing the transaction related to the processing of the address information.	Only provided for CAS and Pay.gov (credit card transactions only). An example of the code is "Y" means Address and 5-digit ZIP code match
BankInfo	AccountNumber	The bank account number of financial institution giving or receiving the payment. When BankInfo appears in the XML hierarchy under Payer or under Summary it represents the institution giving the money. When BankInfo appears in the XML hierarchy under Payee it represents the institution receiving the money.	

Entity	Attribute	Standard definition	Additional Collection System Information
BankInfo	BankAccountType	Indicates whether the bank account is a checking account (C), savings account (S), or general ledger account (G). The EDA schema includes a value for loan account (L) which is not used within CIR.	
BankInfo	BankName	The name of the financial institution giving or receiving the payment. When BankInfo appears in the XML hierarchy under Payer or under Summary it represents the institution giving the money. When BankInfo appears in the XML hierarchy under Payee it represents the institution receiving the money.	
BankInfo	CheckMediumType	Identifies the type of check and so only applies if the payment medium is Check. List of possible values is identified in the EDA schema.	
BankInfo	CheckSerialNumber	Contains the serial number of a check and so only applies if the payment medium is Check.	
BankInfo	IsNonDomestic	Indicates whether the bank is a US domestic bank based on the bank's address.	
BankInfo	RoutingNumber	Used synonymously as ABA routing number and routing transit number. The routing number consists of 9 digits, for example XXXXYYYYC where XXXX is Federal Reserve Routing Symbol, YYYY is ABA Institution Identifier, and C is the Check Digit. When BankInfo appears in the XML hierarchy under Payer or under Summary it represents the institution giving the money. When BankInfo appears in the XML hierarchy under Payee it represents the institution receiving the money.	
BankInfo\Image	FileName	The file name reference for the image.	ECP: PIRN OTCnet E-Check Deposit: IRN
BankInfo\Image	ID	An identifier for the image record provided to CIR by the sending trading partner.	ECP: PIRN OTCnet E-Check Deposit: IRN
Batch	ID	A CIR generated identifier for the batch that is required by the schema hierarchy.	

Entity	Attribute	Standard definition	Additional Collection System Information
BusinessTransaction	AgencyAccountIdentifier	An identifier used by the agency for an account, for example, a Lockbox Number.	CG Fed: Credit Gateway sub-account CG ACH: Credit Gateway sub-account Pay.gov ACH: Pay.gov Agency ID CAS and Pay.gov plastic card: Chain/Division Code ECP: Lockbox ID OTCnet E-Check Deposit: ALC+2 (OTC Endpoint)
BusinessTransaction	FinancialAgentInitialIdentifier	An identifier for the Financial Agent that initially received the transaction.	ECP: Financial Agent ID (FAID)
BusinessTransaction	ID	The identifier for a business transaction record provided to CIR by the sending channel application.	CAS: Network Reference Number/Acquirer Reference Number CG Fed: PAR Sequence(12 (YYMMDD + 6-digit sequence) + 0/1 (credit/debit) CG ACH: Reference ID (ACH Entry Detail Trace Number + Amount + Effective Entry Date) + 0/1 (credit/debit if Correction) Pay.gov: Pay.gov Tracking ID ECP: Sequence Generated Number (PIRN) OTCnet E-Check Deposit: IRN prefixed with a sequence number and a colon delimiter
BusinessTransaction	InitialLocation	The physical location where the transaction occurred.	CAS and Pay.gov plastic card: Merchant ID Pay.gov ACH: "Pay.gov" OTCnet E-Check Deposit: OTC Endpoint Short Name
BusinessTransaction	InitiationDate	The date that the transaction was initiated, for example, the date that the lockbox opened up the payment or the date the payment was mailed.	CG Fed: IMAD Input Cycle Date Pay.gov: Transaction Date CAS: Transaction Date OTCnet E-Check Deposit: Capture date, or the date the check was scanned.
BusinessTransaction	IsUpdate	Indicates if the item is an origination transaction or an update. A value of "1" would mean that this is an update.	OTCnet E-Check Deposit for Represented transactions ECP for changes to the original transaction and Program Data Updates

Entity	Attribute	Standard definition	Additional Collection System Information
BusinessTransaction	TotalAmount	Total of the accountable Financial Transactions associated to the Business Transaction (e.g. Financial Transaction Type is not equal to "Non-Accountable").	
BusinessTransaction	TotalCount	Total count of Financial Transactions associated to the Business Transaction.	
CashFlowReference	CashFlowIdentifier	Identifies the cash flow channel and type of income.	Pay.gov: ALC +2 ECP: ALC +2 CG Fed: Credit Gateway sub-account CG ACH: Credit Gateway sub-account
CashFlowReference	CashFlowName	The CashFlow name assigned to the CashFlowID.	Pay.gov: Application Name ECP: Cashflow Name CG Fed: Sub-account Name CG ACH: Sub-account Name
Contact	Comment	Any information provided by the contact for the associated manual transaction.	Currently not used
Contact	ContactType	Indicates the individual's involvement within the manual process of the associated transaction. Values include Initiator, Authorizer, Other.	
Contact	GroupName	The organization or group that the individual is associated to within the source system.	
Contact	ID	A unique identifier generated by CIR used for the Contact container to satisfy the XML hierarchy.	
Contact	Name	An unformatted name of the individual who performed or was involved in the manual entry of the associated transaction in the source system.	CG Fed: Individual name involved in reversal or correction
Contact	PhoneNumber	An unformatted phone number provided by the source system that is associated to the contact.	
FedwireDataElement	FedwireDataElementName	Name of element within the tag (e.g. Output Cycle Date). See Appendix A for the list of possible values.	Only provided for CG Fed
FedwireDataElement	FedwireDataElementValue	Value of element within the tag (e.g. value of the Output Cycle Date).	Only provided for CG Fed
FedwireDataElement	HasPrivacyData	Indicator that the Fedwire Data Element contains privacy data.	Only provided for CG Fed

Entity	Attribute	Standard definition	Additional Collection System Information
FedwireDataElement	ProcessingID	An identifier that uniquely identifies each instance of the FedwireDataElement element within the context of the FedwireMessageSection element.	Only provided for CG Fed: PAR Sequence(12) + 0/1 (credit/debit)
FedwireMessageGroup	FedwireMessageSectionCount	Count of the sections in the Fedwire Message Group. Each section represents a tag within a Fedwire Message.	Only provided for CG Fed
FedwireMessageGroup	ProcessingID	An identifier that uniquely identifies an instance of the FedwireMessageGroup element within the context of the TPA element.	Only provided for CG Fed: PAR Sequence(12 (YYMMDD + 6-digit sequence) + 0/1 (credit/debit)
FedwireMessageSection	DataElementCount	Number of Fedwire Elements in the Fedwire section.	Only provided for CG Fed
FedwireMessageSection	FedwireMessageSectionValue	The actual raw string representation of all the data elements within each Fedwire tag that is populated in a Fedwire Message. CIR also captures each element individually within Fedwire Date Element.	Currently not used
FedwireMessageSection	FedwireSectionValueDelimiter	The character that is defined by FRB Fedwire message format to separate the attributes within the text Fedwire string provided in FedwireMessageSectionValue.	Currently not used
FedwireMessageSection	FedwireTagLabel	The numeric value for the Fedwire Section that represents the tag number as defined in a Fedwire message. For example "1520". See Appendix A for the list of possible values.	Only provided for CG Fed
FedwireMessageSection	FedwireTagName	The static name for the Fedwire Section that describes the tag the section represents. For example "IMAD". See Appendix A for the list of possible values.	Only provided for CG Fed
FedwireMessageSection	ProcessingID	An identifier that uniquely identifies each instance of the FedwireMessageSection element within the context of the FedwireMessageGroup element.	Only provided for CG Fed: PAR Sequence(12 (YYMMDD + 6-digit sequence) + 0/1 (credit/debit)
FinancialReportingDetails	FinancialInstitutionText	The text supplied by the financial institution, in addition to the agency supplied text.	
FinancialReportingDetails	IsForeignCheck	Indicates if the item is a foreign check or not, for example, a value of '1' would mean that it is a foreign check.	

Entity	Attribute	Standard definition	Additional Collection System Information
FinancialTransaction	ChannelType	The delivery method used by remitter to initiate payment to the agency. Channel identifies the original point of payment initiation, the first interface between the payer and the government. List of possible values is identified in the EDA schema.	
FinancialTransaction	Code	A code that is used by the settlement mechanism to categorize the transaction. This value will vary across multiple STPs.	CAS: Payment Type CG Fed: Fedwire Business Function Code CG ACH: SEC Code (Standard Entry Class Code) Pay.gov ACH: SEC Code (Standard Entry Class Code) Pay.gov Plastic Card: Payment Type ECP: ARC, if ACH OTCnet E-Check Deposit: SEC Code (Standard Entry Class Code) if settlement mechanism = ACH
FinancialTransaction	DepositDate	The business date that the payment/return was posted to a treasury account. The date that the deposit is posted within the financial institution.	CAS: Wire Date CG ACH: ACH Batch Settlement Date CG Fed: Confirmed Date ECP: Effective date Pay.gov: Effective date OTCnet E-Check Deposit: Debit Gateway deposit date for Settled and Retired transactions; representment effective date for Represented transactions, and expected settlement date for Failed transactions.
FinancialTransaction	FinancialTransactionType	A high-level categorization of a financial transaction that identifies what type of transaction activity the financial transaction represents. Valid values are: 'Collection', 'Return', 'Re-collection', 'Adjustment', 'Correction'.	

Entity	Attribute	Standard definition	Additional Collection System Information
FinancialTransaction	ID	The identifier for a financial transaction record provided to CIR by the sending channel application.	CAS: Network Reference Number/Acquirer Reference Number CG Fed: PAR Sequence(12 (YYMMDD + 6-digit sequence) + 0/1 (credit/debit) CG ACH: Reference ID (ACH Entry Detail Trace Number + Amount + Effective Entry Date) + 0/1 (credit/debit if Correction) Pay.gov: Pay.gov Tracking ID ECP: Sequence Generated Number (PIRN) OTCnet E-Check Deposit: IRN
FinancialTransaction	IsCredit	The sign of the Financial Amount. A "1" indicates the Amount is positive. A "0" indicates the Amount is negative.	
FinancialTransaction	IsRecurring	Indicates if the item is a recurring transaction.	Pay.gov: ACH Debits only CG ACH: Applicable only to some WEB transactions
FinancialTransaction	IsTax	Indicates if the item is a tax collection transaction.	
FinancialTransaction	PaymentMedium	Identifies the payment medium for the transaction. List of possible values is identified in the EDA schema.	CAS: "CreditCard", "DebitCard" CG ACH: "ACH" CG Fed: "Wire" Pay.gov: "ACH", "CreditCard", "Other" ECP: "Check" OTCnet E-Check Deposit: "Check"
FinancialTransaction	SettlementDate	The anticipated date the funds will transfer (pre-settlement) or the date that the funds have been transferred (post-settlement).	CAS: Wire Date CG ACH: ACH Batch Settlement Date CG Fed: Confirmed Date ECP: Effective date Pay.gov: Effective date OTCnet E-Check Deposit: Debit Gateway deposit date for Settled and Retired transactions; representment effective date for Represented transactions, and expected settlement date for Failed transactions.

Entity	Attribute	Standard definition	Additional Collection System Information
FinancialTransaction	SettlementMechanism	The settlement system that was used to complete this transaction. List of possible values is identified in the EDA schema.	CAS: "PlasticCard" CG ACH: "ACH" CG Fed: "FedWire" Pay.gov: "ACH", "PlasticCard", "Other" ECP: "ACH", "Image" OTCnet E-Check Deposit: "ACH", "Image"
FinancialTransaction	Status	Identifies what state the transaction currently represents in the collection transaction life cycle. Valid values are: 'Pending', 'Submitted', 'Settled', 'Cancelled', 'Rejected'.	CG ACH Intraday, CG Fed Real-Time and OTCnet E-Check Deposit Represented transactions all have a status of "Submitted" since the financially settled transaction is sent separately to CIR
FinancialTransaction	SubType	A further description of the type of transaction.	CAS: "CHBK" for Credit Card Chargeback
FinancialTransaction	TraceNumber	Identifies the transaction within the collection system/settlement service.	CG Fed: Fedwire IMAD CG ACH: ACH Entry Detail Trace Number OTCnet E-Check Deposit: ACH Trace Number or Check Trace Number
FinancialTransaction	TransactionDate	The date that the customer either authorized or approved the payment to satisfy debt or pay for purchase or pay down from an appropriation account.	ECP: Capture Date Pay.gov: Transaction Date CG ACH: Process Date CG Fed: Process Date CAS: Transaction Date OTCnet E-Check Deposit: Receive Date

Entity	Attribute	Standard definition	Additional Collection System Information
FinancialTransaction	Type	The type of transaction, for example, indicates the FedWire type for this record.	CG Fed: Fedwire Type and Subtype (4 chars) CG ACH: ACH Entry Detail Transaction Code CAS: "Card Sale", "Card Return", "POS Debit", "POS Credit". Type is not available on Credit Card Chargebacks and Returns Pay.gov Plastic Card: "Sale", "Authorization", "Force", "Refund" Pay.gov ACH/ECP: If ACH debit and status is settled and bank account is checking, "27". If ACH debit and status is settled and bank account is savings, "37". If ACH pre-notification and status is settled and bank account is checking, "28". If ACH pre-notification and status is settled and bank account is savings, "38". If ACH debit or pre-notification and status are retired, "26". If ACH NOC, Old Transaction Code. OTCnet E-Check Deposit: ACH Transaction Code (e.g. 27)
FiscalDateDetail	FiscalMonth	The fiscal month for which the transaction is reported/effective.	Month prefixed with two dashes, example "--07"
FiscalDateDetail	FiscalYear	The fiscal year for which the transaction is reported/effective. Fiscal Year is a term that is used to differentiate a budget or financial year from the calendar year.	OTCnet Bank Deposit: Fiscal Year (YYYY)
ForeignCurrency	Amount	The amount of the transaction as expressed in the foreign currency. Since multiple formats can be used for foreign currencies the format for this amount field is string.	CG Fed: 3710 Instructed Amount CG ACH: ACH IAT Transactions
ForeignCurrency	ConversionMethodCode	The method used to convert the foreign currency amount to US Dollars. List of possible values is identified in the CIR TPA sub-schema.	CG ACH: ACH IAT Transactions
ForeignCurrency	ExchangeRate	The exchange rate used to convert a foreign currency to an amount in US currency. Since multiple formats can be used for foreign currencies the format for this exchange rate amount field is string.	

Entity	Attribute	Standard definition	Additional Collection System Information
ForeignCurrency	ForeignCheckIndicator	Indicates whether the amount was tendered in a foreign currency. Valid values are: 'N' - US currency; 'Y' - Foreign currency	
ForeignCurrency	OriginalCurrencyCode	The code that defines the type of foreign currency using the standard three-letter ISO 4217 currency codes.	
GovernmentDepositAccount	AccountKeyCode	The FRB Account Key that is used within the Federal Reserve. The FRB Account Key is used by FRB CASH-LINK in combination with District and Office to determine the appropriate CASHLINK II CAN.	Provided only on non-commercial (FRB settled) transactions
GovernmentDepositAccount	CashlinkAccountNumber	A financial (non-user) account within the CASHLINK II system that is associated to a voucher or transaction. The CAN represents a particular account at a Financial Institution.	
GovernmentDepositAccount	CostCenterWorkUnitCode	The Cost Center Work Unit for FRB deposits and adjustments normally abbreviated as CCWU.	Provided only on non-commercial (FRB settled) transactions
InterchangeAdjustmentInformation	InterchangeAdjustmentAmount	The amount that the merchant must pay to the network carrier (i.e. Visa, MasterCard, AMEX, Discover) representing the true cost of a plastic card transaction.	Only provided for CAS and Pay.gov (credit card transactions only)
InterchangeAdjustmentInformation	InterchangeAdjustmentAmountSignIndicator	The sign of the InterchangeAdjustmentAmount. If the Interchange Adjustment Amount is less than zero then this value equals '0' else it equals '1'.	Only provided for CAS and Pay.gov (credit card transactions only)
InterchangeAdjustmentInformation	InterchangeAdjustmentReasonCode	A code value that provides the reason for the interchange fee adjustment.	Only provided for CAS and Pay.gov (credit card transactions only)
InterchangeInformation	OriginalInterchangeIndicator	A two-character value that identifies the business type of the merchant. The classification is used for interchange fee purposes.	Only provided for CAS and Pay.gov (credit card transactions only)
InterchangeReimbursementFeeInformation	InterchangeCode	A code that identifies the type of transaction that the interchange fee applies to and dictates the interchange fee amount applied to the transaction.	Only provided for CAS and Pay.gov (credit card transactions only)
InterchangeReimbursementFeeInformation	InterchangeReimbursementFeeAmount	The amount that the merchant must pay to the network carrier (i.e. Visa, MasterCard, AMEX, Discover) representing the true cost of a plastic card transaction.	Only provided for CAS and Pay.gov (credit card transactions only)

Entity	Attribute	Standard definition	Additional Collection System Information
InterchangeReimbursementFeeInformation	InterchangeReimbursementFeeAmount SignIndicator	The sign of the InterchangeReimbursementFeeAmount. If the Interchange Adjustment Amount is less than zero then this value equals '0' else it equals '1'.	Only provided for CAS and Pay.gov (credit card transactions only)
MerchantInformation	MerchantCategoryCode	A value that classifies the type of vendor where the transaction occurred.	Only provided for CAS and Pay.gov (credit card transactions only)
MerchantInformation	MerchantNumber	The number that is assigned to the vendor where the transaction occurred.	Only provided for CAS and Pay.gov (credit card transactions only)
MerchantInformation	MerchantStoreNumber	A nine-digit merchant store number assigned by Fifth Third. Field is right justified and zero filled. Example: '000054321'	Only provided for CAS and Pay.gov (credit card transactions only)
OrganizationLevel	ID	An identifier for the organization level record that represents the level within the organizational hierarchy using the CGAC organizational structure. Up to "n" levels are permitted in the hierarchy.	Currently not used
OrganizationLevel	InternalOrganizationCode	The organization code for the particular hierarchy level using the CGAC organizational structure.	Currently not used
OrganizationLevels	TotalCount	The count of levels within the organizational hierarchy.	Currently not used
OrganizationStructureCollection	Count	A count of the number of levels defined for the associated organizational hierarchy using the OTCnet organizational structure.	
OrganizationStructureCollection/Or organizationCode	OrganizationCodeLevel	The code level associated with an internal organization provided to a trading partner from an agency using the OTCnet organizational structure.	
OrganizationStructureCollection/Or organizationCode	OrganizationCode text	The value of the organization code provided to a trading partner from an agency using the OTCnet organizational structure.	
OriginalSummaryReference	SummaryDate	The summary date (voucher date) of the original voucher or ticket that is being adjusted or corrected.	
OriginalSummaryReference	SummaryNumber	The summary number (debit voucher or deposit ticket number) that identifies the original voucher or ticket that is being adjusted or corrected.	

Entity	Attribute	Standard definition	Additional Collection System Information
Payee	PartyIdentifier	The ID by which the Payee recognizes the originator of the transaction, for example the beneficiary ID on a FedWire or the IRS Employer EIN on an ACH.	CG Fed: Beneficiary Identifier
Payee	PartyName	The name of the party receiving the payment whether individual or organization.	CG Fed: Originator Name or Beneficiary Name or DRW Name CG ACH: ACH Entry Detail Receiving Company Name/Individual Name CAS: Merchant Name (DBA Name) Pay.gov: Agency Name ECP: Owner Organization of the cashflow
Payer	AccountPartyType	Indicates whether the party giving the payment is an Individual, Business or Government. If unknown, then no value is provided. List of possible values is identified in the EDA schema are 'Individual', 'Business' and 'Government.'	CAS: Derived from Card Product Type
Payer	PartyIdentifier	The ID by which the Receiver is known to the Originator. For example the invoice number on an ACH (from the ACH Individual ID number).	CG Fed: Beneficiary Reference CG ACH: ACH Batch Company Identification
Payer	PartyName	The name on face of credit card or bank account from which the funds will be drawn.	CG Fed: Originator Name or Beneficiary Name or DRW Name CG ACH: ACH Batch Company Name Pay.gov: Account Holder Name
Payment	Amount	The detail transaction amount. The amount is always positive. The actual sign of the amount is determined based on the Financial Transaction IsCredit value.	
Plastic	CardNumber	The partial portion of the credit card or debit card number used for the payment that was provided to CIR.	CAS, Pay.gov (credit card transactions only): Last four digits only
Plastic	CardType	The type of plastic card used, for example: MC for MasterCard. List of possible values is identified in the EDA schema.	Currently not used
Plastic	IsCredit	Indicates whether the plastic card transaction was a credit card or debit card. A value of "1" indicates a credit card and a value of "0" indicates a debit card.	Only provided for CAS and Pay.gov (credit card transactions only)

Entity	Attribute	Standard definition	Additional Collection System Information
Plastic	MonthYearExpire	The month/year value of the expiration date on the plastic card used for the payment.	Only provided for CAS and Pay.gov (credit card transactions only)
PlasticTransactionEntryDetail	CATIndicator	A one-character code that provides the type of Cardholder Activated Terminal Indicator (CAT).	Only provided for CAS and Pay.gov (credit card transactions only). An example of the code is "1" means Type A UAT- Limited Amount Terminal
PlasticTransactionEntryDetail	EmployeeIdentifier	The identifier of the salesperson who performed the transaction.	Only provided for CAS and Pay.gov (credit card transactions only)
PlasticTransactionEntryDetail	POEntryMode	A three-character code that provides the entry mode. The first two positions refer to how the card was read and the third position refers to the capture of the PIN.	Only provided for CAS and Pay.gov (credit card transactions only). An example of the code is for the first 2 positions '02' means Magnetic Stripe Read. For the third position "1" means Terminal Can Accept and Capture PINS.
PlasticTransactionEntryDetail	RegisterNumber	A four-character number provided if available with the number of the register where the card transaction occurred.	Only provided for CAS and Pay.gov (credit card transactions only)
PlasticTransactionEntryDetail	TerminalNumber	A nine-character number provided if available with the number of the terminal where the card transaction occurred.	Only provided for CAS and Pay.gov (credit card transactions only)
PlasticTransactionEntryDetail	TransactionTime	The time of the transaction (along with transaction date).	Only provided for CAS and Pay.gov (credit card transactions only)
PlasticTransactionEntryDetail	TransactionTimeZone	The time zone where the transaction occurred.	Only provided for CAS and Pay.gov (credit card transactions only)
ProgramData	ID	The identifier for the Program Data provided to CIR by the sending channel application.	ECP: Remittance ID (RIRN) Pay.gov: Tracking ID OTCnet E-Check Deposit: IRN OTCnet Bank Deposit: sequential number
ProgramData	UserDataCount	The count of User Data occurrences for a specific Program Data ID.	
ProgramData/UserData	AgencyLabel	The label provided by the agency to the channel that describes what is contained in the UserDataContent. For example: "Claim Number" or "Name".	
ProgramData/UserData	HasPrivacyData	Indicator that the User Data Content contains privacy data.	

Entity	Attribute	Standard definition	Additional Collection System Information
ProgramData/UserData	ID	The identifier for the User Data provided to CIR by the sending channel application.	ECP: UDD Field Number OTCnet: UDD Field Number Pay.gov: Sequential number
ProgramData/UserData	SourceLabel	The literal "Custom Field" with the User Data ID value appended. For example: Custom Field 1, Custom Field 2 where 1 and 2 are the User Data IDs.	ECP: User data label Pay.gov: Custom Collection Field Name, or "Agency Memo", "FormData", "BillData", "FormAttachment"
ProgramData/UserData	UserDataContent	Free format unstructured agency-specific data. This data is wrapped within "CDATA" tags so that any characters can be included.	
ReferenceGroups/ReferenceGroup	IsCurrentReference	Indicates the Reference Data values as relating to the current transaction or to a previous transaction. A value of '1' means the values are related to the current transaction. A value of '0' means the values are to a previous transaction. The value will be set to '0' for adjustments.	
ReferenceGroups/ReferenceGroup	ReferenceCode	A code sent by the input system to further define a transaction. When associated to a summary may have other reference values (reference number, text and name). Currently not used for detailed transactions.	
ReferenceGroups/ReferenceGroup	ReferenceName	A name sent by the input system to further define a transaction. When associated to a summary may have other reference values (reference number, text and code). When associated to a financial transaction represents the meaning of the reference number. CIR will only send one Reference Group under Financial Transaction. ReferenceName = "Financial Transaction Original Reference ID" ReferenceNumber = the value of the ID.	On details CAS, CG Fed, CG ACH, Pay.gov: Name = "Financial Transaction Original Reference ID" On summary OTCnet Bank Deposit: Name = "Original Deposit Date" for returns/adjustments

Entity	Attribute	Standard definition	Additional Collection System Information
ReferenceGroups/ReferenceGroup	ReferenceNumber	A number sent by the input system to further define a transaction. When associated to a summary may have other reference values (reference name, text and code). CIR will only send one Reference Group under Financial Transaction where the ReferenceName = "Financial Transaction Original Reference ID" and the ReferenceNumber contains the value of the ID.	On details CAS = Merchant Reference Number/Draft Locator Number Pay.gov Plastic Card: ID that links Pay.gov and CAS transactions On summary OTCnet Bank Deposit: Original Deposit Date for returns/adjustments
ReferenceGroups/ReferenceGroup	ReferenceText	A code sent by the input system to further define a transaction. When associated to a summary may have other reference values (reference number, text and name). Currently not used for detailed transactions.	On summary: OTCnet: Agency Comments Pay.gov: Application Name
Summary	DepositDate	The business date that the payment/return(s) were posted to a treasury account. The date that the deposit is posted within the financial institution.	
Summary	ID	The identifier for a summary record provided to CIR by the sending channel application.	Pay.gov: DTN or DVN for ACH Debit (settled and retired) ECP: DTN or DVN or generated ID EFTPS: Summary Date (YYYYMMDD) and Summary Number concatenated OTCnet: generated ID
Summary	IsCredit	Indicates if the Deposit Total Amount is a debit or credit. A value of '1' would mean that it is a 'credit' (215, 215A or 215B or 215C). A value of "0" indicates that this is debit (5515).	
Summary	SummaryDate	The date for the summary record, for example the deposit ticket date or the debit voucher date.	
Summary	SummaryNumber	The number of the summary record, for example the deposit ticket number or the debit voucher number.	
Summary	SummaryType	Indicates the type of summary record. Values are 215, 215A, 215B, and 5515.	
Summary	TotalAmount	The absolute value of the voucher. The Credit Indicator field can be used to determine if the amount is a debit or a credit.	

Entity	Attribute	Standard definition	Additional Collection System Information
Summary	TotalCount	Indicates the total number of detail transactions associated to that particular voucher.	
SummaryCashManagement	Deferred1DayAmount	The amount of the deposit that is deferred for one day.	
SummaryCashManagement	Deferred2DayAmount	The amount of the deposit that is deferred for two days.	
SummaryCashManagement	IsCommercialVoucher	Indicates if the item is a commercial voucher or not, a value of '1' would mean that it is a commercial voucher.	OTCnet Bank Deposit: Both commercial and non-commercial OTCnet E-Check Deposit: All non-commercial PATAX, FRB: All non-commercial CAS: All commercial CG Fed: Null, does not apply ECP: All non-commercial (at least until FA settled items are sent) Pay.gov: Both commercial and non-commercial CG ACH: Null, does not apply EFTPS:: All non-commercial
SummaryReference	SummaryDate	The date for the summary record, for example the deposit ticket date or the debit voucher date. For Summary and Detail this same information can be derived using the XML hierarchy (e.g. the Financial Transaction will be under a specific summary). For Detail only this provides the associated voucher information for the detailed transaction. If the detailed transaction was not associated to a voucher then this information is not provided.	
SummaryReference	SummaryNumber	The number of the summary record, for example the deposit ticket number or the debit voucher number. For Summary and Detail this same information can be derived using the XML hierarchy (e.g. the Financial Transaction will be under a specific summary). For Detail only this provides the associated voucher information for the detailed transaction. If the detailed transaction was not associated to a voucher then this information is not provided.	

Entity	Attribute	Standard definition	Additional Collection System Information
ThirdParty	PartyName	Contains the full name of a third party involved in the transaction.	Currently not used
ThirdParty	PartyType	Indicates batch, bulk, individual for Tax Third Party Type.	Currently not used
TradingPartnerExtension	ID	The identifier for a Trading Partner Extension record generated by CIR to support the EDA hierarchy. The Trading Partner Extension is a container for Trading Partner Agreement with a one to one relationship. The TPA will supply additional information provided by the sending channel that is not found in the EDA Schema.	
TradingPartnerExtensions	ID	The identifier for a trading partner extensions record generated by CIR to support the EDA hierarchy. Trading Partner Extensions is a container for Trading Partner Extension.	
Transmission	BusinessTransmissionCategory	CIR will always populate with the value "Receivables".	
Transmission	ID	Value generated by CIR that uniquely identifies the extract file.	
Transmission	InputSystem	CIR will always populate with the value "TRS".	
Transmission	SequenceNumber	CIR will always populate with the value "1".	
Transmission	TotalAmount	Calculated total of all accountable amounts on the extract file to be used as a control total. For Summary only or Summary and Detail this is the total of the absolute value of the summary amounts (voucher amounts credits and debits added together). For Detail only this is the total of the absolute value of Financial Transaction Amounts (credits and debits added together).	
Transmission	TotalCount	Total number is used as a control total. For Summary only or Summary and Detail this is the total count of summaries (vouchers). For Detail only this is the total count of the Financial Transactions.	
Transmission	TransmissionTimestamp	The date and time when the extract was created.	

Entity	Attribute	Standard definition	Additional Collection System Information
TransmissionSubmitterDetail	InputSystem	The sending trading partner (e.g. what channel provided the collection information to TRS).	CAS (Card Acquiring Service) CGACH (Credit Gateway ACH) CGFEDWIRE (Credit Gateway Fedwire) ECP (ECP) EFTPS-ACH CR (EFTPS ACH Credits) EFTPS-ACH DR (EFTPS ACH Debits) EFTPSAGTRAX (EFTPS Agency Tax) FRBCL MISC (FRB CASH-LINK – Miscellaneous FRB Deposits) NAVYCASH OTCNET-CHK (OTCnet Check Capture) OTCNET-TGA (OTCnet Bank Deposit) PAYGOV (Pay.gov)
TRS_BusinessTransaction	BillDate	The date the request for payment was initiated. For example the Bill Date on the bill for which the payment is being rendered.	Currently not used
TRS_BusinessTransaction	BusinessDate	The business date that the transaction was assigned when it was processed by CIR. The business date controls when the transaction is reported to GWA and will correspond to the report date in GWA. The Business Date in CIR corresponds to the Process Date in CASHLINK II.	
TRS_BusinessTransaction	GroupID	The CIR generated value to properly group transactions that are related. Those transactions where a relationship can be determined will have the same value.	
TRS_BusinessTransaction	ID	The Business Transaction ID for the Business Transaction to which the TPA is related.	
TRS_BusinessTransaction	ReceiptDate	The date payment was received. An example would be the date that the lockbox opened up the payment.	
TRS_FinancialTransaction	GroupID	The CIR generated value to properly group transactions that are related. Those transactions where a relationship can be determined will have the same value.	
TRS_FinancialTransaction	ID	The Financial Transaction ID for the Financial Transaction to which the TPA is related.	

Entity	Attribute	Standard definition	Additional Collection System Information
TRS_Summary	AgencyAccountIdentifier	An identifier used by the agency for an account, for example, a Lockbox Number.	CAS: Chain/Division CG Fed: Credit Gateway sub-account CG ACH: Credit Gateway sub-account
TRS_Summary	BusinessDate	The business date that the voucher was assigned when it was processed by CIR. The business date controls when the transaction is reported to GWA and will correspond to the report date in GWA. The Business Date in CIR corresponds to the Process Date in CA\$HLINK II.	
TRS_Summary	ID	The Summary ID for the Summary to which the TPA is related.	
TRS_Summary	PARSCode	The Public Debt Accounting and Reporting System (PARS) code used by the Bureau of Public Debt.	
TRS_Summary	ReceiptsFromDate	The starting date of a range of dates for receipts included in the deposit.	
TRS_Summary	ReceiptsToDate	The ending date of a range of dates for receipts included in the deposit.	

8. Tips/Hints for Creating and Processing XML Extracts

8.1 Recommendations when Creating XML Extract Definitions

XML Extract files are designed to be used as system-to-system files where the file is received automatically and processed by a receiving system. When initially setting up an extract it may be useful for a user to define a small sample file in order to become more familiar with the XML file format. Users can then download the file to their personal computer using the CIR application (specifically View Files function). In order to view the extract file the file size must be less than 10 megabytes which corresponds to approximately 3,000 transactions.

The following are suggestions for creating smaller test files:

- ❖ Select only one ALC
- ❖ If there is a large quantity of data for the ALC – add secondary selection criteria for example, ABA, or CAN.
- ❖ When defining selection criteria, it is important to remember that CIR is limited to the data supplied by the STPs. All STPs provide ALC, ABA and CAN but other selection criteria, for example, Agency Account ID and Cashflow Name and ID, are only provided by some STPs. See the attribute definition in Section 7.9 for information on what information is provided by different STPs.
- ❖ Select only one Collection System
- ❖ Select an Extract Type of Summary. This will limit the data provided to voucher level information. Once the user is familiar with this data, then the user can define an extract with the ultimate desired Extract Type if that is different, for example Summary and Detail.
- ❖ Select an Extract Frequency of Daily. This will ensure that an extract file is produced each day for viewing. As described in Section 5.1, once the extract definition is completed an extract will be created around 3:00 AM each day for the previous business date.

The following are suggestions for defining production files:

- ❖ Try minimizing or eliminating some or all selection criteria in order to get all of your data in one extract file. If this can be done without exceeding the 10 megabyte (MB) limitation, then additional maintenance to merge smaller extracts into one database or file for further processing on your end might be avoided.

8.2 Special Characters

There are five characters that are part of the XML Schema declaration and so cannot be used within any attributes. There are two mechanisms for sending special characters. The first is the replacement of the special character with a preset equivalent:

Character	Description	Replacement
&	Ampersand	&
<	Less than	<
>	Greater than	>
"	Double quote	"
'	Apostrophe	'

For example an address containing Corporate Trust & Escrow Serv" would be sent as follows:

```
<ns2:FedwireDataElement ProcessingID="4"
FedwireDataElementName="ORIGINATOR-ADDRESS-LINE1" FedwireDataElementValue="CORPORATE TRUST & ESCROW
SERV"/>
```

The second is the CDATA mechanism which was designed to let an author quote fragments of text containing restricted characters (ampersand, LT, GT, etc.). For example, this method is used extensively when documenting XML. A CDATA Section turns off markup recognition for the duration of the section (it gets turned on again only by the closing sequence of double end-square-brackets and a close-angle-bracket).

Consequently, nothing in a CDATA section is ever recognized as anything to do with markup: it's just a string of opaque characters, and if you use an XML transformation language like XSLT, any markup characters in it will get turned into their character entity equivalents.

Example using a CDATA section:

```
<ns2:ACHContentString HasPrivacyData="1">
<ns2:ContentString><![CDATA[622051036706307000
0000258420351864646 CBP 1044222227326288]]></ns2:ContentString>
</ns2:ACHContentString>
```

The CDATA mechanism cannot be used when the XML has defined the field as an attribute. CIR uses the first replacement method within an attribute and the CDATA mechanism for any other containers. Standard COTS XML Readers will automatically normalize either of these mechanisms as part of processing an XML file.

9. Customer Service

If an agency has questions about the CIR specification the agency should first contact the CIR Call Center. The CIR Call Center is available between 7:00 AM - 9:00 PM Eastern Time, Monday through Friday except Federal Reserve Bank holidays. The CIR Call Center can be reached at 1-800-346-5465 or within the Washington, DC metropolitan area and internationally at 301-887-6600. The CIR Call Center can also be reached by email at CIR@pnc.com.

10. Appendix A: FedWire Tag Names

The following table lists the static names that will be found in the FedwireTagLabel, FedwireTagName and FedwireDataElementName attributes.

Table 14: FedWire Tag Names

Tag Label	Tag Name	Data Element Name
1100	MSG-DISPOSITION	
		FORMAT-VERSION
		TEST-PRODUCTION-CODE
		MSG-DUPLICATION-CODE
		MSG-STATUS-IND
1110	ACCEPTANCE-TIMESTAMP	
		ACCEPTANCE-DATE
		ACCEPTANCE-TIME
		ACCEPTANCE-APPL-ID
1120	OMAD	
		OUTPUT-CYCLE-DATE
		OUTPUT-DESTINATION-ID
		OUTPUT-SEQUENCE-NUMBER
		OUTPUT-DATE
		OUTPUT-TIME
		OUTPUT-FRB-APPL-ID
1130	ERROR-FIELD	
		ERROR-CATEGORY
		ERROR-CODE
		ERROR-DESCRIPTION
1500	SENDER-SUPPLIED-INFO	
		FORMAT-VERSION
		URC-DATA
		TEST-PROD-CODE
		MSG-DUPLICATION-CODE
		FILLER
1510	TYPE-SUBTYPE	
		TYPE-CODE
		SUBTYPE-CODE
1520	IMAD	
		INPUT-CYCLE-DATE
		INPUT-SOURCE
		INPUT-SEQUENCE-NUMBER
2000	AMOUNT	
		AMOUNT
3000	ADJUSTMENT	

Tag Label	Tag Name	Data Element Name
		ADJUSTMENT-DATE
		ADJUSTMENT-REASON
3100	SENDER-DI	
		SENDER-DI-NUMBER
		SENDER-SHORT-NAME
3320	SENDER-REFERENCE	
		SENDER-REFERENCE
3400	RECEIVER-DI	
		RECEIVER-DI-NUMBER
		RECEIVER-SHORT-NAME
3500	PREVIOUS-MSG-IMAD	
		PREV-INPUT-CYCLE-DATE
		PREV-INPUT-SOURCE-ID
		PREV-INPUT-SEQ-NBR
3600	BUSINESS-FUNCTION	
		BUSINESS-FUNCTION-CODE
		TRAN-TYPE-CODE
3610	LOCAL-INSTRUMENT	
		LOCAL-INSTRUMENT-CODE
3700	CHARGES	
		CHARGE-CODE
		CURRENCY-CODE1
		SENDERS-CHARGES1
		CURRENCY-CODE2
		SENDERS-CHARGES2
		CURRENCY-CODE3
		SENDERS-CHARGES3
		CURRENCY-CODE4
		SENDERS-CHARGES4
3710	INSTRUCTED-AMOUNT	
		CURRENCY-CODE
		INSTRUCTED-AMOUNT
3720	EXCHANGE-RATE	
		EXCHANGE-RATE
4000	INTERMEDIARY-FI	
		INTERMEDIARY-FI-ID-CODE
		INTERMEDIARY-FI-IDENTIFIER
		INTERMEDIARY-FI-NAME
		INTERMEDIARY-FI-ADDRESS-LINE1
		INTERMEDIARY-FI-ADDRESS-LINE2
		INTERMEDIARY-FI-ADDRESS-LINE3

Tag Label	Tag Name	Data Element Name
4100	BENEFICIARY-FI	
		BENEFICIARY-FI-ID-CODE
		BENEFICIARY-FI-IDENTIFIER
		BENEFICIARY-FI-NAME
		BENEFICIARY-FI-ADDRESS-LINE1
		BENEFICIARY-FI-ADDRESS-LINE2
		BENEFICIARY-FI-ADDRESS-LINE3
4200	BENEFICIARY	
		BENEFICIARY-ID-CODE
		BENEFICIARY-IDENTIFIER
		BENEFICIARY-NAME
		BENEFICIARY-ADDRESS-LINE1
		BENEFICIARY-ADDRESS-LINE2
		BENEFICIARY-ADDRESS-LINE3
4320	REF-FOR-BNF	
		BENEFICIARY-REF
4400	ACCOUNT-DEBITED-IN-DRAWDOWN	
		DRW-DEBIT-ACCT-ID-CODE
		DRW-DEBIT-ACCT-IDENTIFIER
		DRW-DEBIT-ACCT-NAME
		DRW-DEBIT-ACCT-ADDRESS-LINE1
		DRW-DEBIT-ACCT-ADDRESS-LINE2
		DRW-DEBIT-ACCT-ADDRESS-LINE3
5000	ORIGINATOR	
		ORIGINATOR-ID-CODE
		ORIGINATOR-IDENTIFIER
		ORIGINATOR-NAME
		ORIGINATOR-ADDRESS-LINE1
		ORIGINATOR-ADDRESS-LINE2
		ORIGINATOR-ADDRESS-LINE3
5100	ORIGINATOR-FI	
		ORIGINATOR-FI-ID-CODE
		ORIGINATOR-FI-IDENTIFIER
		ORIGINATOR-FI-NAME
		ORIGINATOR-FI-ADDRESS-LINE1
		ORIGINATOR-FI-ADDRESS-LINE2
		ORIGINATOR-FI-ADDRESS-LINE3
5200	INSTRUCTING-FI	
		INSTRUCTING-FI-ID-CODE
		INSTRUCTING-FI-IDENTIFIER
		INSTRUCTING-FI-NAME

Tag Label	Tag Name	Data Element Name
		INSTRUCTING-FI-ADDRESS-LINE1
		INSTRUCTING-FI-ADDRESS-LINE2
		INSTRUCTING-FI-ADDRESS-LINE3
5400	ACCOUNT-CREDITED-IN-DRAWDOWN	
		DRW-CREDIT-ACCT-NR
6000	ORIGINATOR-TO-BENEFICIARY-INFO	
		ORIGINATOR-TO-BENEFICIARY-LINE1
		ORIGINATOR-TO-BENEFICIARY-LINE2
		ORIGINATOR-TO-BENEFICIARY-LINE3
		ORIGINATOR-TO-BENEFICIARY-LINE4
6100	RECEIVER-FI-INFO	
		RECEIVER-FI-INFO-LINE1
		RECEIVER-FI-INFO-LINE2
		RECEIVER-FI-INFO-LINE3
		RECEIVER-FI-INFO-LINE4
		RECEIVER-FI-INFO-LINE5
		RECEIVER-FI-INFO-LINE6
6110	DRW-DEBIT-ACCT-ADVICE-INFO	
		DRW-DEBIT-ACCT-ADVICE-CODE
		DRW-DEBIT-ACCT-INFO-LINE1
		DRW-DEBIT-ACCT-INFO-LINE2
		DRW-DEBIT-ACCT-INFO-LINE3
		DRW-DEBIT-ACCT-INFO-LINE4
		DRW-DEBIT-ACCT-INFO-LINE5
		DRW-DEBIT-ACCT-INFO-LINE6
6200	INTERMEDIARY-FI	
		INTERMEDIARY-FI-INFO-LINE1
		INTERMEDIARY-FI-INFO-LINE2
		INTERMEDIARY-FI-INFO-LINE3
		INTERMEDIARY-FI-INFO-LINE4
		INTERMEDIARY-FI-INFO-LINE5
		INTERMEDIARY-FI-INFO-LINE6
6210	INTERMEDIARY-FI-ADVICE-INFO	
		INTERMEDIARY-FI-ADVICE-INFO-CODE
		INTERMEDIARY-FI-ADVICE-INFO-LINE1
		INTERMEDIARY-FI-ADVICE-INFO-LINE2
		INTERMEDIARY-FI-ADVICE-INFO-LINE3
		INTERMEDIARY-FI-ADVICE-INFO-LINE4
		INTERMEDIARY-FI-ADVICE-INFO-LINE5
		INTERMEDIARY-FI-ADVICE-INFO-LINE6

Tag Label	Tag Name	Data Element Name
6300	BENEFICIARY-FI-INFO	
		BENEFICIARY-FI-INFO-LINE1
		BENEFICIARY-FI-INFO-LINE2
		BENEFICIARY-FI-INFO-LINE3
		BENEFICIARY-FI-INFO-LINE4
		BENEFICIARY-FI-INFO-LINE5
		BENEFICIARY-FI-INFO-LINE6
6310	BENEFICIARY-FI-ADVICE-INFO	
		BENEFICIARY-FI-ADVICE-CODE
		BENEFICIARY-FI-ADVICE-INFO-LINE1
		BENEFICIARY-FI-ADVICE-INFO-LINE2
		BENEFICIARY-FI-ADVICE-INFO-LINE3
		BENEFICIARY-FI-ADVICE-INFO-LINE4
		BENEFICIARY-FI-ADVICE-INFO-LINE5
		BENEFICIARY-FI-ADVICE-INFO-LINE6
6400	BENEFICIARY-INFO	
		BENEFICIARY-INFO-LINE1
		BENEFICIARY-INFO-LINE2
		BENEFICIARY-INFO-LINE3
		BENEFICIARY-INFO-LINE4
		BENEFICIARY-INFO-LINE5
		BENEFICIARY-INFO-LINE6
6410	BENEFICIARY-ADVICE-INFO	
		BENEFICIARY-ADVICE-CODE
		BENEFICIARY-ADVICE-INFO-LINE1
		BENEFICIARY-ADVICE-INFO-LINE2
		BENEFICIARY-ADVICE-INFO-LINE3
		BENEFICIARY-ADVICE-INFO-LINE4
		BENEFICIARY-ADVICE-INFO-LINE5
		BENEFICIARY-ADVICE-INFO-LINE6
6420	BENEFICIARY-METHOD-OF-PAYMENT	
		METHOD-OF-PAYMENT-CODE
		METHOD-OF-PAYMENT-INFO-LINE
6430	PAYMENT-LIMIT	
		PAYMENT-LIMIT
6500	FI-TO-FI-INFO	
		FI-TO-FI-FREE-TEXT-LINE1
		FI-TO-FI-FREE-TEXT-LINE2
		FI-TO-FI-FREE-TEXT-LINE3

Tag Label	Tag Name	Data Element Name
		FI-TO-FI-FREE-TEXT-LINE4
		FI-TO-FI-FREE-TEXT-LINE5
		FI-TO-FI-FREE-TEXT-LINE6
8200	UNSTRUCTURED-ADDENDA-INFORMATION	
		ADDENDA-LENGTH
		ADDENDA-INFORMATION
9000	FREE-FORMATTED-TEXT	
		FREE-TEXT-INFO-LINE1
		FREE-TEXT-INFO-LINE2
		FREE-TEXT-INFO-LINE3
		FREE-TEXT-INFO-LINE4
		FREE-TEXT-INFO-LINE5
		FREE-TEXT-INFO-LINE6
		FREE-TEXT-INFO-LINE7
		FREE-TEXT-INFO-LINE8
		FREE-TEXT-INFO-LINE9
		FREE-TEXT-INFO-LINE10
		FREE-TEXT-INFO-LINE11
		FREE-TEXT-INFO-LINE12

11. Appendix B: ACH Codes

11.1 ACH Standard Entry Class Codes

The Standard Entry Class Code (SEC) is a 3-character mnemonic that is located in the ACH company/batch header record and permits various kinds of entries to be distinguished.

Complete descriptions for each of the SEC codes listed below are located in the ACH Rules Book published by NACHA.

Table 15: ACH Entry Class Codes

Standard Entry Class Code	Description
ACK	ACH Payment Acknowledgement
ADV	Automated Accounting Advice
ARC	Accounts Receivable Entry
ATX	Financial EDI Acknowledgement
BOC	Back Office Conversion (2008)
CBR	Corporate Cross-Border Payment (Expired March 2009)
CCD	Cash Concentration or Disbursement
CIE	Customer Initiated Entry
COR	Automated Notification of Change and Automated Refused Notification of Change
CTX	Corporate Trade Exchange
DNE	Death Notification Entry
ENR	Automated Enrollment Entry
IAT	International ACH Transaction (New March 2009)
MTE	Machine Transfer Entry
PBR	Consumer Cross-Border Payment (Expired March 2009)
POP	Point-of-Purchase Entry
POS	Point of Sale Entry
PPD	Prearranged Payment and Deposit Entry
RCK	Re-presented Check Entry
SHR	Shared Network Entry
TEL	Telephone-Initiated Entry
TRC	Truncated Entry
TRX	Truncated Entries Exchange
WEB	Internet-Initiated Entry
XCK	Destroyed Check Entry

11.2 ACH Transaction Codes and Descriptions

Complete descriptions are located in the ACH Rules Book published by NACHA.

Table 16: NACHA Transaction Codes

NACHA Transaction Code	Description	Account Type	Financial Transaction Type
20	Reserved	Demand	Credit
21	Automated Return or Notification of Change for original transaction code 22, 23, or 24.	Demand	Credit
22	Automated Deposit	Demand	Credit
23	Pre-Note of Demand Credit Authorization; Death Notification (non-dollar); Automated Enrollment Entry (non-dollar)	Demand	Credit
24	Zero Dollar with remittance data (CCD and CTX only); Acknowledgement entries (ACK and ATX only)	Demand	Credit
25	Reserved	Demand	Debit
26	Automated Return or Notification of Change for original transaction code 27, 28, or 29.	Demand	Debit
27	Automated Payment	Demand	Debit
28	Pre-Note of Demand Debit Authorization (non-dollar)	Demand	Debit
29	Zero Dollar with remittance data (CCD and CTX only)	Demand	Debit
30	Reserved	Savings	Credit
31	Automated Return or Notification of Change for original transaction code 32, 33, or 34	Savings	Credit
32	Automated Deposit	Savings	Credit
33	Pre-Note of Savings Credit Authorization; Death Notification (non-dollar), Automated Enrollment Entry (non-dollar)	Savings	Credit
34	Zero Dollar with remittance data (CCD and CTX only); Acknowledgement entries (ACK and ATX only)	Savings	Credit
35	Reserved	Savings	Debit
36	Automated Return or Notification of Change for original transaction code 37, 38, or 39	Savings	Debit
37	Automated Payment	Savings	Debit
38	Pre-Note of Savings Debit Authorization (non-dollar)	Savings	Debit
39	Zero Dollar with remittance data (CCD and CTX only)	Savings	Debit
40	Not documented	FIGL	Credit
41	Automated Return or Notification of Change for original transaction code 42, 43, or 44	FIGL	Credit
42	Automated General Ledger Deposit	FIGL	Credit

NACHA Transaction Code	Description	Account Type	Financial Transaction Type
43	Pre-Note of General Ledger Credit Authorization (non-dollar)	FIGL	Credit
44	Zero Dollar with remittance data (CCD and CTX only)	FIGL	Credit
45	Not documented	FIGL	Debit
46	Automated Return or Notification of Change for original transaction code 47, 48, or 49	FIGL	Debit
47	Automated General Ledger Payment	FIGL	Debit
48	Pre-Note of General Ledger Debit Authorization (non-dollar)	FIGL	Debit
49	Zero Dollar with remittance data (CCD and CTX only)	FIGL	Debit
50	Not documented	Loan	Credit
51	Automated Return or Notification of Change for original transaction code 52, 53, or 54	Loan	Credit
52	Automated Loan Account Deposit (Loan Payment)	Loan	Credit
53	Pre-Note of Loan Account Credit Authorization (non-dollar)	Loan	Credit
54	Zero Dollar with remittance data (CCD and CTX only)	Loan	Credit
55	Automated Loan Account Debit (Reversals only) (used rarely -- reverses code 52)	Loan	Debit
56	Automated Return or Notification of Change for original transaction code 55	Loan	Debit
81	Credit for ACH debits originated	Accounting Advice	Credit
82	Debit for ACH credits originated	Accounting Advice	Debit
83	Credit for ACH credits received	Accounting Advice	Credit
84	Debit for ACH debits received	Accounting Advice	Debit
85	Credit for ACH credits in rejected batches	Accounting Advice	Credit
86	Debit for ACH debits in rejected batches	Accounting Advice	Debit
87	Summary credit for respondent ACH activity	Accounting Advice	Credit
88	Summary debit for respondent ACH activity	Accounting Advice	Debit

11.3 ACH Reason Codes and Descriptions

The information in the following table was obtained from the ACH Rules Book.

Table 17: NACHA Reason Codes and Descriptions

Reason Code	Description	Usage
R01	Insufficient Funds	Returns
R02	Account Closed	Returns
R03	No Account/Unable to Locate Account	Returns
R04	Invalid Account Number	Returns
R05	Unauthorized Debit to Consumer Account using Corporate SEC Code (Adjustment Entries)	Returns
R06	Returned per Originating Depository Financial Institution's Request	Returns
R07	Authorization Revoked by Customer	Returns
R08	Payment Stopped	Returns
R09	Uncollected Funds	Returns
R10	Customer Advises not Authorized, Notice Not Provided, Improper Source Document, etc.	Returns
R11	Check Truncation Entry Return	Returns
R12	Account Sold to Another DFI	Returns
R13	Invalid ACH Routing Number	Returns
R14	Representative Payee (account holder) Deceased or Unable to Continue in that Capacity	Returns
R15	Beneficiary or Account Holder (other than a representative payee) Deceased	Returns
R16	Account Frozen	Returns
R17	File Record Edit Criteria	Returns
R18	Improper Effective Entry Date	Returns
R19	Amount Field Error	Returns
R20	Non-transaction Account	Returns
R21	Invalid Company Identification	Returns
R22	Invalid Individual I.D. Number	Returns
R23	Credit Entry Refused by Receiver	Returns
R24	Duplicate Entry	Returns
R25	Addenda Error	Returns
R26	Mandatory Field Error	Returns
R27	Trace Number Error	Returns
R28	Routing Number Check Digit Error	Returns
R29	Corporate Customer Advises not Authorized (CCD)	Returns
R30	RDFI not Participant in Check Truncation Program	Returns
R31	Permissible return entry (CCD)	Returns
R32	RDFI Non-Settlement	Returns
R33	Return of XCK Entry	Returns
R34	Limited Participation D.F.I.	Returns

Reason Code	Description	Usage
R35	Return of Improper Debit Entry	Returns
R36	Return of Improper Credit Entry	Returns
R37	Source Document Presented for Payment (adjustment entries) (ARC.)	Returns
R38	Stop Payment on Source Document (adjustment entries)	Returns
R39	Improper Source Document	Returns
R40	Non Participant in ENR Program	Returns
R41	Invalid Transaction Code (ENR only)	Returns
R42	Routing Number/Check Digit Error (ENR only)	Returns
R43	Invalid DFI Account Number (ENR only)	Returns
R44	Invalid Individual I.D. Number (ENR only)	Returns
R45	Invalid Individual Name (ENR only)	Returns
R46	Invalid Representative Payee Indicator (ENR only)	Returns
R47	Duplicate Enrollment (ENR only)	Returns
R50	State Law Prohibits Truncated Checks	Returns
R51	Item is Ineligible, Notice Not Provided, Signature Not Genuine, Item Altered, Amount of Entry ...	Returns
R52	Stop Pay on Item	Returns
R53	Item and A.C.H. Entry Presented for Payment	Returns
R61	Misrouted Return	Automated Dishonored Returns
R67	Duplicate Return	Automated Dishonored Returns
R68	Untimely Return	Automated Dishonored Returns
R69	Field Errors	Automated Dishonored Returns
R70	Permissible Return Entry Not Accepted	Automated Dishonored Returns
R71	Misrouted Dishonored Return	Automated Contested Dishonored Returns
R72	Untimely Dishonored Return	Automated Contested Dishonored Returns
R73	Timely Original Return	Automated Contested Dishonored Returns
R74	Corrected Return	Automated Contested Dishonored Returns
R75	Original Return not a Duplicate	Automated Contested Dishonored Returns
R76	No Errors Found	Automated Contested Dishonored Returns
R80	Cross-Border Payment Coding Error	Cross Border Payments
R81	Non-Participant in Cross-Border Program	Cross Border Payments

Reason Code	Description	Usage
R82	Invalid Foreign Receiving DFI Identification	Cross Border Payments
R83	Foreign Receiving DFI Unable to Settle	Cross Border Payments
R84	Entry Not Processed by OGO	Cross Border Payments
C01	Incorrect DFI Account Number	Notification of Change
C02	Incorrect Routing Number	Notification of Change
C03	Incorrect Routing Number and Incorrect DFI Account Number	Notification of Change
C04	Incorrect Individual Name / Receiving Company Name	Notification of Change
C05	Incorrect Transaction Code	Notification of Change
C06	Incorrect DFI Account Number and Incorrect Transaction Code	Notification of Change
C07	Incorrect Routing Number, Incorrect DFI Account Number, and Incorrect Transaction Code	Notification of Change
C08	Incorrect Foreign Receiving DFI Identification	Notification of Change
C09	Incorrect Individual Identification Number	Notification of Change
C13	Addenda Format Error	Notification of Change
C61	Misrouted Notification of Change	Refused Notification of Change
C62	Incorrect Trace Number	Refused Notification of Change
C63	Incorrect Company Identification Number	Refused Notification of Change
C64	Incorrect Individual Identification Number / Identification Number	Refused Notification of Change
C65	Incorrectly Formatted Corrected Data	Refused Notification of Change
C66	Incorrect Discretionary Data	Refused Notification of Change
C67	Routing Number Not From Original Entry Detail Record	Refused Notification of Change
C68	DFI Account Number Not From Original Entry Detail Record	Refused Notification of Change
C69	Incorrect Transaction Code	Refused Notification of Change

11.4 ACH Content Element Names

The following table lists the static names that will be found in the ACHContentElementName.

Table 18: ACH Content Element Names

ACH CONTENT ELEMENT NAME
ACH-OPERATOR-DATA
ADDENDA-INFORMATION
ADDENDA-RECORD-INDICATOR
ADDENDA-SEQUENCE-NUMBER
ADDENDA-TYPE-CODE
ADVICE-ROUTING-NUMBER
AMOUNT
AUTHORIZATION-CODE-OR-CARD-EXPIRATION-DATE
BATCH-NUMBER
CARD-EXPIRATION-DATE
CARD-TRANSACTION-TYPE-CODE
CHANGE-CODE
CHECK-DIGIT
CHECK-SERIAL-NUMBER
COMPANY-DESCRIPTIVE-DATE
COMPANY-DISCRETIONARY-DATA
COMPANY-ENTRY-DESCRIPTION
COMPANY-IDENTIFICATION
COMPANY-NAME
CONTESTED-DISHONORED-RETURN-REASON-CODE
CORRECTED-DATA
COR-TRACE-SEQUENCE-NUMBER
DATE-OF-DEATH
DATE-ORIGINAL-ENTRY-RETURNED
DFI-ACCOUNT-NUMBER
DISCRETIONARY-DATA
DISCRETIONARY-DATA-CARD-TRANSACTION-TYPE-CODE
DISHONORED-RETURN-REASON-CODE
DISHONORED-RETURN-SETTLEMENT-DATE
DISHONORED-RETURN-TRACE-NUMBER
DOCUMENT-REFERENCE-NUMBER
EFFECTIVE-ENTRY-DATE
ENTRY-DETAIL-SEQUENCE-NUMBER
FILE-IDENTIFICATION
FOREIGN-CORRESPONDENT-BANK-BRANCH-COUNTRY-CODE
FOREIGN-CORRESPONDENT-BANK-IDENTIFICATION-NUMBER
FOREIGN-CORRESPONDENT-BANK-IDENTIFICATION-NUMBER-QUALIFIER (Shortened to: FOREIGN-CORRESPONDENT-BANK-ID-NUMBER-QUALIFIER)
FOREIGN-CORRESPONDENT-BANK-NAME
FOREIGN-EXCHANGE-INDICATOR
FOREIGN-EXCHANGE-REFERENCE
FOREIGN-EXCHANGE-REFERENCE-INDICATOR

ACH CONTENT ELEMENT NAME
FOREIGN-PAYMENT-AMOUNT
FOREIGN-RECEIVERS-ACCOUNT-NUMBER-DFI-ACCOUNT-NUMBER (Shortened to: FOREIGN-RECEIVERS-ACCOUNT-NUMBER-DFI-ACCOUNT)
FOREIGN-RECEIVING-DFI-IDENTIFICATION
FOREIGN-TRACE-NUMBER
GATEWAY-OPERATOR-OFAC-SCREENING-INDICATOR
GO-IDENTIFICATION-ORIGINATING-DFI-IDENTIFICATION
GO-IDENTIFICATION-RECEIVING-DFI-IDENTIFICATION
IAT-INDICATOR
IDENTIFICATION-NUMBER
INDIVIDUAL-CARD-ACCOUNT-NUMBER
INDIVIDUAL-IDENTIFICATION-NUMBER
INDIVIDUAL-IDENTIFICATION-NUMBER-IDENTIFICATION-NUMBER (Shortened to: INDIVIDUAL-IDENTIFICATION-NUMBER-IDENT-NUMBER)
INDIVIDUAL-IDENTIFICATION-NUMBER-IDENTIFICATION-NUMBER-CHECK-SERIAL-NUMBER (Shortened to: INDIVIDUAL-IDENT-NUMBER-IDENT-NUMBER-CHECK-SERIAL)
INDIVIDUAL-NAME
INDIVIDUAL-NAME-RECEIVING-COMPANY-NAME
ISO-DESTINATION-COUNTRY-CODE
ISO-DESTINATION-CURRENCY-CODE
ISO-ORIGINATING-CURRENCY-CODE
ITEM-RESEARCH-NUMBER
ITEM-TYPE-INDICATOR
JULIAN-DATE-ON-WHICH-THIS-ADVICE-IS-CREATED
NETWORK-IDENTIFICATION-CODE
NUMBER-OF-ADDENDA-RECORDS
ORIGINAL-ENTRY-TRACE-NUMBER
ORIGINAL-FORWARD-ENTRY-PAYMENT-AMOUNT
ORIGINAL-RECEIVING-DFI-IDENTIFICATION
ORIGINAL-SETTLEMENT-DATE-JULIAN
ORIGINATING-DFI-BRANCH-COUNTRY-CODE
ORIGINATING-DFI-IDENTIFICATION
ORIGINATING-DFI-IDENTIFICATION-NUMBER-QUALIFIER
ORIGINATING-DFI-NAME
ORIGINATOR-CITY-STATE-PROVINCE
ORIGINATOR-COUNTRY-AND-POSTAL-CODE
ORIGINATOR-IDENTIFICATION
ORIGINATOR-NAME
ORIGINATOR-STATUS-CODE
ORIGINATOR-STREET-ADDRESS
PAYMENT-RELATED-INFORMATION
PAYMENT-TYPE-CODE
PROCESS-CONTROL-FIELD
RECEIVER-CITY-AND-STATE-PROVINCE
RECEIVER-COUNTRY-AND-POSTAL-CODE

ACH CONTENT ELEMENT NAME
RECEIVER-IDENTIFICATION-NUMBER
RECEIVER-STREET-ADDRESS
RECEIVING-COMPANY-NAME
RECEIVING-COMPANY-NAME-ID-NUMBER
RECEIVING-COMPANY-NAME-INDIVIDUAL-NAME
RECEIVING-DFI-BRANCH-COUNTRY-CODE
RECEIVING-DFI-IDENTIFICATION
RECEIVING-DFI-IDENTIFICATION-NUMBER-QUALIFIER
RECEIVING-DFI-NAME
RECORD-TYPE-CODE
REFERENCE-INFORMATION-1
REFERENCE-INFORMATION-2
REFUSED-ACKNOWLEDGEMENT-CODE
REFUSED-COR-CODE
RESERVED
RETURN-REASON-CODE
RETURN-SETTLEMENT-DATE
RETURN-TRACE-NUMBER
ROUTING-NUMBER-OF-ACH-OPERATOR
SECONDARY-OFAC-SCREENING-INDICATOR
SEQUENCE-NUMBER-WITHIN-BATCH
SERVICE-CLASS-CODE
SETTLEMENT-DATE-JULIAN
STANDARD-ENTRY-CLASS-CODE
TERMINAL-CITY
TERMINAL-IDENTIFICATION-CODE
TERMINAL-LOCATION
TERMINAL-STATE
TOTAL-AMOUNT
TRACE-NUMBER
TRANSACTION-CODE
TRANSACTION-DATE
TRANSACTION-DESCRIPTION
TRANSACTION-SERIAL-NUMBER
TRANSACTION-TIME
TRANSACTION-TYPE-CODE

12. Appendix C: Sample Files

Shown below is a sample file for a Summary Only Extract Type. The purpose of this example is to familiarize users of this document with the basic XML structure. Additional larger example files can be found on the CIR web site.

```
<?xml version="1.0" encoding="UTF-8"?>
<!-- edited with XMLSpy v2007 sp2 (http://www.altova.com) by Kate Wilson (PNC - RIVERTECH OPERATIONS CTR) -->
<!-- Sample XML file generated by XMLSpy v2007 sp2 (http://www.altova.com)-->
<Transmission xmlns="urn:us:gov:treas:fms:BusinessTransaction:v4.3" xmlns:ns2="urn:us:gov:treas:fms:TRS:TradingPartner:v2.3" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="urn:us:gov:treas:fms:BusinessTransaction:v4.3 Transmission.xsd urn:us:gov:treas:fms:TRS:TradingPartner:v2.3 TradingPartner2.3.xsd" ID="2009113000001" TransmissionTimestamp="2009-11-30T09:30:47.01" BusinessTransmissionCategory="Receivables" InputSystem="TRS" SequenceNumber="1" TotalAmount="6775.05" TotalCount="3">
  <Summary ID="2009113011111" SummaryDate="2009-11-27" SummaryNumber="900000" SummaryType="215" TotalAmount="3065.97" TotalCount="1" DepositDate="2009-11-27" IsCredit="1">
    <AccountClassification ID="2009113011111" TreasuryAccountSymbolText="9846937820072011A4432367" IsCredit="1">
      <TreasuryAccountSymbol Sub-levelPrefixCode="98" AllocationTransferAgencyIdentifier="469" AgencyIdentifier="378" BeginningPeriodOfAvailability="2007" EndingPeriodOfAvailability="2011" AvailabilityTypeCode="A" MainAccountCode="4432" Sub-accountCode="367"/>
      <BusinessEventType BusinessEventTypeCode="A"/>
      <Classification Amount="1239.97"/>
      <TradingPartnerExtensions ID="2009113011111">
        <TradingPartnerExtension ID="2009113011111">
          <ns2:TRS_TradingPartner_Agreement>
            <ns2:Program_Data ID="2009113011111" UserDataCount="1">
              <ns2:UserData ID="2009113011112" SourceLabel="CLS#9824">
                <ns2:UserDataContent>CD Account 867</ns2:UserDataContent>
              </ns2:UserData>
            </ns2:Program_Data>
          </ns2:TRS_TradingPartner_Agreement>
        </TradingPartnerExtension>
      </TradingPartnerExtensions>
    </AccountClassification>
    <AccountClassification ID="2009113011112" TreasuryAccountSymbolText="9846937820072011A4432367" IsCredit="1">
      <TreasuryAccountSymbol Sub-levelPrefixCode="98" AllocationTransferAgencyIdentifier="469" AgencyIdentifier="378" BeginningPeriodOfAvailability="2007" EndingPeriodOfAvailability="2011" AvailabilityTypeCode="A" MainAccountCode="4432" Sub-accountCode="367"/>
      <BusinessEventType BusinessEventTypeCode="X"/>
      <Classification Amount="1826.00"/>
    </AccountClassification>
    <Agency AgencyIdentifier="322" BudgetBureauCode="99" AgencyLocationCode="70010103" OfficeLocationCode="7001010301">
      <CashFlowReference CashFlowName="ColSys" CashFlowIdentifier="7001010301"/>
    </Agency>
    <BankInfo BankName="Peoples Trust Company of St. Albans" RoutingNumber="100062230" IsNonDomestic="0"/>
    <FinancialReportingDetails FinancialInstitutionText="deposited on the 21st. The date of 11/21/09 is not a business day." IsForeignCheck="0">
      <GovernmentDepositAccount CashlinkAccountNumber="001030" AccountKeyCode="24A" CostCenterWorkUnitCode="5901"/>
      <OriginalSummaryReference SummaryDate="2009-11-20" SummaryNumber="8776529"/>
      <FiscalDateDetail FiscalYear="2009" FiscalMonth="--11"/>
    </FinancialReportingDetails>
  </Summary>
</Transmission>
```

```

        <AdjustmentDetail AdjustmentReasonText="Coupon Expired" AdjustmentReasonCode="1A"/>
    </FinancialReportingDetails>
    <TransmissionSubmitterDetail InputSystem="TGAnet"/>
    <ReferenceGroups>
        <ReferenceGroup ReferenceNumber="054617" ReferenceName="Rich Weigelt" ReferenceCode="20001" ReferenceText="CHECKS/MO"
IsCurrentReference="1"/>
    </ReferenceGroups>
    <TradingPartnerExtensions ID="2009113011111">
        <TradingPartnerExtension ID="2009113011111">
            <ns2:TRS_TradingPartner_Agreement>
                <ns2:TRS_Summary ID="2009113011111" PARSCode="U7899" BusinessDate="2009-11-27"
AgencyAccountIdentifier="100089677" ReceiptsFromDate="2009-11-26" ReceiptsToDate="2009-11-27">
                    <ns2:OrganizationStructureCollection Count="4">
                        <ns2:OrganizationCode OrganizationCodeLevel="1">CBP</ns2:OrganizationCode>
                        <ns2:OrganizationCode OrganizationCodeLevel="2">Natl CMC</ns2:OrganizationCode>
                        <ns2:OrganizationCode OrganizationCodeLevel="3">102</ns2:OrganizationCode>
                        <ns2:OrganizationCode OrganizationCodeLevel="4">10201</ns2:OrganizationCode>
                    </ns2:OrganizationStructureCollection>
                    <ns2:AccountCode RevenueSourceCode="106A" BusinessLineSubFunctionCode="233" CategoryCode="Natl
CMCCPM"/>
                <ns2:Contact ID="2009113011111" Name="Rich Weigelt" GroupName="STREVIG ASOC" Comment="X-2696"
ContactType="Initiator" PhoneNumber="5552366642"/>
                    </ns2:TRS_Summary>
                    <ns2:Program_Data ID="2009113011111" UserDataCount="1">
                        <ns2:UserData ID="2009113011113" SourceLabel="10000000789D" AgencyLabel="CITIBINC 895" HasPrivacyData="0">
                            <ns2:UserDataContent>Citibank NA ACCT 1019388897-890</ns2:UserDataContent>
                        </ns2:UserData>
                    </ns2:Program_Data>
                </ns2:TRS_TradingPartner_Agreement>
            </TradingPartnerExtension>
        </TradingPartnerExtensions>
    </Summary>
    <Summary ID="2009113022221" SummaryDate="2009-11-27" SummaryNumber="131297" SummaryType="5515" TotalAmount="1020.08" TotalCount="1" IsCredit="0">
        <AccountClassification ID="2009113022221" IsCredit="0">
            <Ckey ClassName="Item Type" ClassValue="B2 70X5088.1"/>
            <Classification Amount="100.00"/>
        </AccountClassification>
        <AccountClassification ID="2009113022222" IsCredit="0">
            <Ckey ClassName="Item Type" ClassValue="D1 70X5126.1"/>
            <Classification Amount="500.08"/>
        </AccountClassification>
        <AccountClassification ID="2009113022223" IsCredit="0">
            <Ckey ClassName="Item Type" ClassValue="01"/>
            <Classification Amount="300.00"/>
        </AccountClassification>
        <AccountClassification ID="2009113022224" IsCredit="0">
    
```

```

        <Ckey ClassName="Item Type" ClassValue="N7 70X5088.1"/>
        <Classification Amount="120.00"/>
    </AccountClassification>
    <BankInfo BankName="Bank of America" RoutingNumber="100062230" IsNonDomestic="0"/>
    <FinancialReportingDetails FinancialInstitutionText="mailed" IsForeignCheck="0">
        <GovernmentDepositAccount CashlinkAccountNumber="001034" AccountKeyCode="BDE"/>
        <FiscalDateDetail FiscalYear="2009" FiscalMonth="--11"/>
        <SummaryCashManagement IsCommercialVoucher="0"/>
    </FinancialReportingDetails>
    <TransmissionSubmitterDetail InputSystem="TGAnet"/>
    <ReferenceGroups>
        <ReferenceGroup ReferenceNumber="100023" ReferenceName="Rich Weigelt" ReferenceText="DT1320JT004 1320-704 $750.00 1320-709
$3352.00 1320-711 $100.00 1320-713 $130.00 1320-741 $240.00" ReferenceCode="20876" IsCurrentReference="1"/>
    </ReferenceGroups>
    <TradingPartnerExtensions ID="2009113022221">
        <TradingPartnerExtension ID="2009113022221">
            <ns2:TRS_TradingPartner_Agreement>
                <ns2:Program_Data ID="2009113022221" UserDataCount="3">
                    <ns2:UserData ID="2009113022221" SourceLabel="10000000789B" AgencyLabel="FINTREAS" HasPrivacyData="1">
                        <ns2:UserDataContent>CD # 080112</ns2:UserDataContent>
                    </ns2:UserData>
                    <ns2:UserData ID="2009113022222" SourceLabel="10000000789C" HasPrivacyData="1">
                        <ns2:UserDataContent>CD # 080653</ns2:UserDataContent>
                    </ns2:UserData>
                    <ns2:UserData ID="2009113022223" SourceLabel="10000000789G" HasPrivacyData="1">
                        <ns2:UserDataContent>CD # 080998</ns2:UserDataContent>
                    </ns2:UserData>
                </ns2:Program_Data>
            </ns2:TRS_TradingPartner_Agreement>
        </TradingPartnerExtension>
    </TradingPartnerExtensions>
    </Summary>
    <Summary ID="2009113033331" SummaryDate="2009-11-27" SummaryNumber="141298" SummaryType="215A" TotalAmount="2689.00" TotalCount="1"
DepositDate="2009-11-27" IsCredit="1">
        <AccountClassification ID="2009113022221" TaxClassCode="4" IsCredit="1">
            <Ckey ClassName="Item Type" ClassValue="B2 70X5088.1"/>
            <Classification Amount="2689.00"/>
        </AccountClassification>
        <Agency AgencyIdentifier="998" BudgetBureauCode="45" AgencyLocationCode="33020001" OfficeLocationCode="3302000102">
            <CashFlowReference CashFlowName="ColSys" CashFlowIdentifier="8801010699"/>
        </Agency>
        <BankInfo BankName="Bank of America" RoutingNumber="100062230" IsNonDomestic="0"/>
        <TransmissionSubmitterDetail InputSystem="PATAX"/>
    </Summary>
</Transmission>

```