



Chapter 1

Document Hierarchy Overview

Document Types

The ClearCommerce Engine accepts the following types of documents.

Document Type	Description
OrderFormDoc	Contains transaction processing information, such as the details of a customer's purchase and credit card.
ConfigDoc	Contains a request to add, modify, delete, or return component information.
ReportDoc	Generates a database query that returns a report on customer transactions and other relevant information.

Data Types

The ClearCommerce Engine supports the following data types.

Data Type	Description
DateTime	Specifies a timestamp, in milliseconds since January 1, 1970.
ExpirationDate	Specifies the expiration date, such as that of a credit card. Valid formats are "MM/YY" and "MM/DD/YY"

Data Type	Description
Money	<p>Specifies a monetary amount.</p> <p>The Money data type requires knowledge of the ISO 4217 currency codes and decimal values. For U.S. dollars, these values are 840 and 2, respectively.</p> <p>A Store can support only one currency. Therefore, all orders sent to the ClearCommerce Engine for processing must be in the same currency as configured for the Store. Otherwise, the transaction will fail.</p>
Numeric	<p>Represents a decimal value by specifying an amount and the precision of the amount.</p>
S32	<p>Specifies a 32-bit integer.</p>
StartDate	<p>Specifies the start date of a credit card. (Most credit cards do not have a start date.) Valid formats are "MM/YY" and "MM/DD/YY"</p>

Document Hierarchy

The document hierarchy is listed below. It includes the data type for each field in the hierarchy. The ClearCommerce Engine supports the fields and records in the document hierarchy and reserves the right to add fields as needed. You can add new fields and records, but the ClearCommerce Engine does not act upon a field that is not in the document hierarchy. However, the FraudShield component can use customized fields within a fraud rule to detect a potentially fraudulent transaction.

Note: It is important that if you add customized fields and records, you should prefix the names with a unique identifier to minimize the possibility of new ClearCommerce Engine fields and records having the same name as your fields and records. If there are duplicate entries in the document hierarchy, the fields and records supported by the ClearCommerce Engine will take precedence.

Record names are preceded with +--. Field names are preceded by |_.

If an asterisk (*) appears after a record name, the record can occur within a document multiple times. The most common example of a repeated record is the EngineDocList.EngineDoc.OrderFormDoc.OrderItemList.OrderItem record. Each OrderItem record describes an item purchased, including a description of the item, its price, weight, and tax.

Note: Some records and fields in the document hierarchy are reserved for future use. These are denoted by the word *reserved*.

Document Hierarchy Overview

```
EngineDocList
|__ DocVersion (String)
|
+-- EngineDoc *
|   |__ ContentType (String)
|   |__ DocumentId (String)
|   |__ IPAddress (String)
|   |__ SourceId (String)
|   |__ TimeIn (DateTime)
|   |__ TimeOut (DateTime)
|   +-- User
|       |__ ClientId (S32)
|       |__ EffectiveClientId (S32)
|       |__ Name (String)
|       |__ Password (String)
|   +-- _CurrentUser
|       |__ ClientId (S32)
|       |__ ClientType (String)
|       |__ EffectiveClientId (S32)
|       |__ EffectiveClientType (String)
|       |__ Permissions (S32)
|   +-- _UserConfigInfo
|       |
|       +-- Storefront
|           |__ ActiveFlag (S32)
|           |__ AltTaxId (String)
|           |__ ClientId (S32)
|           |__ ClientType (String)
|           |__ Created (DateTime)
|           |__ Currency (String)
|           |__ Email (String)
|           |__ Id (S32)
|           |__ IndustryStdCode (String)
|           |__ LastUpdate (DateTime)
|           |__ Locale (String)
|           |__ MerchCatCode (String)
|           |__ MerchIcaNum (String)
|           |__ MerchTaxId (String)
|           |__ ParentId (S32)
|           |__ PartialShip (S32)
|           |__ PCardOpt (S32)
|           |
|           +-- Location
|               |__ TelFax (String)
|               |__ TelVoice (String)
|               |
|               +--Address
|                   |__ City (String)
|                   |__ Company (String)
|                   |__ Country (String)
|                   |__ Name (String)
```

```

|__ PostalCode (String)
|__ StateProv (String)
|__ Street1 (String)
|__ Street2 (String)
|__ Street3 (String)
+-- Merchant
|__ ActiveFlag (S32)
|__ ClientId (S32)
|__ ClientType (String)
|__ Created (DateTime)
|__ Currency (String)
|__ Email (String)
|__ Id (S32)
|__ LastUpdate (DateTime)
|__ Locale (String)
|__ LogoUrl (String)
+-- Location
|__ TelFax (String)
|__ TelVoice (String)
|
+--Address
|__ City (String)
|__ Company (String)
|__ Country (String)
|__ Name (String)
|__ PostalCode (String)
|__ StateProv (String)
|__ Street1 (String)
|__ Street2 (String)
|__ Street3 (String)
+-- CSP
|__ ActiveFlag (S32)
|__ ClientId (S32)
|__ ClientType (String)
|__ Created (DateTime)
|__ Currency (String)
|__ Email (String)
|__ Id (S32)
|__ LastUpdate (DateTime)
|__ Locale (String)
|__ LogoUrl (String)
+-- Location
+-- TelFax (String)
+-- TelVoice (String)
|
+--Address
|__ City (String)
|__ Company (String)
|__ Country (String)
|__ Name (String)

```


Document Hierarchy Overview

|__ AvsFilter (String)
|__ BankCardMerchantNumber (String)
|__ BatchSize (S32)
|__ BusinessClassification (String)
|__ CardAcceptorBusinessCode (String)
|__ CardTypeCode (S32)
|__ CarteBlancheSENumber (String)
|__ City (String)
|__ ComponentName (String)
|__ ConfigCacheSize (S32)
|__ ConnectionInterface (String)
|__ Country (String)
|__ CreatedDttm (DateTime)
|__ Currency (String)
|__ CustomerId (S32)
|__ DinersSENumber (String)
|__ DiscoverNovusSENumber (String)
|__ DivisionId (String)
|__ DataSetName (String)
|__ Email (String)
|__ ExchangeRate (S32)
|__ ExchangeToCurrCode (S32)
|__ FirstDataSourceID (String)
|__ FtpPassword (String)
|__ FtpUserName (String)
|__ IndustryStdCode (String)
|__ InstitutionId (S32)
|__ InvoiceBatch (String)
|__ InvoiceSubcode (String)
|__ JCBSENumber (String)
|__ Job_Name (String)
|__ Locale (String)
|__ MasterCardAcceptorId (S32)
|__ MasterCardCCTId (S32)
|__ MaxResponseWaitTime (S32)
|__ MerchantId (String)
|__ MerchLocNum (String)
|__ MerchantNumber (String)
|__ MerchCatCode (String)
|__ MerchIcaNum (String)
|__ MerchLocationIncorporationStatus (String)
|__ MerchReportInd (String)
|__ MerchTaxId (String)
|__ MerchType (String)
|__ MessageFormat (String)
|__ MID (String)
|__ MsgContextId (String)
|__ MsgLocale (String)
|__ Name (String)
|__ NumConnections (String)
|__ NumSettleThreads (S32)
|__ ParentId (S32)
|__ PartialShip (S32)
|__ Password (String)

Document Hierarchy Overview

```
|__ PCardOpt (S32)
|__ PCID (String)
|__ PosId (String)
|__ PostalCode (String)
|__ PresenterID (String)
|__ PresenterIDPass (String)
|__ PrimaryHost (S32)
|__ PrimaryHostPort (S32)
|__ PrimaryUrl
|__ ProcessorTypeCode (String)
|__ ProcessorName (String)
|__ QuoteCommand (S32)
|__ RacialEthnicType (String)
|__ Rate (Numeric)
|__ RCVBILL_User (String)
|__ RoutingCacheSize (S32)
|__ SecondaryHost (S32)
|__ SecondaryHostPort (S32)
|__ SecurityCode (S32)
|__ SenderName (String)
|__ SequenceSize (S32)
|__ ServicePhone (String)
|__ SettleLevel (String)
|__ SolePropOwnerNameFirst (String)
|__ SolePropOwnerNameLast (String)
|__ SolePropOwnerNameMI (String)
|__ SortCode (S32)
|__ SourceId (String)
|__ State (String)
|__ StateProv (String)
|__ StoreId (String)
|__ StoreNumber (String)
|__ Street1 (String)
|__ Street2 (String)
|__ Street3 (String)
|__ SubmitterID (String)
|__ SubmitterIDPass (String)
|__ TaxpayerIdType (String)
|__ TelFax (String)
|__ TelVoice (String)
|__ TerminalId (String)
|__ TerminalIdPool (String)
|__ TerminalNumber (String)
|__ TID (String)
|__ TimeZoneDiff (String)
|__ User (String)
|__ VisaCardAcceptorId (S32)
|__ VisaCCTIID (S32)
|__ VolSerialPrefix (String)

+-- Instructions
|   |__ Pipeline (String)
```

```

|
|-- RoutingList
|   |-- Routing *
|       |-- Name (String)
|-- MessageList
|   |-- MaxSev (S32)
|   |-- Message *
|       |-- AdvisedAction (S32)
|       |-- Audience (String)
|       |-- Component (String)
|       |-- ContextId (String)
|       |-- DataState (S32)
|       |-- FileLine (S32)
|       |-- FileName (String)
|       |-- FileTime (String)
|       |-- ResourceId (S32)
|       |-- Sev (S32)
|       |-- Text (String)
|-- LoadDoc
|   |-- CmdLine (String)
|   |-- CompName (String)
|   |-- InstName (String)
|   |-- TmpDir (String)
|   |-- Parameters
|       |-- ConfigCacheSize (String)
|       |-- ConnectionInterface (String)
|       |-- CurrencyDecimalLevel (String)
|       |-- FirstDataSourceID (String)
|       |-- FtpTransferMode (String)
|       |-- InterBatchDelay (S32)
|       |-- InactivityTimeoutPeriod (String)
|       |-- MaxResponseWaitTime (String)
|       |-- NumConnections (String)
|       |-- NumRetries (S32)
|       |-- NumSettleThreads (S32)
|       |-- OutputBound (String)
|       |-- PrimaryHost (String)
|       |-- PrimaryHostPort (String)
|       |-- ProcessCacheSize ()
|       |-- RecvTimeout (String)
|       |-- RetryAttempts (String)
|       |-- RetryDelay (S32)
|       |-- RetryMethod (S32)
|       |-- RetryThread (String)
|       |-- RouterForwardTimeout (S32)
|       |-- SecondaryHost (String)
|       |-- SecondaryHostPort (String)
|       |-- SendTimeout (String)
|       |-- SettleThreads (String)
|       |-- SntpName (String)

```


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```
|__ RepeatCustomerFlag (S32)
|__ ShipToSameAsBillToFlag (String)
|__ SocialSecurityNumber (String)
+-- DriversLicense
|   |__ DLStateProv (String)
|   |__ DLNumber (String)
|
+-- PaymentMech
|   |__ Type (String)
|
+-- CreditCard
|   |__ Cvv2Indicator (String)
|   |__ Cvv2Val (String)
|   |__ Expires (ExpirationDate)
|   |__ IssueNum (String)
|   |__ Number (String)
|   |__ StartDate (StartDate)
|   |__ Type (S32)
|
+-- Check
|   |__ AccountNumber (String)
|   |__ AccountType (String)
|   |__ CheckNumber (String)
|   |__ CheckType (String)
|   |__ RoutingNumber (String)
|
+-- Coupon (reserved)
+-- Debit (reserved)
+-- BillTo
|
+-- Location
|   |__ Id (String)
|   |__ TelFax (String)
|   |__ TelVoice (String)
|
+-- Address
|   |__ City (String)
|   |__ Company (String)
|   |__ Country (String)
|   |__ Name (String)
|   |__ PostalCode (String)
|   |__ StateProv (String)
|   |__ Street1 (String)
|   |__ Street2 (String)
|   |__ Street3 (String)
|
+-- ShipTo
+-- Location
|   |__ Id (String)
|   |__ TelFax (String)
|   |__ TelVoice (String)
+-- Address
```

Document Hierarchy Overview

```
|__ City (String)
|__ Company (String)
|__ Country (String)
|__ Name (String)
|__ PostalCode (String)
|__ StateProv (String)
|__ Street1 (String)
|__ Street2 (String)
|__ Street3 (String)

+-- OrderItemList
+-- OrderItem *
|__ AltTax (Money)
|__ CommCode (String)
|__ Desc (String)
|__ DiscAmt (Money)
|__ DutyTax (Money)
|__ GrossNetIndicator (String)
|__ Id (String)
|__ ItemNumber (S32)
|__ Price (Money)
|__ ProductCode (String)
|__ Qty (S32)
|__ Ship (Money)
|__ StateTax (Money)
|__ TaxExempt (S32)
|__ TaxRate (Numeric)
|__ TaxType (String)
|__ Total (Money)
|__ UnitMeasure (String)
|__ VaShipAmt (Money)
|__ VaShipRate (Numeric)
|__ VatPercent (Numeric)
|__ VatTax (Money)
|__ Weight (S32)
+-- OptionList
+-- Option *
|__ Key (String)
|__ Value (String)

+-- OptionList
+-- Option *
|__ Key (String)
|__ Value (String)

+-- Transaction
|__ AuthCode (String)
|__ BuyerCode (String)
|__ CardholderPresentCode (S32)
|__ ChargebackCode (String)
|__ ChargebackCodeNormalized (S32)
|__ ChargeDesc1 (String)
|__ ChargeDesc2 (String)
|__ ChargeDesc3 (String)
```

```

|__ ChargeDesc4 (String)
|__ ChargeTypeCode (String)
|__ CommCode (String)
|__ ConsumerText (String)
|__ Currency (String) (reserved)
|__ DeclineCode (String)
|__ Id (String)
|__ InputEnvironment (S32)
|__ InvNumber (String)
|__ Locale (String) (reserved)
|__ _NeedNewTransaction (S32)
|__ NewHostRefNum (String)
|__ _NewTransactionType (String)
|__ _OriginalReturnSeqno (String)
|__ PaymentNumber (S32)
|__ PoNumber (String)
|__ _ReturnSeqNo (S32)
|__ ReviewPendFlag (S32)
|__ ReviewPendingAction (S32)
|__ SecurityIndicator (S32)
|__ SendPbAvsData (S32)
|__ SettleId (S32)
|__ SettleProcessor (String)
|__ TaxExempt (S32)
|__ TerminalInputCapability (S32)
|__ _ThisTransactionType (String)
|__ _ThisTransStatus (String)
|__ TotalNumberPayments (S32)
|__ _TranStatus (String)
|__ TransSrcCode (String)
|__ Type (String)
+-- CardProcResp
|__ AuthSrcCode (String)
|__ AvsDisplay (String)
|__ AvsRespCode (String)
|__ CcErrCode (S32)
|__ CcReturnMsg (String)
|__ CommercialCardType (S32)
|__ ConsumerText (String)
|__ CpsAciCode (String)
|__ CpsMsiCode (String)
|__ CpsValCode (String)
|__ Cvv2Resp (String)
|__ DeclineCode (String)
|__ HostRefNum (String)
|__ IcpBankNet (String)
|__ IcpCpsPosCode (String)
|__ IcpCpsTxnId (String)
|__ ProcReturnCode (String)
|__ ProcReturnMsg (String)
|__ Status (S32)
|__ Time (DateTime)

```

```

+-- CardProcRequest
|   |__ AccountNumber (String)
|   |__ AuthIdentifier (String)
|   |__ CaptureReference (String)
|   |__ CardAcceptorId (String)
|   |__ CardType (S32)
|   |__ NewTransactionId (String)
|   |__ PosConditionCode (String)
|   |__ PosEntryMode (String)
|   |__ _PrintOnRequest (S32)
|   |__ ProcessingCode (String)
|   |__ TerminalId (String)
+-- CurrentTotals
+-- Totals
|   |__ AltTax (Money)
|   |__ DiscAmt (Money)
|   |__ DutyTax (Money)
|   |__ Ship (Money)
|   |__ StateTax (Money)
|   |__ SubTotal (Money)
|   |__ Total (Money)
|   |__ VaPct (Numeric)
|   |__ VaShipAmt (Money)
|   |__ VaShipRate (Numeric)
|   |__ VatTax (Money)
+-- _OriginalTotals
+-- Totals
|   |__ AltTax (Money)
|   |__ DiscAmt (Money)
|   |__ DutyTax (Money)
|   |__ Ship (Money)
|   |__ StateTax (Money)
|   |__ SubTotal (Money)
|   |__ Total (Money)
|   |__ VaPct (Numeric)
|   |__ VaShipAmt (Money)
|   |__ VaShipRate (Numeric)
|   |__ VatTax (Money)
+-- ConfigDoc
+-- CompList
+-- Comp*
|   |__ Inst (String) (reserved)
|   |__ Name (String)
+-- ConfigActionList
+-- ConfigAction *
|   |__ Action (String)
|   |__ Name (String)
|   |__ RowCount (S32)
+-- ValueList
|   |__ RowError (S32) (reserved)
+-- Value *

```

Document Hierarchy Overview

```
__ AcctDesc (String)
__ AcctName (String)
__ AcquirerBin (String)
__ ActionCode (S32)
__ ActionOnMissingField (S32)
__ ActiveFlag (S32)
__ AgentBankNumber (String)
__ AgentChainNumber (String)
__ AltTaxId (String)
__ AmexSENumber (String)
__ Amount (Money)
__ AttrId (S32)
__ AttrLocale (String)
__ AttrParamFlag (S32)
__ AttrPathName (String)
__ AttrPosition (S32)
__ AttrValue (String)
__ AudMask (S32)
__ AvsFilter (String)
__ BankCardMerchantNumber (String)
__ BatchSize (S32)
__ BusinessClassification (String)
__ BuyerEmailFlag (S32)
__ CacheShippingTable (String)
__ CacheSize (S32)
__ CacheUsTaxCfg (String)
__ CardAcceptorBusinessCode (String)
__ CardTypeCode (S32)
__ CarrierDesc (String)
__ CarrierNumber (S32)
__ CarteBlancheSENumber (String)
__ CatId (S32)
__ CcDataType (S32)
__ Certification (String)
__ ChargebackCodeCategory (S32)
__ ChargebackCodeNormalized (S32)
__ ChargebackCodeOriginal (String)
__ ChargebackDescription (String)
__ City (String)
__ ClientId (S32)
__ ClientType (String)
__ CmdLine (String)
__ Company (String)
__ CompName (String)
__ ComponentName (String)
__ ConfigCacheSize (S32)
__ ConnectionInterface (String)
__ Country (String)
__ Created (String)
__ CreatedDttm (DateTime)
__ CryptoConfig (S32)
__ CustomerId (S32)
__ CryptoConfig (S32)
__ Currency (String)
```

	__ DbVersion (String)
	__ DefaultFlag (S32)
	__ DinersSENumber (String)
	__ DiscoverNovusSENumber (String)
	__ DisplayName (String)
	__ DivisionID (String)
	__ Email (String)
	__ EmailAddress (String)
	__ EmailFlag (S32)
	__ EmailIdFrom (String)
	__ EmailIdTo (String)
	__ EnabledFlag (S32)
	__ EncryptionCode (S32)
	__ Expression (String)
	__ FileSpec (String)
	__ FirstDataSourceID (String)
	__ FrdMapId (S32)
	__ FtpPassword (String)
	__ FtpSuffix (String)
	__ FtpSuffixTest (String)
	__ FtpUserName (String)
	__ FunctionCode (S32)
	__ GatewayId (S32)
	__ HighLimit (S32)
	__ Hint (String)
	__ ImplicitArrayKey (String)
	__ IndustryStdCode (String)
	__ Init (String)
	__ InstId (S32)
	__ InstitutionId (S32)
	__ InternalUse (S32)
	__ InvoiceBatch (String)
	__ InvoiceSubcode (String)
	__ IsoCntryCd (String)
	__ JCBSENumber (String)
	__ Job_Name (String)
	__ JobTime (S32)
	__ LastJobDttm (DateTime)
	__ LastSttlDttm (DateTime)
	__ LastUpdateDttm (DateTime)
	__ Locale (String)
	__ LogBackLog (S32)
	__ LogFileName (String)
	__ LogMaxFileSize (S32)
	__ LowLimit (S32)
	__ CryptoConfig (S32)
	__ MasterCardAcceptorId (S32)
	__ MasterCardCCTIID (S32)
	__ MaxResponseWaitTime (S32)
	__ MaxRules (S32)
	__ MerchantEmailFlag (S32)
	__ MerchantId (String)
	__ MerchantLocNum (String)
	__ MerchantNumber (String)

Document Hierarchy Overview

```
|__ MerchCatCode (String)
|__ MerchIcaNum (String)
|__ MerchLocationIncorporationStatus
   (String)
|__ MerchReportInd (String)
|__ MerchTaxId (String)
|__ MercType (String)
|__ MessageFormat (String)
|__ MID (String)
|__ MsgContextId (String)
|__ MsgLocale (String)
|__ MsgRsrcSeq (S32)
|__ MsgTemplate (String)
|__ MsgType (S32)
|__ Name (String)
|__ NewAttrValue (String)
|__ NewSttlTime (S32)
|__ NextJobDttm (DateTime)
|__ NextSttlDttm (DateTime)
|__ NumConnections (String)
|__ NumSettleThreads (String)
|__ OrderId (String)
|__ Origin (S32)
|__ OutputBound (S32)
|__ Overwrite (String)
|__ OwnerClassification (String)
|__ PageSize (S32)
|__ ParentId (S32)
|__ PartialShip (S32)
|__ Password (String)
|__ PCardOpt (S32)
|__ PCID (String)
|__ Permissions (S32)
|__ Port (S32)
|__ PostalCode (String)
|__ PresenterID (String)
|__ PresenterIDPass (String)
|__ PrimaryHost (String)
|__ PrimaryHostPort (String)
|__ PrimaryUrl (String)
|__ ProcessCacheSize (S32)
|__ ProcessCode (S32)
|__ ProcessorTypeCode (String)
|__ ProcessorName (String)
|__ ProcName (String)
|__ Proxy (S32)
|__ Public (S32)
|__ PurgeDuration (S32)
|__ QDepth (S32)
|__ QuoteCommand (S32)
|__ RacialEthnicType (String)
|__ Rate (Numeric)
|__ RCVBILL_User (String)
|__ RecStatus (String)
```



__ ReturnList (S32)
__ RoutingCacheSize (S32)
__ RuleId (S32)
__ RuleName (String)
__ SecondaryHost (String)
__ SecondaryHostPort (String)
__ SenderName (String)
__ SeqNum (S32)
__ SequenceSize (S32)
__ ServicePhone (String)
__ SettleLevel (String)
__ SevMask (S32)
__ ShipAlgorithm (S32)
__ ShipZone (S32)
__ SmtName (String)
__ SmtServer (String)
__ SolePropOwnerNameFirst (String)
__ SolePropOwnerNameLast (String)
__ SolePropOwnerNameMI (String)
__ SourceId (String)
__ SrcSeqNum (S32)
__ SslCertificate (String)
__ StartDate (StartDate)
__ State (String)
__ StateProcCd (String)
__ StateProv (String)
__ StatusFlag (S32)
__ StorefrontId (S32)
__ StoreId (String)
__ StoreNumber (String)
__ Street1 (String)
__ Street2 (String)
__ Street3 (String)
__ SttlTime (S32)
__ SubmitterID (String)
__ SubmitterIDPass (String)
__ SysAttrFlag (S32)
__ SysValueFlag (S32)
__ TaxCode (String)
__ TaxFile (String)
__ TaxpayerIdType (String)
__ TelFax (String)
__ TelVoice (String)
__ TemplateId (S32)
__ TemplateName (String)
__ TemplateText (String)
__ TemplateType (S32)
__ TerminalId (String)
__ TerminalIdPool (String)
__ TerminalNumber (String)
__ ThreadCount (S32)
__ TID (String)
__ TimeResolution (S32)
__ TimeZoneDiff (String)

Document Hierarchy Overview

```

|__ TmpDir (String)
|__ TransactionId (String)
|__ TrgSeqNum (S32)
|__ TrxInfFile (String)
|__ URL (String)
|__ User (String)
|__ UserConfigCacheSize (S32)
|__ ValidationCode (S32)
|__ VisaCardAcceptorId (S32)
|__ VisaCCTIID (S32)
|__ Xref (String)
+-- ReportDoc
  +-- CompList
    +-- Comp *
      |__ Inst (String) (reserved)
      |__ Name (String)
      +-- ReportActionList
        +-- ReportAction *
          |__ Count (S32)
          |__ ReportName (String)
          |__ Start (S32)
          |__ Total (S32)
          +-- Parameters
            | |__ Default (String)
          +-- ValueList
            +-- Value *
              |__ AddressFax (String)
              |__ AddressId (String) (reserved)
              |__ AddressName (String)
              |__ AddressPhone (String)
              |__ AddressStreet1 (String)
              |__ AddressStreet2 (String)
              |__ AddressStreet3 (String)
              |__ AltTax (Money)
              |__ AltTaxId (String) (reserved)
              |__ Amount (Money)
              |__ ApprovedCount (S32) (reserved)
              |__ AuditDate (DateTime)
              |__ AuditErrorMsg (String)
              |__ AuthorizedDate (DateTime)
              |__ AuthProcessorNumber (String)
              |__ AuthSourceCode (S32)
              |__ AuthTotal (Money)
              |__ AvsDispCode (String)
              |__ AvsResponseCode (String) (reserved)
              |__ BatchId (S32)
              |__ BatchSettlementSeqNumber (S32)
              |__ BillToID (String)
              |__ BulkSettleId (S32) (reserved)
              |__ BuyerCode (String)
              |__ CapturedAmount (Money)
              |__ CapturedDate (DateTime)
              |__ CaptureSourceCode (String)
```

		__ CardDataInboundMode (S32) (reserved)
		__ CardExpiryDate (DateTime)
		__ CardHolderPresenceCode (String)
		__ CardOrCheckNumber (String)
		__ CardNumber (String)
		__ CardStartDate (String)
		__ CardTypeCode (S32)
		__ CardVerificationValue (String)
		(reserved)
		__ Carrier (String)
		__ CcProcessorErrorCode (S32)
		__ ChargeBackCode (S32)
		__ ChargebackCount (S32)
		__ ChargebackTotal (S32)
		__ ChargeTypeCode (String)
		__ City (String)
		__ ClientActiveFlg (S32) (reserved)
		__ ClientCity (String) (reserved)
		__ ClientCompany (String)
		__ ClientCountryCode (String) (reserved)
		__ ClientEmail (String)
		__ ClientFax (String) (reserved)
		__ ClientId (S32)
		__ ClientName (String) (reserved)
		__ ClientPhone (String) (reserved)
		__ ClientPostalCode (String) (reserved)
		__ ClientStateProvince (String) (reserved)
		__ ClientStreet1 (String) (reserved)
		__ ClientStreet2 (String) (reserved)
		__ ClientStreet3 (String) (reserved)
		__ ClientTypeCode (String) (reserved)
		__ CommercialCardType (S32) (reserved)
		__ CommodityCode (String)
		__ Company (String)
		__ Count (S32)
		__ CpsAciCode (String)
		__ CpsMsiCode (String)
		__ CpsValCode (String)
		__ CreatedBeginDate (DateTime) (reserved)
		__ CreatedEndDate (DateTime) (reserved)
		__ Creditable (S32)
		__ CreditApprovedCount (S32) (reserved)
		__ CreditCount (S32) (reserved)
		__ CreditDeclinedCount (S32) (reserved)
		__ CreditShipping (Money)
		__ CreditTax (Money)
		__ CreditTotal (Money)
		__ Cvv2Indicator (String)
		__ Cvv2Response (String)
		__ CvvSecResponseCode (String) (reserved)
		__ DeclinedCount (S32) (reserved)
		__ DepositApprovedCount (S32)
		__ DepositDeclinedCount (S32)
		__ DepositTotal (Money)

Document Hierarchy Overview

|__ DiscountAmount (Money)
|__ DownloadFailCount (S32)
|__ DownloadFailDate (DateTime)
|__ DutyTax (Money)
|__ EmailFileName (String) (reserved)
|__ EmailFrom (String) (reserved)
|__ EmailTo (String) (reserved)
|__ FraudRuleAction (S32)
|__ FraudRuleId (S32)
|__ FraudRuleResponseCode (String)
|__ FraudulentCount (S32) (reserved)
|__ GrossNetIndicator (S32)
|__ HostReferenceNumber (String) (reserved)
|__ IcpBankNetCode (String)
|__ IcpCpsPosCode (String)
|__ IcpCpsTransactionId (String)
|__ InputEnvironment (S32)
|__ InvoiceNumber (String)
|__ Ip (String)
|__ IsoCntryCode (String)
|__ IsoCurrencyCode (String)
|__ IssueNumber (String) (reserved)
|__ ItemDescription (String)
|__ ItemId (String)
|__ ItemNumber (S32)
|__ ItemPrice (Money)
|__ ItemQty (S32)
|__ ItemTotalAmount (Money)
|__ ItemWeight (S32)
|__ LastDownloadFailedDate (DateTime)
|__ (reserved)
|__ LockCode (String)
|__ MerchantCategoryCode (String)
|__ (reserved)
|__ MerchantIcaNumber (String) (reserved)
|__ MerchantIndustryCode (String)
|__ (reserved)
|__ MerchantTaxId (String) (reserved)
|__ NumberOfDownload (S32)
|__ OptionChoice (String)
|__ OptionName (String)
|__ OptionSequence (S32) (reserved)
|__ OrderBeginDate (DateTime) (reserved)
|__ OrderComments (String)
|__ OrderDate (DateTime)
|__ OrderEndDate (DateTime) (reserved)
|__ OrderGroupID (String)
|__ OrderId (String)
|__ OriginalSourceCode (String)
|__ OriginalTransactionAmount (Money)
|__ ParentId (S32)
|__ PartialShipCode (String) (reserved)
|__ PosEntryMode (String) (reserved)
|__ PostalCode (String)

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|__ ProcessingMode (String)
|__ ProcessorResponseCode (String)
|__ ProcessorReturnMsg (String)
|__ ProductCode (String)
|__ PurchaseCardOptionFlag(S32)(reserved)
|__ PurchaseOrderNumber (String)
|__ QuantityShip (S32)
|__ ReferredBy (String)
|__ RetryCode (S32)
|__ ReviewPendCode (S32)
|__ ReviewPendFlag (S32)
|__ SaleCount (S32) (reserved)
|__ SaleShipping (Money)
|__ SaleTax (Money)
|__ SaleTotal (Money)
|__ SecurityLevel(S32)
|__ SettleDescription (String) (reserved)
|__ SettleFinishDate(DateTime) (reserved)
|__ SettlementDate (DateTime)
|__ SettlementDescription (String)
|__ SettlementId (S32)
|__ SettlementProcessorNumber (String)
|__ SettlementStateCode (String)
|__ SettleProcessDesc (String)
|__ SettleProcessorName (String)
|__ ShipFlag (S32)
|__ ShipFromId (String)
|__ ShippedCount (S32) (reserved)
|__ Shipping (Money)
|__ ShipToId (String)
|__ SMTPReturnCode (S32) (reserved)
|__ SMTPServerName (String) (reserved)
|__ SoftGoodType (S32) (reserved)
|__ SourceId (String)
|__ Span (String)
|__ StateProvince (String)
|__ StateTax (Money)
|__ SupplementaryDataFlag(S32) (reserved)
|__ Tax (Money)
|__ TaxExemptFlag (S32)
|__ TaxExemptionFlag (S32)
|__ TaxRate (S32)
|__ TaxType (String)
|__ TemplateType (S32)
|__ TerminalInputCapability (S32)
|__ TotalCount (S32) (reserved)
|__ TrackDataFlag (S32) (reserved)
|__ TrackToProcessor (S32)
|__ TransactionBeginDate (DateTime)
|__ TransactionDate (DateTime)
|__ TransactionEndDate (DateTime)
|__ TransactionId (String)
|__ TransactionOriginCode(String)
   (reserved)

```


Explanation of Data Definitions

The chapters that follow contain data definitions for records and fields in the ClearCommerce Engine document hierarchy. An explanation of the rows is listed below.

Full path name	Path to the field. For example, EngineDocList.EngineDoc.OrderFormDoc.Consumer. Email The Strings to the left of Email are record names, while Email is a field name. Each record and field is separated by a period. Field names are always listed in bold.
Data type	Acceptable values: String, S32, Money, Numeric, DateTime. ExpirationDate
Description	A brief description of the field. Special notes about actions (Get , Add , Update , Delete) are listed here.
Range information	Acceptable values for the field.
Possible transaction types	Possible transaction types that use the field.
When required	Indicates any special conditions.
ConfigDoc.CompList.Comp.Name	Specifies the name of the component being configured.
ConfigDoc.CompList.Comp. ConfigActionList.ConfigAction.Name	A name that identifies the item to be configured. This name usually closely correlates with the name of a database table.
Corresponding ReportDoc field	Field in a ReportDoc that matches the OrderFormDoc field described.
Corresponding OrderFormDoc field	Field in an OrderFormDoc that matches the ReportDoc field described.
Components	The components that use the field.
Input/Output	Indicates whether the field is input, output, or both.

Corresponding database field	The database field to which the field maps.
Database field data type	The constraints of the database field.
Database table	The database table that contains the database field.
Release	The release version the field became available.

