

SMS Broker System
Software Integration

Our system uses
WCF
(Windows Communication Foundation)
&
.NET

Customs entry classes and interfaces. Part 1

(ver. from 8/31/2025)

Table of Contents

1. Customs Entry.	1
2. Shipment.	12
2.1 Shipment Invoice.	14
2.2 Shipment Load.	16
2.3 Shipment Load Mark.	17
2.4 Vessel.	18

1. Customs Entry.

Customs entry document contains info that is necessary for 3461 and 7501 CBP Forms submission. Other words, in general case it includes as Entry Summary as Cargo Release data.

Class: [DataContract](#)

SMS.Broker.DataContracts.Documents.[CustomsEntry](#) : [EntityDocument](#)

Header data of Customs entry document.

Properties:

Attributes	Name	Type	Description
[DataMember] [DecimalPrecision(10, 0)]	AdditionalSTBBondAmount	decimal	Additional STB Amount.
[DataMember] [StringLength(10)]	AdditionalSTBBondNumber	string	Additional STB Producer Account Number.
[DataMember] [StringLength(3)]	AdditionalSTBSuretyCode	string	Additional STB Surety Company Code.
[NotMapped] [DecimalPrecisionAttribute(11, 2)]	AntiDumpingBondedDuty	decimal	Total bonded AD Duty Amount for Entry Summary.
[NotMapped] [DecimalPrecisionAttribute(11, 2)]	AntiDumpingCashDepositDuty	decimal	Total cash deposit AD Duty Amount for Entry Summary.
[NotMapped] [DecimalPrecisionAttribute(11, 2)]	AntiDumpingDutyAmount	decimal	Total AD Duty Amount for Entry Summary.

[DataMember] [DecimalPrecision(10, 0)]	BondAmount	decimal	Single Transaction Bond Amount.
[DataMember]	BondedWarehouse	FIRM	FIRMS code of the CBP Bonded Warehouse where cargo is to be entered.
[DataMember]	BondedWarehouse_Id	long?	Bonded Warehouse Id.
[DataMember] [StringLength(10)]	BondNumber	string	Single Transaction Bond Producer Account Number.
[DataMember] [StringLength(1)]	BondType	string	Bond Type Code. (Continuous multiple transaction or single transaction bond.) Has possible values.
[DataMember] [StringLength(3)]	BondWaiverReasonCode	string	Has possible values.
[DataMember] [StringLength(9)]	BrokerReferenceNumber	string	Broker Reference Number. Filer/Preparer's internal Entry Summary identifier.
[DataMember] [StringLength(2)]	CancellationRequestReasonCode	string	Reason code for Cancellation request. Has Possible values.
[DataMember] [DecimalPrecisionAttribute(11, 0)]	CargoReleaseCancellationEstimatedEntryValue	decimal	
[DataMember]	Carrier	Carrier	Carrier. The entity responsible for transporting the merchandise from the foreign port of lading to the first U.S. port of unloading.
[DataMember]	Carrier_Id	long?	Carrier Id.
[DataMember] [StringLength(20)]	ClientRef	string	Client reference.
[DataMember]	ConsolidatedReleaseEntries	string	
[DataMember] [StringLength(20)]	ConveyanceName	string	For vessel shipments: the name of the vessel. Not required for a non-vessel shipment.
[NotMapped] [DecimalPrecisionAttribute]	CountervailingBondedDuty	decimal	Total bonded CV

e(11, 2)]			Duty Amount for Entry Summary.
[NotMapped] DecimalPrecisionAttribute (11, 2)]	CountervailingCashDepositDuty	decimal	Total cash deposit CV Duty Amount for Entry Summary.
[NotMapped] [DecimalPrecisionAttribute (11, 2)]	CountervailingDutyAmount	decimal	Total CV Duty Amount for Entry Summary.
[DataMember]	DateOfArrival	DateTime?	Date of Arrival.
[DataMember]	DateOfImport	DateTime?	Date of Importation.
[DataMember]	DateOfRelease	DateTime?	Date when cargo was released.
[DataMember] [StringLength(1)]	DeferredTaxPayment	string	Deferred Tax Payment Code. Has Possible values.
[DataMember]	DesignatedNotifyParty4811	Contact	Designated Notify Party (4811). [1]
[DataMember]	DesignatedNotifyParty4811_Id	long?	Designated Notify Party (4811) Id.
[NotMapped] [DecimalPrecisionAttribute (8, 2)]	DutiableMailFee	decimal	Total Dutiable Mail Fee for Entry Summary.
[NotMapped] [DecimalPrecisionAttribute (11, 2)]	DutyAmount	decimal	Total Duty Amount for Entry Summary.
[NotMapped]	DutyDate	DateTime	The date relevant for duty computation purposes. It is calculated according "Duty Rate Date Matrix Hierarchy" (See CATAIR).
[DataMember]	ElectedExamSite	FIRM	Elected Exam Site (FIRMS).
[DataMember]	ElectedExamSite_Id	long?	Elected Exam Site Id.
[DataMember] [StringLength(3)]	EntryFilerCode	string	Entry Filer's identification code (as assigned by CBP).
[DataMember] [StringLength(8)]	EntryNumber	string	Unique identifying number assigned to the Entry by the Filer.
[NotMapped] [DecimalPrecisionAttribute (11, 0)]	EntryTotalUSD	decimal	Entry Summary Total in USD.
[DataMember]	EntryType	string	A code identifying

[StringLength(2)]			the type of entry. Has Possible values.
[DataMember]	EstimatedEntryDate	DateTime?	Estimated Entry Date. Date that the Filer expects to enter the cargo for clearance.
[DataMember] [StringLength(7)]	ForeignTradeZone	string	Foreign Trade Zone Identifier.
[DataMember] [StringLength(20)]	GeneralOrderNumber	string	General Order Number.
[NotMapped] [DecimalPrecisionAttribute(11, 2)]	HarborMaintenanceFee	decimal	Total Harbor Maintenance Fee Amount for Entry Summary.
[NotMapped]	HasADCVDInfo	bool	AD/CVD info indicator.
[DataMember]	Importer	Contact	Importer of Record Number. [1]
[DataMember]	Importer_Id	long	Importer Id.
[NotMapped] [DecimalPrecisionAttribute(8, 2)]	InformalMerchandiseProcessingFee	decimal	Total Merchandise Processing Fee for Entry Summary.
[NotMapped] [DecimalPrecisionAttribute(11, 2)]	InternalRevenueTaxAmount	decimal	Total Internal Revenue Tax Amount for Entry Summary.
[DataMember]	LastStatuses	List<EntityLastStatus>	Last status collection.
[DataMember] [StringLength(1)]	LiveEntryIndicator	string	Live Entry Indicator. Has Possible values.
[DataMember]	Location	FIRM	Location of Goods. The Facilities Information and Resources Management System (FIRMS).
[DataMember]	Location_Id	long?	Location of Goods Id.
[NotMapped] [DecimalPrecisionAttribute(8, 2)]	ManualEntrySurcharge	decimal	Total Manual Entry Surcharge for Entry Summary.
[NotMapped] [DecimalPrecisionAttribute(11, 2)]	MerchandiseProcessingFee	decimal	Total Merchandise Processing Fee Amount for Entry Summary.
[NotMapped]	MerchandiseProcessingFeeExemptFo	bool	Indicator of MPF

[DecimalPrecisionAttribute(8, 2)]	rAllArticles		exemption for all articles on the entry.
[DataMember] [StringLength(2)]	MissingDocumentCode1	string	First missing document. Has Possible values.
[DataMember] [StringLength(2)]	MissingDocumentCode2	string	Second missing document. Has Possible values.
[DataMember] [StringLength(3)]	OriginatingWarehouseEntryFilerCode	string	Filer Code of the originating warehouse Cargo Release Entry that the merchandise is coming from.
[DataMember] [StringLength(8)]	OriginatingWarehouseEntryNumber	string	Originating Warehouse Entry Number.
[DataMember] [StringLength(1)]	PaymentType	string	Payment Type Code. (From 1 to 8) It specifies the intended payment method for the Entry Summary. Has possible values.
[DataMember] [StringLength(1)]	PGADataIncluded	string	An indication that PGA Data is included to Cargo Release part of Customs entry.
[DataMember]	PortOfEntry	CustomsPort	District/Port of Entry.
[DataMember]	PortOfEntry_Id	long?	District/Port of Entry Id.
[DataMember]	PortOfUnlading	CustomsPort	District/Port of Unlading.
[DataMember]	PortOfUnlading_Id	long?	District/Port of Unlading Id.
[DataMember]	PostSummaryCorrection	bool	Post Summary Correction Indicator.
[DataMember] [StringLength(3)]	PostSummaryCorrectionEntryFilerCode	string	PSC Entry Filer Code.
[DataMember] [StringLength(8)]	PostSummaryCorrectionEntryNumber	string	PSC Entry Number.
[DataMember]	PostSummaryCorrectionFilingExplanationText	string	A text line of the PSC filing explanation.

[DataMember] [StringLength(3)]	PostSummaryCorrectionHeaderReasonCode1	string	Post Summary Correction Header Reason Code 1. Has possible values.
[DataMember] [StringLength(3)]	PostSummaryCorrectionHeaderReasonCode2	string	Post Summary Correction Header Reason Code 2. Has possible values.
[DataMember] [StringLength(3)]	PostSummaryCorrectionHeaderReasonCode3	string	Post Summary Correction Header Reason Code 3. Has possible values.
[DataMember] [StringLength(3)]	PostSummaryCorrectionHeaderReasonCode4	string	Post Summary Correction Header Reason Code 4. Has possible values.
[DataMember] [StringLength(3)]	PostSummaryCorrectionHeaderReasonCode5	string	Post Summary Correction Header Reason Code 5. Has possible values.
[NotMapped]	PreliminaryStatementMonth	string	Periodic Statement Month. (MM Format).
[DataMember]	PreliminaryStatementMonthDate	DateTime?	The 11-th working day of periodic monthly statement payment month.
[NotMapped]	PreliminaryStatementMonthInfo	string	
[DataMember]	PreliminaryStatementPrintDate	DateTime?	Preliminary Statement Print Date. The date that the Entry Summary is to appear on the Preliminary Statement.
[DataMember] [StringLength(3)]	ReconciliationIssueCode	string	Reconciliation Issue Code. Has Possible values.
[DataMember] [StringLength(17)]	ReplacementNumber	string	Replacement Number
[DataMember]	Shipments	List<Shipment>	Shipments included to Customs entry.
[DataMember]	ShipmentUsageTypeCode	string	Shipment Usage

[StringLength(3)]			(personal or commercial) Type Code. Has possible values.
[DataMember] StringLength(1)]	SplitShipmentReleaseElection	string	Split Shipment Release Election Code. Has Possible values.
[DataMember]	StatementDailyEntries	List<StatementDailyEntry>	Collection of all Customs entries related to daily statement this Customs entry belongs to.
[DataMember]	Statuses	List<EntityStatus>	Obsolete. Use LastStatuses instead. Statuses of Customs entry.
[DataMember] [StringLength(3)]	SuretyCode	string	Surety Company Code.
[DataMember]	Tag	string	For future use.
[NotMapped] [DecimalPrecisionAttribute(11, 2)]	TotalAmountDue	decimal	Total Entry Summary Amount due to pay.
[NotMapped] [DecimalPrecisionAttribute(11, 2)]	TotalUserFee	decimal	Total User Fee for Entry Summary.
[DataMember] [StringLength(2)]	TransportationMode	string	Mode of Transportation (MOT) Code. Has Possible values.
[DataMember] [StringLength(5)]	TripIdentifier	string	Trip Identifier.
[DataMember] [StringLength(100)]	UserData	string	Info related related to Customs entry. It can be filled by user. [2]
[NotMapped] [DecimalPrecisionAttribute(11, 2)]	UserFeeAmount	decimal	Total User Fee Amount for Entry Summary.
[DataMember] [StringLength(2)]	UsStateOfDestination	string	US State of Destination Code. Has Possible values.

[1] Importer and DesignatedNotifyParty4811 are [Contact](#) objects. While generating ABI applications (AE, SE) Importer and DesignatedNotifyParty4811 use one of the following [Contact](#) object properties:

IRSNumer (Internal Revenue Service (IRS) Number)
CBPNumber (CBP Assigned Number)
SocialSecurityNumber (Social Security Number)

First of all system tries to use IRS Number. If IRS Number is absent system tries to use CBP Number instead of IRS Number and if CBP Number in turn is empty too the system uses Social Security Number for Bond Holder property.

[2]

The string with user info. First two characters can determine information type.

"!" - Exclamation

"I" - Info

"C" - Comment

[3] Customs entry Shipment save process has a difference against other cases. Each shipment object contains Bill of Lading (BOL) info necessary for Customs entry filing.

When master bill has no underlying house bill then master bill number is used as Regular Bill (OB Ocean Bill of Lading) number. Shipment properties MasterBillIssuer_Id and MasterBillINumber are filled with info but HouseBillIssuer_Id should be null and HouseBillINumber should be empty.

When master bill has underlying house bill then house bill number is used as a bill of lading number at the lowest level (BM House Bill of Lading). Shipment properties MasterBillIssuer_Id, MasterBillINumber, HouseBillIssuer_Id and HouseBillINumber must be filled with info.

Interface: [\[ServiceContract\]](#)
SMS.Broker.ServiceContracts.Documents.ICustomsEntryManager
: IEntityManagerDocument<CustomsEntry> **[1]**

Methods:

Attributes	Name	Type	Description
[OperationContract] [FaultContract(typeof(EntryValidationFault))]]	CalculateDutyAndFee(long Id)	string	Calculates duty and fee by Customs entry Id.
[OperationContract(IsOneWay = true)]	CalculateDutyAndFeeOneWay(long Id)	string	Calculates duty and fee by Customs entry Id asynchronously.
[OperationContract] [FaultContract(typeof(ActionFault))]	CalculateEntryNumber(long number, string filerCode, bool checkUnique = false , bool adjustSequence = false)	string	Generates Customs entry number in format NNNNNNND where "D" is a check digit that is calculated according to "Check Digit Computation Formula" in CATAIR.
[OperationContract]	GetSpecialProgramClaimCode(ShipmentArticle article)	string	Gets SPI codes by shipment article. (See "Trade Agreement / Special Program Claim Codes" in CATAIR.)
[OperationContract]	GetStatus(CustomsEntry entity, EntityStatusType type, DateTime? time = null , string subject = null)	EntityStatus	Returns the last status of customs entry object for given type, date and subject.

[OperationContract(IsOneWay = true)]	PutToQUEOneWay(long id, CustomsEntry.ActionQUE action)	void	[2].
[OperationContract]	SetUserData(long id, string data)	void	Set user data by Customs entry id (see Customs entry UserData property.)

[1] - The features of `ICustomsEntryManager` those differ from other Operation Contract inherited classes.

a) New(long? SourceId) Method returns a new `CustomsEntry` class object. Its number will be assigned by "CustomsEntry" sequence. By default a new Customs entry object contains:

EntryType = "01", BondType = "9", PaymentType = "1".

By this method on the server side CustomsEntry object's record with the records corresponded to the follow collections will be saved:

CustomsEntry.Shipments,
CustomsEntry.Shipments.Loads,
CustomsEntry.StatementDailyEntries.

As it was mentioned earlier "independent" collections have its own managers and usually use their Save() method. Shipments is an independent collection and hence has its own Save() method too. But there is some exclusion on CustomsEntry case – Shipments collection is saved by CustomsEntry manager also.

b) ValidateTreeById(long Id, string action)

actions:

"QUE AE" - on AE (Entry Summary) case ValidateTreeById(long Id, string action) method makes the same data validation as is used before to send ABI application (AE) to Customs. If validation process was not successful `EntryValidationFault` will be thrown.

"QUE SE" - on SE (Cargo Release) case ValidateTreeById(long Id, string action) method makes the same data validation as is used before to send ABI application (SE) to Customs. If validation process was not successful `EntryValidationFault` will be thrown.

c) The follow statuses are used for Customs Entry document.

Entity status type:

`EntityType.ABIAppQUE`

Entity status values:

`EntityStatusValue.ABIAppPutToQUE`
`EntityStatusValue.ABIAppSent`
`EntityStatusValue.ABIAppAccepted`
`EntityStatusValue.ABIAppRejected`
`EntityStatusValue.ABIAppPutToQUEError`
`EntityStatusValue.ABIAppIncoming`
`EntityStatusValue.ABIAppRemoveFromQUE`
`EntityStatusValue.ABIAppQUEInProgress`

Entity status type:

`EntityType.ABIAppCustoms`

Entity status values:

`EntityStatusValue.ABIAppCustomsAccepted`
`EntityStatusValue.ABIAppCustomsAcceptedWithWarning`
`EntityStatusValue.ABIAppCustomsDeletedInCustoms`
`EntityStatusValue.ABIAppCustomsCargoReleased`

`EntityStatusValue.ABIAAppCustomsInProcess`

Entity status type:

`EntityStatusType.DocumentCalculated`

Entity status values:

`EntityStatusValue.Yes`

`EntityStatusValue.No`

On the Table 7 you can see all changes in Customs Entry document last status (Status and Value properties) those undergo during data exchange with Customs. The actions which suggest some workflow problem are marked in red.

Table 7

Action	Status	Value
AE Put to queue→	<code>EntityStatusType.ABIAAppQUE</code>	<code>EntityStatusValue.ABIAAppPutToQUE</code>
AE ←Put to queue error	<code>EntityStatusType.ABIAAppQUE</code>	<code>EntityStatusValue.ABIAAppPutToQUEError</code>
AE ←Remove (if necessary)	<code>EntityStatusType.ABIAAppQUE</code>	<code>EntityStatusValue.ABIAAppRemoveFromQUE</code>
AE Transmit→	<code>EntityStatusType.ABIAAppQUE</code>	<code>EntityStatusValue.ABIAAppSent</code>
AX ←Get file	<code>EntityStatusType.ABIAAppQUE</code>	<code>EntityStatusValue.ABIAAppIncoming</code>
AX ←Get with error	<code>EntityStatusType.ABIAAppQUE</code>	<code>EntityStatusValue.ABIAAppIncomingError</code>
AX ←Rejected	<code>EntityStatusType.ABIAAppQUE</code>	<code>EntityStatusValue.ABIAAppRejected</code>
AX ←Accepted	<code>EntityStatusType.ABIAAppCustoms</code>	<code>EntityStatusValue.ABIAAppCustomsAccepted</code>
AX ← Entry Summary (AE) Deleted (Canceled) by Customs by importer's request.	<code>EntityStatusType.ABIAAppCustoms</code>	<code>EntityStatusValue.ABIAAppCustomsDeletedInCustoms</code>
UC ←Get file	<code>EntityStatusType.ABIAAppQUE</code>	<code>EntityStatusValue.ABIAAppIncoming</code>
UC ←In process (DOCUMENTS REQUIRED etc.)	<code>EntityStatusType.ABIAAppCustoms</code>	<code>EntityStatusValue.ABIAAppCustomsInProcess</code>
UC ← Entry Summary (AE) Deleted (Canceled) by Customs by some reason	<code>EntityStatusType.ABIAAppCustoms</code>	<code>EntityStatusValue.ABIAAppCustomsDeletedInCustoms</code>
SE Put to queue→	<code>EntityStatusType.ABIAAppQUE</code>	<code>EntityStatusValue.ABIAAppPutToQUE</code>
SE ←Put to queue error	<code>EntityStatusType.ABIAAppQUE</code>	<code>EntityStatusValue.ABIAAppPutToQUEError</code>
SE ←Remove (if necessary)	<code>EntityStatusType.ABIAAppQUE</code>	<code>EntityStatusValue.ABIAAppRemoveFromQUE</code>
SE Transmit→	<code>EntityStatusType.ABIAAppQUE</code>	<code>EntityStatusValue.ABIAAppSent</code>
SX ←Get file	<code>EntityStatusType.ABIAAppQUE</code>	<code>EntityStatusValue.ABIAAppIncoming</code>
SX ←Get with error	<code>EntityStatusType.ABIAAppQUE</code>	<code>EntityStatusValue.ABIAAppIncomingError</code>
SX ←Rejected	<code>EntityStatusType.ABIAAppQUE</code>	<code>EntityStatusValue.ABIAAppRejected</code>
SX ←Accepted	<code>EntityStatusType.ABIAAppCustoms</code>	<code>EntityStatusValue.ABIAAppCustomsAccepted</code>
SO ←Get file	<code>EntityStatusType.ABIAAppQUE</code>	<code>EntityStatusValue.ABIAAppIncoming</code>
SO ←In process	<code>EntityStatusType.ABIAAppCustoms</code>	<code>EntityStatusValue.ABIAAppCustomsInProcess</code>
SO ←Cargo Released	<code>EntityStatusType.ABIAAppCustoms</code>	<code>EntityStatusValue.ABIAAppCustomsCargoReleased</code>
SO ←Cargo Release entry (SE) Deleted (Canceled) by Customs by importer's	<code>EntityStatusType.ABIAAppCustoms</code>	<code>EntityStatusValue.ABIAAppCustomsDeletedInCustoms</code>

request.		
SU Put to queue→	EntityType.ABIAppeQUE	EntityStatusValue.ABIAppePutToQUE
SU ←Put to queue error	EntityType.ABIAppeQUE	EntityStatusValue.ABIAppePutToQUEError
SU ←Remove (if necessary)	EntityType.ABIAppeQUE	EntityStatusValue.ABIAppeRemoveFromQUE
SU Transmit→	EntityType.ABIAppeQUE	EntityStatusValue.ABIAppeSent
SQ ←Get file	EntityType.ABIAppeQUE	EntityStatusValue.ABIAppeIncoming
SQ ←Get with error	EntityType.ABIAppeQUE	EntityStatusValue.ABIAppeIncomingError
SQ ←Rejected	EntityType.ABIAppeQUE	EntityStatusValue.ABIAppeRejected
SQ ←Accepted (DATA UPDATED AS REQUESTED)	EntityType.ABIAppeCustoms	EntityStatusValue.ABIAppeCustomsAccepted

AE – Entry Summary Customs incoming (our outgoing) file.
 AX – Entry Summary Customs outgoing (our incoming) file.
 SE – Cargo Release Customs incoming (our outgoing) file.
 SX – Cargo Release Customs outgoing (our incoming) file.
 UC – Entry Summary Status Notification Customs outgoing (our incoming) file.
 SO – Cargo Release Status Notification Customs outgoing (our incoming) file.
 SU – ACH Update Customs incoming (our outgoing) file.
 SQ – ACH Update Customs outgoing (our incoming) file.

Initially the responses should come to our AE and SE file sent. They comes on AX and SX files. After our files are accepted Customs periodically sends Cargo Release Status Notification (SO) files. Entry Summary Payment type and Preliminary Statement Print date can be changed by SU files.

[2] – Method can be used instead of more general PutToQueueOneWay(string AppId, List<Parameter> parameters) method described in SMS.Broker.ServiceContracts.IsmsABIManager. Since it is used for Customs Entry only it has more simple set of parameters.

PutToQUEOneWay(long id, CustomsEntry.ActionQUE action)

Parameters:

id – Customs Entry document Id.

Action -

CustomsEntry.ActionQUE.AddEntrySummary,
 CustomsEntry.ActionQUE.ReplaceEntrySummary,
 CustomsEntry.ActionQUE.DeleteEntrySummary,
 CustomsEntry.ActionQUE.AddCargoRelease,
 CustomsEntry.ActionQUE.ReplaceCargoRelease,
 CustomsEntry.ActionQUE.CancelCargoRelease,
 CustomsEntry.ActionQUE.BOLUpdate,
 CustomsEntry.ActionQUE.AddEntrySummaryAndCargoRelease,
 CustomsEntry.ActionQUE.ReplaceEntrySummaryAndCargoRelease,
 CustomsEntry.ActionQUE.ACHUpdate.

For example:

```

var mngr =
ClientContext.ServicesFactory.GetManager<SMS.Broker.ServiceContracts.Documents.ICustomsEntry
Manager>();
mngr.PutToQUEOneWay(5L,
Broker.DataContracts.Documents.CustomsEntry.ActionQUE.AddEntrySummaryAndCargoRelease);
//Sends to Customs AE and SE applications with ADD action.

```

2. Shipment.

System allows to manage shipments. Shipment object contains Bill of Lading info. This document type can be used as document by itself and also can be included to Customs entry object as collection.

Class: [DataContract](#)

SMS.Broker.DataContracts.Documents.[Shipment](#) : [EntityDocument](#)

Header data of Shipment document.

Properties:

Attributes	Name	Type	Description
[StringLength(20)] [DataMember]	BookingNumber	string	Number of Booking related to shipment.
[DataMember]	Buyer	Contact	Buyer
[DataMember]	Buyer_Id	long?	Buyer Id
[DataMember]	Carrier	Carrier	Carrier
[DataMember]	Carrier_Id	long?	Carrier Id
[IgnoreDataMember] [NotMapped] [DecimalPrecisionAttribute(9, 0)]	ChargeUSD	decimal	Total freight charge amount of shipment underlying invoices in USD.
[StringLength(20)] [DataMember]	ClientRef	string	Client reference.
[DataMember]	Consignee	Contact	Consignee
[DataMember]	Consignee_Id	long?	Consignee Id
[DataMember]	Consolidator	Contact	Consolidator
[DataMember]	Consolidator_Id	long?	Consolidator Id
[DataMember]	CustomsEntry	CustomsEntry	The reference to customs entry document this shipment belongs to.
[DataMember]	CustomsEntry_Id	long?	Id of customs entry document this shipment belongs to.
[Column(TypeName = "date")] [DataMember]	DateOfArrival	DateTime?	Date of Arrival.
[Column(TypeName = "date")] [DataMember]	DateOfExport	DateTime?	Date of Export.
[StringLength(60)] [DataMember]	Description	string	Description.
[DataMember]	HouseBillIssuer	Carrier	It is a SCAC for vessel, rail or truck shipments and IATA code for air shipments.
[DataMember]	HouseBillIssuer_Id	long?	House Bill Number Id.
[StringLength(12)] [DataMember]	HouseBillNumber	string	House Bill Number.
[DataMember]	Importer	Contact	Importer
[DataMember]	Importer_Id	long?	Importer Id

[DataMember]	ImporterSecurityFiling	ImporterSecurityFiling	The reference to ISF document this shipment belongs to.
[DataMember]	ImporterSecurityFiling_Id	long?	Id of ISF document this shipment belongs to.
[Column(TypeName = "date")] [DataMember]	InBondDate	DateTime?	In-Bond Date.
[StringLength(12)] [DataMember]	InBondNumber	string	In-Bond Number.
[DataMember]	Invoices	List<ShipmentInvoice>	Invoice Data.
[DataMember]	LastStatuses	List<EntityLastStatus>	Last status collection of Shipment.
[DataMember]	Loads	List<ShipmentLoad>	Loads included in a shipment.
[DataMember]	MasterBillIssuer	Carrier	It is a SCAC for vessel, rail or truck shipments and IATA code for air shipments.
[DataMember]	MasterBillIssuer_Id	long?	Master Bill Number Id.
[StringLength(12)] [DataMember]	MasterBillNumber	string	Master Bill Number.
[IgnoreDataMember] [NotMapped] [DecimalPrecisionAttribute(9, 0)]	MMVUSD	decimal	Total MMV value of shipment underlying invoices in USD.
[IgnoreDataMember] [NotMapped] [DecimalPrecisionAttribute(9, 0)]	NonDutiableUSD	decimal	Total non-dutable value of shipment underlying invoices in USD.
[IgnoreDataMember] [NotMapped] [DecimalPrecisionAttribute(9, 0)]	OtherUSD	decimal	Total other value of shipment underlying invoices in USD.
[StringLength(100)] [DataMember]	PONumbers	string	Purchase Order Number.
[DataMember] [DecimalPrecisionAttribute(8, 0)]	Quantity	decimal	Sum of Quantities of shipment underlying invoices.
[StringLength(3)] [DataMember]	QuantityUnit	string	Unit of measure of shipment underlying invoices.
[DataMember]	Seller	Contact	Seller
[DataMember]	Seller_Id	long?	Seller Id
[DataMember]	ShipTo	Contact	Ship To entity
[DataMember]	ShipTo_Id	long?	Ship To entity Id
[DataMember]	Statuses	List<EntityStatus>	Obsolete. Use LastStatuses instead.

			Statuses of Shipment.
[DataMember]	StuffingLocation	Contact	Stuffing Location
[DataMember]	StuffingLocation_Id	long?	Stuffing Location Id
[StringLength(12)] [DataMember]	SubHouseBillNumber	string	Subhouse Bill Number.
[IgnoreDataMember] [NotMapped] [DecimalPrecisionAttribute(9, 0)]	TotalUSD	decimal	Total amount of shipment underlying invoices total amount in USD.
[DataMember]	TrackingVessel	Vessel	Tracking Vessel.
[DataMember]	TrackingVessel_Id	long?	Tracking Vessel Id.
[DataMember]	TransportationMode	string	Mode of Transportation. Has Possible Values.
[StringLength(100)] [DataMember]	UserData	string	Info related to Shipment. It can be filled by user [1].
[IgnoreDataMember] [NotMapped] [DecimalPrecisionAttribute(9, 0)]	ValueUSD	decimal	Total value of shipment underlying invoices in USD.

Methods:

Attributes	Name	Type	Description
	ToString()	string	Returns object's text representation.
	ToDetailtString()	string	Returns detailed object's text representation.

[1] The string with user info. First two characters can determine information type.

"! " - Exclamation

"I " - Info

"C " - Comment

2.1 Shipment Invoice.

Class: [DataContract]

SMS.Broker.DataContracts.Documents.ShipmentInvoice : EntityDocument

Invoices those are contained in a Shipment document.

Properties:

Attributes	Name	Type	Description
[DataMember]	Articles	List<ShipmentArticle>	Articles included into invoice.
[StringLength(20)] [DataMember]	BookingNumber	string	Number of Booking related to shipment.
[StringLength(20)] [DataMember]	ClientRef	string	Client reference.
[StringLength(60)] [DataMember]	Description	string	Description.

[DataMember] [StringLength(60)]	Description	string	Invoice description text.
[DataMember] [DecimalPrecisionAttribute(9, 0)]	InvoiceChargeUSD	decimal	Invoice freight charge amount.
[DataMember] [DecimalPrecisionAttribute(9, 0)]	InvoiceMMV	decimal	Invoice <i>Added To Make Market Value</i> . The sum of MMV value on all tariff records.
[IgnoreDataMember] [NotMapped] [DecimalPrecisionAttribute(9, 0)]	InvoiceMMVBalance	decimal	The difference between invoice MMV value and a sum of MMV value on currently added tariff records.
[StringLength(3)] [DataMember]	InvoiceMMVCurrency	string	The currency of invoice MMV value. Has Possible Values.
[DataMember] [DecimalPrecisionAttribute(10, 6)]	InvoiceMMVCurrencyRate	decimal	The rate of currency of invoice MMV value.
[IgnoreDataMember] [NotMapped] [DecimalPrecisionAttribute(9, 0)]	InvoiceMMVUSD	decimal	Invoice MMV value in USD.
[DataMember] [DecimalPrecisionAttribute(9, 0)]	InvoiceNonDutiable	decimal	Invoice non-dutiable value. The sum of non-dutiable value on all tariff records.
[IgnoreDataMember] [NotMapped] [DecimalPrecisionAttribute(9, 0)]	InvoiceNonDutiableBalance	decimal	The difference between invoice non-dutiable value and a sum of non-dutiable value on currently added tariff records.
[StringLength(3)] [DataMember]	InvoiceNonDutiableCurrency	string	The currency of non-dutiable invoice value. Has Possible Values.
[DataMember] [DecimalPrecisionAttribute(10, 6)]	InvoiceNonDutiableCurrencyRate	decimal	The rate of currency of invoice non-dutiable value.
[IgnoreDataMember] [NotMapped] [DecimalPrecisionAttribute(9, 0)]	InvoiceNonDutiableUSD	decimal	Invoice non-dutiable value in USD.
[StringLength(17)] [DataMember]	InvoiceNumber	string	The invoice number as issued by the Supplier.
[DataMember] [DecimalPrecisionAttribute(9, 0)]	InvoiceOther	decimal	Invoice other value. The sum of other value on all tariff records.
[IgnoreDataMember] [NotMapped] [DecimalPrecisionAttribute(9, 0)]	InvoiceOtherBalance	decimal	The difference between invoice other value and a sum of

, 0]]			other value on currently added tariff records.
[StringLength(3)] [DataMember]	InvoiceOtherCurrency	string	The currency of invoice other value. Has Possible Values.
[DataMember] [DecimalPrecisionAttribute(10, 6)]	InvoiceOtherCurrencyRate	decimal	The rate of currency of invoice other value.
[IgnoreDataMember] [NotMapped] [DecimalPrecisionAttribute(9, 0)]	InvoiceOtherUSD	decimal	Other value in USD.
[IgnoreDataMember] [NotMapped] [DecimalPrecisionAttribute(9, 0)]	InvoiceTotalUSD	decimal	Invoice total amount in USD. Invoice value - MMV + non-dutiable + other.
[DataMember] [DecimalPrecisionAttribute(9, 0)]	InvoiceValue	decimal	Invoice value. The sum of value on all tariff records.
[IgnoreDataMember] [NotMapped] [DecimalPrecisionAttribute(9, 0)]	InvoiceValueBalance	decimal	The difference between invoice value and a sum of value on currently added tariff records.
[StringLength(3)] [DataMember]	InvoiceValueCurrency	string	The currency of invoice value. Has Possible values.
[DataMember] [DecimalPrecisionAttribute(10, 6)]	InvoiceValueCurrencyRate	decimal	The rate of currency of invoice value.
[IgnoreDataMember] [NotMapped] [DecimalPrecisionAttribute(9, 0)]	InvoiceValueUSD	decimal	Invoice value in USD.
[DataMember] [DecimalPrecisionAttribute(8, 0)]	Quantity	decimal	Quantity associated with the Bill of lading number
[StringLength(3)] [DataMember]	QuantityUnit	string	The unit of measure corresponding to the bill of lading quantity. Has Possible Values.

2.2 Shipment Load.

Class: [DataContract]

SMS.Broker.DataContracts.Documents.ShipmentLoad : EntityChild

Info about a load.

Properties:

Attributes	Name	Type	Description
[DataMember] [StringLength(3)]	ContainerType	string	The type of container. For example, 2X40', 3X40'

			and etc. Has possible Values.
[DataMember]	DeliveryOrders	List<DeliveryOrder>	The reference to Delivery Orders this shipment belongs to.
[DataMember] [StringLength(2)]	EquipmentDescription	string	Equipment Description Codes from Appendix B CATAIR. Has possible Values.
[DataMember] [StringLength(4)]	EquipmentInitial	string	Alpha prefix preceding the equipment serial number.
[DataMember] [StringLength(15)]	EquipmentNumber	string	Serial number of the equipment.
[DataMember] [StringLength(1)]	EquipmentNumberCheckDigit	string	Equipment Number Check Digit
[DataMember] [StringLength(3)]	LoadType	string	Has possible Values.
[DataMember]	Marks	List<ShipmentLoadMark>	Marks
[DataMember] [DecimalPrecisionAttribute(8, 0)]	Pieces	decimal	Number of Pieces.
[DataMember] [StringLength(15)]	SealNumber	string	Seal Number
[DataMember]	Shipment	Shipment	The reference to shipment this load belongs to.
[DataMember]	Shipment_Id	long	Id of shipment this load belongs to.
[DataMember] [StringLength(3)]	Status	string	Status of a load.
[DataMember] [DecimalPrecisionAttribute(10, 3)]	VolumeM	decimal	Equipment volume in cubic meters
[DataMember] [DecimalPrecisionAttribute(9, 2)]	WeightKg	decimal	Weight in Kg.
[IgnoreDataMember] [NotMapped]	WeightLbs	decimal	Weight in Lbs.

Interface: [ServiceContract]
SMS.Broker.ServiceContracts.Documents.IShipmentLoadManager :
IEntityManager<ShipmentLoad>

Has only methods inherited from base IEntityManager interface.

2.3 Shipment Load Mark.

Class: [DataContract]
SMS.Broker.DataContracts.Documents.ShipmentLoadMark : EntityChild

Load mark.

Properties:

Attributes	Name	Type	Description
[DataMember]	Load	ShipmentLoad	Parent shipment load.
[DataMember]	Load_Id	long	Parent shipment load Id.
[DataMember] [StringLength(40)]	Marks	string	Mark.
	Parent	EntityBase	Reference to parent shipment load.
	RootEntityLink	EntityLink	Entity link to root object.

Methods:

Attributes	Name	Type	Description
	ToShortString()	string	Returns short object's text representation.
	ToString()	string	Returns object's text representation.

2.4 Vessel.

Class: [DataContract]

SMS.Broker.DataContracts.Directories.Vessel : EntityBase
Contains info about vessel.

Properties:

Attributes	Name	Type	Description
[StringLength(10)] [DataMember]	Callsign	string	Vessel callsign.
[StringLength(2)] [DataMember]	CnIso2	string	Has possible values.
[DecimalPrecision(10, 0)] [DataMember]	IMONumber	decimal?	The International Maritime Organization (IMO) number.
[DecimalPrecision(4, 0)] [DataMember]	Length	decimal?	Vessel length.
[DecimalPrecision(9, 0)] [DataMember]	MMSINumber	decimal?	Maritime Mobile Service Identity (MMSI) number.
[StringLength(32)] [DataMember]	Name	string	Vessel Name.
[StringLength(22)] [DataMember]	Verbose	string	Vessel type (ex: "Container ship", "General cargo vessel", "Platform", "Pusher", ...)
[DataMember]	VesselId	long	Vessel Id number. Used to request tracking info.

			Do not mix with Vessel object Id inherited from the base class.
--	--	--	---

Instance methods:

Attributes	Name	Type	Description
	TrackSaveChangesEvents()	bool	For internal use.
	ToString()	string	Returns object's text representation.

Interface: [ServiceContract]
SMS.Broker.ServiceContracts.Directories.IVesselManager :
IEntityManager<Vessel>

Instance methods:

Attributes	Name	Type	Description
[OperationContract]	GetTracks(long vesselId, DateTime timeFrom, DateTime timeTo)	List<VesselTrackInfo>	Returns info about vessel track by vessel Id for period.
[OperationContract]	GetVesselsByName(string vesselNameSearchCriteria)	List<SMS.Broker.DataContracts.Directories.Vessel>	Returns info about vessel by criterium. [1]

[1] It is necessary to use exact vessel name in a shipment. To know it this method can be used. It returns a list of exact vessel names in response to criterium – an initial part of a vessel name that should be not less than 5 symbols.

Example:

```
string vesselNameSearchCriteria = "COSCO";
var mngr = SMS.Broker.ClientContext.ServicesFactory.GetManager<SMS.Broker.ServiceContracts.Directories.IVesselManager>();
var list = mngr.GetVesselsByName(vesselNameSearchCriteria);
```

Object list is a list of all vessels with the names those begin with “COSCO”.

Interface: [ServiceContract]
SMS.Broker.ServiceContracts.Documents.IShipmentManager :
IEntityManagerDocument<Shipment> [1]

Methods:

Attributes	Name	Type	Description
[OperationContract]	GetByBill(string BillIssuer, string BillNumber);	Shipment	Gets a shipment by its bill issuer and bill number.
[OperationContract] [FaultContract(typeof(ActionFault))]	GetListByMasterBill(string scac, string number, string	List<Shipment>	Gets a list of shipments by its

	include)		master issuer and master number.
--	----------	--	-------------------------------------

[1] – The features of [Shipment](#) those differ from other Operation Contract inherited classes.

a) By Save([Shipment](#) entity) method on the server side Shipment object's record with records corresponded to the follow collections will be saved:

[Shipment](#).Invoices

[Shipment](#).Loads

[Shipment](#).Loads.Marks