

eBusiness Implementation Guide

# Freight Invoice

**EDI Transaction:** 210

**Version:** 4010

**Description:** A guide to the implementation of electronic receipt of Freight Invoices from CN pertaining to the movement of freight.

**Revision Date:** April 20, 2007

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## **Overview**

### ***Purpose***

When a movement of freight is initiated by the receipt of Shipping Instructions (a Bill of Lading.) a charge for the transportation is generated and sent as an invoice. This document will explain how to receive invoices using EDI. Other electronic options, such as eBill (a CN Internet Velocity eBusiness tool) are described on the CN website at <http://www.cn.ca/eBill> where you can also view a demo.

*Note: This process does not present invoices for ancillary or accessorial charges (Optional Services). These invoices are available on the web using the eBill Service tool.*

### ***Types of Invoices***

The following types of invoices are available using this transaction:

- Normal Freight Invoice
- Balance Due Invoice (optional)
- Corrected Invoice (optional)

### ***EDI Version & Guidelines***

This document describes the implementation of EDI Invoicing using ANSI version 4010. CN is also capable of sending EDI 410 Rail Carrier Freight Invoices.

It is mandatory to send an EDI 997 functional acknowledgement for each EDI 410 or 210 received.

### ***Special Format Options***

It is the responsibility of the Receiver who requires coding or mapping structure, other than that expressly written in the Mapping or Implementation Guide documents, to have the necessary changes performed at their system or through a Value Added Network.

### ***Connection Options***

CN has direct connection with 3 VAN's (Value Added Networks). They are GXS, Transentric, and Kleinschmidt (KNSX). Interconnection to other VANs is also available. Exchange through secured FTP is now available at CN and is free of charge to customers. Invoices sent via secured FTP will conform to EDI 210 Standards.

### **Message Timing**

Freight invoices are created at all times of the day. The EDI process will accumulate all invoices for the day and transmit them overnight, seven days a week.

### **Your Data Requirements**

If your company has specific data requirements, such as specific reference numbers that must be on the invoice to reconcile within your systems, it is important that this information be provided on the Shipping Instructions. Requests for any information other than Bill of Lading number will not be reliably provided unless the Shipping Instructions provided by the shipper of the goods is submitted using electronic means.

### **CN Contact**

You can call us at 1.800.361.0198 or email [eBusiness@cn.ca](mailto:eBusiness@cn.ca). You can also visit us at [www.cn.ca](http://www.cn.ca).

### **Getting Started**

To begin the process of implementation you should do the following:

1. Notify us at [eBusiness@cn.ca](mailto:eBusiness@cn.ca) that you want to receive Freight Invoices using EDI. This message should include your full company name and location, as well as both an Accounts Payable and EDI Technical contact.
2. CN will then assign someone to work with you on the implementation
3. A review and walkthrough of this Implementation Guide will facilitate understanding of the data and requirements.
4. Define any special data requirements, such as Purchase Order numbers or other reference numbers
5. Technical details must be resolved such as the Value Added Network to be used, and the sender and receiver IDs.
6. CN supports a fully functional test system for technical and business validation of the exchange.

## **Mapping Guide**

Each Segment and Data Element in the transaction is identified in Segment and Data element order. The following information is available for each:

- Element Code, this is the Data Segment + position within the segment
- Element Number, this is the ANSI reference to the data contained in this position
- Element Name, the name of the data
- Element Type, the ANSI designation for the Data Elements
- Element Length, showing the Minimum/Maximum length of the data
- Required, shows the Mandatory, Conditional, or Optional indication for this information
- Description, notes on CN's usage of this data element, including accepted values

## 210 Rail Carrier Freight Details And Invoice

<b>ISA - Interchange Control Header</b>						
Element Code	Element Number	Element Name	Element Type	Element Length	Req.	Description
ISA01	I01	Authorization Info. Qualifier	ID	2/2	M	'00'
ISA02	I02	Authorization Information	AN	10/10	M	
ISA03	I03	Security Info. Qualifier	ID	2/2	M	'00'
ISA04	I04	Security Information	AN	10/10	M	
ISA05	I05	Interchange ID Qualifier	ID	2/2	M	'02' Standard carrier alpha code ; SCAC
ISA06	I06	Interchange Sender ID	AN	15/15	M	'CN'
ISA07	I05	Interchange ID Qualifier	ID	2/2	M	
ISA08	I07	Interchange Receiver ID	AN	15/15	M	
ISA09	I08	Interchange Date	DT	6/6	M	YYMMDD
ISA10	I09	Interchange Time	TM	4/4	M	
ISA11	I10	Interchange Control Standard ID	ID	1/1	M	'U' U.S. EDI community
ISA12	I11	Interchange Version #	ID	5/5	M	'00200' Standard issued as ANSI X12.5
ISA13	I12	Interchange Control #	N0	9/9	M	
ISA14	I13	Acknowledgement Requested	ID	1/1	M	'0' No acknowledgement requested
ISA15	I14	Usage Indicator	ID	1/1	M	'T' Test data, 'P' Production data
ISA16	I15	Component Element Separator	AN	1/1	M	'>'

<b>GS - Functional Group Header</b>						
Element Code	Element Number	Element Name	Element Type	Element Length	Req.	Description
GS01	479	Functional Identifier Code	ID	2/2	M	'IM' Motor carrier freight details and invoice (210)
GS02	142	Application Sender's Code	AN	2/15	M	'CN'
GS03	124	Application Receiver's Code	AN	2/15	M	
GS04	373	Date	DT	8/8	M	YYYYMMDD
GS05	337	Time	TM	4/8	M	
GS06	28	Group Control Number	N0	1/9	M	
GS07	455	Responsible Agency Code	ID	1/2	M	'X' Accredited standards committee X12
GS08	480	Ver/Release/Industry ID Code	AN	1/12	M	'004010'

<b>ST - Transaction Set Header</b>						
Element Code	Element Number	Element Name	Element Type	Element Length	Req.	Description
ST01	143	Transaction set ID cd.	ID	3/3	M	'210'
ST02	329	Trans. set control no.	AN	4/9	M	

**B3 - Beginning Segment for Carrier's Invoice**

Element Code	Element Number	Element Name	Element Type	Element Length	Req.	Description
B301	147	Shipment Qualifier	ID	1/1	O	'B'
B302	76	Invoice Number	AN	1/22	M	CN Invoice number
B303	145	Shipment ID Number	AN	1/30	O	Bill of Lading number
B304	146	Shipment Method of Payment	ID	2/2	M	'CC' Collect 'PP' Prepaid 'TP' 3rd party
B305	188	Weight Unit Code	ID	1/1	O	L' Pounds, 'K' Kilograms * used only if rated by weight
B306	373	Invoice Date	DT	8/8	M	YYYYMMDD
B307	193	Net Amount Due	N2	1/12	M	'PP' pool to pool 'R' rail
B308	202	Correction Indicator	ID	2/2	O	' ' Original ' Balance due billing ' Corrected invoice
B311	140	Standard Carrier Alpha Code	ID	2/4	M	'CNRU'

**C3 - Currency**

Element Code	Element Number	Element Name	Element Type	Element Length	Req.	Description
C301	100	Currency Code	ID	3/3	M	'CAD' Canadian 'USD' U.S.

**N9 - Reference Number**

Element Code	Element Number	Element Name	Element Type	Element Length	Req.	Description
N901	128	Reference Number Qualifier	ID	2/2	M	'WY' Waybill # 'BM' Bill of Lading # 'GT' GST Registration # 'SI' Bill of Lading # 'ZZ' QST Registration # 'PA' Price Application Date 'CT' Contract #  see X12 data element dictionary
N902	127	Reference Identification	AN	1/30	C	
N903	369	Free-Form Description	AN	1/45	C	
N904	373	Date	DT	8/8	O	YYYYMMDD

<b>N1 - Name</b>						
Element Code	Element Number	Element Name	Element Type	Element Length	Req.	Description
N101	98	Entity Identifier Code	ID	2/3	M	'SH' Shipper 'CN' Consignee 'PR' Payer 'SF' Ship from 'AB' Additional pick-up address  see X12 data element dictionary
N102	93	Name	AN	1/35	C	
N103	66	ID Code Qualifier	ID	1/2	C	'25' Carrier's customer code
N104	67	ID Code	AN	2/17	C	CN's assigned patron number

<b>N3 - Address Information</b>						
Element Code	Element Number	Element Name	Element Type	Element Length	Req.	Description
N301	166	Address Information	AN	1/55	M	

<b>N4 - Geographic Location</b>						
Element Code	Element Number	Element Name	Element Type	Element Length	Req.	Description
N401	19	City name	AN	2/19	O	
N402	156	State / Province code	ID	2/2	O	
N403	116	Zip / Postal code	ID	3/9	O	

<b>N7 - Equipment Details</b>						
Element Code	Element Number	Element Name	Element Type	Element Length	Req.	Description
N701	206	Equipment Initial	AN	1/4	O	
N702	207	Equipment Number	AN	1/10	M	
N703	81	Weight	R	1/10	O	
N704	187	Weight Qualifier	ID	1/2	C	'N' Actual net weight
N705	167	Tare Weight	N0	3/8	C	
N711	40	Equipment Description Code	ID	2/2	O	'RR' Rail car 'TL' trailer, not otherwise specified 'CN' container
N715	567	Equipment Length	N0	4/5	O	
N716	571	Tare Qualifier Code	ID	1/1	X	'A' Actual, 'M' Marked
N718	761	Equipment Number Check Digit	N0	1/1	O	Only used if rec'd by CN on Bill of Lading
N720	65	Height	R	1/8	O	
N722	24	Equipment Type	ID	4/4	O	AAR Equipment kind



<b>R3 - Route Information – Motor</b>						
Element Code	Element Number	Element Name	Element Type	Element Length	Req.	Description
R301	140	SCAC	ID	2/4	M	see X12 data element dictionary
R302	133	Routing Seq Code	ID	1/2	M	'S' Origin carrier, shipper's routing (rail) '1' 1st carrier after origin carrier '2' 2nd carrier after origin carrier
R303	19	City Name	AN	2/30	O	

<b>LX - Assigned Number</b>						
Element Code	Element Number	Element Name	Element Type	Element Length	Req.	Description
LX01	554	Assigned Number	N0	1/6	M	

<b>L5 - Description, Marks, and Numbers</b>						
Element Code	Element Number	Element Name	Element Type	Element Length	Req.	Description
L501	213	Lading Line Item Number	N0	1/3	O	
L502	79	Lading Description	AN	1/50	O	
L503	22	Commodity Code	AN	1/16	C	
L504	23	Commodity Code Qualifier	ID	1/1	C	'T' STCC-standard transportation commodity code

<b>L0 - Line Item - Quantity and Weight</b>						
Element Code	Element Number	Element Name	Element Type	Element Length	Req.	Description
L001	213	Lading Line Item Number	N0	1/3	O	
L004	81	Weight	R	1/10	C	
L005	187	Weight Qualifier	ID	1/2	C	'N' Actual net weight
L008	80	Lading Quantity	N0	1/7	C	
L009	211	Packaging Form Code	ID	3/3	C	see X12 data element dictionary

<b>L1 - Rate and Charges</b>						
Element Code	Element Number	Element Name	Element Type	Element Length	Req.	Description
L101	213	Lading Line Item Number	N0	1/3	O	
L102	60	Freight Rate	R	1/9	O	
L103	122	Rate/Value Qualifier	ID	2/2	O	PU – Per Unit PC – Per Car PW – Percentage CT – Charge Based on Percentage PM – Per Miles MN – Minimum Charge  Also see X12 data element dictionary
L104	58	Charge	N2	1/9	C	
L105	191	Advances	N2	1/9	C	
L106	117	Prepaid Amount	N2	1/9	C	
L108	150	Spec Charge/Allow Code	ID	3/3	O	'150' Canadian Currency Exchange '295' Discount-Special '730' Terminal Service Fee 'BLC' Bill Of Lading Charge 'BRD' Bridge Charge (PEI Confederation) 'DEL' Delivery Charge 'DIV' Diversion And Re-consignment 'DRC' Drayage 'DSC' Discount Special 'ENS' Fuel Surcharge 'FLT' Ferry Service 'GST' Goods And Services Tax Charge 'HDF' Heavy Duty Flat Car Charge 'HET' Heat In Transit Charges 'HST' Harmonized Sales Tax 'LDG' Loading 'NHB' N.H.D. Wharfage 'PAD' Premium Charge 'PUD' Pick-Up And Delivery 'REF' Refrigeration 'SAJ' Surcharge - Dollar Value 'SOC' Stop-Off Charge 'STC' State Surcharge 'STR' Storage In Transit 'SWC' Switching Charge 'TER' Terminal Charge 'TTS' State Tax 'USF' Use - Special Type Flat Car  See X12 data element dictionary.
L117	220	Billed/ Rated-as Quantity	NO	1/11		
L118	221	Billed/ Rated-as Qualifier	ID	1/2		'MR' Mileage  See X12 data element dictionary.

<b>L7 - Tariff Reference</b>						
Element Code	Element Number	Element Name	Element Type	Element Length	Req.	Description
L701	213	Lading Line Item Number	NO	1/3	O	
L702	168	Tariff Agency Code	ID	1/4	O	
L703	171	Tariff Number	AN	1/7	O	
L704	172	Tariff Section	AN	1/2	O	
L705	169	Tariff Item Number	AN	1/16	O	

<b>L3 - Total Weight and Charges</b>						
Element Code	Element Number	Element Name	Element Type	Element Length	Req.	Description
L301	81	Weight	R	1/10	C	
L302	187	Weight Qualifier	ID	1/2	C	'N' Actual net weight
L303	60	Freight Rate	R	1/9	C	
L304	122	Rate/Value Qualifier	ID	2/2	C	see X12 data element dictionary
L305	58	Charge	N2	1/9	O	
L306	191	Advances	N2	1/9	O	
L307	117	Prepaid Amount	N2	1/9	O	
L308	150	Spec Charge/Allow Code	ID	3/3	O	'150' Canadian Currency Exchange '295' Discount-Special '730' Terminal Service Fee 'BLC' Bill Of Lading Charge 'BRD' Bridge Charge (PEI Confederation) 'DEL' Delivery Charge 'DIV' Diversion And Re-consignment 'DRC' Drayage 'DSC' Discount Special 'ENS' Fuel Surcharge 'FLT' Ferry Service 'GST' Goods And Services Tax Charge 'HDF' Heavy Duty Flat Car Charge 'HET' Heat In Transit Charges 'HST' Harmonized Sales Tax 'LDG' Loading 'NHB' N.H.D. Wharfage 'PAD' Premium Charge 'PUD' Pick-Up And Delivery 'REF' Refrigeration 'SAJ' Surcharge - Dollar Value 'SEC' West Coast Staging Contract Charge 'SOC' Stop-Off Charge 'STC' State Surcharge 'STR' Storage In Transit 'SWC' Switching Charge

						'TER' Terminal Charge 'TTS' State Tax 'USF' Use - Special Type Flat Car  see X12 data element dictionary
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**SE - Transaction Set Trailer**

Element Code	Element Number	Element Name	Element Type	Element Length	Req.	Description
SE01	96	Number of included segments	NO	1/10	M	
SE02	329	Transaction set control no.	AN	4/9	M	

**GE - Functional Group Trailer**

Element Code	Element Number	Element Name	Element Type	Element Length	Req.	Description
GE01	97	Number of transaction set	NO	1/6	M	
GE02	28	Group control no.	NO	1/9	M	

**IEA - Interchange Control Trailer**

Element Code	Element Number	Element Name	Element Type	Element Length	Req.	Description
IEA01	116	Number of Functional Groups	NO	1/5	M	
IEA02	112	Interchange Control Number	NO	9/9	M	

**Example Transmission – 210, \$US Invoice**

```

ISA*00* 00* 02*CN *ZZ*RECEIVER ID*060628*0035*U*00401*000000340*0*P*>
GS*IM*CN*APPLCIATION RECEIVER ID*20060628*0035*340*X*004010
ST*210*340001
B3*B*28066945*291226*PP**20060628*275433****CNRU
C3*USD
N9*WY*545497**20060626
N9*BM*291226**20060626
N9*GT*10076 8779 RT0001*GOODS AND SERVICES TAX REGISTRATION NUMBER
N9*CT*CN 024091 19
N9*ZZ*1000043156 TQ 0514*QUEBEC SALES TAX REGISTRATION NUMBER
N1*PR*PAYER NAME*25*793585A
N3*123 W FRONTAGE RD
N4*NORTHFIELD*IL
N1*CN*CONSIGNEE NAME*25*177835
N3*135 GUERNSEY IND BLVD
N4*CAMBRIDGE*OH*43725
N1*SH*SHIPPER NAME*25*793585
N4*MILLSDALE*IL
N7*UTLX*666955*187000*N*77500*****RR*UTLX***0000*A****179**T107
LX*1
L5*1*COMPOUNDS, CLEANING, SCOURING OR WASHING, NEC,LI*2841920*T
L0*1***187000*N***1*TKR
L0*1***1*N
L1*1*2510*PC*251000
L1*1*0.1980*PM*24433****ENS*****1234*MR
L7*1*CN*123456**1050000
L3*187000*N***275433****0*E
SE*26*340001
GE*1*340
IEA*1*000000340

```

**Example Transmission – 210, \$CAD Invoice**

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ISA*00**00**02*CN*ZZ*RECEIVER ID*060628*0035*U*00201*000000612*0*P*>
GS*IM*CN*APPLICATION RECEIVER ID*20060628*0035*612*X*004010
ST*210*612001
B3*B*28061234*102141*PP**20060628*208360****CNRU
C3*CAD
N9*WY*557171**20060627
N9*BM*102141**20060627
N9*GT*10076 8779 RT0001*GOODS AND SERVICES TAX REGISTRATION NUMBER
N9*SI*102141
N9*PA**PRICE APPLICATION DATE*20060628
N9*ZZ*1000043156 TQ 0514*QUEBEC SALES TAX REGISTRATION NUMBER
N1*PR*PAYER NAME*25*772305B
N3*123 NEWBRIDGE ROAD .
N4*ETOBICOKE*ON
N1*CN*CONSIGNEE NAME*25*772305
N3*1800 INKSTER BLVD
N4*WINNIPEG SYMING YAR*MB*R2X2Z5
N1*SF*SHIP FROM NAME*25*772305
N3*123 NEWBRIDGE RD
N4*ETOBICOKE*ON
N1*SH*SHIPPER NAME*25*772305B
N3*123 NEWBRIDGE RD
N4*BRAMPTON INTER TERM*ON
N7*TCNU*911084*36986*N*7500*****CN****4000*A*****U203
LX*1
L5*1*ALL FREIGHT RATE SHIPMENTS, NEC, OR TRAILER-ON-F*4611110*T
L0*1***36986*N***1*CNT
L0*1***1*N
L0*1***1*N
L1*1*1705*PU*170500
L1*1*0.1980*PM*24433*****ENS*****1234*MR
L1*1*.07*CT*13427****GST
L7*1*CN*638931**1050000
L3*36986*N***208360****0*E
SE*33*612001
GE*1*612
IEA*1*000000612

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