KANSAS CITY SOUTHERN
EDI On-Boarding Guide

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1.0 Introduction

1.1 Introduction

Kansas City Southern is a freight transportation company with over 35 years of Electronic Data Interchange (EDI) experience exchanging data with other Rail Carriers, Government Agencies, Shippers, Logistics Companies, Financial Institutions and Transportation Service Providers.

1.2 Purpose of the Document

The purpose of this document is to provide guidance on when and how to exchange EDI with KCS. This information is to help implement shipping documents, car event tracing, and financial/invoicing electronically.

This document provides a step-by-step process to set up a connection with KCS and to exchange EDI including detail regarding the various message transactions that we support.

1.3 Contact Information

Whether you are a new trading partner or an existing trading partner interested in enhancing your data interchange communication with KCS, our EDI Support team will work closely with you to accomplish this including identifying the activities and timelines needed to achieve success. We will serve as the liaison to both your business and IT partners upon introduction.

For future reference, our team can be reached best via email at EDISupport@KCSouthern.com

2.0 Requirements

2.1 ANSI ASC X12 Standards

KCS follows the Rail Industries EDI Guidelines based on ANSI ASC X12 Standards. We support ASC X12 version 4010 through the current published version.

2.2 EDI Transaction Sets

The commonly used EDI transaction sets are:

322	Intermodal Ramp Activity
404	Shipper's Bill of Lading
410	Freight Invoice
417	Rail Carrier Waybill
418	Advance Train Consist
824	Application Acknowledgement
996	File Transfer
997	Functional Acknowledgement
998	Set Cancellation

Additionally, fixed length car event message with many reporting formats (CLM) is supported.

Rail EDI Guidelines can be purchased at Washington Publishing Company
http://www.wpc-edi.com/products/rail-carriers/

2.3 Connection

KCS does not support a direct point-to-point connection with our trading partners. Therefore, a connection with a Value Added Network (VAN) is necessary. KCS' VAN is Railinc which can connect to a trading partner or their chosen VAN as long as there is an ultimate connection to Railinc.

2.4 Setup Process

A Trading Partner who is interested in exchanging electronic messages must complete and submit both the EDI Capabilities Questionnaire (Appendix A) and the KCS EDI Setup Request form (Appendix B) to EDISupport@KCSouthern.com.

As a prerequisite for the EDI profile to be added to production, successful interchange of transaction sets 404 and 410 as well as validated transaction structure and data integrity are required. Please allow approximately 5 days for this testing.

2.5 Customized Messages

A Trading Partner who wants to exchange electronic messages in a format other than ANSI ASC X12 EDI Standards or who requires customization to a Rail EDI transaction set, must provide their specifications to EDI Support for approval before the EDI customization process can begin. The estimated timeline for approval and development of customized messages is 6 months and requires the trading partner to participate in our acceptance testing.

2.6 Acknowledgements

In an effort to ensure proper communication and transaction visibility, it is recommended that all trading partners participate in the two acknowledgement communication transactions.

A Functional Acknowledgement (997) communicates that the transaction was received and provides the status of the transactions (accepted, accepted with errors, or rejected).

A second level acknowledgement is an Application Advice (824) that transmits the ultimate status of the transaction. This is particularly important for customer transactions Bill of Lading (404) and Freight Invoices (410).

3.0 Message Structure

3.1 Interchange Service

Each interchange service request must include the Interchange Control Header (ISA) and Interchange Control Trailer (IEA) which defines the data element, the component element separators and the segment terminator. The control number is provided and both the sender and receiver must be identified in the ISA. One or more functional groups and/or interchange-related control segments will be delivered within the interchange service request.

3.2 Delimiter Specifications

The following are the KCS delimiters and are set as our default for outbound messages. A trading partner must communicate what delimiters they expect to receive if different than our default.

Character	Delimiter
*	Data Element Separator
Hex85	Segment Terminator
|	Composite Element Separator (ISA16)
U	Repetition Separator (ISA11)

3.3 Interchange Segment Specifications

Within the ISA header, the sender/receiver ID is “KCS” for The Kansas City Southern Railway Company (US) and is “KCSM” for Kansas City Southern de Mexico (MX). Both use the interchange ID qualifier of ‘02’.

ISA / IEA specifications are below.

ISA Segment: Interchange Control Header

The ISA segment is used to start and to identify an interchange of zero or more functional groups and interchange-related control segments. It is mandatory with a max use of 1.

REF DESC.	DATA ELEMENT	ELEMENT DESCRIPTION	TYPE	MIN/MAX	USE
ISA01	I01	Authorization Information Qlfr Code *04 - Rail Communication*	ID	2/2	M
ISA02	I02	Authorization Information	AN	10/10	M
ISA03	I03	Security Information Qualifier Code *00*	ID	2/2	M
ISA05	I05	Interchange ID Qualifier	ID	2/2	M
ISA06	I06	Interchange Sender ID	AN	15/15	M
ISA07	I05	Interchange ID Qualifier	ID	2/2	M
ISA08	I07	Interchange Receiver ID	AN	15/15	M
ISA09	I08	Interchange Date *Format = YYMMDD*	DT	6/6	M
ISA10	I09	Interchange Time *Format = HHMM, 24 hour clock*	TM	4/4	M
ISA11	I65	Repetition Separator		1/1	M
ISA12	I11	Interchange Control Version No	ID	5/5	M
ISA13	I12	Interchange Control Number	N0	9/9	M
ISA14	I13	Acknowledgment Requested Code *0 - None* *1 - Requested*	ID	1/1	M
ISA15	I14	Interchange Usage Indicator Code *T - Test* *P - Production*	ID	1/1	M
ISA16	I15	Component Element Separator Code ‘|’		1/1	M

IEA Segment: Interchange Control Trailer

The IEA segment is used to define the end of an interchange of zero or more functional groups and interchange-related control segments. It is mandatory with a max use of 1

REF DESC.	DATA ELEMENT	ELEMENT DESCRIPTION	TYPE	MIN/MAX	USE
IEA01	I16	Number of Included Functional Groups A count of functional groups included in an interchange	N0	1/5	M
IEA02	I12	Interchange Control Number Number in the ISA13	N0	9/9	M

3.4 Basic Character Set

Following the ANSI ASC X12 Standards, the common character code schemes are graphic-character-oriented; therefore, common character encoding schemes not listed below may be used only as long as a common mapping is available. Since graphic characters have an implied mapping across character code schemes, those bit patterns are not provided here.

The basic character set of this Standard includes those selected from the uppercase letters, digits, space and special characters as specified below.

Uppercase Letter	A	----------	Z			
Digit	0	----------	9			
Special Character	“!”	“”””	“&”	“’”	“(“	“)”
	“*”	“+”	“,”	“-“	“.”	“/”
	“:”	“;”	“?”	“=”		
Space	“ “					

4.0 Appendix

4.1 Appendix A - EDI Capabilities Questionnaire

4.2 Appendix B - EDI Setup Form

5.0 Glossary

5.1 Glossary

TERM	DESCRIPTION
KCS	Kansas City Southern
KCSR	The Kansas City Southern Railway Company (US)
KCSM	Kansas City Southern de México (MX)
EDI	Electronic Data Interchange
VAN	Value Added Network
ANSI	American National Standards Institute
ASC	Accredited Standards Committee
CLM	Car Location Message
ISA	Interchange Control Header
IEA	Interchange Control Trailer
Segment	A line within a transaction set with a stated purpose which is within the scope of the transaction set.
Data Element	Individual items of information within a transaction set.
Delimiter	One or more character that separates data fields.
Composite Element	One data element made up of several sub-elements.
Repetition Separator	A character that separates segments that repeat within a transaction set.
Functional Group	A collection of related transaction sets. The GS and GE segments envelope a complete functional group.
Interchange Control	The data segment that indicates the beginning and end of an interchange.