3.6 Code System

3.6.1 Character encoding system

A character encoding system herein refers to a system to encode a set of characters used in NACCS EDI messages. Note that this specific character encoding system is applicable only to NACCS EDI messages. This character encoding system, therefore, is not applicable to communication protocol headers nor trailers which are added upon transmission or receipt.

In addition, "4.6.2 Attachment file" shows the extensions, the file name character codes and encoding, etc., can be used in attachment file.

(1) Encoded characters used in outbound messages (Process Request Messages)

(A) One-byte characters (attribute "n" and "an")

Table 3.6.1 below shows a one-byte character set in the bold frame used in creating Process Request Messages to be sent by Users (attributes "n" and "an").

Table 3.6.1 One-byte Characters Allowed to be Used in Process Request Messages

									0	0	0	0		1	1	1	1
									0	0	1	1		0	0	1	1
									0	1	0	1		0	1	0	1
								Column									
Bits	b7	b6	b5	B4	b3	b2	b1	row	0	1	2	3		4	5	6	7
				0	0	0	0	0			SP	0		@	P		
				0	0	0	1	1			!	1		A	Q		
				0	0	1	0	2			"	2		B	R		
				0	0	1	1	3			#	3		C	S		
				0	1	0	0	4			$	4		D	T		
				0	1	0	1	5			%	5		E	U		
				0	1	1	0	6			&	6		F	V		
				0	1	1	1	7			'	7		G	W		
				1	0	0	0	8			(	8		H	X		
				1	0	0	1	9			)	9		I	Y		
				1	0	1	0	A	LF		*	:		J	Z		
				1	0	1	1	B			+	;		K	[		
				1	1	0	0	C			,	<		L	¥		
				1	1	0	1	D	CR		-	=		M	]		
				1	1	1	0	E			.	>		N	^		~
				1	1	1	1	F			/	?		O	_		

(Note) SP denotes a space.

(Note 1) Invalid characters: Half-width katakana characters, "$", "[", "]", "^", and "_".
(Note 2) "¥" can be used only in "Invoice and Packing List Information Registration (IVA)".
(Note 3) "_" can be used in "Invoice Number" fields in "Registration of items on import declarations (IDA)" etc. *1, and "Shipper's Contact E-Mail Address" item, etc.*2 in "ACL Information Registration (For Container Vessels) (ACL01)", and "ACL Information Registration (For Conventional Vessels/Car Carriers) (ACL02)".
(Note 4) "~" can be used only in "Shipper's Contact E-Mail Address" item, etc.*3 in "ACL Information Registration (for Container Vessels) (ACL01)", and "ACL Information

(*1) The subjected procedures are as follows

- ”ACL Information Registration (For Container Vessels) (ACL01)” procedure
- ”ACL Information Registration (For Conventional Vessels/Car Carriers) (ACL02)” procedure
- ”Registration of information about shipping instructions (S/I) (SIR)” procedure
- ”Registration of items on export declarations (EDA)” procedure
- ”Registration of changes to export declarations (EDA01)” procedure
- ”Registration of items on applications for changes to the content of export permission (EAA)” procedure
- ”Registration of import instruction documents (IIR)” procedure
- ”Registration of items on import declarations (IDA)” procedure
- ”Registration of changes to import declarations (IDA01)” procedure
- ”Registration of invoice/packing list information (IVA)” procedure
- ”Registration of invoice/packing list sorting information (IVB)” procedure
- ”Invoice/packing list sorting information (temporary registration) (IVB02)” procedure

(*2) The subjected fields are as follows

- Shipper's Contact E-Mail Address
- Consignor Address/Telephone Number
- Consignee Address/Telephone Number
- Notify Party Address/Telephone Number
- Goods Description
- Marks and Numbers
- Invoice Number

(*3) The subjected fields are as follows

- Shipper's Contact E-Mail Address
- Consignor Address/Telephone Number
- Consignee Address/Telephone Number
- Notify Party Address/Telephone Number
- Goods Description
- Marks and Numbers

(B) One-byte characters (attribute "sn")

One-byte characters (attribute "sn") that Users can use to create Process Request Messages should be the range indicated within the bold frame on Table 3.6.2.

Table 3.6.2 One-byte Characters Allowed to be Used in Process Request Messages (Exception)

Bits	b7	B6	b5	B4	b3	b2	b1	Row \ Column	0	0	0	0	1	1	1	1
									0	0	1	1	0	0	1	1
									0	1	0	1	0	1	0	1
									0	1	2	3	4	5	6	7
				0	0	0	0	0			SP	0	@	P	`	p
				0	0	0	1	1			!	1	A	Q	a	q
				0	0	1	0	2			"	2	B	R	b	r
				0	0	1	1	3			#	3	C	S	c	s
				0	1	0	0	4			$	4	D	T	d	t
				0	1	0	1	5			%	5	E	U	e	u
				0	1	1	0	6			&	6	F	V	f	v
				0	1	1	1	7			'	7	G	W	g	w
				1	0	0	0	8			(	8	H	X	h	x
				1	0	0	1	9			)	9	I	Y	i	y
				1	0	1	0	A	LF		*	:	J	Z	j	z
				1	0	1	1	B			+	;	K	[	k	{
				1	1	0	0	C			,	<	L	¥	l	|
				1	1	0	1	D	CR		-	=	M	]	m	}
				1	1	1	0	E			.	>	N	^	n	~
				1	1	1	1	F			/	?	O	_	o	

Refer to "4.6.2 Attachment file" for attachment file names available for NACCS.

(C) Two-byte characters

Characters that Users can use to create Process Request Messages with two-byte characters shall comply with JIS X 0208:1997. Users can only use JIS Level 1 and Level 2 Japanese kanji characters. The EUC-JP encoding shall be used.

(D) Mixture of two-byte and one-byte characters in Process Request Messages

In Process Request Messages, two-byte characters are allowed only in particular elements (attribute: j). Two-byte characters can be mixed with one-byte characters in elements where the use of two-byte characters is allowed. One-byte characters that are used in combination with two-byte characters are those in the bold frame given in Table 3.6.3.

Character set which can be used in EDIFACT messages should be the Level A Character Set as well as the 2 characters "#" and "@"

Table 3.2.1 described in 3.2.1.1.5 shows Level A Character Set.

Table 3.6.3 One-byte Characters Allowed to be Used with Two-byte Characters

									0	0	0	0	1	1	1	1
									0	0	1	1	0	0	1	1
									0	1	0	1	0	1	0	1
								Column								
Bits	b7	B6	b5	B4	b3	b2	b1	row	0	1	2	3	4	5	6	7
				0	0	0	0	0			SP	0	@	P	`	p
				0	0	0	1	1			!	1	A	Q	a	q
				0	0	1	0	2			"	2	B	R	b	r
				0	0	1	1	3			#	3	C	S	c	s
				0	1	0	0	4			$	4	D	T	d	t
				0	1	0	1	5			%	5	E	U	e	u
				0	1	1	0	6			&	6	F	V	f	v
				0	1	1	1	7			'	7	G	W	g	w
				1	0	0	0	8			(	8	H	X	h	x
				1	0	0	1	9			)	9	I	Y	i	y
				1	0	1	0	A	LF		*	:	J	Z	j	z
				1	0	1	1	B			+	;	K	[	k	{
				1	1	0	0	C			,	<	L	¥	l	|
				1	1	0	1	D	CR		-	=	M	]	m	}
				1	1	1	0	E			.	>	N	^	n	~
				1	1	1	1	F			/	?	O	_	o	

(2) Encoded characters used in inbound messages (Process Result Messages)

(A) One-byte characters (attribute "n" and "an")

One-byte characters (attribute "n" and "an") that are used in Process Result Messages (Process Result Output Messages, Output Information Messages) transmitted from the NACCS Center server to Users shall be those in the bold frame given in Table 3.6.4.
Character set which can be used in EDIFACT messages should be the Level A Character Set as well as the 2 characters "#" and "@" ("#" and "@" are not treated as "errors".)
Table 3.2.1 described in 3.2.1.1.5 shows Level A Character Set.

Table 3.6.4 One-byte Characters Allowed to be Used in Process Result Messages

									0	0	0	0	1	1	1	1
									0	0	1	1	0	0	1	1
									0	1	0	1	0	1	0	1
								Column								
Bits	b7	b6	b5	b4	b3	b2	b1	row	0	1	2	3	4	5	6	7
				0	0	0	0	0			SP	0	@	P		
				0	0	0	1	1			!	1	A	Q		
				0	0	1	0	2			"	2	B	R		
				0	0	1	1	3			#	3	C	S		
				0	1	0	0	4			$	4	D	T		
				0	1	0	1	5			%	5	E	U		
				0	1	1	0	6			&	6	F	V		
				0	1	1	1	7			'	7	G	W		
				1	0	0	0	8			(	8	H	X		
				1	0	0	1	9			)	9	I	Y		
				1	0	1	0	A	LF		*	:	J	Z		
				1	0	1	1	B			+	;	K	[		
				1	1	0	0	C			,	<	L	¥		
				1	1	0	1	D	CR		-	=	M	]		
				1	1	1	0	E			.	>	N	^		~
				1	1	1	1	F			/	?	O	_		

(Note) SP denotes a space.

(B) One-byte characters (attribute "sn")

One-byte characters (attribute "sn") that are used in Process Result Messages (Process Result Output Messages, Output Information Messages) transmitted from the NACCS Center server to Users shall be those in the bold frame given in Table 3.6.5.

Table 3.6.5 One-byte Characters Allowed to be Used in Process Result Message (Exception)

Bits	b7	B6	b5	B4	b3	b2	b1	row / Column	0	0	0	0	1	1	1	1
									0	0	1	1	0	0	1	1
									0	1	0	1	0	1	0	1
				0	0	0	0	0			SP	0	@	P	`	p
				0	0	0	1	1			!	1	A	Q	a	q
				0	0	1	0	2			"	2	B	R	b	r
				0	0	1	1	3			#	3	C	S	c	s
				0	1	0	0	4			$	4	D	T	d	t
				0	1	0	1	5			%	5	E	U	e	u
				0	1	1	0	6			&	6	F	V	f	v
				0	1	1	1	7			'	7	G	W	g	w
				1	0	0	0	8			(	8	H	X	h	x
				1	0	0	1	9			)	9	I	Y	i	y
				1	0	1	0	A	LF		*	:	J	Z	j	z
				1	0	1	1	B			+	;	K	[	k	{
				1	1	0	0	C			,	<	L	¥	l	|
				1	1	0	1	D	CR		-	=	M	]	m	}
				1	1	1	0	E			.	>	N	^	n	~
				1	1	1	1	F			/	?	O	_	o	

(C) Two-byte characters

Characters that Users can use to create Process Result Messages with two-byte characters shall comply with JIS X 0208:1997. Users can only use JIS Level 1 and Level 2 Japanese kanji characters. The EUC-JP encoding shall be used.

(D) Mixture of two-byte and one-byte characters in Process Result Messages

Two-byte characters are used in some types of Output Information Messages because those contain elements requiring Japanese characters and symbols (attribute: j). In such cases, the EUC-JP encoding shall be used as the Character code. However, a mixture of one-byte characters is allowable. One-byte characters that are used in combination with two-byte characters are those in the bold frame given in Table 3-6-6. In addition, NACCS Packaged Software provided by NACCS automatically converts EUC-JP character data to Shift-JIS character data, EUC-JP characters, therefore, are displayed as Shift-JIS characters on computers.

Character set which can be used in EDIFACT messages should be the Level A Character Set as well as the 2 characters "#" and "@" ("#" and "@" are not treated as "errors".)

Table 3.2.1 described in 3.2.1.1.5 shows Level A Character Set.

Table 3-6-6 One-byte character set in output elements with Japanese notation

									0	0	0	0	1	1	1	1
									0	0	1	1	0	0	1	1
									0	1	0	1	0	1	0	1
								Column								
Bits	b7	b6	b5	b4	b3	b2	b1	row	0	1	2	3	4	5	6	7
				0	0	0	0	0			SP	0	@	P	`	p
				0	0	0	1	1			!	1	A	Q	a	q
				0	0	1	0	2			"	2	B	R	b	r
				0	0	1	1	3			#	3	C	S	c	s
				0	1	0	0	4			$	4	D	T	d	t
				0	1	0	1	5			%	5	E	U	e	u
				0	1	1	0	6			&	6	F	V	f	v
				0	1	1	1	7			'	7	G	W	g	w
				1	0	0	0	8			(	8	H	X	h	x
				1	0	0	1	9			)	9	I	Y	i	y
				1	0	1	0	A	LF		*	:	J	Z	j	z
				1	0	1	1	B			+	;	K	[	k	{
				1	1	0	0	C			,	<	L	¥	l	|
				1	1	0	1	D	CR		-	=	M	]	m	}
				1	1	1	0	E			.	>	N	^	n	~
				1	1	1	1	F			/	?	O	_	o	

3.6.2 Garbled characters

In NACCS, some procedures involve descriptions in two-byte characters (Kanji, etc.). Due to a mixture of two-byte and one-byte characters allowed in such elements and the absence of byte sensitivity, platform dependent characters and symbols may be garbled and illegible, depending on the type of gateway computer.
In addition, if the User 's gateway computer adds shift codes, the Message length may be altered.