

## Character Mnemonics & Character Sets

### Status of the Memo

This memo provides information for the Internet community. It does not specify an Internet standard. Distribution of this memo is unlimited.

### Summary

This memo lists a selection of characters and their presence in some coded character sets. To facilitate the coded character set tabulations an unambiguous mnemonic for each character is used, and a format for tabulating the coded character sets is defined. The coded character sets are given names for easy reference. A family of coded character sets called the mnemonic character sets and conversion between these coded character set without information loss is defined.

The character set names are registered with the Internet Assigned Numbers Authority (IANA). Additional character sets not described in this memo should be registered with the IANA. This memo may be updated periodically, or additional specifications may be published, to reflect other coded character sets.

Please send any comments including comments about the accuracy of the tables to the author, Keld Simonsen <Keld.Simonsen@dkuug.dk>.

### 1. INTRODUCTION

With the growing internationalization of the Internet, support for many coded character sets is required. It is the intention of this memo to document precisely the mapping between all characters and their corresponding coded representations in various coded character sets, and give names to these coded character sets, so they can be referenced unambiguously in Internet standards.

This memo does not indicate anything about the validity of using these specifications in any Internet standard, so you should consult each individual Internet standard to see which coded character sets and names are allowed there.

Unambiguous character mnemonics are specified, which provide a practical way of identifying a character, without reference to a coded character set and its code in this coded character set. The mnemonics are written in a minimal set of characters, namely the invariant 83 graphical characters of ISO 646, which is a kind of greatest common subset to be found between the majority of coded

character sets, including ASCII, national variants of the ISO 646 7-bit character set and various EBCDICs. In addition, the numeric value of the coded representations of all these characters are the same in all coded character sets compatible with ISO standards. All of them except two, EXCLAMATION MARK and QUOTATION MARK, have the same coded representation in all variants of EBCDIC. This minimal set of characters is called the reference character set in this memo.

The mnemonics can be used in Internet standards for easy and unambiguous reference, and they can also serve as a fallback representation in various Internet specifications.

The coded character sets covered include all parts of ISO 8859, ISO 6937-2 and all ISO 646 conforming coded character sets in the ISO character set registry managed by ECMA according to ISO 2375. Almost all graphic coded character sets in the ECMA registry (1) are covered. The graphic coded character sets not included are registry numbers 31, 38, 39, 53, 59, 68, 71, 72, 129 and 137. In addition many vendor defined character sets are covered, including PC codepages (4), (7), (8), many EBCDIC character sets (4), (5), (6) and HP, DEC and Apple character sets (8), (9), (10), (13), (14). The East-Asian 16-bit character sets from the ECMA registry is also included in this memo.

## 2. CHARACTER MNEMONICS

### 2.1 General Syntax

The character mnemonics are taken from the ISO committee draft (CD) of the POSIX.2 standard (3). They are classified into two groups:

1. A group with two-character mnemonics
  - Primarily intended for alphabetic scripts like Latin, Greek, Cyrillic, Hebrew and Arabic, and special characters.
2. A group with variable-length mnemonics
  - primarily intended for non-alphabetic scripts like Japanese and Chinese, but also used for some accented letters and special characters.

In the two-character mnemonics, all invariant graphic character in the ISO 646 character codes except "&" are used, i.e. the following characters:

!	"		%	'	(	)	*	+	,	-	.	/	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?	
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z				
a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z				

The character "\_" is not used as the first character.

In the variable-length mnemonics, the character "\_" is not used as the first character. If it is used in a name, its presence is doubled.

The mnemonics can be used in several different ways for different purposes. One of these is description of coded character sets, which is detailed in section 3. Another is for extending a given coded character set to a mnemonic character set. This is described in section 4. The restrictions on the use of the characters "&" and "\_" are due to demands of the compositional methods of these techniques.

## 2.2 ISO Official Long Descriptive Character Name

For all mnemonics, the character for which it stands is indicated in the following table by a long descriptive name. This name is identical to the ISO name of the character as given in reference (2). For a few characters that are not included there, descriptive names of the same kind are introduced in this memo. The source of each character is stated in the table after the name and should be consulted for a reliable identification of the character.

These long descriptive names consists only of the capital Latin letters of the invariant part of ISO 646, the digits, "-", and SPACE. Digits are only used in names of ideographic and Hangul characters and never as the first character.

## 2.3 The 2-character Mnemonics

The two-character mnemonics include various accented Latin letters, Greek, Cyrillic, Hebrew, Arabic, Hiragana and Katakana. Also a fair number of special characters are included. Almost all ISO or ISO registered 7- and 8-bit graphical coded character sets are covered with these two-character mnemonics.

The two characters are chosen so the graphical appearance in the reference set resembles as much as possible (within the possibilities available) the graphical appearance of the character. The basic character set of ISO 646 is used as the reference set, as mentioned above.

The characters in the reference character set are chosen to represent themselves.

For control characters from ISO 646 the two-character acronyms of ISO 2047 are used as mnemonics. For the other control characters of ISO 6429, two-character mnemonics have been selected based on the variable-length acronyms used in that standard.

Letters, including Greek, Cyrillic, Arabic and Hebrew, are represented with the base letter as the first letter, and the second letter represents an accent or relation to a non-Latin script. Non-Latin letters are transliterated to Latin letters, following transliteration standards as closely as possible. This is also done with the Latin letters such as ETH and THORN, and the Danish/Norwegian/Swedish letter A WITH RING ABOVE is transliterated into "aa".

After a letter, the second character signifies the following:

Exclamation mark	!	Grave
Apostrophe	'	Acute accent
Greater-Than sign	>	Circumflex accent
Question Mark	?	tilde
Hyphen-Minus	-	Macron
Left parenthesis	(	Breve
Full Stop	.	Dot Above
Colon	:	Diaeresis
Comma	,	Cedilla
Underline	_	Underline
Solidus	/	Stroke
Quotation mark	"	Double acute accent
Semicolon	;	Ogonek
Less-Than sign	<	Caron
Zero	0	Ring above
Two	2	Hook
Nine	9	Horn
Equals	=	Cyrillic
Asterisk	*	Greek
Percent sign	%	Greek/Cyrillic special
Plus	+	smalls: Arabic, capitals: Hebrew
Three	3	some Latin/Greek/Cyrillic letters
Four	4	Bopomofo
Five	5	Hiragana
Six	6	Katakana

In designing the mnemonics the following special characters were reserved: The ampersand is reserved as an intro character, indicating that the following string is in the mnemonic character set. The underline character is reserved for the variable-length mnemonics. This use does not eliminate usage as an accent or language identifier.

Special characters are encoded with some mnemonic value. These are not systematic thruout, but most mnemonics start with a related special character of the reference set.

## 2.4 The Variable-length Character Mnemonics

The Variable-length Character Mnemonics are primarily meant for the ideographic characters in larger Asian character sets, but are also used for accented characters with several accents and some special characters. To have the mnemonics as short as possible, which both saves storage and is easier to input, a quite short name is preferred. Considering the Chinese standard GB 2312-1980, the Japanese standards JIS X0208 and JIS X0212, and the Korean standard KS C 5601, they are all given by row and column numbers between 1 and 94. So two positions for row and column and a character set identifier of one character would be almost as short as possible. The following character set identifiers are defined:

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c    GB 2312-1980
j    JIS X0208-1990
J    JIS X0212-1990
k    KS C 5601-1987

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This system for the representation of ideographic characters and Hangul characters is not truly mnemonic, but it provides short representations that are easy to connect to the corresponding character by means of the code table of an official character set standard. Alternative methods based on the graphic appearance or the pronunciation of the characters are thought to be unfeasible.

One prominent character in the reference character set is reserved for identifying variable-length mnemonics, namely the underline character "\_". This character is intended as a delimiter both in the front and in the end of the mnemonic. An example of its use would be: (&=intro):

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&_j3210_ &_j4436_&_j6530_
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### 3. CHARACTER MNEMONIC TABLE

The following table contains the character mnemonic and the encoding and long descriptive name of ISO 2DIS 10646 (2). Although the ISO 10646 is only at DIS stage at this moment of writing and there is quite some debate about it, the long descriptive naming in the DIS is considered to be stable and the best official ISO reference to character names. The 2-octet encoded value of the ISO 2DIS 10646 is also used, but only as an identification of the character, and it should only be used for identification purposes as the coded representation may be changed in the final 10646 international standard. Some characters not in the ISO 2DIS 10646 are allocated values in the private use zone and given names and references to a character set where it is used.

The format of the table is:

1st field is the character mnemonic (mostly 2 characters).  
 2nd field is the ISO 2DIS 10646 code in hexadecimal.  
 3rd field is the long descriptive name of ISO 2DIS 10646.

SP	0020	SPACE
!	0021	EXCLAMATION MARK
"	0022	QUOTATION MARK
Nb	0023	NUMBER SIGN
DO	0024	DOLLAR SIGN
%	0025	PERCENT SIGN
&	0026	AMPERSAND
'	0027	APOSTROPHE
(	0028	LEFT PARENTHESIS
)	0029	RIGHT PARENTHESIS
*	002a	ASTERISK
+	002b	PLUS SIGN

,	002c	COMMA
-	002d	HYPHEN-MINUS
.	002e	FULL STOP
/	002f	SOLIDUS
0	0030	DIGIT ZERO
1	0031	DIGIT ONE
2	0032	DIGIT TWO
3	0033	DIGIT THREE
4	0034	DIGIT FOUR
5	0035	DIGIT FIVE
6	0036	DIGIT SIX
7	0037	DIGIT SEVEN
8	0038	DIGIT EIGHT
9	0039	DIGIT NINE
:	003a	COLON
;	003b	SEMICOLON
<	003c	LESS-THAN SIGN
=	003d	EQUALS SIGN
>	003e	GREATER-THAN SIGN
?	003f	QUESTION MARK
At	0040	COMMERCIAL AT
A	0041	LATIN CAPITAL LETTER A
B	0042	LATIN CAPITAL LETTER B
C	0043	LATIN CAPITAL LETTER C
D	0044	LATIN CAPITAL LETTER D
E	0045	LATIN CAPITAL LETTER E
F	0046	LATIN CAPITAL LETTER F
G	0047	LATIN CAPITAL LETTER G
H	0048	LATIN CAPITAL LETTER H
I	0049	LATIN CAPITAL LETTER I
J	004a	LATIN CAPITAL LETTER J
K	004b	LATIN CAPITAL LETTER K
L	004c	LATIN CAPITAL LETTER L
M	004d	LATIN CAPITAL LETTER M
N	004e	LATIN CAPITAL LETTER N
O	004f	LATIN CAPITAL LETTER O
P	0050	LATIN CAPITAL LETTER P
Q	0051	LATIN CAPITAL LETTER Q
R	0052	LATIN CAPITAL LETTER R
S	0053	LATIN CAPITAL LETTER S
T	0054	LATIN CAPITAL LETTER T
U	0055	LATIN CAPITAL LETTER U
V	0056	LATIN CAPITAL LETTER V
W	0057	LATIN CAPITAL LETTER W
X	0058	LATIN CAPITAL LETTER X
Y	0059	LATIN CAPITAL LETTER Y
Z	005a	LATIN CAPITAL LETTER Z
<(	005b	LEFT SQUARE BRACKET
//	005c	REVERSE SOLIDUS
)>	005d	RIGHT SQUARE BRACKET
'>	005e	CIRCUMFLEX ACCENT
_	005f	LOW LINE
'!	0060	GRAVE ACCENT

a	0061	LATIN SMALL LETTER A
b	0062	LATIN SMALL LETTER B
c	0063	LATIN SMALL LETTER C
d	0064	LATIN SMALL LETTER D
e	0065	LATIN SMALL LETTER E
f	0066	LATIN SMALL LETTER F
g	0067	LATIN SMALL LETTER G
h	0068	LATIN SMALL LETTER H
i	0069	LATIN SMALL LETTER I
j	006a	LATIN SMALL LETTER J
k	006b	LATIN SMALL LETTER K
l	006c	LATIN SMALL LETTER L
m	006d	LATIN SMALL LETTER M
n	006e	LATIN SMALL LETTER N
o	006f	LATIN SMALL LETTER O
p	0070	LATIN SMALL LETTER P
q	0071	LATIN SMALL LETTER Q
r	0072	LATIN SMALL LETTER R
s	0073	LATIN SMALL LETTER S
t	0074	LATIN SMALL LETTER T
u	0075	LATIN SMALL LETTER U
v	0076	LATIN SMALL LETTER V
w	0077	LATIN SMALL LETTER W
x	0078	LATIN SMALL LETTER X
y	0079	LATIN SMALL LETTER Y
z	007a	LATIN SMALL LETTER Z
( !	007b	LEFT CURLY BRACKET
!!	007c	VERTICAL LINE
! )	007d	RIGHT CURLY BRACKET
' ?	007e	TILDE
NS	00a0	NO-BREAK SPACE
! I	00a1	INVERTED EXCLAMATION MARK
Ct	00a2	CENT SIGN
Pd	00a3	POUND SIGN
Cu	00a4	CURRENCY SIGN
Ye	00a5	YEN SIGN
BB	00a6	BROKEN BAR
SE	00a7	SECTION SIGN
' :	00a8	DIAERESIS
Co	00a9	COPYRIGHT SIGN
-a	00aa	FEMININE ORDINAL INDICATOR
<<	00ab	LEFT-POINTING DOUBLE ANGLE QUOTATION MARK
NO	00ac	NOT SIGN
--	00ad	SOFT HYPHEN
Rg	00ae	REGISTERED SIGN
' m	00af	MACRON
DG	00b0	DEGREE SIGN
+ -	00b1	PLUS-MINUS SIGN
2S	00b2	SUPERSCRIFT TWO
3S	00b3	SUPERSCRIFT THREE
' '	00b4	ACUTE ACCENT
My	00b5	MICRO SIGN
PI	00b6	PILCROW SIGN

.M	00b7	MIDDLE DOT
'	00b8	CEDILLA
1S	00b9	SUPERSCRIPIT ONE
-o	00ba	MASCULINE ORDINAL INDICATOR
>>	00bb	RIGHT-POINTING DOUBLE ANGLE QUOTATION MARK
14	00bc	VULGAR FRACTION ONE QUARTER
12	00bd	VULGAR FRACTION ONE HALF
34	00be	VULGAR FRACTION THREE QUARTERS
?I	00bf	INVERTED QUESTION MARK
A!	00c0	LATIN CAPITAL LETTER A WITH GRAVE
A'	00c1	LATIN CAPITAL LETTER A WITH ACUTE
A>	00c2	LATIN CAPITAL LETTER A WITH CIRCUMFLEX
A?	00c3	LATIN CAPITAL LETTER A WITH TILDE
A:	00c4	LATIN CAPITAL LETTER A WITH DIAERESIS
AA	00c5	LATIN CAPITAL LETTER A WITH RING ABOVE
AE	00c6	LATIN CAPITAL LETTER AE
C,	00c7	LATIN CAPITAL LETTER C WITH CEDILLA
E!	00c8	LATIN CAPITAL LETTER E WITH GRAVE
E'	00c9	LATIN CAPITAL LETTER E WITH ACUTE
E>	00ca	LATIN CAPITAL LETTER E WITH CIRCUMFLEX
E:	00cb	LATIN CAPITAL LETTER E WITH DIAERESIS
I!	00cc	LATIN CAPITAL LETTER I WITH GRAVE
I'	00cd	LATIN CAPITAL LETTER I WITH ACUTE
I>	00ce	LATIN CAPITAL LETTER I WITH CIRCUMFLEX
I:	00cf	LATIN CAPITAL LETTER I WITH DIAERESIS
D-	00d0	LATIN CAPITAL LETTER ETH (Icelandic)
N?	00d1	LATIN CAPITAL LETTER N WITH TILDE
O!	00d2	LATIN CAPITAL LETTER O WITH GRAVE
O'	00d3	LATIN CAPITAL LETTER O WITH ACUTE
O>	00d4	LATIN CAPITAL LETTER O WITH CIRCUMFLEX
O?	00d5	LATIN CAPITAL LETTER O WITH TILDE
O:	00d6	LATIN CAPITAL LETTER O WITH DIAERESIS
*X	00d7	MULTIPLICATION SIGN
O/	00d8	LATIN CAPITAL LETTER O WITH STROKE
U!	00d9	LATIN CAPITAL LETTER U WITH GRAVE
U'	00da	LATIN CAPITAL LETTER U WITH ACUTE
U>	00db	LATIN CAPITAL LETTER U WITH CIRCUMFLEX
U:	00dc	LATIN CAPITAL LETTER U WITH DIAERESIS
Y'	00dd	LATIN CAPITAL LETTER Y WITH ACUTE
TH	00de	LATIN CAPITAL LETTER THORN (Icelandic)
ss	00df	LATIN SMALL LETTER SHARP S (German)
a!	00e0	LATIN SMALL LETTER A WITH GRAVE
a'	00e1	LATIN SMALL LETTER A WITH ACUTE
a>	00e2	LATIN SMALL LETTER A WITH CIRCUMFLEX
a?	00e3	LATIN SMALL LETTER A WITH TILDE
a:	00e4	LATIN SMALL LETTER A WITH DIAERESIS
aa	00e5	LATIN SMALL LETTER A WITH RING ABOVE
ae	00e6	LATIN SMALL LETTER AE
c,	00e7	LATIN SMALL LETTER C WITH CEDILLA
e!	00e8	LATIN SMALL LETTER E WITH GRAVE
e'	00e9	LATIN SMALL LETTER E WITH ACUTE
e>	00ea	LATIN SMALL LETTER E WITH CIRCUMFLEX
e:	00eb	LATIN SMALL LETTER E WITH DIAERESIS



i!	00ec	LATIN SMALL LETTER I WITH GRAVE
i'	00ed	LATIN SMALL LETTER I WITH ACUTE
i>	00ee	LATIN SMALL LETTER I WITH CIRCUMFLEX
i:	00ef	LATIN SMALL LETTER I WITH DIAERESIS
d-	00f0	LATIN SMALL LETTER ETH (Icelandic)
n?	00f1	LATIN SMALL LETTER N WITH TILDE
o!	00f2	LATIN SMALL LETTER O WITH GRAVE
o'	00f3	LATIN SMALL LETTER O WITH ACUTE
o>	00f4	LATIN SMALL LETTER O WITH CIRCUMFLEX
o?	00f5	LATIN SMALL LETTER O WITH TILDE
o:	00f6	LATIN SMALL LETTER O WITH DIAERESIS
-:	00f7	DIVISION SIGN
o/	00f8	LATIN SMALL LETTER O WITH STROKE
u!	00f9	LATIN SMALL LETTER U WITH GRAVE
u'	00fa	LATIN SMALL LETTER U WITH ACUTE
u>	00fb	LATIN SMALL LETTER U WITH CIRCUMFLEX
u:	00fc	LATIN SMALL LETTER U WITH DIAERESIS
y'	00fd	LATIN SMALL LETTER Y WITH ACUTE
th	00fe	LATIN SMALL LETTER THORN (Icelandic)
y:	00ff	LATIN SMALL LETTER Y WITH DIAERESIS
A-	0100	LATIN CAPITAL LETTER A WITH MACRON
a-	0101	LATIN SMALL LETTER A WITH MACRON
A(	0102	LATIN CAPITAL LETTER A WITH BREVE
a(	0103	LATIN SMALL LETTER A WITH BREVE
A;	0104	LATIN CAPITAL LETTER A WITH OGONEK
a;	0105	LATIN SMALL LETTER A WITH OGONEK
C'	0106	LATIN CAPITAL LETTER C WITH ACUTE
c'	0107	LATIN SMALL LETTER C WITH ACUTE
C>	0108	LATIN CAPITAL LETTER C WITH CIRCUMFLEX
c>	0109	LATIN SMALL LETTER C WITH CIRCUMFLEX
C.	010a	LATIN CAPITAL LETTER C WITH DOT ABOVE
c.	010b	LATIN SMALL LETTER C WITH DOT ABOVE
C<	010c	LATIN CAPITAL LETTER C WITH CARON
c<	010d	LATIN SMALL LETTER C WITH CARON
D<	010e	LATIN CAPITAL LETTER D WITH CARON
d<	010f	LATIN SMALL LETTER D WITH CARON
D/	0110	LATIN CAPITAL LETTER D WITH STROKE
d/	0111	LATIN SMALL LETTER D WITH STROKE
E-	0112	LATIN CAPITAL LETTER E WITH MACRON
e-	0113	LATIN SMALL LETTER E WITH MACRON
E(	0114	LATIN CAPITAL LETTER E WITH BREVE
e(	0115	LATIN SMALL LETTER E WITH BREVE
E.	0116	LATIN CAPITAL LETTER E WITH DOT ABOVE
e.	0117	LATIN SMALL LETTER E WITH DOT ABOVE
E;	0118	LATIN CAPITAL LETTER E WITH OGONEK
e;	0119	LATIN SMALL LETTER E WITH OGONEK
E<	011a	LATIN CAPITAL LETTER E WITH CARON
e<	011b	LATIN SMALL LETTER E WITH CARON
G>	011c	LATIN CAPITAL LETTER G WITH CIRCUMFLEX
g>	011d	LATIN SMALL LETTER G WITH CIRCUMFLEX
G(	011e	LATIN CAPITAL LETTER G WITH BREVE
g(	011f	LATIN SMALL LETTER G WITH BREVE
G.	0120	LATIN CAPITAL LETTER G WITH DOT ABOVE

g.	0121	LATIN SMALL LETTER G WITH DOT ABOVE
G,	0122	LATIN CAPITAL LETTER G WITH CEDILLA
g,	0123	LATIN SMALL LETTER G WITH CEDILLA
H>	0124	LATIN CAPITAL LETTER H WITH CIRCUMFLEX
h>	0125	LATIN SMALL LETTER H WITH CIRCUMFLEX
H/	0126	LATIN CAPITAL LETTER H WITH STROKE
h/	0127	LATIN SMALL LETTER H WITH STROKE
I?	0128	LATIN CAPITAL LETTER I WITH TILDE
i?	0129	LATIN SMALL LETTER I WITH TILDE
I-	012a	LATIN CAPITAL LETTER I WITH MACRON
i-	012b	LATIN SMALL LETTER I WITH MACRON
I(	012c	LATIN CAPITAL LETTER I WITH BREVE
i(	012d	LATIN SMALL LETTER I WITH BREVE
I;	012e	LATIN CAPITAL LETTER I WITH OGONEK
i;	012f	LATIN SMALL LETTER I WITH OGONEK
I.	0130	LATIN CAPITAL LETTER I WITH DOT ABOVE
i.	0131	LATIN SMALL LETTER I DOTLESS
IJ	0132	LATIN CAPITAL LIGATURE IJ
ij	0133	LATIN SMALL LIGATURE IJ
J>	0134	LATIN CAPITAL LETTER J WITH CIRCUMFLEX
j>	0135	LATIN SMALL LETTER J WITH CIRCUMFLEX
K,	0136	LATIN CAPITAL LETTER K WITH CEDILLA
k,	0137	LATIN SMALL LETTER K WITH CEDILLA
kk	0138	LATIN SMALL LETTER KRA (Greenlandic)
L'	0139	LATIN CAPITAL LETTER L WITH ACUTE
l'	013a	LATIN SMALL LETTER L WITH ACUTE
L,	013b	LATIN CAPITAL LETTER L WITH CEDILLA
l,	013c	LATIN SMALL LETTER L WITH CEDILLA
L<	013d	LATIN CAPITAL LETTER L WITH CARON
l<	013e	LATIN SMALL LETTER L WITH CARON
L.	013f	LATIN CAPITAL LETTER L WITH MIDDLE DOT
l.	0140	LATIN SMALL LETTER L WITH MIDDLE DOT
L/	0141	LATIN CAPITAL LETTER L WITH STROKE
l/	0142	LATIN SMALL LETTER L WITH STROKE
N'	0143	LATIN CAPITAL LETTER N WITH ACUTE
n'	0144	LATIN SMALL LETTER N WITH ACUTE
N,	0145	LATIN CAPITAL LETTER N WITH CEDILLA
n,	0146	LATIN SMALL LETTER N WITH CEDILLA
N<	0147	LATIN CAPITAL LETTER N WITH CARON
n<	0148	LATIN SMALL LETTER N WITH CARON
'n	0149	LATIN SMALL LETTER N PRECEDED BY APOSTROPHE
NG	014a	LATIN CAPITAL LETTER ENG (Lappish)
ng	014b	LATIN SMALL LETTER ENG (Lappish)
O-	014c	LATIN CAPITAL LETTER O WITH MACRON
o-	014d	LATIN SMALL LETTER O WITH MACRON
O(	014e	LATIN CAPITAL LETTER O WITH BREVE
o(	014f	LATIN SMALL LETTER O WITH BREVE
O"	0150	LATIN CAPITAL LETTER O WITH DOUBLE ACUTE
o"	0151	LATIN SMALL LETTER O WITH DOUBLE ACUTE
OE	0152	LATIN CAPITAL LIGATURE OE
oe	0153	LATIN SMALL LIGATURE OE
R'	0154	LATIN CAPITAL LETTER R WITH ACUTE
r'	0155	LATIN SMALL LETTER R WITH ACUTE

R,	0156	LATIN CAPITAL LETTER R WITH CEDILLA
r,	0157	LATIN SMALL LETTER R WITH CEDILLA
R<	0158	LATIN CAPITAL LETTER R WITH CARON
r<	0159	LATIN SMALL LETTER R WITH CARON
S'	015a	LATIN CAPITAL LETTER S WITH ACUTE
s'	015b	LATIN SMALL LETTER S WITH ACUTE
S>	015c	LATIN CAPITAL LETTER S WITH CIRCUMFLEX
s>	015d	LATIN SMALL LETTER S WITH CIRCUMFLEX
S,	015e	LATIN CAPITAL LETTER S WITH CEDILLA
s,	015f	LATIN SMALL LETTER S WITH CEDILLA
S<	0160	LATIN CAPITAL LETTER S WITH CARON
s<	0161	LATIN SMALL LETTER S WITH CARON
T,	0162	LATIN CAPITAL LETTER T WITH CEDILLA
t,	0163	LATIN SMALL LETTER T WITH CEDILLA
T<	0164	LATIN CAPITAL LETTER T WITH CARON
t<	0165	LATIN SMALL LETTER T WITH CARON
T/	0166	LATIN CAPITAL LETTER T WITH STROKE
t/	0167	LATIN SMALL LETTER T WITH STROKE
U?	0168	LATIN CAPITAL LETTER U WITH TILDE
u?	0169	LATIN SMALL LETTER U WITH TILDE
U-	016a	LATIN CAPITAL LETTER U WITH MACRON
u-	016b	LATIN SMALL LETTER U WITH MACRON
U(	016c	LATIN CAPITAL LETTER U WITH BREVE
u(	016d	LATIN SMALL LETTER U WITH BREVE
U0	016e	LATIN CAPITAL LETTER U WITH RING ABOVE
u0	016f	LATIN SMALL LETTER U WITH RING ABOVE
U"	0170	LATIN CAPITAL LETTER U WITH DOUBLE ACUTE
u"	0171	LATIN SMALL LETTER U WITH DOUBLE ACUTE
U;	0172	LATIN CAPITAL LETTER U WITH OGONEK
u;	0173	LATIN SMALL LETTER U WITH OGONEK
W>	0174	LATIN CAPITAL LETTER W WITH CIRCUMFLEX
w>	0175	LATIN SMALL LETTER W WITH CIRCUMFLEX
Y>	0176	LATIN CAPITAL LETTER Y WITH CIRCUMFLEX
y>	0177	LATIN SMALL LETTER Y WITH CIRCUMFLEX
Y:	0178	LATIN CAPITAL LETTER Y WITH DIAERESIS
Z'	0179	LATIN CAPITAL LETTER Z WITH ACUTE
z'	017a	LATIN SMALL LETTER Z WITH ACUTE
Z.	017b	LATIN CAPITAL LETTER Z WITH DOT ABOVE
z.	017c	LATIN SMALL LETTER Z WITH DOT ABOVE
Z<	017d	LATIN CAPITAL LETTER Z WITH CARON
z<	017e	LATIN SMALL LETTER Z WITH CARON
O9	01a0	LATIN CAPITAL LETTER O WITH HORN
o9	01a1	LATIN SMALL LETTER O WITH HORN
OI	01a2	LATIN CAPITAL LETTER OI
oi	01a3	LATIN SMALL LETTER OI
yr	01a6	LATIN LETTER YR
U9	01af	LATIN CAPITAL LETTER U WITH HORN
u9	01b0	LATIN SMALL LETTER U WITH HORN
Z/	01b5	LATIN CAPITAL LETTER Z WITH STROKE
z/	01b6	LATIN SMALL LETTER Z WITH STROKE
ED	01b7	LATIN CAPITAL LETTER EZH
A<	01cd	LATIN CAPITAL LETTER A WITH CARON
a<	01ce	LATIN SMALL LETTER A WITH CARON

I<	01cf	LATIN CAPITAL LETTER I WITH CARON
i<	01d0	LATIN SMALL LETTER I WITH CARON
O<	01d1	LATIN CAPITAL LETTER O WITH CARON
o<	01d2	LATIN SMALL LETTER O WITH CARON
U<	01d3	LATIN CAPITAL LETTER U WITH CARON
u<	01d4	LATIN SMALL LETTER U WITH CARON
U:-	01d5	LATIN CAPITAL LETTER U WITH DIAERESIS AND MACRON
u:-	01d6	LATIN SMALL LETTER U WITH DIAERESIS AND MACRON
U:'	01d7	LATIN CAPITAL LETTER U WITH DIAERESIS AND ACUTE
u:'	01d8	LATIN SMALL LETTER U WITH DIAERESIS AND ACUTE
U:<	01d9	LATIN CAPITAL LETTER U WITH DIAERESIS AND CARON
u:<	01da	LATIN SMALL LETTER U WITH DIAERESIS AND CARON
U:!	01db	LATIN CAPITAL LETTER U WITH DIAERESIS AND GRAVE
u:!	01dc	LATIN SMALL LETTER U WITH DIAERESIS AND GRAVE
A1	01de	LATIN CAPITAL LETTER A WITH DIAERESIS AND MACRON
a1	01df	LATIN SMALL LETTER A WITH DIAERESIS AND MACRON
A7	01e0	LATIN CAPITAL LETTER A WITH DOT ABOVE AND MACRON
a7	01e1	LATIN SMALL LETTER A WITH DOT ABOVE AND MACRON
A3	01e2	LATIN CAPITAL LETTER AE WITH MACRON
a3	01e3	LATIN SMALL LETTER AE WITH MACRON
G/	01e4	LATIN CAPITAL LETTER G WITH STROKE
g/	01e5	LATIN SMALL LETTER G WITH STROKE
G<	01e6	LATIN CAPITAL LETTER G WITH CARON
g<	01e7	LATIN SMALL LETTER G WITH CARON
K<	01e8	LATIN CAPITAL LETTER K WITH CARON
k<	01e9	LATIN SMALL LETTER K WITH CARON
O;	01ea	LATIN CAPITAL LETTER O WITH OGONEK
o;	01eb	LATIN SMALL LETTER O WITH OGONEK
O1	01ec	LATIN CAPITAL LETTER O WITH OGONEK AND MACRON
o1	01ed	LATIN SMALL LETTER O WITH OGONEK AND MACRON
EZ	01ee	LATIN CAPITAL LETTER EZH WITH CARON
ez	01ef	LATIN SMALL LETTER EZH WITH CARON
j<	01f0	LATIN SMALL LETTER J WITH CARON
G'	01f4	LATIN CAPITAL LETTER G WITH ACUTE
g'	01f5	LATIN SMALL LETTER G WITH ACUTE
AA'	01fa	LATIN CAPITAL LETTER A WITH RING ABOVE AND ACUTE
aa'	01fb	LATIN SMALL LETTER A WITH RING ABOVE AND ACUTE
AE'	01fc	LATIN CAPITAL LETTER AE WITH ACUTE
ae'	01fd	LATIN SMALL LETTER AE WITH ACUTE
O/'	01fe	LATIN CAPITAL LETTER O WITH STROKE AND ACUTE
o/'	01ff	LATIN SMALL LETTER O WITH STROKE AND ACUTE
;S	02bf	MODIFIER LETTER LEFT HALF RING
'<	02c7	CARON
'(	02d8	BREVE
'.	02d9	DOT ABOVE
'0	02da	RING ABOVE
';	02db	OGONEK
'"	02dd	DOUBLE ACUTE ACCENT
A%	0386	GREEK CAPITAL LETTER ALPHA WITH ACUTE
E%	0388	GREEK CAPITAL LETTER EPSILON WITH ACUTE
Y%	0389	GREEK CAPITAL LETTER ETA WITH ACUTE
I%	038a	GREEK CAPITAL LETTER IOTA WITH ACUTE
O%	038c	GREEK CAPITAL LETTER OMICRON WITH ACUTE

U%	038e	GREEK CAPITAL LETTER UPSILON WITH ACUTE
W%	038f	GREEK CAPITAL LETTER OMEGA WITH ACUTE
i3	0390	GREEK SMALL LETTER IOTA WITH ACUTE AND DIAERESIS
A*	0391	GREEK CAPITAL LETTER ALPHA
B*	0392	GREEK CAPITAL LETTER BETA
G*	0393	GREEK CAPITAL LETTER GAMMA
D*	0394	GREEK CAPITAL LETTER DELTA
E*	0395	GREEK CAPITAL LETTER EPSILON
Z*	0396	GREEK CAPITAL LETTER ZETA
Y*	0397	GREEK CAPITAL LETTER ETA
H*	0398	GREEK CAPITAL LETTER THETA
I*	0399	GREEK CAPITAL LETTER IOTA
K*	039a	GREEK CAPITAL LETTER KAPPA
L*	039b	GREEK CAPITAL LETTER LAMDA
M*	039c	GREEK CAPITAL LETTER MU
N*	039d	GREEK CAPITAL LETTER NU
C*	039e	GREEK CAPITAL LETTER XI
O*	039f	GREEK CAPITAL LETTER OMICRON
P*	03a0	GREEK CAPITAL LETTER PI
R*	03a1	GREEK CAPITAL LETTER RHO
S*	03a3	GREEK CAPITAL LETTER SIGMA
T*	03a4	GREEK CAPITAL LETTER TAU
U*	03a5	GREEK CAPITAL LETTER UPSILON
F*	03a6	GREEK CAPITAL LETTER PHI
X*	03a7	GREEK CAPITAL LETTER CHI
Q*	03a8	GREEK CAPITAL LETTER PSI
W*	03a9	GREEK CAPITAL LETTER OMEGA
J*	03aa	GREEK CAPITAL LETTER IOTA WITH DIAERESIS
V*	03ab	GREEK CAPITAL LETTER UPSILON WITH DIAERESIS
a%	03ac	GREEK SMALL LETTER ALPHA WITH ACUTE
e%	03ad	GREEK SMALL LETTER EPSILON WITH ACUTE
y%	03ae	GREEK SMALL LETTER ETA WITH ACUTE
i%	03af	GREEK SMALL LETTER IOTA WITH ACUTE
u3	03b0	GREEK SMALL LETTER UPSILON WITH ACUTE AND DIAERESIS
a*	03b1	GREEK SMALL LETTER ALPHA
b*	03b2	GREEK SMALL LETTER BETA
g*	03b3	GREEK SMALL LETTER GAMMA
d*	03b4	GREEK SMALL LETTER DELTA
e*	03b5	GREEK SMALL LETTER EPSILON
z*	03b6	GREEK SMALL LETTER ZETA
y*	03b7	GREEK SMALL LETTER ETA
h*	03b8	GREEK SMALL LETTER THETA
i*	03b9	GREEK SMALL LETTER IOTA
k*	03ba	GREEK SMALL LETTER KAPPA
l*	03bb	GREEK SMALL LETTER LAMDA
m*	03bc	GREEK SMALL LETTER MU
n*	03bd	GREEK SMALL LETTER NU
c*	03be	GREEK SMALL LETTER XI
o*	03bf	GREEK SMALL LETTER OMICRON
p*	03c0	GREEK SMALL LETTER PI
r*	03c1	GREEK SMALL LETTER RHO
*s	03c2	GREEK SMALL LETTER FINAL SIGMA
s*	03c3	GREEK SMALL LETTER SIGMA

t*	03c4	GREEK SMALL LETTER TAU
u*	03c5	GREEK SMALL LETTER UPSILON
f*	03c6	GREEK SMALL LETTER PHI
x*	03c7	GREEK SMALL LETTER CHI
q*	03c8	GREEK SMALL LETTER PSI
w*	03c9	GREEK SMALL LETTER OMEGA
j*	03ca	GREEK SMALL LETTER IOTA WITH DIAERESIS
v*	03cb	GREEK SMALL LETTER UPSILON WITH DIAERESIS
o%	03cc	GREEK SMALL LETTER OMICRON WITH ACUTE
u%	03cd	GREEK SMALL LETTER UPSILON WITH ACUTE
w%	03ce	GREEK SMALL LETTER OMEGA WITH ACUTE
'G	03d8	GREEK NUMERAL SIGN
,G	03d9	GREEK LOWER NUMERAL SIGN
T3	03da	GREEK CAPITAL LETTER STIGMA
t3	03db	GREEK SMALL LETTER STIGMA
M3	03dc	GREEK CAPITAL LETTER DIGAMMA
m3	03dd	GREEK SMALL LETTER DIGAMMA
K3	03de	GREEK CAPITAL LETTER KOPPA
k3	03df	GREEK SMALL LETTER KOPPA
P3	03e0	GREEK CAPITAL LETTER SAMPI
p3	03e1	GREEK SMALL LETTER SAMPI
'%	03f4	ACUTE ACCENT AND DIAERESIS (Tonos and Dialytika)
j3	03f5	GREEK IOTA BELOW
IO	0401	CYRILLIC CAPITAL LETTER IO
D%	0402	CYRILLIC CAPITAL LETTER DJE (Serbocroatian)
G%	0403	CYRILLIC CAPITAL LETTER GJE (Macedonian)
IE	0404	CYRILLIC CAPITAL LETTER UKRAINIAN IE
DS	0405	CYRILLIC CAPITAL LETTER DZE (Macedonian)
II	0406	CYRILLIC CAPITAL LETTER BYELORUSSIAN-UKRAINIAN I
YI	0407	CYRILLIC CAPITAL LETTER YI (Ukrainian)
J%	0408	CYRILLIC CAPITAL LETTER JE
LJ	0409	CYRILLIC CAPITAL LETTER LJE
NJ	040a	CYRILLIC CAPITAL LETTER NJE
Ts	040b	CYRILLIC CAPITAL LETTER TSHE (Serbocroatian)
KJ	040c	CYRILLIC CAPITAL LETTER KJE (Macedonian)
V%	040e	CYRILLIC CAPITAL LETTER SHORT U (Byelorussian)
DZ	040f	CYRILLIC CAPITAL LETTER DZHE
A=	0410	CYRILLIC CAPITAL LETTER A
B=	0411	CYRILLIC CAPITAL LETTER BE
V=	0412	CYRILLIC CAPITAL LETTER VE
G=	0413	CYRILLIC CAPITAL LETTER GHE
D=	0414	CYRILLIC CAPITAL LETTER DE
E=	0415	CYRILLIC CAPITAL LETTER IE
Z%	0416	CYRILLIC CAPITAL LETTER ZHE
Z=	0417	CYRILLIC CAPITAL LETTER ZE
I=	0418	CYRILLIC CAPITAL LETTER I
J=	0419	CYRILLIC CAPITAL LETTER SHORT I
K=	041a	CYRILLIC CAPITAL LETTER KA
L=	041b	CYRILLIC CAPITAL LETTER EL
M=	041c	CYRILLIC CAPITAL LETTER EM
N=	041d	CYRILLIC CAPITAL LETTER EN
O=	041e	CYRILLIC CAPITAL LETTER O
P=	041f	CYRILLIC CAPITAL LETTER PE

R=	0420	CYRILLIC CAPITAL LETTER ER
S=	0421	CYRILLIC CAPITAL LETTER ES
T=	0422	CYRILLIC CAPITAL LETTER TE
U=	0423	CYRILLIC CAPITAL LETTER U
F=	0424	CYRILLIC CAPITAL LETTER EF
H=	0425	CYRILLIC CAPITAL LETTER HA
C=	0426	CYRILLIC CAPITAL LETTER TSE
C%	0427	CYRILLIC CAPITAL LETTER CHE
S%	0428	CYRILLIC CAPITAL LETTER SHA
Sc	0429	CYRILLIC CAPITAL LETTER SHCHA
= "	042a	CYRILLIC CAPITAL LETTER HARD SIGN
Y=	042b	CYRILLIC CAPITAL LETTER YERU
% "	042c	CYRILLIC CAPITAL LETTER SOFT SIGN
JE	042d	CYRILLIC CAPITAL LETTER E
JU	042e	CYRILLIC CAPITAL LETTER YU
JA	042f	CYRILLIC CAPITAL LETTER YA
a=	0430	CYRILLIC SMALL LETTER A
b=	0431	CYRILLIC SMALL LETTER BE
v=	0432	CYRILLIC SMALL LETTER VE
g=	0433	CYRILLIC SMALL LETTER GHE
d=	0434	CYRILLIC SMALL LETTER DE
e=	0435	CYRILLIC SMALL LETTER IE
z%	0436	CYRILLIC SMALL LETTER ZHE
z=	0437	CYRILLIC SMALL LETTER ZE
i=	0438	CYRILLIC SMALL LETTER I
j=	0439	CYRILLIC SMALL LETTER SHORT I
k=	043a	CYRILLIC SMALL LETTER KA
l=	043b	CYRILLIC SMALL LETTER EL
m=	043c	CYRILLIC SMALL LETTER EM
n=	043d	CYRILLIC SMALL LETTER EN
o=	043e	CYRILLIC SMALL LETTER O
p=	043f	CYRILLIC SMALL LETTER PE
r=	0440	CYRILLIC SMALL LETTER ER
s=	0441	CYRILLIC SMALL LETTER ES
t=	0442	CYRILLIC SMALL LETTER TE
u=	0443	CYRILLIC SMALL LETTER U
f=	0444	CYRILLIC SMALL LETTER EF
h=	0445	CYRILLIC SMALL LETTER HA
c=	0446	CYRILLIC SMALL LETTER TSE
c%	0447	CYRILLIC SMALL LETTER CHE
s%	0448	CYRILLIC SMALL LETTER SHA
sc	0449	CYRILLIC SMALL LETTER SHCHA
= '	044a	CYRILLIC SMALL LETTER HARD SIGN
y=	044b	CYRILLIC SMALL LETTER YERU
% '	044c	CYRILLIC SMALL LETTER SOFT SIGN
je	044d	CYRILLIC SMALL LETTER E
ju	044e	CYRILLIC SMALL LETTER YU
ja	044f	CYRILLIC SMALL LETTER YA
io	0451	CYRILLIC SMALL LETTER IO
d%	0452	CYRILLIC SMALL LETTER DJE (Serbocroatian)
g%	0453	CYRILLIC SMALL LETTER GJE (Macedonian)
ie	0454	CYRILLIC SMALL LETTER UKRAINIAN IE
ds	0455	CYRILLIC SMALL LETTER DZE (Macedonian)

ii	0456	CYRILLIC SMALL LETTER BYELORUSSIAN-UKRAINIAN I
yi	0457	CYRILLIC SMALL LETTER YI (Ukrainian)
j%	0458	CYRILLIC SMALL LETTER JE
lj	0459	CYRILLIC SMALL LETTER LJE
nj	045a	CYRILLIC SMALL LETTER NJE
ts	045b	CYRILLIC SMALL LETTER TSHE (Serbocroatian)
kj	045c	CYRILLIC SMALL LETTER KJE (Macedonian)
v%	045e	CYRILLIC SMALL LETTER SHORT U (Byelorussian)
dz	045f	CYRILLIC SMALL LETTER DZHE
Y3	0462	CYRILLIC CAPITAL LETTER YAT
y3	0463	CYRILLIC SMALL LETTER YAT
O3	046a	CYRILLIC CAPITAL LETTER BIG YUS
o3	046b	CYRILLIC SMALL LETTER BIG YUS
F3	0472	CYRILLIC CAPITAL LETTER FITA
f3	0473	CYRILLIC SMALL LETTER FITA
V3	0474	CYRILLIC CAPITAL LETTER IZHITSA
v3	0475	CYRILLIC SMALL LETTER IZHITSA
C3	0480	CYRILLIC CAPITAL LETTER KOPPA
c3	0481	CYRILLIC SMALL LETTER KOPPA
G3	0490	CYRILLIC CAPITAL LETTER GHE WITH UPTURN
g3	0491	CYRILLIC SMALL LETTER GHE WITH UPTURN
A+	05d0	HEBREW LETTER ALEF
B+	05d1	HEBREW LETTER BET
G+	05d2	HEBREW LETTER GIMEL
D+	05d3	HEBREW LETTER DALET
H+	05d4	HEBREW LETTER HE
W+	05d5	HEBREW LETTER VAV
Z+	05d6	HEBREW LETTER ZAYIN
X+	05d7	HEBREW LETTER HET
Tj	05d8	HEBREW LETTER TET
J+	05d9	HEBREW LETTER YOD
K%	05da	HEBREW LETTER FINAL KAF
K+	05db	HEBREW LETTER KAF
L+	05dc	HEBREW LETTER LAMED
M%	05dd	HEBREW LETTER FINAL MEM
M+	05de	HEBREW LETTER MEM
N%	05df	HEBREW LETTER FINAL NUN
N+	05e0	HEBREW LETTER NUN
S+	05e1	HEBREW LETTER SAMEKH
E+	05e2	HEBREW LETTER AYIN
P%	05e3	HEBREW LETTER FINAL PE
P+	05e4	HEBREW LETTER PE
Zj	05e5	HEBREW LETTER FINAL TSADI
ZJ	05e6	HEBREW LETTER TSADI
Q+	05e7	HEBREW LETTER QOF
R+	05e8	HEBREW LETTER RESH
Sh	05e9	HEBREW LETTER SHIN
T+	05ea	HEBREW LETTER TAV
,+	060c	ARABIC COMMA
;+	061b	ARABIC SEMICOLON
?+	061f	ARABIC QUESTION MARK
H'	0621	ARABIC LETTER HAMZA
aM	0622	ARABIC LETTER ALEF WITH MADDA ABOVE



aH	0623	ARABIC LETTER ALEF WITH HAMZA ABOVE
wH	0624	ARABIC LETTER WAW WITH HAMZA ABOVE
ah	0625	ARABIC LETTER ALEF WITH HAMZA BELOW
yH	0626	ARABIC LETTER YEH WITH HAMZA ABOVE
a+	0627	ARABIC LETTER ALEF
b+	0628	ARABIC LETTER BEH
tm	0629	ARABIC LETTER TEH MARBUTA
t+	062a	ARABIC LETTER TEH
tk	062b	ARABIC LETTER THEH
g+	062c	ARABIC LETTER JEEM
hk	062d	ARABIC LETTER HAH
x+	062e	ARABIC LETTER KHAH
d+	062f	ARABIC LETTER DAL
dk	0630	ARABIC LETTER THAL
r+	0631	ARABIC LETTER REH
z+	0632	ARABIC LETTER ZAIN
s+	0633	ARABIC LETTER SEEN
sn	0634	ARABIC LETTER SHEEN
c+	0635	ARABIC LETTER SAD
dd	0636	ARABIC LETTER DAD
tj	0637	ARABIC LETTER TAH
zH	0638	ARABIC LETTER ZAH
e+	0639	ARABIC LETTER AIN
i+	063a	ARABIC LETTER GHAIN
++	0640	ARABIC TATWEEL
f+	0641	ARABIC LETTER FEH
q+	0642	ARABIC LETTER QAF
k+	0643	ARABIC LETTER KAF
l+	0644	ARABIC LETTER LAM
m+	0645	ARABIC LETTER MEEM
n+	0646	ARABIC LETTER NOON
h+	0647	ARABIC LETTER HEH
w+	0648	ARABIC LETTER WAW
j+	0649	ARABIC LETTER ALEF MAKSURA
y+	064a	ARABIC LETTER YEH
:+	064b	ARABIC FATHATAN
"+	064c	ARABIC DAMMATAN
=+	064d	ARABIC KASRATAN
/+	064e	ARABIC FATHA
'+	064f	ARABIC DAMMA
1+	0650	ARABIC KASRA
3+	0651	ARABIC SHADDA
0+	0652	ARABIC SUKUN
aS	0670	SUPERSCRIPT ARABIC LETTER ALEF
p+	067e	ARABIC LETTER PEH
v+	06a4	ARABIC LETTER VEH
gf	06af	ARABIC LETTER GAF
0a	06f0	EASTERN ARABIC-INDIC DIGIT ZERO
1a	06f1	EASTERN ARABIC-INDIC DIGIT ONE
2a	06f2	EASTERN ARABIC-INDIC DIGIT TWO
3a	06f3	EASTERN ARABIC-INDIC DIGIT THREE
4a	06f4	EASTERN ARABIC-INDIC DIGIT FOUR
5a	06f5	EASTERN ARABIC-INDIC DIGIT FIVE

6a	06f6	EASTERN ARABIC-INDIC DIGIT SIX
7a	06f7	EASTERN ARABIC-INDIC DIGIT SEVEN
8a	06f8	EASTERN ARABIC-INDIC DIGIT EIGHT
9a	06f9	EASTERN ARABIC-INDIC DIGIT NINE
A-0	1e00	LATIN CAPITAL LETTER A WITH RING BELOW
a-0	1e01	LATIN SMALL LETTER A WITH RING BELOW
B.	1e02	LATIN CAPITAL LETTER B WITH DOT ABOVE
b.	1e03	LATIN SMALL LETTER B WITH DOT ABOVE
B-.	1e04	LATIN CAPITAL LETTER B WITH DOT BELOW
b-.	1e05	LATIN SMALL LETTER B WITH DOT BELOW
B_	1e06	LATIN CAPITAL LETTER B WITH LINE BELOW
b_	1e07	LATIN SMALL LETTER B WITH LINE BELOW
C,'	1e08	LATIN CAPITAL LETTER C WITH CEDILLA AND ACUTE
c,'	1e09	LATIN SMALL LETTER C WITH CEDILLA AND ACUTE
D.	1e0a	LATIN CAPITAL LETTER D WITH DOT ABOVE
d.	1e0b	LATIN SMALL LETTER D WITH DOT ABOVE
D-.	1e0c	LATIN CAPITAL LETTER D WITH DOT BELOW
d-.	1e0d	LATIN SMALL LETTER D WITH DOT BELOW
D_	1e0e	LATIN CAPITAL LETTER D WITH LINE BELOW
d_	1e0f	LATIN SMALL LETTER D WITH LINE BELOW
D,	1e10	LATIN CAPITAL LETTER D WITH CEDILLA
d,	1e11	LATIN SMALL LETTER D WITH CEDILLA
D->	1e12	LATIN CAPITAL LETTER D WITH CIRCUMFLEX BELOW
d->	1e13	LATIN SMALL LETTER D WITH CIRCUMFLEX BELOW
E-!	1e14	LATIN CAPITAL LETTER E WITH MACRON AND GRAVE
e-!	1e15	LATIN SMALL LETTER E WITH MACRON AND GRAVE
E-'	1e16	LATIN CAPITAL LETTER E WITH MACRON AND ACUTE
e-'	1e17	LATIN SMALL LETTER E WITH MACRON AND ACUTE
E->	1e18	LATIN CAPITAL LETTER E WITH CIRCUMFLEX BELOW
e->	1e19	LATIN SMALL LETTER E WITH CIRCUMFLEX BELOW
E-?	1e1a	LATIN CAPITAL LETTER E WITH TILDE BELOW
e-?	1e1b	LATIN SMALL LETTER E WITH TILDE BELOW
E,(	1e1c	LATIN CAPITAL LETTER E WITH CEDILLA AND BREVE
e,(	1e1d	LATIN SMALL LETTER E WITH CEDILLA AND BREVE
F.	1e1e	LATIN CAPITAL LETTER F WITH DOT ABOVE
f.	1e1f	LATIN SMALL LETTER F WITH DOT ABOVE
G-	1e20	LATIN CAPITAL LETTER G WITH MACRON
g-	1e21	LATIN SMALL LETTER G WITH MACRON
H.	1e22	LATIN CAPITAL LETTER H WITH DOT ABOVE
h.	1e23	LATIN SMALL LETTER H WITH DOT ABOVE
H-.	1e24	LATIN CAPITAL LETTER H WITH DOT BELOW
h-.	1e25	LATIN SMALL LETTER H WITH DOT BELOW
H:	1e26	LATIN CAPITAL LETTER H WITH DIAERESIS
h:	1e27	LATIN SMALL LETTER H WITH DIAERESIS
H,	1e28	LATIN CAPITAL LETTER H WITH CEDILLA
h,	1e29	LATIN SMALL LETTER H WITH CEDILLA
H-(	1e2a	LATIN CAPITAL LETTER H WITH BREVE BELOW
h-(	1e2b	LATIN SMALL LETTER H WITH BREVE BELOW
I-?	1e2c	LATIN CAPITAL LETTER I WITH TILDE BELOW
i-?	1e2d	LATIN SMALL LETTER I WITH TILDE BELOW
I:'	1e2e	LATIN CAPITAL LETTER I WITH DIAERESIS AND ACUTE
i:'	1e2f	LATIN SMALL LETTER I WITH DIAERESIS AND ACUTE
K'	1e30	LATIN CAPITAL LETTER K WITH ACUTE

k'	1e31	LATIN SMALL LETTER K WITH ACUTE
K-.	1e32	LATIN CAPITAL LETTER K WITH DOT BELOW
k-.	1e33	LATIN SMALL LETTER K WITH DOT BELOW
K_	1e34	LATIN CAPITAL LETTER K WITH LINE BELOW
k_	1e35	LATIN SMALL LETTER K WITH LINE BELOW
L-.	1e36	LATIN CAPITAL LETTER L WITH DOT BELOW
l-.	1e37	LATIN SMALL LETTER L WITH DOT BELOW
L--.	1e38	LATIN CAPITAL LETTER L WITH DOT BELOW AND MACRON
l--.	1e39	LATIN SMALL LETTER L WITH DOT BELOW AND MACRON
L_	1e3a	LATIN CAPITAL LETTER L WITH LINE BELOW
l_	1e3b	LATIN SMALL LETTER L WITH LINE BELOW
L->	1e3c	LATIN CAPITAL LETTER L WITH CIRCUMFLEX BELOW
l->	1e3d	LATIN SMALL LETTER L WITH CIRCUMFLEX BELOW
M'	1e3e	LATIN CAPITAL LETTER M WITH ACUTE
m'	1e3f	LATIN SMALL LETTER M WITH ACUTE
M.	1e40	LATIN CAPITAL LETTER M WITH DOT ABOVE
m.	1e41	LATIN SMALL LETTER M WITH DOT ABOVE
M-.	1e42	LATIN CAPITAL LETTER M WITH DOT BELOW
m-.	1e43	LATIN SMALL LETTER M WITH DOT BELOW
N.	1e44	LATIN CAPITAL LETTER N WITH DOT ABOVE
n.	1e45	LATIN SMALL LETTER N WITH DOT ABOVE
N-.	1e46	LATIN CAPITAL LETTER N WITH DOT BELOW
n-.	1e47	LATIN SMALL LETTER N WITH DOT BELOW
N_	1e48	LATIN CAPITAL LETTER N WITH LINE BELOW
n_	1e49	LATIN SMALL LETTER N WITH LINE BELOW
N->	1e4a	LATIN CAPITAL LETTER N WITH CIRCUMFLEX BELOW
n->	1e4b	LATIN SMALL LETTER N WITH CIRCUMFLEX BELOW
O?'	1e4c	LATIN CAPITAL LETTER O WITH TILDE AND ACUTE
o?'	1e4d	LATIN SMALL LETTER O WITH TILDE AND ACUTE
O?:	1e4e	LATIN CAPITAL LETTER O WITH TILDE AND DIAERESIS
o?:	1e4f	LATIN SMALL LETTER O WITH TILDE AND DIAERESIS
O-!	1e50	LATIN CAPITAL LETTER O WITH MACRON AND GRAVE
o-!	1e51	LATIN SMALL LETTER O WITH MACRON AND GRAVE
O-'	1e52	LATIN CAPITAL LETTER O WITH MACRON AND ACUTE
o-'	1e53	LATIN SMALL LETTER O WITH MACRON AND ACUTE
P'	1e54	LATIN CAPITAL LETTER P WITH ACUTE
p'	1e55	LATIN SMALL LETTER P WITH ACUTE
P.	1e56	LATIN CAPITAL LETTER P WITH DOT ABOVE
p.	1e57	LATIN SMALL LETTER P WITH DOT ABOVE
R.	1e58	LATIN CAPITAL LETTER R WITH DOT ABOVE
r.	1e59	LATIN SMALL LETTER R WITH DOT ABOVE
R-.	1e5a	LATIN CAPITAL LETTER R WITH DOT BELOW
r-.	1e5b	LATIN SMALL LETTER R WITH DOT BELOW
R--.	1e5c	LATIN CAPITAL LETTER R WITH DOT BELOW AND MACRON
r--.	1e5d	LATIN SMALL LETTER R WITH DOT BELOW AND MACRON
R_	1e5e	LATIN CAPITAL LETTER R WITH LINE BELOW
r_	1e5f	LATIN SMALL LETTER R WITH LINE BELOW
S.	1e60	LATIN CAPITAL LETTER S WITH DOT ABOVE
s.	1e61	LATIN SMALL LETTER S WITH DOT ABOVE
S-.	1e62	LATIN CAPITAL LETTER S WITH DOT BELOW
s-.	1e63	LATIN SMALL LETTER S WITH DOT BELOW
S'.	1e64	LATIN CAPITAL LETTER S WITH ACUTE AND DOT ABOVE
s'.	1e65	LATIN SMALL LETTER S WITH ACUTE AND DOT ABOVE

S<.	1e66	LATIN CAPITAL LETTER S WITH CARON AND DOT ABOVE
s<.	1e67	LATIN SMALL LETTER S WITH CARON AND DOT ABOVE
S.-.	1e68	LATIN CAPITAL LETTER S WITH DOT BELOW AND DOT ABOVE
s.-.	1e69	LATIN SMALL LETTER S WITH DOT BELOW AND DOT ABOVE
T.	1e6a	LATIN CAPITAL LETTER T WITH DOT ABOVE
t.	1e6b	LATIN SMALL LETTER T WITH DOT ABOVE
T-.	1e6c	LATIN CAPITAL LETTER T WITH DOT BELOW
t-.	1e6d	LATIN SMALL LETTER T WITH DOT BELOW
T_	1e6e	LATIN CAPITAL LETTER T WITH LINE BELOW
t_	1e6f	LATIN SMALL LETTER T WITH LINE BELOW
T->	1e70	LATIN CAPITAL LETTER T WITH CIRCUMFLEX BELOW
t->	1e71	LATIN SMALL LETTER T WITH CIRCUMFLEX BELOW
U--:	1e72	LATIN CAPITAL LETTER U WITH DIAERESIS BELOW
u--:	1e73	LATIN SMALL LETTER U WITH DIAERESIS BELOW
U-?	1e74	LATIN CAPITAL LETTER U WITH TILDE BELOW
u-?	1e75	LATIN SMALL LETTER U WITH TILDE BELOW
U->	1e76	LATIN CAPITAL LETTER U WITH CIRCUMFLEX BELOW
u->	1e77	LATIN SMALL LETTER U WITH CIRCUMFLEX BELOW
U?'	1e78	LATIN CAPITAL LETTER U WITH TILDE AND ACUTE
u?'	1e79	LATIN SMALL LETTER U WITH TILDE AND ACUTE
U-:	1e7a	LATIN CAPITAL LETTER U WITH MACRON AND DIAERESIS
u-:	1e7b	LATIN SMALL LETTER U WITH MACRON AND DIAERESIS
V?	1e7c	LATIN CAPITAL LETTER V WITH TILDE
v?	1e7d	LATIN SMALL LETTER V WITH TILDE
V-.	1e7e	LATIN CAPITAL LETTER V WITH DOT BELOW
v-.	1e7f	LATIN SMALL LETTER V WITH DOT BELOW
W!	1e80	LATIN CAPITAL LETTER W WITH GRAVE
w!	1e81	LATIN SMALL LETTER W WITH GRAVE
W'	1e82	LATIN CAPITAL LETTER W WITH ACUTE
w'	1e83	LATIN SMALL LETTER W WITH ACUTE
W:	1e84	LATIN CAPITAL LETTER W WITH DIAERESIS
w:	1e85	LATIN SMALL LETTER W WITH DIAERESIS
W.	1e86	LATIN CAPITAL LETTER W WITH DOT ABOVE
w.	1e87	LATIN SMALL LETTER W WITH DOT ABOVE
W-.	1e88	LATIN CAPITAL LETTER W WITH DOT BELOW
w-.	1e89	LATIN SMALL LETTER W WITH DOT BELOW
X.	1e8a	LATIN CAPITAL LETTER X WITH DOT ABOVE
x.	1e8b	LATIN SMALL LETTER X WITH DOT ABOVE
X:	1e8c	LATIN CAPITAL LETTER X WITH DIAERESIS
x:	1e8d	LATIN SMALL LETTER X WITH DIAERESIS
Y.	1e8e	LATIN CAPITAL LETTER Y WITH DOT ABOVE
y.	1e8f	LATIN SMALL LETTER Y WITH DOT ABOVE
Z>	1e90	LATIN CAPITAL LETTER Z WITH CIRCUMFLEX
z>	1e91	LATIN SMALL LETTER Z WITH CIRCUMFLEX
Z-.	1e92	LATIN CAPITAL LETTER Z WITH DOT BELOW
z-.	1e93	LATIN SMALL LETTER Z WITH DOT BELOW
Z_	1e94	LATIN CAPITAL LETTER Z WITH LINE BELOW
z_	1e95	LATIN SMALL LETTER Z WITH LINE BELOW
h_	1e96	LATIN SMALL LETTER H WITH LINE BELOW
t:	1e97	LATIN SMALL LETTER T WITH DIAERESIS
w0	1e98	LATIN SMALL LETTER W WITH RING ABOVE
y0	1e99	LATIN SMALL LETTER Y WITH RING ABOVE
A-.	1ea0	LATIN CAPITAL LETTER A WITH DOT BELOW

a-.	lea1	LATIN SMALL LETTER A WITH DOT BELOW
A2	lea2	LATIN CAPITAL LETTER A WITH HOOK ABOVE
a2	lea3	LATIN SMALL LETTER A WITH HOOK ABOVE
A>'	lea4	LATIN CAPITAL LETTER A WITH CIRCUMFLEX AND ACUTE
a>'	lea5	LATIN SMALL LETTER A WITH CIRCUMFLEX AND ACUTE
A>!	lea6	LATIN CAPITAL LETTER A WITH CIRCUMFLEX AND GRAVE
a>!	lea7	LATIN SMALL LETTER A WITH CIRCUMFLEX AND GRAVE
A>2	lea8	LATIN CAPITAL LETTER A WITH CIRCUMFLEX AND HOOK ABOVE
a>2	lea9	LATIN SMALL LETTER A WITH CIRCUMFLEX AND HOOK ABOVE
A>?	leaa	LATIN CAPITAL LETTER A WITH CIRCUMFLEX AND TILDE
a>?	leab	LATIN SMALL LETTER A WITH CIRCUMFLEX AND TILDE
A>-.	leac	LATIN CAPITAL LETTER A WITH CIRCUMFLEX AND DOT BELOW
a>-.	lead	LATIN SMALL LETTER A WITH CIRCUMFLEX AND DOT BELOW
A('	leae	LATIN CAPITAL LETTER A WITH BREVE AND ACUTE
a('	leaf	LATIN SMALL LETTER A WITH BREVE AND ACUTE
A(!	leb0	LATIN CAPITAL LETTER A WITH BREVE AND GRAVE
a(!	leb1	LATIN SMALL LETTER A WITH BREVE AND GRAVE
A(2	leb2	LATIN CAPITAL LETTER A WITH BREVE AND HOOK ABOVE
a(2	leb3	LATIN SMALL LETTER A WITH BREVE AND HOOK ABOVE
A(?)	leb4	LATIN CAPITAL LETTER A WITH BREVE AND TILDE
a(?)	leb5	LATIN SMALL LETTER A WITH BREVE AND TILDE
A(-.	leb6	LATIN CAPITAL LETTER A WITH BREVE AND DOT BELOW
a(-.	leb7	LATIN SMALL LETTER A WITH BREVE AND DOT BELOW
E-.	leb8	LATIN CAPITAL LETTER E WITH DOT BELOW
e-.	leb9	LATIN SMALL LETTER E WITH DOT BELOW
E2	leba	LATIN CAPITAL LETTER E WITH HOOK ABOVE
e2	lebb	LATIN SMALL LETTER E WITH HOOK ABOVE
E?	lebc	LATIN CAPITAL LETTER E WITH TILDE
e?	lebd	LATIN SMALL LETTER E WITH TILDE
E>'	lebe	LATIN CAPITAL LETTER E WITH CIRCUMFLEX AND ACUTE
e>'	lebf	LATIN SMALL LETTER E WITH CIRCUMFLEX AND ACUTE
E>!	lec0	LATIN CAPITAL LETTER E WITH CIRCUMFLEX AND GRAVE
e>!	lec1	LATIN SMALL LETTER E WITH CIRCUMFLEX AND GRAVE
E>2	lec2	LATIN CAPITAL LETTER E WITH CIRCUMFLEX AND HOOK ABOVE
e>2	lec3	LATIN SMALL LETTER E WITH CIRCUMFLEX AND HOOK ABOVE
E>?	lec4	LATIN CAPITAL LETTER E WITH CIRCUMFLEX AND TILDE
e>?	lec5	LATIN SMALL LETTER E WITH CIRCUMFLEX AND TILDE
E>-.	lec6	LATIN CAPITAL LETTER E WITH CIRCUMFLEX AND DOT BELOW
e>-.	lec7	LATIN SMALL LETTER E WITH CIRCUMFLEX AND DOT BELOW
I2	lec8	LATIN CAPITAL LETTER I WITH HOOK ABOVE
i2	lec9	LATIN SMALL LETTER I WITH HOOK ABOVE
I-.	leca	LATIN CAPITAL LETTER I WITH DOT BELOW
i-.	lecb	LATIN SMALL LETTER I WITH DOT BELOW
O-.	lecc	LATIN CAPITAL LETTER O WITH DOT BELOW
o-.	lecd	LATIN SMALL LETTER O WITH DOT BELOW
O2	lece	LATIN CAPITAL LETTER O WITH HOOK ABOVE
o2	lecf	LATIN SMALL LETTER O WITH HOOK ABOVE
O>'	led0	LATIN CAPITAL LETTER O WITH CIRCUMFLEX AND ACUTE
o>'	led1	LATIN SMALL LETTER O WITH CIRCUMFLEX AND ACUTE
O>!	led2	LATIN CAPITAL LETTER O WITH CIRCUMFLEX AND GRAVE
o>!	led3	LATIN SMALL LETTER O WITH CIRCUMFLEX AND GRAVE
O>2	led4	LATIN CAPITAL LETTER O WITH CIRCUMFLEX AND HOOK ABOVE
o>2	led5	LATIN SMALL LETTER O WITH CIRCUMFLEX AND HOOK ABOVE

O>?	led6	LATIN CAPITAL LETTER O WITH CIRCUMFLEX AND TILDE
o>?	led7	LATIN SMALL LETTER O WITH CIRCUMFLEX AND TILDE
O>-.	led8	LATIN CAPITAL LETTER O WITH CIRCUMFLEX AND DOT BELOW
o>-.	led9	LATIN SMALL LETTER O WITH CIRCUMFLEX AND DOT BELOW
O9'	leda	LATIN CAPITAL LETTER O WITH HORN AND ACUTE
o9'	ledb	LATIN SMALL LETTER O WITH HORN AND ACUTE
O9!	ledc	LATIN CAPITAL LETTER O WITH HORN AND GRAVE
o9!	ledd	LATIN SMALL LETTER O WITH HORN AND GRAVE
O92	lede	LATIN CAPITAL LETTER O WITH HORN AND HOOK ABOVE
o92	ledf	LATIN SMALL LETTER O WITH HORN AND HOOK ABOVE
O9?	lee0	LATIN CAPITAL LETTER O WITH HORN AND TILDE
o9?	lee1	LATIN SMALL LETTER O WITH HORN AND TILDE
O9-.	lee2	LATIN CAPITAL LETTER O WITH HORN AND DOT BELOW
o9-.	lee3	LATIN SMALL LETTER O WITH HORN AND DOT BELOW
U-.	lee4	LATIN CAPITAL LETTER U WITH DOT BELOW
u-.	lee5	LATIN SMALL LETTER U WITH DOT BELOW
U2	lee6	LATIN CAPITAL LETTER U WITH HOOK ABOVE
u2	lee7	LATIN SMALL LETTER U WITH HOOK ABOVE
U9'	lee8	LATIN CAPITAL LETTER U WITH HORN AND ACUTE
u9'	lee9	LATIN SMALL LETTER U WITH HORN AND ACUTE
U9!	leea	LATIN CAPITAL LETTER U WITH HORN AND GRAVE
u9!	leeb	LATIN SMALL LETTER U WITH HORN AND GRAVE
U92	leec	LATIN CAPITAL LETTER U WITH HORN AND HOOK ABOVE
u92	leed	LATIN SMALL LETTER U WITH HORN AND HOOK ABOVE
U9?	lee	LATIN CAPITAL LETTER U WITH HORN AND TILDE
u9?	leef	LATIN SMALL LETTER U WITH HORN AND TILDE
U9-.	lef0	LATIN CAPITAL LETTER U WITH HORN AND DOT BELOW
u9-.	lef1	LATIN SMALL LETTER U WITH HORN AND DOT BELOW
Y!	lef2	LATIN CAPITAL LETTER Y WITH GRAVE
y!	lef3	LATIN SMALL LETTER Y WITH GRAVE
Y-.	lef4	LATIN CAPITAL LETTER Y WITH DOT BELOW
y-.	lef5	LATIN SMALL LETTER Y WITH DOT BELOW
Y2	lef6	LATIN CAPITAL LETTER Y WITH HOOK ABOVE
y2	lef7	LATIN SMALL LETTER Y WITH HOOK ABOVE
Y?	lef8	LATIN CAPITAL LETTER Y WITH TILDE
y?	lef9	LATIN SMALL LETTER Y WITH TILDE
;'	lf00	GREEK DASIA AND ACUTE ACCENT
,'	lf01	GREEK PSILI AND ACUTE ACCENT
;!	lf02	GREEK DASIA AND VARIA
,!	lf03	GREEK PSILI AND VARIA
?;	lf04	GREEK DASIA AND PERISPOMENI
?,	lf05	GREEK PSILI AND PERISPOMENI
!:	lf06	GREEK DIAERESIS AND VARIA
?:	lf07	GREEK DIAERESIS AND PERISPOMENI
1N	2002	EN SPACE
1M	2003	EM SPACE
3M	2004	THREE-PER-EM SPACE
4M	2005	FOUR-PER-EM SPACE
6M	2006	SIX-PER-EM SPACE
1T	2009	THIN SPACE
1H	200a	HAIR SPACE
-1	2010	HYPHEN
-N	2013	EN DASH

-M	2014	EM DASH
-3	2015	HORIZONTAL BAR
!2	2016	DOUBLE VERTICAL LINE
=2	2017	DOUBLE LOW LINE
'6	2018	LEFT SINGLE QUOTATION MARK
'9	2019	RIGHT SINGLE QUOTATION MARK
.9	201a	SINGLE LOW-9 QUOTATION MARK
9'	201b	SINGLE HIGH-REVERSED-9 QUOTATION MARK
"6	201c	LEFT DOUBLE QUOTATION MARK
"9	201d	RIGHT DOUBLE QUOTATION MARK
:9	201e	DOUBLE LOW-9 QUOTATION MARK
9"	201f	DOUBLE HIGH-REVERSED-9 QUOTATION MARK
/-	2020	DAGGER
/=	2021	DOUBLE DAGGER
..	2025	TWO DOT LEADER
%0	2030	PER MILLE SIGN
1'	2032	PRIME
2'	2033	DOUBLE PRIME
3'	2034	TRIPLE PRIME
1"	2035	REVERSED PRIME
2"	2036	REVERSED DOUBLE PRIME
3"	2037	REVERSED TRIPLE PRIME
Ca	2038	CARET
<1	2039	SINGLE LEFT-POINTING ANGLE QUOTATION MARK
>1	203a	SINGLE RIGHT-POINTING ANGLE QUOTATION MARK
:X	203b	REFERENCE MARK
!*2	203c	DOUBLE EXCLAMATION MARK
'-	203e	OVERLINE
/f	2044	FRACTION SLASH
0S	2070	SUPERSCRIPIT DIGIT ZERO
4S	2074	SUPERSCRIPIT DIGIT FOUR
5S	2075	SUPERSCRIPIT DIGIT FIVE
6S	2076	SUPERSCRIPIT DIGIT SIX
7S	2077	SUPERSCRIPIT DIGIT SEVEN
8S	2078	SUPERSCRIPIT DIGIT EIGHT
9S	2079	SUPERSCRIPIT DIGIT NINE
+S	207a	SUPERSCRIPIT PLUS SIGN
-S	207b	SUPERSCRIPIT MINUS
=S	207c	SUPERSCRIPIT EQUALS SIGN
(S	207d	SUPERSCRIPIT LEFT PARENTHESIS
)S	207e	SUPERSCRIPIT RIGHT PARENTHESIS
nS	207f	SUPERSCRIPIT LATIN SMALL LETTER N
0s	2080	SUBSCRIPT DIGIT ZERO
1s	2081	SUBSCRIPT DIGIT ONE
2s	2082	SUBSCRIPT DIGIT TWO
3s	2083	SUBSCRIPT DIGIT THREE
4s	2084	SUBSCRIPT DIGIT FOUR
5s	2085	SUBSCRIPT DIGIT FIVE
6s	2086	SUBSCRIPT DIGIT SIX
7s	2087	SUBSCRIPT DIGIT SEVEN
8s	2088	SUBSCRIPT DIGIT EIGHT
9s	2089	SUBSCRIPT DIGIT NINE
+s	208a	SUBSCRIPT PLUS SIGN

-s	208b	SUBSCRIPT MINUS
=s	208c	SUBSCRIPT EQUALS SIGN
(s	208d	SUBSCRIPT LEFT PARENTHESIS
)s	208e	SUBSCRIPT RIGHT PARENTHESIS
Li	20a4	LIRA SIGN
Pt	20a7	PESETA SIGN
W=	20a9	WON SIGN
oC	2103	DEGREE CENTIGRADE
co	2105	CARE OF
oF	2109	DEGREE FAHRENHEIT
N0	2116	NUMERO SIGN
PO	2117	SOUND RECORDING COPYRIGHT
Rx	211e	PRESCRIPTION TAKE
SM	2120	SERVICE MARK
TM	2122	TRADE MARK SIGN
Om	2126	OHM SIGN
AO	212b	ANGSTROEM SIGN
13	2153	VULGAR FRACTION ONE THIRD
23	2154	VULGAR FRACTION TWO THIRDS
15	2155	VULGAR FRACTION ONE FIFTH
25	2156	VULGAR FRACTION TWO FIFTHS
35	2157	VULGAR FRACTION THREE FIFTHS
45	2158	VULGAR FRACTION FOUR FIFTHS
16	2159	VULGAR FRACTION ONE SIXTH
56	215a	VULGAR FRACTION FIVE SIXTHS
18	215b	VULGAR FRACTION ONE EIGHTH
38	215c	VULGAR FRACTION THREE EIGHTHS
58	215d	VULGAR FRACTION FIVE EIGHTHS
78	215e	VULGAR FRACTION SEVEN EIGHTHS
1R	2160	ROMAN NUMERAL ONE
2R	2161	ROMAN NUMERAL TWO
3R	2162	ROMAN NUMERAL THREE
4R	2163	ROMAN NUMERAL FOUR
5R	2164	ROMAN NUMERAL FIVE
6R	2165	ROMAN NUMERAL SIX
7R	2166	ROMAN NUMERAL SEVEN
8R	2167	ROMAN NUMERAL EIGHT
9R	2168	ROMAN NUMERAL NINE
aR	2169	ROMAN NUMERAL TEN
bR	216a	ROMAN NUMERAL ELEVEN
cR	216b	ROMAN NUMERAL TWELVE
50R	216c	ROMAN NUMERAL FIFTY
100R	216d	ROMAN NUMERAL ONE HUNDRED
500R	216e	ROMAN NUMERAL FIVE HUNDRED
1000R	216f	ROMAN NUMERAL ONE THOUSAND
1r	2170	SMALL ROMAN NUMERAL ONE
2r	2171	SMALL ROMAN NUMERAL TWO
3r	2172	SMALL ROMAN NUMERAL THREE
4r	2173	SMALL ROMAN NUMERAL FOUR
5r	2174	SMALL ROMAN NUMERAL FIVE
6r	2175	SMALL ROMAN NUMERAL SIX
7r	2176	SMALL ROMAN NUMERAL SEVEN
8r	2177	SMALL ROMAN NUMERAL EIGHT



9r	2178	SMALL ROMAN NUMERAL NINE
ar	2179	SMALL ROMAN NUMERAL TEN
br	217a	SMALL ROMAN NUMERAL ELEVEN
cr	217b	SMALL ROMAN NUMERAL TWELVE
50r	217c	SMALL ROMAN NUMERAL FIFTY
100r	217d	SMALL ROMAN NUMERAL ONE HUNDRED
500r	217e	SMALL ROMAN NUMERAL FIVE HUNDRED
1000r	217f	SMALL ROMAN NUMERAL ONE THOUSAND
1000RCD		2180 ROMAN NUMERAL ONE THOUSAND C D
5000R	2181	ROMAN NUMERAL FIVE THOUSAND
10000R	2182	ROMAN NUMERAL TEN THOUSAND
<-	2190	LEFTWARDS ARROW
-!	2191	UPWARDS ARROW
->	2192	RIGHTWARDS ARROW
-v	2193	DOWNWARDS ARROW
<>	2194	LEFT RIGHT ARROW
UD	2195	UP DOWN ARROW
<!!	2196	NORTH WEST ARROW
//>	2197	NORTH EAST ARROW
!!>	2198	SOUTH EAST ARROW
<//	2199	SOUTH WEST ARROW
<=	21d0	LEFTWARDS DOUBLE ARROW
=>	21d2	RIGHTWARDS DOUBLE ARROW
==	21d4	LEFT RIGHT DOUBLE ARROW
FA	2200	FOR ALL
dP	2202	PARTIAL DIFFERENTIAL
TE	2203	THERE EXISTS
/0	2205	EMPTY SET
DE	2206	INCREMENT
NB	2207	NABLA
(-	2208	ELEMENT OF
-)	220b	CONTAINS AS MEMBER
*P	220f	N-ARY PRODUCT
+Z	2211	N-ARY SUMMATION
-2	2212	MINUS SIGN
-+	2213	MINUS-OR-PLUS SIGN
*-	2217	ASTERISK OPERATOR
Ob	2218	RING OPERATOR
Sb	2219	BULLET OPERATOR
RT	221a	SQUARE ROOT
0(	221d	PROPORTIONAL TO
00	221e	INFINITY
-L	221f	RIGHT ANGLE
-V	2220	ANGLE
PP	2225	PARALLEL TO
AN	2227	LOGICAL AND
OR	2228	LOGICAL OR
(U	2229	INTERSECTION
)U	222a	UNION
In	222b	INTEGRAL
DI	222c	DOUBLE INTEGRAL
Io	222e	CONTOUR INTEGRAL
.:	2234	THEREFORE

:.	2235	BECAUSE
:R	2236	RATIO
::	2237	PROPORTION
?1	223c	TILDE OPERATOR
CG	223e	INVERTED LAZY S
?-	2243	ASYMPTOTICALLY EQUAL TO
?=	2245	APPROXIMATELY EQUAL TO
?2	2248	ALMOST EQUAL TO
=?	224c	ALL EQUAL TO
HI	2253	IMAGE OF OR APPROXIMATELY EQUAL TO
!=	2260	NOT EQUAL TO
=3	2261	IDENTICAL TO
=<	2264	LESS-THAN OR EQUAL TO
>=	2265	GREATER-THAN OR EQUAL TO
<*	226a	MUCH LESS-THAN
*>	226b	MUCH GREATER-THAN
!<	226e	NOT LESS-THAN
!>	226f	NOT GREATER-THAN
(C	2282	SUBSET OF
)C	2283	SUPERSET OF
( _	2286	SUBSET OF OR EQUAL TO
) _	2287	SUPERSET OF OR EQUAL TO
0.	2299	CIRCLED DOT OPERATOR
02	229a	CIRCLED RING OPERATOR
-T	22a5	UP TACK
.P	22c5	DOT OPERATOR
:3	22ee	VERTICAL ELLIPSIS
.3	22ef	MIDLINE HORIZONTAL ELLIPSIS
Eh	2302	HOUSE
<7	2308	LEFT CEILING
>7	2309	RIGHT CEILING
7<	230a	LEFT FLOOR
7>	230b	RIGHT FLOOR
NI	2310	REVERSED NOT SIGN
(A	2312	ARC
TR	2315	TELEPHONE RECORDER
Iu	2320	TOP HALF INTEGRAL
Il	2321	BOTTOM HALF INTEGRAL
</	2329	LEFT-POINTING ANGLE BRACKET
/>	232a	RIGHT-POINTING ANGLE BRACKET
Vs	2423	OPEN BOX
1h	2440	OCR HOOK
3h	2441	OCR CHAIR
2h	2442	OCR FORK
4h	2443	OCR INVERTED FORK
1j	2446	OCR BRANCH BANK IDENTIFICATION
2j	2447	OCR AMOUNT OF CHECK
3j	2448	OCR DASH
4j	2449	OCR CUSTOMER ACCOUNT NUMBER
1-o	2460	CIRCLED DIGIT ONE
2-o	2461	CIRCLED DIGIT TWO
3-o	2462	CIRCLED DIGIT THREE
4-o	2463	CIRCLED DIGIT FOUR

5-o	2464	CIRCLED DIGIT FIVE
6-o	2465	CIRCLED DIGIT SIX
7-o	2466	CIRCLED DIGIT SEVEN
8-o	2467	CIRCLED DIGIT EIGHT
9-o	2468	CIRCLED DIGIT NINE
10-o	2469	CIRCLED NUMBER TEN
11-o	246a	CIRCLED NUMBER ELEVEN
12-o	246b	CIRCLED NUMBER TWELVE
13-o	246c	CIRCLED NUMBER THIRTEEN
14-o	246d	CIRCLED NUMBER FOURTEEN
15-o	246e	CIRCLED NUMBER FIFTEEN
16-o	246f	CIRCLED NUMBER SIXTEEN
17-o	2470	CIRCLED NUMBER SEVENTEEN
18-o	2471	CIRCLED NUMBER EIGHTEEN
19-o	2472	CIRCLED NUMBER NINETEEN
20-o	2473	CIRCLED NUMBER TWENTY
(1)	2474	PARENTHESESIZED DIGIT ONE
(2)	2475	PARENTHESESIZED DIGIT TWO
(3)	2476	PARENTHESESIZED DIGIT THREE
(4)	2477	PARENTHESESIZED DIGIT FOUR
(5)	2478	PARENTHESESIZED DIGIT FIVE
(6)	2479	PARENTHESESIZED DIGIT SIX
(7)	247a	PARENTHESESIZED DIGIT SEVEN
(8)	247b	PARENTHESESIZED DIGIT EIGHT
(9)	247c	PARENTHESESIZED DIGIT NINE
(10)	247d	PARENTHESESIZED NUMBER TEN
(11)	247e	PARENTHESESIZED NUMBER ELEVEN
(12)	247f	PARENTHESESIZED NUMBER TWELVE
(13)	2480	PARENTHESESIZED NUMBER THIRTEEN
(14)	2481	PARENTHESESIZED NUMBER FOURTEEN
(15)	2482	PARENTHESESIZED NUMBER FIFTEEN
(16)	2483	PARENTHESESIZED NUMBER SIXTEEN
(17)	2484	PARENTHESESIZED NUMBER SEVENTEEN
(18)	2485	PARENTHESESIZED NUMBER EIGHTEEN
(19)	2486	PARENTHESESIZED NUMBER NINETEEN
(20)	2487	PARENTHESESIZED NUMBER TWENTY
1.	2488	DIGIT ONE FULL STOP
2.	2489	DIGIT TWO FULL STOP
3.	248a	DIGIT THREE FULL STOP
4.	248b	DIGIT FOUR FULL STOP
5.	248c	DIGIT FIVE FULL STOP
6.	248d	DIGIT SIX FULL STOP
7.	248e	DIGIT SEVEN FULL STOP
8.	248f	DIGIT EIGHT FULL STOP
9.	2490	DIGIT NINE FULL STOP
10.	2491	NUMBER TEN FULL STOP
11.	2492	NUMBER ELEVEN FULL STOP
12.	2493	NUMBER TWELVE FULL STOP
13.	2494	NUMBER THIRTEEN FULL STOP
14.	2495	NUMBER FOURTEEN FULL STOP
15.	2496	NUMBER FIFTEEN FULL STOP
16.	2497	NUMBER SIXTEEN FULL STOP
17.	2498	NUMBER SEVENTEEN FULL STOP

18.	2499	NUMBER EIGHTEEN FULL STOP
19.	249a	NUMBER NINETEEN FULL STOP
20.	249b	NUMBER TWENTY FULL STOP
(a)	249c	PARENTHESESIZED LATIN SMALL LETTER A
(b)	249d	PARENTHESESIZED LATIN SMALL LETTER B
(c)	249e	PARENTHESESIZED LATIN SMALL LETTER C
(d)	249f	PARENTHESESIZED LATIN SMALL LETTER D
(e)	24a0	PARENTHESESIZED LATIN SMALL LETTER E
(f)	24a1	PARENTHESESIZED LATIN SMALL LETTER F
(g)	24a2	PARENTHESESIZED LATIN SMALL LETTER G
(h)	24a3	PARENTHESESIZED LATIN SMALL LETTER H
(i)	24a4	PARENTHESESIZED LATIN SMALL LETTER I
(j)	24a5	PARENTHESESIZED LATIN SMALL LETTER J
(k)	24a6	PARENTHESESIZED LATIN SMALL LETTER K
(l)	24a7	PARENTHESESIZED LATIN SMALL LETTER L
(m)	24a8	PARENTHESESIZED LATIN SMALL LETTER M
(n)	24a9	PARENTHESESIZED LATIN SMALL LETTER N
(o)	24aa	PARENTHESESIZED LATIN SMALL LETTER O
(p)	24ab	PARENTHESESIZED LATIN SMALL LETTER P
(q)	24ac	PARENTHESESIZED LATIN SMALL LETTER Q
(r)	24ad	PARENTHESESIZED LATIN SMALL LETTER R
(s)	24ae	PARENTHESESIZED LATIN SMALL LETTER S
(t)	24af	PARENTHESESIZED LATIN SMALL LETTER T
(u)	24b0	PARENTHESESIZED LATIN SMALL LETTER U
(v)	24b1	PARENTHESESIZED LATIN SMALL LETTER V
(w)	24b2	PARENTHESESIZED LATIN SMALL LETTER W
(x)	24b3	PARENTHESESIZED LATIN SMALL LETTER X
(y)	24b4	PARENTHESESIZED LATIN SMALL LETTER Y
(z)	24b5	PARENTHESESIZED LATIN SMALL LETTER Z
A-o	24b6	CIRCLED LATIN CAPITAL LETTER A
B-o	24b7	CIRCLED LATIN CAPITAL LETTER B
C-o	24b8	CIRCLED LATIN CAPITAL LETTER C
D-o	24b9	CIRCLED LATIN CAPITAL LETTER D
E-o	24ba	CIRCLED LATIN CAPITAL LETTER E
F-o	24bb	CIRCLED LATIN CAPITAL LETTER F
G-o	24bc	CIRCLED LATIN CAPITAL LETTER G
H-o	24bd	CIRCLED LATIN CAPITAL LETTER H
I-o	24be	CIRCLED LATIN CAPITAL LETTER I
J-o	24bf	CIRCLED LATIN CAPITAL LETTER J
K-o	24c0	CIRCLED LATIN CAPITAL LETTER K
L-o	24c1	CIRCLED LATIN CAPITAL LETTER L
M-o	24c2	CIRCLED LATIN CAPITAL LETTER M
N-o	24c3	CIRCLED LATIN CAPITAL LETTER N
O-o	24c4	CIRCLED LATIN CAPITAL LETTER O
P-o	24c5	CIRCLED LATIN CAPITAL LETTER P
Q-o	24c6	CIRCLED LATIN CAPITAL LETTER Q
R-o	24c7	CIRCLED LATIN CAPITAL LETTER R
S-o	24c8	CIRCLED LATIN CAPITAL LETTER S
T-o	24c9	CIRCLED LATIN CAPITAL LETTER T
U-o	24ca	CIRCLED LATIN CAPITAL LETTER U
V-o	24cb	CIRCLED LATIN CAPITAL LETTER V
W-o	24cc	CIRCLED LATIN CAPITAL LETTER W
X-o	24cd	CIRCLED LATIN CAPITAL LETTER X

Y-o	24ce	CIRCLED LATIN CAPITAL LETTER Y
Z-o	24cf	CIRCLED LATIN CAPITAL LETTER Z
a-o	24d0	CIRCLED LATIN SMALL LETTER A
b-o	24d1	CIRCLED LATIN SMALL LETTER B
c-o	24d2	CIRCLED LATIN SMALL LETTER C
d-o	24d3	CIRCLED LATIN SMALL LETTER D
e-o	24d4	CIRCLED LATIN SMALL LETTER E
f-o	24d5	CIRCLED LATIN SMALL LETTER F
g-o	24d6	CIRCLED LATIN SMALL LETTER G
h-o	24d7	CIRCLED LATIN SMALL LETTER H
i-o	24d8	CIRCLED LATIN SMALL LETTER I
j-o	24d9	CIRCLED LATIN SMALL LETTER J
k-o	24da	CIRCLED LATIN SMALL LETTER K
l-o	24db	CIRCLED LATIN SMALL LETTER L
m-o	24dc	CIRCLED LATIN SMALL LETTER M
n-o	24dd	CIRCLED LATIN SMALL LETTER N
o-o	24de	CIRCLED LATIN SMALL LETTER O
p-o	24df	CIRCLED LATIN SMALL LETTER P
q-o	24e0	CIRCLED LATIN SMALL LETTER Q
r-o	24e1	CIRCLED LATIN SMALL LETTER R
s-o	24e2	CIRCLED LATIN SMALL LETTER S
t-o	24e3	CIRCLED LATIN SMALL LETTER T
u-o	24e4	CIRCLED LATIN SMALL LETTER U
v-o	24e5	CIRCLED LATIN SMALL LETTER V
w-o	24e6	CIRCLED LATIN SMALL LETTER W
x-o	24e7	CIRCLED LATIN SMALL LETTER X
y-o	24e8	CIRCLED LATIN SMALL LETTER Y
z-o	24e9	CIRCLED LATIN SMALL LETTER Z
0-o	24ea	CIRCLED DIGIT ZERO
hh	2500	BOX DRAWINGS LIGHT HORIZONTAL
HH	2501	BOX DRAWINGS HEAVY HORIZONTAL
vv	2502	BOX DRAWINGS LIGHT VERTICAL
VV	2503	BOX DRAWINGS HEAVY VERTICAL
3-	2504	BOX DRAWINGS LIGHT TRIPLE DASH HORIZONTAL
3_	2505	BOX DRAWINGS HEAVY TRIPLE DASH HORIZONTAL
3!	2506	BOX DRAWINGS LIGHT TRIPLE DASH VERTICAL
3/	2507	BOX DRAWINGS HEAVY TRIPLE DASH VERTICAL
4-	2508	BOX DRAWINGS LIGHT QUADRUPLE DASH HORIZONTAL
4_	2509	BOX DRAWINGS HEAVY QUADRUPLE DASH HORIZONTAL
4!	250a	BOX DRAWINGS LIGHT QUADRUPLE DASH VERTICAL
4/	250b	BOX DRAWINGS HEAVY QUADRUPLE DASH VERTICAL
dr	250c	BOX DRAWINGS LIGHT DOWN AND RIGHT
dR	250d	BOX DRAWINGS DOWN LIGHT AND RIGHT HEAVY
Dr	250e	BOX DRAWINGS DOWN HEAVY AND RIGHT LIGHT
DR	250f	BOX DRAWINGS HEAVY DOWN AND RIGHT
dL	2510	BOX DRAWINGS LIGHT DOWN AND LEFT
dL	2511	BOX DRAWINGS DOWN LIGHT AND LEFT HEAVY
Dl	2512	BOX DRAWINGS DOWN HEAVY AND LEFT LIGHT
LD	2513	BOX DRAWINGS HEAVY DOWN AND LEFT
ur	2514	BOX DRAWINGS LIGHT UP AND RIGHT
uR	2515	BOX DRAWINGS UP LIGHT AND RIGHT HEAVY
Ur	2516	BOX DRAWINGS UP HEAVY AND RIGHT LIGHT
UR	2517	BOX DRAWINGS HEAVY UP AND RIGHT

ul	2518	BOX DRAWINGS LIGHT UP AND LEFT
uL	2519	BOX DRAWINGS UP LIGHT AND LEFT HEAVY
Ul	251a	BOX DRAWINGS UP HEAVY AND LEFT LIGHT
UL	251b	BOX DRAWINGS HEAVY UP AND LEFT
vr	251c	BOX DRAWINGS LIGHT VERTICAL AND RIGHT
vR	251d	BOX DRAWINGS VERTICAL LIGHT AND RIGHT HEAVY
Udr	251e	BOX DRAWINGS UP HEAVY AND RIGHT DOWN LIGHT
uDr	251f	BOX DRAWINGS DOWN HEAVY AND RIGHT UP LIGHT
Vr	2520	BOX DRAWINGS VERTICAL HEAVY AND RIGHT LIGHT
UdR	2521	BOX DRAWINGS DOWN LIGHT AND RIGHT UP HEAVY
uDR	2522	BOX DRAWINGS UP LIGHT AND RIGHT DOWN HEAVY
VR	2523	BOX DRAWINGS HEAVY VERTICAL AND RIGHT
vl	2524	BOX DRAWINGS LIGHT VERTICAL AND LEFT
vL	2525	BOX DRAWINGS VERTICAL LIGHT AND LEFT HEAVY
Udl	2526	BOX DRAWINGS UP HEAVY AND LEFT DOWN LIGHT
uDl	2527	BOX DRAWINGS DOWN HEAVY AND LEFT UP LIGHT
Vl	2528	BOX DRAWINGS VERTICAL HEAVY AND LEFT LIGHT
UdL	2529	BOX DRAWINGS DOWN LIGHT AND LEFT UP HEAVY
uDL	252a	BOX DRAWINGS UP LIGHT AND LEFT DOWN HEAVY
VL	252b	BOX DRAWINGS HEAVY VERTICAL AND LEFT
dh	252c	BOX DRAWINGS LIGHT DOWN AND HORIZONTAL
dLr	252d	BOX DRAWINGS LEFT HEAVY AND RIGHT DOWN LIGHT
dLR	252e	BOX DRAWINGS RIGHT HEAVY AND LEFT DOWN LIGHT
dH	252f	BOX DRAWINGS DOWN LIGHT AND HORIZONTAL HEAVY
Dh	2530	BOX DRAWINGS DOWN HEAVY AND HORIZONTAL LIGHT
DLr	2531	BOX DRAWINGS RIGHT LIGHT AND LEFT DOWN HEAVY
DlR	2532	BOX DRAWINGS LEFT LIGHT AND RIGHT DOWN HEAVY
DH	2533	BOX DRAWINGS HEAVY DOWN AND HORIZONTAL
uh	2534	BOX DRAWINGS LIGHT UP AND HORIZONTAL
uLr	2535	BOX DRAWINGS LEFT HEAVY AND RIGHT UP LIGHT
uLR	2536	BOX DRAWINGS RIGHT HEAVY AND LEFT UP LIGHT
uH	2537	BOX DRAWINGS UP LIGHT AND HORIZONTAL HEAVY
Uh	2538	BOX DRAWINGS UP HEAVY AND HORIZONTAL LIGHT
ULr	2539	BOX DRAWINGS RIGHT LIGHT AND LEFT UP HEAVY
ULR	253a	BOX DRAWINGS LEFT LIGHT AND RIGHT UP HEAVY
UH	253b	BOX DRAWINGS HEAVY UP AND HORIZONTAL
vh	253c	BOX DRAWINGS LIGHT VERTICAL AND HORIZONTAL
vLr	253d	BOX DRAWINGS LEFT HEAVY AND RIGHT VERTICAL LIGHT
vLR	253e	BOX DRAWINGS RIGHT HEAVY AND LEFT VERTICAL LIGHT
vH	253f	BOX DRAWINGS VERTICAL LIGHT AND HORIZONTAL HEAVY
Udh	2540	BOX DRAWINGS UP HEAVY AND DOWN HORIZONTAL LIGHT
uDh	2541	BOX DRAWINGS DOWN HEAVY AND UP HORIZONTAL LIGHT
Vh	2542	BOX DRAWINGS VERTICAL HEAVY AND HORIZONTAL LIGHT
UdLr	2543	BOX DRAWINGS LEFT UP HEAVY AND RIGHT DOWN LIGHT
UdLR	2544	BOX DRAWINGS RIGHT UP HEAVY AND LEFT DOWN LIGHT
uDLr	2545	BOX DRAWINGS LEFT DOWN HEAVY AND RIGHT UP LIGHT
uDlR	2546	BOX DRAWINGS RIGHT DOWN HEAVY AND LEFT UP LIGHT
UdH	2547	BOX DRAWINGS DOWN LIGHT AND UP HORIZONTAL HEAVY
uDH	2548	BOX DRAWINGS UP LIGHT AND DOWN HORIZONTAL HEAVY
VLr	2549	BOX DRAWINGS RIGHT LIGHT AND LEFT VERTICAL HEAVY
VlR	254a	BOX DRAWINGS LEFT LIGHT AND RIGHT VERTICAL HEAVY
VH	254b	BOX DRAWINGS HEAVY VERTICAL AND HORIZONTAL
FD	2571	BOX DRAWINGS LIGHT DIAGONAL UPPER RIGHT TO LOWER LEFT

BD	2572	BOX DRAWINGS LIGHT DIAGONAL UPPER LEFT TO LOWER RIGHT
TB	2580	UPPER HALF BLOCK
LB	2584	LOWER HALF BLOCK
FB	2588	FULL BLOCK
lB	258c	LEFT HALF BLOCK
RB	2590	RIGHT HALF BLOCK
.S	2591	LIGHT SHADE
:S	2592	MEDIUM SHADE
?S	2593	DARK SHADE
fS	25a0	BLACK SQUARE
OS	25a1	WHITE SQUARE
RO	25a2	WHITE SQUARE WITH ROUNDED CORNERS
Rr	25a3	WHITE SQUARE CONTAINING BLACK SMALL SQUARE
RF	25a4	SQUARE WITH HORIZONTAL FILL
RY	25a5	SQUARE WITH VERTICAL FILL
RH	25a6	SQUARE WITH ORTHOGONAL CROSSHATCH FILL
RZ	25a7	SQUARE WITH UPPER LEFT TO LOWER RIGHT FILL
RK	25a8	SQUARE WITH UPPER RIGHT TO LOWER LEFT FILL
RX	25a9	SQUARE WITH DIAGONAL CROSSHATCH FILL
sB	25aa	BLACK SMALL SQUARE
SR	25ac	BLACK RECTANGLE
Or	25ad	WHITE RECTANGLE
UT	25b2	BLACK UP-POINTING TRIANGLE
uT	25b3	WHITE UP-POINTING TRIANGLE
PR	25b6	BLACK RIGHT-POINTING TRIANGLE
Tr	25b7	WHITE RIGHT-POINTING TRIANGLE
Dt	25bc	BLACK DOWN-POINTING TRIANGLE
dT	25bd	WHITE DOWN-POINTING TRIANGLE
PL	25c0	BLACK LEFT-POINTING TRIANGLE
Tl	25c1	WHITE LEFT-POINTING TRIANGLE
Db	25c6	BLACK DIAMOND
Dw	25c7	WHITE DIAMOND
LZ	25ca	LOZENGE
Om	25cb	WHITE CIRCLE
Oo	25ce	BULLSEYE
OM	25cf	BLACK CIRCLE
OL	25d0	CIRCLE WITH LEFT HALF BLACK
OR	25d1	CIRCLE WITH RIGHT HALF BLACK
Sn	25d8	INVERSE BULLET
Ic	25d9	INVERSE WHITE CIRCLE
Fd	25e2	BLACK LOWER RIGHT TRIANGLE
Bd	25e3	BLACK LOWER LEFT TRIANGLE
*2	2605	BLACK STAR
*1	2606	WHITE STAR
TEL	260e	BLACK TELEPHONE
tel	260f	WHITE TELEPHONE
<H	261c	WHITE LEFT POINTING INDEX
>H	261e	WHITE RIGHT POINTING INDEX
0u	263a	WHITE SMILING FACE
0U	263b	BLACK SMILING FACE
SU	263c	WHITE SUN WITH RAYS
Fm	2640	FEMALE SIGN
Ml	2642	MALE SIGN

cS	2660	BLACK SPADE SUIT
cH	2661	WHITE HEART SUIT
cD	2662	WHITE DIAMOND SUIT
cC	2663	BLACK CLUB SUIT
cS-	2664	WHITE SPADE SUIT
cH-	2665	BLACK HEART SUIT
cD-	2666	BLACK DIAMOND SUIT
cC-	2667	WHITE CLUB SUIT
Md	2669	QUARTER NOTE
M8	266a	EIGHTH NOTE
M2	266b	BARRED EIGHTH NOTES
M16	266c	BARRED SIXTEENTH NOTES
Mb	266d	MUSIC FLAT SIGN
Mx	266e	MUSIC NATURAL SIGN
MX	266f	MUSIC SHARP SIGN
OK	2713	CHECK MARK
XX	2717	BALLOT X
-X	2720	MALTESE CROSS
IS	3000	IDEOGRAPHIC SPACE
,_	3001	IDEOGRAPHIC COMMA
._	3002	IDEOGRAPHIC PERIOD
+ "	3003	DITTO MARK
+ _	3004	IDEOGRAPHIC DITTO MARK
* _	3005	IDEOGRAPHIC ITERATION MARK
; _	3006	IDEOGRAPHIC CLOSING MARK
0 _	3007	IDEOGRAPHIC NUMBER ZERO
< +	300a	LEFT DOUBLE ANGLE BRACKET
> +	300b	RIGHT DOUBLE ANGLE BRACKET
< '	300c	LEFT CORNER BRACKET
> '	300d	RIGHT CORNER BRACKET
< "	300e	LEFT WHITE CORNER BRACKET
> "	300f	RIGHT WHITE CORNER BRACKET
( "	3010	LEFT BLACK LENTICULAR BRACKET
) "	3011	RIGHT BLACK LENTICULAR BRACKET
=T	3012	POSTAL MARK
=_	3013	GETA MARK
( '	3014	LEFT TORTOISE SHELL BRACKET
) '	3015	RIGHT TORTOISE SHELL BRACKET
( I	3016	LEFT WHITE LENTICULAR BRACKET
) I	3017	RIGHT WHITE LENTICULAR BRACKET
- ?	301c	WAVE DASH
=T: )	3020	POSTAL MARK FACE
A5	3041	HIRAGANA LETTER SMALL A
a5	3042	HIRAGANA LETTER A
I5	3043	HIRAGANA LETTER SMALL I
i5	3044	HIRAGANA LETTER I
U5	3045	HIRAGANA LETTER SMALL U
u5	3046	HIRAGANA LETTER U
E5	3047	HIRAGANA LETTER SMALL E
e5	3048	HIRAGANA LETTER E
O5	3049	HIRAGANA LETTER SMALL O
o5	304a	HIRAGANA LETTER O
ka	304b	HIRAGANA LETTER KA



ga	304c	HIRAGANA LETTER GA
ki	304d	HIRAGANA LETTER KI
gi	304e	HIRAGANA LETTER GI
ku	304f	HIRAGANA LETTER KU
gu	3050	HIRAGANA LETTER GU
ke	3051	HIRAGANA LETTER KE
ge	3052	HIRAGANA LETTER GE
ko	3053	HIRAGANA LETTER KO
go	3054	HIRAGANA LETTER GO
sa	3055	HIRAGANA LETTER SA
za	3056	HIRAGANA LETTER ZA
si	3057	HIRAGANA LETTER SI
zi	3058	HIRAGANA LETTER ZI
su	3059	HIRAGANA LETTER SU
zu	305a	HIRAGANA LETTER ZU
se	305b	HIRAGANA LETTER SE
ze	305c	HIRAGANA LETTER ZE
so	305d	HIRAGANA LETTER SO
zo	305e	HIRAGANA LETTER ZO
ta	305f	HIRAGANA LETTER TA
da	3060	HIRAGANA LETTER DA
ti	3061	HIRAGANA LETTER TI
di	3062	HIRAGANA LETTER DI
tU	3063	HIRAGANA LETTER SMALL TU
tu	3064	HIRAGANA LETTER TU
du	3065	HIRAGANA LETTER DU
te	3066	HIRAGANA LETTER TE
de	3067	HIRAGANA LETTER DE
to	3068	HIRAGANA LETTER TO
do	3069	HIRAGANA LETTER DO
na	306a	HIRAGANA LETTER NA
ni	306b	HIRAGANA LETTER NI
nu	306c	HIRAGANA LETTER NU
ne	306d	HIRAGANA LETTER NE
no	306e	HIRAGANA LETTER NO
ha	306f	HIRAGANA LETTER HA
ba	3070	HIRAGANA LETTER BA
pa	3071	HIRAGANA LETTER PA
hi	3072	HIRAGANA LETTER HI
bi	3073	HIRAGANA LETTER BI
pi	3074	HIRAGANA LETTER PI
hu	3075	HIRAGANA LETTER HU
bu	3076	HIRAGANA LETTER BU
pu	3077	HIRAGANA LETTER PU
he	3078	HIRAGANA LETTER HE
be	3079	HIRAGANA LETTER BE
pe	307a	HIRAGANA LETTER PE
ho	307b	HIRAGANA LETTER HO
bo	307c	HIRAGANA LETTER BO
po	307d	HIRAGANA LETTER PO
ma	307e	HIRAGANA LETTER MA
mi	307f	HIRAGANA LETTER MI
mu	3080	HIRAGANA LETTER MU

me	3081	HIRAGANA LETTER ME
mo	3082	HIRAGANA LETTER MO
yA	3083	HIRAGANA LETTER SMALL YA
ya	3084	HIRAGANA LETTER YA
yU	3085	HIRAGANA LETTER SMALL YU
yu	3086	HIRAGANA LETTER YU
yO	3087	HIRAGANA LETTER SMALL YO
yo	3088	HIRAGANA LETTER YO
ra	3089	HIRAGANA LETTER RA
ri	308a	HIRAGANA LETTER RI
ru	308b	HIRAGANA LETTER RU
re	308c	HIRAGANA LETTER RE
ro	308d	HIRAGANA LETTER RO
wA	308e	HIRAGANA LETTER SMALL WA
wa	308f	HIRAGANA LETTER WA
wi	3090	HIRAGANA LETTER WI
we	3091	HIRAGANA LETTER WE
wo	3092	HIRAGANA LETTER WO
n5	3093	HIRAGANA LETTER N
vu	3094	HIRAGANA LETTER VU
"5	309b	KATAKANA-HIRAGANA VOICED SOUND MARK
05	309c	KATAKANA-HIRAGANA SEMI-VOICED SOUND MARK
*5	309d	HIRAGANA ITERATION MARK
+5	309e	HIRAGANA VOICED ITERATION MARK
a6	30a1	KATAKANA LETTER SMALL A
A6	30a2	KATAKANA LETTER A
i6	30a3	KATAKANA LETTER SMALL I
I6	30a4	KATAKANA LETTER I
u6	30a5	KATAKANA LETTER SMALL U
U6	30a6	KATAKANA LETTER U
e6	30a7	KATAKANA LETTER SMALL E
E6	30a8	KATAKANA LETTER E
o6	30a9	KATAKANA LETTER SMALL O
O6	30aa	KATAKANA LETTER O
Ka	30ab	KATAKANA LETTER KA
Ga	30ac	KATAKANA LETTER GA
Ki	30ad	KATAKANA LETTER KI
Gi	30ae	KATAKANA LETTER GI
Ku	30af	KATAKANA LETTER KU
Gu	30b0	KATAKANA LETTER GU
Ke	30b1	KATAKANA LETTER KE
Ge	30b2	KATAKANA LETTER GE
Ko	30b3	KATAKANA LETTER KO
Go	30b4	KATAKANA LETTER GO
Sa	30b5	KATAKANA LETTER SA
Za	30b6	KATAKANA LETTER ZA
Si	30b7	KATAKANA LETTER SI
Zi	30b8	KATAKANA LETTER ZI
Su	30b9	KATAKANA LETTER SU
Zu	30ba	KATAKANA LETTER ZU
Se	30bb	KATAKANA LETTER SE
Ze	30bc	KATAKANA LETTER ZE
So	30bd	KATAKANA LETTER SO

Zo	30be	KATAKANA LETTER ZO
Ta	30bf	KATAKANA LETTER TA
Da	30c0	KATAKANA LETTER DA
Ti	30c1	KATAKANA LETTER TI
Di	30c2	KATAKANA LETTER DI
TU	30c3	KATAKANA LETTER SMALL TU
Tu	30c4	KATAKANA LETTER TU
Du	30c5	KATAKANA LETTER DU
Te	30c6	KATAKANA LETTER TE
De	30c7	KATAKANA LETTER DE
To	30c8	KATAKANA LETTER TO
Do	30c9	KATAKANA LETTER DO
Na	30ca	KATAKANA LETTER NA
Ni	30cb	KATAKANA LETTER NI
Nu	30cc	KATAKANA LETTER NU
Ne	30cd	KATAKANA LETTER NE
No	30ce	KATAKANA LETTER NO
Ha	30cf	KATAKANA LETTER HA
Ba	30d0	KATAKANA LETTER BA
Pa	30d1	KATAKANA LETTER PA
Hi	30d2	KATAKANA LETTER HI
Bi	30d3	KATAKANA LETTER BI
Pi	30d4	KATAKANA LETTER PI
Hu	30d5	KATAKANA LETTER HU
Bu	30d6	KATAKANA LETTER BU
Pu	30d7	KATAKANA LETTER PU
He	30d8	KATAKANA LETTER HE
Be	30d9	KATAKANA LETTER BE
Pe	30da	KATAKANA LETTER PE
Ho	30db	KATAKANA LETTER HO
Bo	30dc	KATAKANA LETTER BO
Po	30dd	KATAKANA LETTER PO
Ma	30de	KATAKANA LETTER MA
Mi	30df	KATAKANA LETTER MI
Mu	30e0	KATAKANA LETTER MU
Me	30e1	KATAKANA LETTER ME
Mo	30e2	KATAKANA LETTER MO
YA	30e3	KATAKANA LETTER SMALL YA
Ya	30e4	KATAKANA LETTER YA
YU	30e5	KATAKANA LETTER SMALL YU
Yu	30e6	KATAKANA LETTER YU
YO	30e7	KATAKANA LETTER SMALL YO
Yo	30e8	KATAKANA LETTER YO
Ra	30e9	KATAKANA LETTER RA
Ri	30ea	KATAKANA LETTER RI
Ru	30eb	KATAKANA LETTER RU
Re	30ec	KATAKANA LETTER RE
Ro	30ed	KATAKANA LETTER RO
WA	30ee	KATAKANA LETTER SMALL WA
Wa	30ef	KATAKANA LETTER WA
Wi	30f0	KATAKANA LETTER WI
We	30f1	KATAKANA LETTER WE
Wo	30f2	KATAKANA LETTER WO

N6	30f3	KATAKANA LETTER N
Vu	30f4	KATAKANA LETTER VU
KA	30f5	KATAKANA LETTER SMALL KA
KE	30f6	KATAKANA LETTER SMALL KE
Va	30f7	KATAKANA LETTER VA
Vi	30f8	KATAKANA LETTER VI
Ve	30f9	KATAKANA LETTER VE
Vo	30fa	KATAKANA LETTER VO
.6	30fb	KATAKANA MIDDLE DOT
-6	30fc	KATAKANA-HIRAGANA PROLONGED SOUND MARK
*6	30fd	KATAKANA ITERATION MARK
+6	30fe	KATAKANA VOICED ITERATION MARK
b4	3105	BOPOMOFO LETTER B
p4	3106	BOPOMOFO LETTER P
m4	3107	BOPOMOFO LETTER M
f4	3108	BOPOMOFO LETTER F
d4	3109	BOPOMOFO LETTER D
t4	310a	BOPOMOFO LETTER T
n4	310b	BOPOMOFO LETTER N
l4	310c	BOPOMOFO LETTER L
g4	310d	BOPOMOFO LETTER G
k4	310e	BOPOMOFO LETTER K
h4	310f	BOPOMOFO LETTER H
j4	3110	BOPOMOFO LETTER J
q4	3111	BOPOMOFO LETTER Q
x4	3112	BOPOMOFO LETTER X
zh	3113	BOPOMOFO LETTER ZH
ch	3114	BOPOMOFO LETTER CH
sh	3115	BOPOMOFO LETTER SH
r4	3116	BOPOMOFO LETTER R
z4	3117	BOPOMOFO LETTER Z
c4	3118	BOPOMOFO LETTER C
s4	3119	BOPOMOFO LETTER S
a4	311a	BOPOMOFO LETTER A
o4	311b	BOPOMOFO LETTER O
e4	311c	BOPOMOFO LETTER E
eh4	311d	BOPOMOFO LETTER EH
ai	311e	BOPOMOFO LETTER AI
ei	311f	BOPOMOFO LETTER EI
au	3120	BOPOMOFO LETTER AU
ou	3121	BOPOMOFO LETTER OU
an	3122	BOPOMOFO LETTER AN
en	3123	BOPOMOFO LETTER EN
aN	3124	BOPOMOFO LETTER ANG
eN	3125	BOPOMOFO LETTER ENG
er	3126	BOPOMOFO LETTER ER
i4	3127	BOPOMOFO LETTER I
u4	3128	BOPOMOFO LETTER U
iu	3129	BOPOMOFO LETTER IU
v4	312a	BOPOMOFO LETTER V
nG	312b	BOPOMOFO LETTER NG
gn	312c	BOPOMOFO LETTER GN
(JU)	321c	PARENTHESESIZED HANGUL JU

1c	3220	PARENTHESESIZED IDEOGRAPH ONE
2c	3221	PARENTHESESIZED IDEOGRAPH TWO
3c	3222	PARENTHESESIZED IDEOGRAPH THREE
4c	3223	PARENTHESESIZED IDEOGRAPH FOUR
5c	3224	PARENTHESESIZED IDEOGRAPH FIVE
6c	3225	PARENTHESESIZED IDEOGRAPH SIX
7c	3226	PARENTHESESIZED IDEOGRAPH SEVEN
8c	3227	PARENTHESESIZED IDEOGRAPH EIGHT
9c	3228	PARENTHESESIZED IDEOGRAPH NINE
10c	3229	PARENTHESESIZED IDEOGRAPH TEN
KSC	327f	KOREAN STANDARD SYMBOL
ff	fb00	LATIN SMALL LIGATURE FF
fi	fb01	LATIN SMALL LIGATURE FI
fl	fb02	LATIN SMALL LIGATURE FL
ffi	fb03	LATIN SMALL LIGATURE FFI
ffl	fb04	LATIN SMALL LIGATURE FFL
ft	fb05	LATIN SMALL LIGATURE FT
st	fb06	LATIN SMALL LIGATURE ST
3+;	fe7d	ARABIC SHADDA MEDIAL FORM
aM.	fe82	ARABIC LETTER ALEF WITH MADDA ABOVE FINAL FORM
aH.	fe84	ARABIC LETTER ALEF WITH HAMZA ABOVE FINAL FORM
a+-	fe8d	ARABIC LETTER ALEF ISOLATED FORM
a+.	fe8e	ARABIC LETTER ALEF FINAL FORM
b+-	fe8f	ARABIC LETTER BEH ISOLATED FORM
b+,	fe90	ARABIC LETTER BEH INITIAL FORM
b+;	fe91	ARABIC LETTER BEH MEDIAL FORM
b+.	fe92	ARABIC LETTER BEH FINAL FORM
tm-	fe93	ARABIC LETTER TEH MARBUTA ISOLATED FORM
tm.	fe94	ARABIC LETTER TEH MARBUTA FINAL FORM
t+-	fe95	ARABIC LETTER TEH ISOLATED FORM
t+,	fe96	ARABIC LETTER TEH INITIAL FORM
t+;	fe97	ARABIC LETTER TEH MEDIAL FORM
t+.	fe98	ARABIC LETTER TEH FINAL FORM
tk-	fe99	ARABIC LETTER THEH ISOLATED FORM
tk,	fe9a	ARABIC LETTER THEH INITIAL FORM
tk;	fe9b	ARABIC LETTER THEH MEDIAL FORM
tk.	fe9c	ARABIC LETTER THEH FINAL FORM
g+-	fe9d	ARABIC LETTER JEEM ISOLATED FORM
g+,	fe9e	ARABIC LETTER JEEM INITIAL FORM
g+;	fe9f	ARABIC LETTER JEEM MEDIAL FORM
g+.	fea0	ARABIC LETTER JEEM FINAL FORM
hk-	fea1	ARABIC LETTER HAH ISOLATED FORM
hk,	fea2	ARABIC LETTER HAH INITIAL FORM
hk;	fea3	ARABIC LETTER HAH MEDIAL FORM
hk.	fea4	ARABIC LETTER HAH FINAL FORM
x+-	fea5	ARABIC LETTER KHAH ISOLATED FORM
x+,	fea6	ARABIC LETTER KHAH INITIAL FORM
x+;	fea7	ARABIC LETTER KHAH MEDIAL FORM
x+.	fea8	ARABIC LETTER KHAH FINAL FORM
d+-	fea9	ARABIC LETTER DAL ISOLATED FORM
d+.	feaa	ARABIC LETTER DAL FINAL FORM
dk-	feab	ARABIC LETTER THAL ISOLATED FORM
dk.	feac	ARABIC LETTER THAL FINAL FORM

r+-	fead	ARABIC LETTER REH ISOLATED FORM
r+.	feae	ARABIC LETTER REH FINAL FORM
z+-	feaf	ARABIC LETTER ZAIN ISOLATED FORM
z+.	feb0	ARABIC LETTER ZAIN FINAL FORM
s+-	feb1	ARABIC LETTER SEEN ISOLATED FORM
s+.	feb2	ARABIC LETTER SEEN INITIAL FORM
s+;	feb3	ARABIC LETTER SEEN MEDIAL FORM
s+.	feb4	ARABIC LETTER SEEN FINAL FORM
sn-	feb5	ARABIC LETTER SHEEN ISOLATED FORM
sn,	feb6	ARABIC LETTER SHEEN INITIAL FORM
sn;	feb7	ARABIC LETTER SHEEN MEDIAL FORM
sn.	feb8	ARABIC LETTER SHEEN FINAL FORM
c+-	feb9	ARABIC LETTER SAD ISOLATED FORM
c+.	feba	ARABIC LETTER SAD INITIAL FORM
c+;	febb	ARABIC LETTER SAD MEDIAL FORM
c+.	febc	ARABIC LETTER SAD FINAL FORM
dd-	febd	ARABIC LETTER DAD ISOLATED FORM
dd,	febe	ARABIC LETTER DAD INITIAL FORM
dd;	febf	ARABIC LETTER DAD MEDIAL FORM
dd.	fec0	ARABIC LETTER DAD FINAL FORM
tj-	fec1	ARABIC LETTER TAH ISOLATED FORM
tj,	fec2	ARABIC LETTER TAH INITIAL FORM
tj;	fec3	ARABIC LETTER TAH MEDIAL FORM
tj.	fec4	ARABIC LETTER TAH FINAL FORM
zH-	fec5	ARABIC LETTER ZAH ISOLATED FORM
zH,	fec6	ARABIC LETTER ZAH INITIAL FORM
zH;	fec7	ARABIC LETTER ZAH MEDIAL FORM
zH.	fec8	ARABIC LETTER ZAH FINAL FORM
e+-	fec9	ARABIC LETTER AIN ISOLATED FORM
e+.	fec9	ARABIC LETTER AIN ISOLATED FORM
e+;	fecb	ARABIC LETTER AIN MEDIAL FORM
e+.	fecc	ARABIC LETTER AIN FINAL FORM
i+-	fecd	ARABIC LETTER GHAIN ISOLATED FORM
i+.	fece	ARABIC LETTER GHAIN INITIAL FORM
i+;	fecf	ARABIC LETTER GHAIN MEDIAL FORM
i+.	fed0	ARABIC LETTER GHAIN FINAL FORM
f+-	fed1	ARABIC LETTER FEH ISOLATED FORM
f+.	fed2	ARABIC LETTER FEH INITIAL FORM
f+;	fed3	ARABIC LETTER FEH MEDIAL FORM
f+.	fed4	ARABIC LETTER FEH FINAL FORM
q+-	fed5	ARABIC LETTER QAF ISOLATED FORM
q+.	fed6	ARABIC LETTER QAF INITIAL FORM
q+;	fed7	ARABIC LETTER QAF MEDIAL FORM
q+.	fed8	ARABIC LETTER QAF FINAL FORM
k+-	fed9	ARABIC LETTER KAF ISOLATED FORM
k+.	fed9	ARABIC LETTER KAF ISOLATED FORM
k+;	fedb	ARABIC LETTER KAF MEDIAL FORM
k+.	fedc	ARABIC LETTER KAF FINAL FORM
l+-	fedd	ARABIC LETTER LAM ISOLATED FORM
l+.	fedd	ARABIC LETTER LAM ISOLATED FORM
l+;	fedf	ARABIC LETTER LAM MEDIAL FORM
l+.	fee0	ARABIC LETTER LAM FINAL FORM
m+-	fee1	ARABIC LETTER MEEM ISOLATED FORM

m+,	fee2	ARABIC LETTER MEEM INITIAL FORM
m+;	fee3	ARABIC LETTER MEEM MEDIAL FORM
m+.	fee4	ARABIC LETTER MEEM FINAL FORM
n+-	fee5	ARABIC LETTER NOON ISOLATED FORM
n+,	fee6	ARABIC LETTER NOON INITIAL FORM
n+;	fee7	ARABIC LETTER NOON MEDIAL FORM
n+.	fee8	ARABIC LETTER NOON FINAL FORM
h+-	fee9	ARABIC LETTER HEH ISOLATED FORM
h+,	feea	ARABIC LETTER HEH INITIAL FORM
h+;	feeb	ARABIC LETTER HEH MEDIAL FORM
h+.	feec	ARABIC LETTER HEH FINAL FORM
w+-	feed	ARABIC LETTER WAW ISOLATED FORM
w+.	feee	ARABIC LETTER WAW FINAL FORM
j+-	feef	ARABIC LETTER ALEF MAKSURA ISOLATED FORM
j+.	fef0	ARABIC LETTER ALEF MAKSURA FINAL FORM
y+-	fef1	ARABIC LETTER YEH ISOLATED FORM
y+,	fef2	ARABIC LETTER YEH INITIAL FORM
y+;	fef3	ARABIC LETTER YEH MEDIAL FORM
y+.	fef4	ARABIC LETTER YEH FINAL FORM
lM-	fef5	ARABIC LIGATURE LAM WITH ALEF WITH MADDA ABOVE ISOLATED FORM
lM.	fef6	ARABIC LIGATURE LAM WITH ALEF WITH MADDA ABOVE FINAL FORM
lH-	fef7	ARABIC LIGATURE LAM WITH ALEF WITH HAMZA ABOVE ISOLATED FORM
lH.	fef8	ARABIC LIGATURE LAM WITH ALEF WITH HAMZA ABOVE FINAL FORM
lh-	fef9	ARABIC LIGATURE LAM WITH ALEF WITH HAMZA BELOW ISOLATED FORM
lh.	fefa	ARABIC LIGATURE LAM WITH ALEF WITH HAMZA BELOW FINAL FORM
la-	fefb	ARABIC LIGATURE LAM WITH ALEF ISOLATED FORM
la.	fefc	ARABIC LIGATURE LAM WITH ALEF FINAL FORM
NU	0000	NULL (NUL)
SH	0001	START OF HEADING (SOH)
SX	0002	START OF TEXT (STX)
EX	0003	END OF TEXT (ETX)
ET	0004	END OF TRANSMISSION (EOT)
EQ	0005	ENQUIRY (ENQ)
AK	0006	ACKNOWLEDGE (ACK)
BL	0007	BELL (BEL)
BS	0008	BACKSPACE (BS)
HT	0009	CHARACTER TABULATION (HT)
LF	000a	LINE FEED (LF)
VT	000b	LINE TABULATION (VT)
FF	000c	FORM FEED (FF)
CR	000d	CARRIAGE RETURN (CR)
SO	000e	SHIFT OUT (SO)
SI	000f	SHIFT IN (SI)
DL	0010	DATALINK ESCAPE (DLE)
D1	0011	DEVICE CONTROL ONE (DC1)
D2	0012	DEVICE CONTROL TWO (DC2)
D3	0013	DEVICE CONTROL THREE (DC3)

D4	0014	DEVICE CONTROL FOUR (DC4)
NK	0015	NEGATIVE ACKNOWLEDGE (NAK)
SY	0016	SYNCHRONOUS IDLE (SYN)
EB	0017	END OF TRANSMISSION BLOCK (ETB)
CN	0018	CANCEL (CAN)
EM	0019	END OF MEDIUM (EM)
SB	001a	SUBSTITUTE (SUB)
EC	001b	ESCAPE (ESC)
FS	001c	FILE SEPARATOR (IS4)
GS	001d	GROUP SEPARATOR (IS3)
RS	001e	RECORD SEPARATOR (IS2)
US	001f	UNIT SEPARATOR (IS1)
DT	007f	DELETE (DEL)
PA	0080	PADDING CHARACTER (PAD)
HO	0081	HIGH OCTET PRESET (HOP)
BH	0082	BREAK PERMITTED HERE (BPH)
NH	0083	NO BREAK HERE (NBH)
IN	0084	INDEX (IND)
NL	0085	NEXT LINE (NEL)
SA	0086	START OF SELECTED AREA (SSA)
ES	0087	END OF SELECTED AREA (ESA)
HS	0088	CHARACTER TABULATION SET (HTS)
HJ	0089	CHARACTER TABULATION WITH JUSTIFICATION (HTJ)
VS	008a	LINE TABULATION SET (VTS)
PD	008b	PARTIAL LINE FORWARD (PLD)
PU	008c	PARTIAL LINE BACKWARD (PLU)
RI	008d	REVERSE LINE FEED (RI)
S2	008e	SINGLE-SHIFT TWO (SS2)
S3	008f	SINGLE-SHIFT THREE (SS3)
DC	0090	DEVICE CONTROL STRING (DCS)
P1	0091	PRIVATE USE ONE (PU1)
P2	0092	PRIVATE USE TWO (PU2)
TS	0093	SET TRANSMIT STATE (STS)
CC	0094	CANCEL CHARACTER (CCH)
MW	0095	MESSAGE WAITING (MW)
SG	0096	START OF GUARDED AREA (SPA)
EG	0097	END OF GUARDED AREA (EPA)
SS	0098	START OF STRING (SOS)
GC	0099	SINGLE GRAPHIC CHARACTER INTRODUCER (SGCI)
SC	009a	SINGLE CHARACTER INTRODUCER (SCI)
CI	009b	CONTROL SEQUENCE INTRODUCER (CSI)
ST	009c	STRING TERMINATOR (ST)
OC	009d	OPERATING SYSTEM COMMAND (OSC)
PM	009e	PRIVACY MESSAGE (PM)
AC	009f	APPLICATION PROGRAM COMMAND (APC)
	e000	indicates unfinished (Mnemonic)
/c	e001	JOIN THIS LINE WITH NEXT LINE (Mnemonic)
UA	e002	Unit space A (ISO-IR-8-1 064)
UB	e003	Unit space B (ISO-IR-8-1 096)
"3	e004	NON-SPACING UMLAUT (ISO-IR-38 201) (character part)
"1	e005	NON-SPACING DIAERESIS WITH ACCENT (ISO-IR-70 192) (character part)
"!	e006	NON-SPACING GRAVE ACCENT (ISO-IR-103 193) (character



		part)
" ' "	e007	NON-SPACING ACUTE ACCENT (ISO-IR-103 194) (character part)
">	e008	NON-SPACING CIRCUMFLEX ACCENT (ISO-IR-103 195) (character part)
"?	e009	NON-SPACING TILDE (ISO-IR-103 196) (character part)
"-	e00a	NON-SPACING MACRON (ISO-IR-103 197) (character part)
"(	e00b	NON-SPACING BREVE (ISO-IR-103 198) (character part)
".	e00c	NON-SPACING DOT ABOVE (ISO-IR-103 199) (character part)
":	e00d	NON-SPACING DIAERESIS (ISO-IR-103 200) (character part)
"0	e00e	NON-SPACING RING ABOVE (ISO-IR-103 202) (character part)
" "	e00f	NON-SPACING DOUBLE ACCUTE (ISO-IR-103 204) (character part)
"<	e010	NON-SPACING CARON (ISO-IR-103 206) (character part)
",	e011	NON-SPACING CEDILLA (ISO-IR-103 203) (character part)
;"	e012	NON-SPACING OGONEK (ISO-IR-103 206) (character part)
"_	e013	NON-SPACING LOW LINE (ISO-IR-103 204) (character part)
"=	e014	NON-SPACING DOUBLE LOW LINE (ISO-IR-38 217) (character part)
"/	e015	NON-SPACING LONG SOLIDUS (ISO-IR-128 201) (character part)
"i	e016	GREEK NON-SPACING IOTA BELOW (ISO-IR-55 39) (character part)
"d	e017	GREEK NON-SPACING DASIA PNEUMATA (ISO-IR-55 38) (character part)
"p	e018	GREEK NON-SPACING PSILI PNEUMATA (ISO-IR-55 37) (character part)
;;	e019	GREEK DASIA PNEUMATA (ISO-IR-18 92)
,,	e01a	GREEK PSILI PNEUMATA (ISO-IR-18 124)
b3	e01b	GREEK SMALL LETTER MIDDLE BETA (ISO-IR-18 99)
Ci	e01c	CIRCLE (ISO-IR-83 0294)
f(	e01d	FUNCTION SIGN (ISO-IR-143 221)
ed	e01e	LATIN SMALL LETTER EZH (ISO-IR-158 142)
am	e01f	ANTE MERIDIAM SIGN (ISO-IR-149 0267)
pm	e020	POST MERIDIAM SIGN (ISO-IR-149 0268)
Tel	e021	TEL COMPATIBILITY SIGN (ISO-IR-149 0269)
a+:	e022	ARABIC LETTER ALEF FINAL FORM COMPATIBILITY (IBM868 144)
Fl	e023	DUTCH GUILDER SIGN (IBM437 159)
GF	e024	GAMMA FUNCTION SIGN (ISO-10646-1DIS 032/032/037/122)
>V	e025	RIGHTWARDS VECTOR ABOVE (ISO-10646-1DIS 032/032/038/046)
!*	e026	GREEK VARIA (ISO-10646-1DIS 032/032/042/164)
?*	e027	GREEK PERISPOMENI (ISO-10646-1DIS 032/032/042/165)
J<	e028	LATIN CAPITAL LETTER J WITH CARON (lowercase: 000/000/001/240)

#### 4. CHARSETS

The character mnemonics have been used to table a number of coded character sets. The coded character set names are taken if possible from the official ISO registration description in the ISO 2375 (ECMA) register, or with a number like the code page number - or with an indication of the language or country it is being used for - using

the country designators of ISO 3166. For the character sets in the ECMA register, their ISO registration number is also given (as ISO-IR-xxx). Often the ISO registration number does not cover all the codes of a character set in use, but for instance only the graphical characters, where another ISO registration number covers the control characters; in the case of the 8-bit character sets the ISO registration only covers the upper graphical characters (GR). The ISO registration number is here taken to indicate the full coded character set including control characters and lower half of the graphical characters, normally ISO 6429 and ASCII, respectively.

The ISO definition of the term "coded character set" is as follows: "A set of unambiguous rules that establishes a character set and the one-to-one relationship between the characters of the set and their coded representation." and this definition may be subject to different interpretations. This memo does not put further restrictions on the term of "coded character set" than the following: "A coded character set is a set of rules that unambiguously and completely determines which sequence of characters, if any, is represented by each possible sequence of n-bit bytes for a certain value of n." This implies that e.g. a coded character set extended with one or more other coded character sets by means of the extension techniques of ISO 2022 constitutes a coded character set in its own right. In this memo the term "charset" is used to refer to the above interpretation of the ISO term "coded character set".

A special problem is, if two characters of two different coded character sets with the same descriptive name, or depicted by what looks like the same graphic symbol, or with the same historical origin, really are to be regarded as the same character or not. This problem has been studied in great detail in the development efforts that have resulted in ISO DIS 10646 and Unicode (under the heading "character unification"). As much as possible such results have been used in the construction of the code tables of this section.

#### 4.1 Charset Naming

The coded character set names are given in ISO 646 invariant subset (83 characters, where a space in the name is replaced with an underline character; sometimes a hyphen is also used instead of a blank, or the blank is eliminated when practice exist). Case is not significant in the charset names.

#### 4.2 Code Table Format

The following code tables are given in a simple format to facilitate use of this text as program input. Programs and routines written in C to handle these tables are freely available from the author of this memo. Keywords are signified with the character "&" as the first character, to distinguish them from ordinary data. Numbers may be given in decimal, hexadecimal or octal notation; hexadecimal numbers are given with an "x" as the first character, and octal numbers has an "o" as the first character.

The following keywords are used:

"&charset" has one parameter defining the name of the character set. This is required for every character set.

"&alias" has one parameter defining a possible alternate name for the character set. This is optional.

"&g0esc", "&g1esc", "&g2esc", "&g3esc", "&c0esc", "&c1esc" has one parameter indicating the string of octets used to define the character set as the G0, G1, G2, G3, C0 or C1 set respectively, according to ISO 2022 (11). The string is to be preceded by an ESC character. It is only the relevant parts of the table, which can be used with the definition; the charset is often coded with both graphical and control character sets. If the coded character set is a 96-character set, it is tabled with the relevant GL set (normally ISO-IR-6) and with ISO 6429 as C0 and C1 (12). If it is a 94-character set, it is tabled with the C0 set of ISO 6429. If it is a double-octet coded character set, it is tabled without control character sets and accompanying one-octet coded character sets, and the two-octet code is tabled as a G0 set.

"&bits" has one parameter indicating the number of bits to represent the charset. This is optional and 8 bits is the default.

"&code" has one parameter indicating the byte number allocated to the following character mnemonic. After the "&code" specification the characters are listed with their mnemonic in ascending order. A character mnemonic of "???" indicates that the position is unused. A character mnemonic of "\_\_\_" indicates that the character set is not completely defined with the specifications in this memo.

"&code2" has 2 parameters specifying the row and column in certain 16-bit character sets. The value 32 must be added to obtain the first and second byte respectively. Mnemonics can be specified after the "&code2" specification as mentioned for the "&code" specification.

"&codex" has 5 parameters, specifying the character set prefix string, the start row number, the end row number, the start column number and the end column number respectively. This is equivalent to specifying a series of mnemonics of the form "nrrcc" where "n" is the character set name prefix string, "rr" is the row number running from the specified start row number to the end row number, and "cc" is the column number running from the specified start column number to the end column number. The thereby created series mnemonics are allocated to code positions which are added 32 to the row and column numbers to get the row and column octet.

"&duplicate" has a special meaning indicating that a position is being used for more than one character. This is an ugly convention but it is a sad fact of life that same code in one coded character set can mean different characters. "&duplicate" takes two parameters

- the first is the code to be duplicated, the other is the new mnemonic.

"&rem" is followed by text to explain something in the table to a human reader. All lines in such a remark has to start with this keyword.

"&comb2" specifies a combination of two characters which signifies a third character. All characters in the specification are given by their mnemonic. The two combining characters must be specified previously in the code table. The first combining character is specified as the first character after the keyword, and then the following pairs of characters are the second combining character and the result, respectively. The specification can be repeated, terminated by an occurrence of a keyword.

#### 4.3 Mnemonic charsets

The following is compatible with current practice on the internet within EUnet - the European not-for-profit networking organisation in Europe and North Africa currently operating in 24 countries.

The mnemonic charsets are a family of charsets which have the facility that within the relevant parts of the message, encoded in an ordinary coded character set, text may have occurrences of the following sequence: an intro character sequence, followed by a string of characters that represent a character mnemonic, as described below. Similarly, the intro character sequence may be doubled, indicating a single occurrence of the respective symbols in decoded format.

Note that many characters within a mnemonic character set may be represented in two different ways. Normally the character itself is used, but it is also possible to use the mnemonic allocated to the character in a mnemonic sequence.

In this way all characters with assigned mnemonics can be represented without information loss in any character set, which contains the invariant ISO 646 characters as a subset. As a consequence, using a mnemonic character set all these characters can be generated uniformly on all keyboards and presented uniformly on all terminal equipment, whenever the real character is not available.

Data encoded in a mnemonic charset is intended to be read by the end user possibly without further treatment. If the transport encoding and the presentation encoding for the user differ, it is recommended that the data be translated into a mnemonic representation in the presentation encoding.

A mnemonic charset is specified with the name "mnemonic+charset+intro" where "mnemonic" is written as given and "charset" and "intro" is specified as described below. The mnemonic charset "mnemonic" is a shorthand for "mnemonic+ascii+38". The

mnemonic charset "mnem" is a shorthand for "mnemonic+ascii+8200".

It is discouraged to use mnemonics for Chinese characters of either Chinese, Japanese or Korean origin, as the probability that the end user equipment can deal with the original encoding is very high for the intended receiver, and the mnemonics for such Chinese characters described in this memo convey very little meaning to humans.

#### 4.3.1 charset

The charset is given as one of the charset names in this memo and is the encoding used for the transport. It cannot be a mnemonic charset.

#### 4.3.2 Intro

The intro character sequence is given as the decimal value of the intro characters in the transport character set. There may be up to two characters used in the intro character sequence, and the decimal value for two-character intro sequences are then the first character value multiplied with 256 to the power of the number of octets used in the character set, plus the second character value. The recommended value is 38 for the ampersand (&) character in ASCII. Another common value is 29 for the control character "Group Separator", or 8200 for "space" followed by "backspace", which may be convenient when operating in some environments, and ordinary text is not changed. Only the ampersand character may be chosen as intro from the invariant ISO 646 charset, but any character not in the invariant ISO 646 character can be used as intro. The intro character sequence is used for introducing character mnemonics when a character is not present in the mail transport character set (as defined by "charset"). Character mnemonics longer than two characters are surrounded by the underline character. The intro character sequence is doubled to represent one occurrence of itself. Characters in the mail transport character set are normally just represented with their encoding, but may also be represented by the intro character sequence and the mnemonic encoding.

If the intro character sequence is specified as 0 (zero), it is omitted in the transport, giving a better readable content, but eliminating the possibility of reversibility and introducing an information loss. With intro specified as 0, also underline characters surrounding mnemonics longer than 2 characters are removed. Mnemonic charsets with the intro specified as zero is equivalent to the ordinary charset, e.g. "mnemonic+ascii+0" is equivalent to "ascii".

The intro character can be given in a header "Mnemonic-Intro:" with the value given in decimal as noted above in the first parameter. This has only meaning if the charset can be deducted by other information as specified by the relevant Internet specification. This information has precedence over other information on the intro.

### 4.3.3 Compatibility

If applications conforming to this memo interoperate with other versions of this memo, and encounter mnemonics that are undefined with this memo, they shall leave the mnemonic as it is coded. This provides for upward compatibility.

### 4.3.4 Conversion Between Mnemonic Charsets

To determine which mnemonic charsets are permitted with the use of an Internet specification, please refer to that specification. It may be that only "ASCII" or "INVARIANT" is allowed as the base charset. ASCII is the most used character set, while INVARIANT will be very robust for traversing gateways, but it will cause trouble for (amongst other things) source code for several programming languages. The use of other character sets may be limited to agreement between the communicating parties. When such an agreement has been achieved, a conversion between different mnemonic charsets can be done according to the charset tables below, as characters occurring in both encodings are just transformed, and characters not existing in the receiving coded character set are represented by the intro character sequence of the receiving coded character set plus the character mnemonic, as described for the intro character sequence. The characters forming the mnemonic are translated into the receiving code, which must have these characters present. An undefined character in the originating coded character set is transformed into the following sequence: the intro character sequence, an underline, a question mark character, a "u" (for undefined) and then the hexadecimal value of the character with letters in lowercase (possibly more than one byte for multibyte character sets) and then a terminating underline character. Headers may need to be changed accordingly to reflect such conversion. The character mnemonic "/c" has a special meaning in specifying that a line is to be continued even if the next characters are specifying a new line.

## 5. CHARSET TABLES

```
&charset ISO_646.basic:1983
```

```
&rem source: ECMA registry
```

```
&alias ref
```

```
&code 32
```

```
SP ! " ?? ?? % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
```

```
?? A B C D E F G H I J K L M N O P Q R S T U V W X Y Z ?? ?? ?? ?? _
```

```
?? a b c d e f g h i j k l m n o p q r s t u v w x y z
```

```
&charset INVARIANT
```

```
&code 0
```

```
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
```

```
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
```

```
SP ! " ?? ?? % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
```

```
?? A B C D E F G H I J K L M N O P Q R S T U V W X Y Z ?? ?? ?? ?? _
```

```
?? a b c d e f g h i j k l m n o p q r s t u v w x y z ?? ?? ?? ?? DT
```

```

&charset ISO_646.irv:1983
&rem source: ECMA registry
&alias iso-ir-2
&alias irv
&g0esc x2840 &glesc x2940 &g2esc x2a40 &g3esc x2b40
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb Cu % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '- DT

```

```

&charset BS_4730
&rem source: ECMA registry
&alias iso-ir-4
&alias ISO646-GB
&g0esc x2841 &glesc x2941 &g2esc x2a41 &g3esc x2b41
&alias gb
&alias uk
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Pd DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '- DT

```

```

&charset ANSI_X3.4-1968
&rem source: ECMA registry
&alias iso-ir-6
&alias ANSI_X3.4-1986
&alias ISO_646.irv:1991
&g0esc x2842 &glesc x2942 &g2esc x2a42 &g3esc x2b42
&alias ASCII
&alias ISO646-US
&alias US-ASCII
&alias us
&alias IBM367
&alias cp367
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT

```

```

&charset NATS-SEFI
&rem source: ECMA registry
&alias iso-ir-8-1
&g0esc x2843 &glesc x2943 &g2esc x2a43 &g3esc x2b43
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?

```

```

UA A B C D E F G H I J K L M N O P Q R S T U V W X Y Z A: O: AA fS _
UB a b c d e f g h i j k l m n o p q r s t u v w x y z a: o: aa -N DT

```

```

&charset NATS-SEFI-ADD
&rem source: ECMA registry
&alias iso-ir-8-2
&g0esc x2844 &g1esc x2944 &g2esc x2a44 &g3esc x2b44
&code 0
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? A! ?? ?? D/ E' ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
TH ?? ?? ?? ?? U: ?? ?? ?? ?? ?? AE O/ ?? ?? ??
?? a! ?? ?? d/ e' ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
th ?? ?? ?? ?? u: ?? ?? ?? ?? ?? ae o/ ?? ?? ??

```

```

&charset NATS-DANO
&rem source: ECMA registry
&alias iso-ir-9-1
&g0esc x2845 &g1esc x2945 &g2esc x2a45 &g3esc x2b45
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! < > DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
UA A B C D E F G H I J K L M N O P Q R S T U V W X Y Z AE O/ AA fS _
UB a b c d e f g h i j k l m n o p q r s t u v w x y z ae o/ aa -N DT

```

```

&charset NATS-DANO-ADD
&rem source: ECMA registry
&alias iso-ir-9-2
&g0esc x2846 &g1esc x2946 &g2esc x2a46 &g3esc x2b46
&code 0
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? A! ?? ?? D/ E' ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
TH ?? ?? ?? ?? U: ?? ?? ?? ?? ?? A: O: ?? ?? ??
?? a! ?? ?? d/ e' ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
th ?? ?? ?? ?? u: ?? ?? ?? ?? ?? a: o: ?? ?? ??

```

```

&charset SEN_850200_B
&rem source: ECMA registry
&alias iso-ir-10
&alias FI
&alias ISO646-FI
&alias ISO646-SE
&alias se
&g0esc x2847 &g1esc x2947 &g2esc x2a47 &g3esc x2b47
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US

```



```

SP ! " Nb Cu % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z A: O: AA '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z a: o: aa '- DT

```

```

&charset SEN_850200_C
&rem source: ECMA registry
&alias iso-ir-11
&alias ISO646-SE2
&g0esc x2848 &glesc x2948 &g2esc x2a48 &g3esc x2b48
&alias se2
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb Cu % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
E' A B C D E F G H I J K L M N O P Q R S T U V W X Y Z A: O: AA U: _
e' a b c d e f g h i j k l m n o p q r s t u v w x y z a: o: aa u: DT

```

```

&charset JIS_C6220-1969-jp
&rem source: ECMA registry
&alias JIS_C6220-1969
&alias iso-ir-13
&alias katakana
&alias x0201-7
&g0esc x2849 &glesc x2949 &g2esc x2a49 &g3esc x2b49
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP . _ <' >' , _ .6 Wo a6 i6 u6 e6 o6 YA YU YO TU
-6 A6 I6 U6 E6 O6 Ka Ki Ku Ke Ko Sa Si Su Se So
Ta Ti Tu Te To Na Ni Nu Ne No Ha Hi Hu He Ho Ma
Mi Mu Me Mo Ya Yu Yo Ra Ri Ru Re Ro Wa N6 "5 05
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? DT

```

```

&charset JIS_C6220-1969-ro
&rem source: ECMA registry
&alias iso-ir-14
&g0esc x284a &glesc x294a &g2esc x2a4a &g3esc x2b4a
&alias jp
&alias ISO646-JP
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( Ye )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '- DT

```

```

&charset IT
&rem source: ECMA registry
&alias iso-ir-15
&alias ISO646-IT
&g0esc x2859 &glesc x2959 &g2esc x2a59 &g3esc x2b59
&code 0

```

```

NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Pd DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
SE A B C D E F G H I J K L M N O P Q R S T U V W X Y Z DG c, e' '> _
u! a b c d e f g h i j k l m n o p q r s t u v w x y z a! o! e! i! DT

```

```
&charset PT
```

```
&rem source: ECMA registry
```

```
&alias iso-ir-16
```

```
&alias ISO646-PT
```

```
&g0esc x284c &glesc x294c &g2esc x2a4c &g3esc x2b4c
```

```
&code 0
```

```

NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
SE A B C D E F G H I J K L M N O P Q R S T U V W X Y Z A? C, O? '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z a? c, o? DG DT

```

```
&charset ES
```

```
&rem source: ECMA registry
```

```
&alias iso-ir-17
```

```
&alias ISO646-ES
```

```
&g0esc x285a &glesc x295a &g2esc x2a5a &g3esc x2b5a
```

```
&code 0
```

```

NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Pd DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
SE A B C D E F G H I J K L M N O P Q R S T U V W X Y Z !I N? ?I '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z DG n? c, '?' DT

```

```
&charset greek7-old
```

```
&rem source: ECMA registry
```

```
&alias iso-ir-18
```

```
&g0esc x285b &glesc x295b &g2esc x2a5b &g3esc x2b5b
```

```
&code 0
```

```

NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Pd DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
'' a* b* q* d* e* f* g* y* i* c* k* l* m* n* o*
p* j3 r* s* t* h* w* *s x* u* z* ?, ,, ,' '? _
'! A* B* Q* D* E* F* G* Y* I* C* K* L* M* N* O*
P* ?? R* S* T* H* W* .M X* U* Z* ?; ;; ;' ': DT

```

```
&charset latin-greek
```

```
&rem source: ECMA registry
```

```
&alias iso-ir-19
```

```
&g0esc x285c &glesc x295c &g2esc x2a5c &g3esc x2b5c
```

```
&code 0
```

```

NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Pd DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O
P Q R S T U V W X Y Z <( // )> '> _

```

```
'! A* B* Q* D* E* F* G* Y* I* C* K* L* M* N* O*
P* ?? R* S* T* H* W* .M X* U* Z* (! !! !) ': DT
```

```
&charset DIN_66003
&rem source: ECMA registry
&alias iso-ir-21
&g0esc x284b &g1esc x294b &g2esc x2a4b &g3esc x2b4b
&alias de
&alias ISO646-DE
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
SE A B C D E F G H I J K L M N O P Q R S T U V W X Y Z A: O: U: '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z a: o: u: ss DT
```

```
&charset NF_Z_62-010_(1973)
&rem source: ECMA registry
&alias iso-ir-25
&alias ISO646-FR1
&g0esc x2852 &g1esc x2952 &g2esc x2a52 &g3esc x2b52
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Pd DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
a! A B C D E F G H I J K L M N O P Q R S T U V W X Y Z DG c, SE '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z e' u! e! ': DT
```

```
&charset Latin-greek-1
&rem source: ECMA registry
&alias iso-ir-27
&g0esc x2855 &g1esc x2955 &g2esc x2a55 &g3esc x2b55
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP C* " G* Cu % & ' ( ) * + , - . /
0 1 2 3 4 5 6 7 8 9 Q* ; < = > P*
D* A B C D E F G H I J K L M N O
P Q R S T U V W X Y Z W* H* F* L* S*
'! a b c d e f g h i j k l m n o
p q r s t u v w x y z (! !! !) '- DT
```

```
&charset ISO_5427
&rem source: ECMA registry
&alias iso-ir-37
&g0esc x284e &g1esc x294e &g2esc x2a4e &g3esc x2b4e
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb Cu % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
ju a= b= c= d= e= f= g= h= i= j= k= l= m= n= o=
p= ja r= s= t= u= z% v= %' y= z= s% je sc c% ='
JU A= B= C= D= E= F= G= H= I= J= K= L= M= N= O=
```

P= JA R= S= T= U= Z% V= %" Y= Z= S% JE Sc C% DT

&charset JIS\_C6226-1978

&rem source: ECMA registry

&alias iso-ir-42

&bits 16

&g0esc x2440 &g1esc x242940 &g2esc x242a40 &g3esc x242b40

&code2 1 1

SP ,\_ . \_ , . .6 : ; ! "5 05 ' ' ' ! ' : ' > ' - \_ \*6 +6 \*5 +5 +"  
+\_ \*\_ ;\_ 0\_ -6 -? -N

&code2 1 31

FD BD ?1 PP !! .3 .. '6 '9 "6 "9 ( ) ( ' )' <( )>  
(! ! ) <1 >1 </ /> <' >' <" >" ( " )" + - +- \*X -: = != < > =< >= 00  
.: Ml Fm DG 1' 2' oC Ye DO Ct Pd % Nb & \* At SE \*1 \*2 0m 0M 0o LZ

&code2 2 1

Db OS fS uT UT dT DT :X =T -> <- -! -v =\_

&code2 3 16

0 1 2 3 4 5 6 7 8 9

&code2 3 33

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

&code2 3 65

a b c d e f g h i j k l m n o p q r s t u v w x y z

&code2 4 1

A5 a5 I5 i5 U5 u5 E5 e5 O5 o5 ka ga ki gi ku  
gu ke ge ko go sa za si zi su zu se ze so zo ta  
da ti di tu du te de to do na ni nu ne no ha  
ba pa hi bi pi hu bu pu he be pe ho bo po ma mi  
mu me mo yA ya yU yu yO yo ra ri ru re ro wA wa  
wi we wo n5

&code2 5 1

a6 A6 I6 I6 u6 U6 e6 E6 o6 O6 Ka Ga Ki Gi Ku  
Gu Ke Ge Ko Go Sa Za Si Zi Su Zu Se Ze So Zo Ta  
Da Ti Di TU Tu Du Te De To Do Na Ni Nu Ne No Ha  
Ba Pa Hi Bi Pi Hu Bu Pu He Be Pe Ho Bo Po Ma Mi  
Mu Me Mo YA Ya YU Yu YO Yo Ra Ri Ru Re Ro WA Wa  
Wi We Wo N6 Vi KA KE

&code2 6 1

A\* B\* G\* D\* E\* Z\* Y\* H\* I\* K\* L\* M\* N\* C\* O\*  
P\* R\* S\* T\* U\* F\* X\* Q\* W\*

&code2 6 33

a\* b\* g\* d\* e\* z\* y\* h\* i\* k\* l\* m\* n\* c\* o\*  
p\* r\* s\* t\* u\* f\* x\* q\* w\*

&code2 7 1

A= B= V= G= D= E= IO Z% Z= I= J= K= L= M= N= O= P=  
R= S= T= U= F= H= C= C% S% Sc =" Y= %" JE JU JA

&code2 7 49

a= b= v= g= d= e= io z% z= i= j= k= l= m= n= o= p=  
r= s= t= u= f= h= c= c% s% sc =' y= %' je ju ja

&codex j 16 46 1 94

&codex j 47 47 1 51

&codex j 48 83 1 94

&charset BS\_viewdata

```

&rem source: ECMA registry
&alias iso-ir-47
&g0esc x2856 &g1esc x2956 &g2esc x2a56 &g3esc x2b56
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Pd DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <- 12 -> -! OS
'! a b c d e f g h i j k l m n o p q r s t u v w x y z 14 PP 34 -: DT

```

```

&charset INIS
&rem source: ECMA registry
&alias iso-ir-49
&g0esc x2857 &g1esc x2957 &g2esc x2a57 &g3esc x2b57
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ?? ?? ?? DO % ?? ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ??
?? A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( ?? )> ?? ??
?? a b c d e f g h i j k l m n o p q r s t u v w x y z ?? !! ?? ?? DT

```

```

&charset INIS-8
&rem source: ECMA registry
&alias iso-ir-50
&g0esc x285d &g1esc x295d &g2esc x2a5d &g3esc x2b5d
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? a* b* g* d* C* ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? -> In
0S 1S 2S 3S 4S 5S 6S 7S 8S 9S +S -S Ru D* L* W*
0s 1s 2s 3s 4s 5s 6s 7s 8s 9s S* m* n* w* p* DT

```

```

&charset INIS-cyrillic
&rem source: ECMA registry
&alias iso-ir-51
&g0esc x285e &g1esc x295e &g2esc x2a5e &g3esc x2b5e
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? RT ?? -> In
a* b* g* d* S* m* n* w* p* C* D* L* W* =" -S +S
ju a= b= c= d= e= f= g= h= i= j= k= l= m= n= o=
p= ja r= s= t= u= z% v= %' y= z= s% je sc c% ='
JU A= B= C= D= E= F= G= H= I= J= K= L= M= N= O=
P= JA R= S= T= U= Z% V= %" Y= Z= S% JE Sc C% DT

```

```

&charset ISO_5427:1981
&rem source: ECMA registry
&alias iso-ir-54
&g0esc x2851 &g1esc x2951 &g2esc x2a51 &g3esc x2b51

```

```

&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
g3 d% g% ie io ds ii yi j% lj nj ts kj v% dz ??
y3 f3 v3 o3 ?? ?? ?? ?? ?? ?? ?? ?? <( ?? )> ?? _
G3 D% G% IE IO DS II YI J% LJ NJ Ts KJ V% DZ ="
Y3 F3 V3 O3 ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? DT

```

```

&charset ISO_5428:1980
&rem source: ECMA registry
&alias iso-ir-55
&g0esc x2853 &g1esc x2953 &g2esc x2a53 &g3esc x2b53
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP " ! " ' " : " ? " p " d " i ?? ?? ?? ?? ?? ?? ??
<< >> " 9 " 6 ' G , G ?? ?? ?? ?? ?? ?? . M ?? ?? ?? ;
?? A* B* ?? G* D* E* T3 M3 Z* Y* H* I* K* L* M*
N* C* O* P* K3 R* S* ?? T* U* F* X* Q* W* P3 ??
?? a* b* b3 g* d* e* t3 m3 z* y* h* i* k* l* m*
n* c* o* p* k3 r* s* *s t* u* f* x* q* w* p3 DT

```

```

&charset GB_1988-80
&rem source: ECMA registry
&alias iso-ir-57
&g0esc x2854 &g1esc x2954 &g2esc x2a54 &g3esc x2b54
&alias cn
&alias ISO646-CN
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb Ye % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> ' > _
' ! a b c d e f g h i j k l m n o p q r s t u v w x y z ( ! ! ! ) ' - DT

```

```

&charset GB_2312-80
&rem source: ECMA registry
&alias iso-ir-58
&g0esc x2441 &g1esc x242941 &g2esc x242a41 &g3esc x242b41
&bits 16
&alias chinese
&code2 1 1
SP , _ . 6 . M ' m ' < ' : + " * _ - 6 ? 1
! 2 . 3 ' 6 ' 9 " 6 " 9 ( ' ) '
< 1 > 1 << >> <+ >+ < 7 7 > ( I ) I ( " ) " +- * X -: : R AN OR + Z * P ( U ) U ( -
:: RT -T PP -L
(A 0. In Io = 3 = ? ? 2 CG 0 ( ! = ! < ! > = < > = 0 0
: . . : Ml Fm DG 1 ' 2 ' oC DO
Cu Ct Pd % 0 SE NB * 1 * 2 0m 0M 0o Dw Db OS fS uT UT : X -> <- - ! - v = _
&code2 2 17
1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20.

```

```

(1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14)
(15) (16) (17) (18) (19) (20) 1-o 2-o 3-o 4-o 5-o 6-o 7-o 8-o 9-o
&code2 2 69
1c 2c 3c 4c 5c 6c 7c 8c 9c 10c
&code2 2 81
1R 2R 3R 4R 5R 6R 7R 8R 9R aR bR cR
&code2 3 1
! " Nb Ye % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7
8 9 : ; < = > ? At A B C D E F G H I J K L M N O
P Q R S T U V W X Y Z <( // )> '> _ a b c d e f g
h i j k l m n o p q r s t u v w x y z (! !! !) '-
&code2 4 1
A5 a5 I5 i5 U5 u5 E5 e5 O5 o5 ka ga ki gi ku
gu ke ge ko go sa za si zi su zu se ze so zo ta
da ti di tU tu du te de to do na ni nu ne no ha
ba pa hi bi pi hu bu pu he be pe ho bo po ma mi
mu me mo yA ya yU yu yO yo ra ri ru re ro wA wa
wi we wo n5
&code2 5 1
a6 A6 i6 I6 u6 U6 e6 E6 o6 O6 Ka Ga Ki Gi Ku
Gu Ke Ge Ko Go Sa Za Si Zi Su Zu Se Ze So Zo Ta
Da Ti Di Tu Du Te De To Do Na Ni Nu Ne No Ha
Ba Pa Hi Bi Pi Hu Bu Pu He Be Pe Ho Bo Po Ma Mi
Mu Me Mo YA Ya YU Yu YO Yo Ra Ri Ru Re Ro WA Wa
Wi We Wo N6 Vi KA KE
&code2 6 1
A* B* G* D* E* Z* Y* H* I* K* L* M* N* C* O*
P* R* S* T* U* F* X* Q* W*
&code2 6 33
a* b* g* d* e* z* y* h* i* k* l* m* n* c* o*
p* r* s* t* u* f* x* q* w*
&code2 7 1
A= B= V= G= D= E= IO Z% Z= I= J= K= L= M= N= O= P=
R= S= T= U= F= H= C= C% S% Sc =" Y= %" JE JU JA
&code2 7 49
a= b= v= g= d= e= io z% z= i= j= k= l= m= n= o= p=
r= s= t= u= f= h= c= c% s% sc =' y= %' je ju ja
&code2 8 1
a- a' a< a! e- e' e< e! i- i' i< i! o- o' o< o! u- u' u< u! u:- u:<
u:~ u: >
&code2 8 37
b4 p4 m4 f4 d4 t4 n4 l4 g4 k4 h4 j4 q4 x4 zh ch sh r4 z4 c4
s4 a4 o4 e4 eh4 ai ei au ou an en aN eN er i4 u4 iu
&code2 9 4
hh HH vv VV 3- 3_ 3! 3/ 4- 4_ 4! 4/ dr dR Dr DR dl dL Dl LD
ur uR Ur UR ul uL Ul UL vr vR Udr uDr Vr UdR uDR VR
vl vL UdL uDL Vl UdL uDL VL
dh dLr dLR dH Dh DLr DLr DH
vh vLr vLR vH Udh uDh Vh UdLr
UdLR uDLr uDLR UdH uDH VLr VLR VH
&codex c 16 54 1 94
&codex c 55 55 1 89
&codex c 56 87 1 94

```

```

&charset NS_4551-1
&rem source: ECMA registry
&alias iso-ir-60
&alias ISO646-NO
&g0esc x2860 &glesc x2960 &g2esc x2a60 &g3esc x2b60
&alias no
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z AE O/ AA '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z ae o/ aa '- DT

```

```

&charset NS_4551-2
&rem source: ECMA registry
&alias ISO646-NO2
&alias iso-ir-61
&g0esc x2861 &glesc x2961 &g2esc x2a61 &g3esc x2b61
&alias no2
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " PI DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z AE O/ AA '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z ae o/ aa !! DT

```

```

&charset NF_Z_62-010
&rem source: ECMA registry
&alias iso-ir-69
&alias ISO646-FR
&g0esc x2866 &glesc x2966 &g2esc x2a66 &g3esc x2b66
&alias fr
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Pd DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
a! A B C D E F G H I J K L M N O P Q R S T U V W X Y Z DG c, SE '> _
My a b c d e f g h i j k l m n o p q r s t u v w x y z e' u! e! ': DT

```

```

&charset videotex-suppl
&rem source: ECMA registry
&alias iso-ir-70
&g0esc x2862 &glesc x2962 &g2esc x2a62 &g3esc x2b62
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " ?? ?? % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '- DT
PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
NS !I Ct Pd DO Ye Nb SE Cu '6 "6 << <- -! -> -v

```



```

DG +- 2S 3S *X My PI .M -: '9 "9 >> 14 12 34 ?I
"1 "!" " ' "> "? "- "( ". ": ?? "0 ", ?? "" "; "<
-M 1S Rg Co TM Md ?? ?? ?? ?? ?? ?? 18 38 58 78
Om AE D- -a H/ ?? IJ L. L/ O/ OE -o TH T/ NG 'n
kk ae d/ d- h/ i. ij l. l/ o/ oe ss th t/ ng ??
&comb2 " ' SP ' ' a a' A A' e e' E E' i i' I I' o o' O O' u u' U U'
          y y' Y Y' c c' C C' l l' L L' n n' N N' r r' R R'
          s s' S S' z z' Z Z'
&comb2 "( SP '( a a( A A( g g( G G(          u u( U U(
&comb2 "< SP '< c c< C C< d d< D D< e e< E E< l l< L L< n n< N N<
          r r< R R< s s< S S< t t< T T< z z< Z Z<
&comb2 ", SP ', c c, C C, g g, G G, k k, K K, l l, L L, n n, N N,
          r r, R R, s s, S S, t t, T T,
&comb2 ">          a a> A A> e e> E E> i i> I I> o o> O O> u u> U U>
          y y> Y Y> c c> C C> g g> G G> h h> H H> j j> J J>
          s s> S S> w w> W W>
&comb2 ": SP ': a a: A A: e e: E E: i i: I I: o o: O O: u u: U U:
          y y: Y Y:
&comb2 ". SP '. c c. C C. e e. E E. g g. G G.          I I. z z. Z Z.
&comb2 "" SP ''          o o" O O" u u" U U"
&comb2 "!"          a a! A A! e e! E E! i i! I I! o o! O O! u u! U U!
&comb2 "-          a a- A A- e e- E E- i i- I I- o o- O O- u u- U U-
&comb2 "; SP ';' a a; A A; e e; E E; i i; I I; u u; U U;
&comb2 "0 SP '0 a aa A AA          u u0 U U0
&comb2 "? SP '?' a a? A A? n n? N N? i i? I I? o o? O O? u u? U U?

```

&charset PT2

&rem source: ECMA registry

&alias iso-ir-84

&alias ISO646-PT2

&g0esc x2867 &g1esc x2967 &g2esc x2a67 &g3esc x2b67

&code 0

NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI

DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US

SP ! " Nb DO % & ' ( ) \* + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?

' ' A B C D E F G H I J K L M N O P Q R S T U V W X Y Z A? C, O? '> \_

'! a b c d e f g h i j k l m n o p q r s t u v w x y z a? c, o? '- DT

&charset ES2

&rem source: ECMA registry

&alias iso-ir-85

&alias ISO646-ES2

&g0esc x2868 &g1esc x2968 &g2esc x2a68 &g3esc x2b68

&code 0

NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI

DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US

SP ! " Nb DO % & ' ( ) \* + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?

Sb A B C D E F G H I J K L M N O P Q R S T U V W X Y Z !I N? C, ?I \_

'! a b c d e f g h i j k l m n o p q r s t u v w x y z ' ' n? c, ': DT

&charset MSZ\_7795.3

&rem source: ECMA registry

&alias iso-ir-86

```

&alias ISO646-HU
&g0esc x2869 &glesc x2969 &g2esc x2a69 &g3esc x2b69
&alias hu
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb Cu % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
A' A B C D E F G H I J K L M N O P Q R S T U V W X Y Z E' O: U: '> _
a' a b c d e f g h i j k l m n o p q r s t u v w x y z e' o: u: '" DT

&charset JIS_C6226-1983
&rem source: ECMA registry
&alias iso-ir-87
&bits 16
&g0esc x2442 &glesc x242942 &g2esc x242a42 &g3esc x242b42
&alias x0208
&alias JIS_X0208-1983
&code2 1 1
SP ,_ . _ , . .6 : ; ! "5 05 ' ' ' ! ' : ' > ' - _ *6 +6 *5 +5 +
+_ *_ ;_ 0_ -6 -? -N
&code2 1 31
FD BD ?1 PP !! .3 .. '6 '9 "6 "9 ( ) ( ' )' <( )>
(! !) <1 >1 </ /> <' >' <" >" ( " )" + - +- *X -: = != < > =< >= 00
.: Ml Fm DG 1' 2' oC Ye DO Ct Pd % Nb & * At SE *1 *2 0m 0M 0o LZ
&code2 2 1
Db OS fS uT UT dT DT :X =T -> <- -! -v =_
&code2 2 26
(- -) (_ )_ (C )C (U )U
&code2 2 42
AN OR NO => <= FA TE
&code2 2 60
-V -T (A dP NB =3 HI <* *> RT CG 0( :. In DI
&code2 2 82
AA %0 MX Mb Md /- /= PI
&code2 2 94
Ci
&code2 3 16
0 1 2 3 4 5 6 7 8 9
&code2 3 33
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
&code2 3 65
a b c d e f g h i j k l m n o p q r s t u v w x y z
&code2 4 1
A5 a5 I5 i5 U5 u5 E5 e5 O5 o5 ka ga ki gi ku
gu ke ge ko go sa za si zi su zu se ze so zo ta
da ti di tU tu du te de to do na ni nu ne no ha
ba pa hi bi pi hu bu pu he be pe ho bo po ma mi
mu me mo yA ya yU yu yO yo ra ri ru re ro wA wa
wi we wo n5
&code2 5 1
a6 A6 i6 I6 u6 U6 e6 E6 o6 O6 Ka Ga Ki Gi Ku
Gu Ke Ge Ko Go Sa Za Si Zi Su Zu Se Ze So Zo Ta
Da Ti Di TU Tu Du Te De To Do Na Ni Nu Ne No Ha

```

```

Ba Pa Hi Bi Pi Hu Bu Pu He Be Pe Ho Bo Po Ma Mi
Mu Me Mo YA Ya YU Yu YO Yo Ra Ri Ru Re Ro WA Wa
Wi We Wo N6 Vi KA KE
&code2 6 1
A* B* G* D* E* Z* Y* H* I* K* L* M* N* C* O*
P* R* S* T* U* F* X* Q* W*
&code2 6 33
a* b* g* d* e* z* y* h* i* k* l* m* n* c* o*
p* r* s* t* u* f* x* q* w*
&code2 7 1
A= B= V= G= D= E= IO Z% Z= I= J= K= L= M= N= O= P=
R= S= T= U= F= H= C= C% S% Sc =" Y= %" JE JU JA
&code2 7 49
a= b= v= g= d= e= io z% z= i= j= k= l= m= n= o= p=
r= s= t= u= f= h= c= c% s% sc =' y= %' je ju ja
&code2 8 1
hh vv dr dl ul ur vr dh vl uh vh
HH VV DR LD UL UR VR DH VL UH VH
Vr dH Vl uH vH vR Dh vL Uh Vh
&codex j 16 46 1 94
&codex j 47 47 1 51
&codex j 48 83 1 94
&codex j 84 84 1 4

```

```

&charset greek7
&rem source: ECMA registry
&alias iso-ir-88
&g0esc x286a &g1esc x296a &g2esc x2a6a &g3esc x2b6a
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb Cu % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A* B* G* D* E* Z* Y* H* I* ?? K* L* M* N* C*
O* P* R* S* T* U* F* ?? X* Q* W* <( // )> '> _
'! a* b* g* d* e* z* y* h* i* ?? k* l* m* n* c*
o* p* r* s* t* u* f* *s x* q* w* (! !! !) '- DT

```

```

&charset ASMO_449
&rem source: ECMA registry
&alias ISO_9036
&alias arabic7
&alias iso-ir-89
&g0esc x286b &g1esc x296b &g2esc x2a6b &g3esc x2b6b
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb Cu % & ' ( ) * + ,+ - . / 0 1 2 3 4 5 6 7 8 9 : ;+ < = > ?+
At H' aM aH wH ah yH a+ b+ tm t+ tk g+ hk x+ d+
dk r+ z+ s+ sn c+ dd tj zH e+ i+ <( // )> '> _
++ f+ q+ k+ l+ m+ n+ h+ w+ j+ y+ :+ "+ =+ /+ '+
1+ 3+ 0+ ?? ?? ?? ?? ?? ?? ?? ( ! !! ! ) '- DT

```

```

&charset iso-ir-90

```

```

&rem source: ECMA registry
&g0esc x286c &g1esc x296c &g2esc x2a6c &g3esc x2b6c
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb Cu % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '- DT
PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
NS !I Ct Pd DO Ye ?? SE ?? '6 "6 << <- -! -> -v
DG +- 2S 3S *X My PI .M -: '9 "9 >> 14 12 34 ?I
?? " ! " ' "> "? "- "( ". ": ?? "0 ", "_ "" "; "<
-M 1S Rg Co TM Md ?? ?? ?? ?? ?? ?? 18 38 58 78
Om AE D- -a H/ ?? IJ L. L/ O/ OE -o TH T/ NG 'n
kk ae d/ d- h/ i. ij l. l/ o/ oe ss th t/ ng ??
&comb2 "' SP '' a a' A A' e e' E E' i i' I I' o o' O O' u u' U U'
      y y' Y Y' c c' C C' l l' L L' n n' N N' r r' R R'
      s s' S S' z z' Z Z'
&comb2 "( SP '( a a( A A( g g( G G(          u u( U U(
&comb2 "< SP '< c c< C C< d d< D D< e e< E E< l l< L L< n n< N N<
      r r< R R< s s< S S< t t< T T< z z< Z Z<
&comb2 ", SP ', c c, C C, g g, G G, k k, K K, l l, L L, n n, N N,
      r r, R R, s s, S S, t t, T T,
&comb2 ">      a a> A A> e e> E E> i i> I I> o o> O O> u u> U U>
      y y> Y Y> c c> C C> g g> G G> h h> H H> j j> J J>
      s s> S S> w w> W W>
&comb2 ": SP ': a a: A A: e e: E E: i i: I I: o o: O O: u u: U U:
      y y: Y Y:
&comb2 ". SP '. c c. C C. e e. E E. g g. G G.          I I. z z. Z Z.
&comb2 "" SP '"          o o" O O" u u" U U"
&comb2 "!      a a! A A! e e! E E! i i! I I! o o! O O! u u! U U!
&comb2 "-      a a- A A- e e- E E- i i- I I- o o- O O- u u- U U-
&comb2 "; SP ';' a a; A A; e e; E E; i i; I I; u u; U U;
&comb2 "0 SP '0 a aa A AA          u u0 U U0
&comb2 "? SP '?' a a? A A? n n? N N? i i? I I? o o? O O? u u? U U?

```

```

&charset JIS_C6229-1984-a
&rem source: ECMA registry
&alias iso-ir-91
&g0esc x286d &g1esc x296d &g2esc x2a6d &g3esc x2b6d
&alias jp-ocr-a
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ?? " Pd DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; 1h = 3h ?
?? A B C D E F G H I J K L M N O P Q R S T U V W X Y Z ?? Ye 2h '> _
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? 4h ?? ?? DT

```

```

&charset JIS_C6229-1984-b
&rem source: ECMA registry
&alias iso-ir-92

```

```

&alias ISO646-JP-OCR-B
&g0esc x286e &glesc x296e &g2esc x2a6e &g3esc x2b6e
&alias jp-ocr-b
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z </ Ye /> '> _
?? a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) ?? DT

```

```

&charset JIS_C6229-1984-b-add
&rem source: ECMA registry
&alias iso-ir-93
&g0esc x286f &glesc x296f &g2esc x2a6f &g3esc x2b6f
&alias jp-ocr-b-add
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ?? ?? Pd Cu // ?? SE ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? DT

```

```

&charset JIS_C6229-1984-hand
&rem source: ECMA registry
&alias iso-ir-94
&g0esc x2870 &glesc x2970 &g2esc x2a70 &g3esc x2b70
&alias jp-ocr-hand
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z </ Ye /> '> _
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? !! ?? ?? DT

```

```

&charset JIS_C6229-1984-hand-add
&rem source: ECMA registry
&alias iso-ir-95
&g0esc x2871 &glesc x2971 &g2esc x2a71 &g3esc x2b71
&alias jp-ocr-hand-add
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ?? ?? ?? ?? // ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? DT

```

```
&charset JIS_C6229-1984-kana
&rem source: ECMA registry
&alias iso-ir-96
&g0esc x2872 &g1esc x2972 &g2esc x2a72 &g3esc x2b72
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ?? <' >' ?? ?? Wo ?? ?? ?? ?? ?? ?? ?? ??
-6 A6 I6 U6 E6 O6 Ka Ki Ku Ke Ko Sa Si Su Se So
Ta Ti Tu Te To Na Ni Nu Ne No Ha Hi Hu He Ho Ma
Mi Mu Me Mo Ya Yu Yo Ra Ri Ru Re Ro Wa N6 "5 05
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? DT
```

```
&charset ISO_2033-1983
&rem source: ECMA registry
&alias iso-ir-98
&alias e13b
&g0esc x2873 &g1esc x2973 &g2esc x2a73 &g3esc x2b73
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
0 1 2 3 4 5 6 7 8 9 1j 2j 3j 4j ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? DT
```

```
&charset ANSI_X3.110-1983
&rem source: ECMA registry
&alias iso-ir-99
&alias CSA_T500-1983
&alias NAPLPS
&g0esc x2874 &g1esc x2974 &g2esc x2a74 &g3esc x2b74
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " ?? ?? % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
NS !I Ct Pd DO Ye Nb SE Cu '6 "6 << <- -! -> -v
DG +- 2S 3S *X My PI .M -: '9 "9 >> 14 12 34 ?I
?? " ! " ' " > " ? " - " ( " . " : " / " 0 " , " _ " " " ; " <
-M 1S Rg Co TM Md HH VV FD BD Fd Bd 18 38 58 78
Om AE D- -a H/ VH IJ L. L/ O/ OE -o TH T/ NG 'n
kk ae d/ d- h/ i. ij l. l/ o/ oe ss th t/ ng ??
&comb2 "' SP '' a a' A A' e e' E E' i i' I I' o o' O O' u u' U U'
          y y' Y Y' c c' C C' l l' L L' n n' N N' r r' R R'
          s s' S S' z z' Z Z'
&comb2 "( SP '( a a( A A( g g( G G(          u u( U U(
```

```

&comb2 "< SP '< c c< C C< d d< D D< e e< E E< l l< L L< n n< N N<
      r r< R R< s s< S S< t t< T T< z z< Z Z<
&comb2 ", SP ', c c, C C, g g, G G, k k, K K, l l, L L, n n, N N,
      r r, R R, s s, S S, t t, T T,
&comb2 ">      a a> A A> e e> E E> i i> I I> o o> O O> u u> U U>
      y y> Y Y> c c> C C> g g> G G> h h> H H> j j> J J>
      s s> S S> w w> W W>
&comb2 ": SP ': a a: A A: e e: E E: i i: I I: o o: O O: u u: U U:
      y y: Y Y:
&comb2 ". SP '. c c. C C. e e. E E. g g. G G.      I I. z z. Z Z.
&comb2 "\" SP '\"      o o" O O" u u" U U"
&comb2 "!"      a a! A A! e e! E E! i i! I I! o o! O O! u u! U U!
&comb2 "- SP '- a a- A A- e e- E E- i i- I I- o o- O O- u u- U U-
&comb2 "; SP ';' a a; A A; e e; E E; i i; I I; u u; U U;
&comb2 "0 SP '0 a aa A AA      u u0 U U0
&comb2 "?"      a a? A A? n n? N N? i i? I I? o o? O O? u u? U U?

```

```

&charset ISO_8859-1:1987
&rem source: ECMA registry
&alias iso-ir-100
&glisc x2d41 &g2esc x2e41 &g3esc x2f41
&alias ISO_8859-1
&alias ISO-8859-1
&alias latin1
&alias l1
&alias IBM819
&alias CP819
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
NS !I Ct Pd Cu Ye BB SE ': Co -a << NO -- Rg '-
DG +- 2S 3S '' My PI .M ', 1S -o >> 14 12 34 ?I
A! A' A> A? A: AA AE C, E! E' E> E: I! I' I> I:
D- N? O! O' O> O? O: *X O/ U! U' U> U: Y' TH ss
a! a' a> a? a: aa ae c, e! e' e> e: i! i' i> i:
d- n? o! o' o> o? o: -: o/ u! u' u> u: y' th y:

```

```

&charset ISO_8859-2:1987
&rem source: ECMA registry
&alias iso-ir-101
&glisc x2d42 &g2esc x2e42 &g3esc x2f42
&alias ISO_8859-2
&alias ISO-8859-2
&alias latin2
&alias l2
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US

```

```

SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> ' > _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
NS A; '( L/ Cu L< S' SE ': S< S, T< Z' -- Z< Z.
DG a; '; l/ ' ' l< s' '< ', s< s, t< z' '" z< z.
R' A' A> A( A: L' C' C, C< E' E; E: E< I' I> D<
D/ N' N< O' O> O" O: *X R< U0 U' U" U: Y' T, ss
r' a' a> a( a: l' c' c, c< e' e; e: e< i' i> d<
d/ n' n< o' o> o" o: -: r< u0 u' u" u: y' t, '.

```

&charset T.61-7bit

&rem source: ECMA registry

&alias iso-ir-102

&g0esc x2875 &glesc x2975 &g2esc x2a75 &g3esc x2b75

&code 0

```

NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb Cu % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( ?? )> ?? _
?? a b c d e f g h i j k l m n o p q r s t u v w x y z ?? !! ?? ?? DT

```

&charset T.61-8bit

&alias T.61

&rem source: ECMA registry

&alias iso-ir-103

&g0esc x2876 &glesc x2976 &g2esc x2a76 &g3esc x2b76

&code 0

```

NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " ?? ?? % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( ?? )> ?? _
?? a b c d e f g h i j k l m n o p q r s t u v w x y z ?? !! ?? ?? DT
PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
NS !I Ct Pd DO Ye Nb SE Cu ?? ?? << ?? ?? ?? ??
DG +- 2S 3S *X My PI .M -: ?? ?? >> 14 12 34 ?I
?? " ! " ' " > " ? " - " ( " . " : ?? " 0 " , " _ " " " ; "<
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
Om AE D- -a H/ ?? IJ L. L/ O/ OE -o TH T/ NG 'n
kk ae d/ d- h/ i. ij l. l/ o/ oe ss th t/ ng ??
&comb2 " ' SP ' ' a a' A A' e e' E E' i i' I I' o o' O O' u u' U U'
          y y' Y Y' c c' C C' l l' L L' n n' N N' r r' R R'
          s s' S S' z z' Z Z'
&comb2 "( SP '( a a( A A( g g( G G(          u u( U U(
&comb2 "< SP '< c c< C C< d d< D D< e e< E E< l l< L L< n n< N N<
          r r< R R< s s< S S< t t< T T< z z< Z Z<
&comb2 ", SP ', c c, C C, g g, G G, k k, K K, l l, L L, n n, N N,
          r r, R R, s s, S S, t t, T T,
&comb2 ">          a a> A A> e e> E E> i i> I I> o o> O O> u u> U U>
          y y> Y Y> c c> C C> g g> G G> h h> H H> j j> J J>
          s s> S S> w w> W W>

```



```

&comb2 ": SP ' : a a: A A: e e: E E: i i: I I: o o: O O: u u: U U:
          y y: Y Y:
&comb2 ". SP ' . c c. C C. e e. E E. g g. G G.          I I. z z. Z Z.
&comb2 "" SP ' "          o o" O O" u u" U U"
&comb2 "!          a a! A A! e e! E E! i i! I I! o o! O O! u u! U U!
&comb2 "- SP ' - a a- A A- e e- E E- i i- I I- o o- O O- u u- U U-
&comb2 "; SP ' ; a a; A A; e e; E E; i i; I I; u u; U U;
&comb2 "0 SP ' 0 a aa A AA          u u0 U U0
&comb2 "?          a a? A A? n n? N N? i i? I I? o o? O O? u u? U U?

```

```

&charset ISO_8859-3:1988
&rem source: ECMA registry
&alias iso-ir-109
&gllesc x2d43 &g2esc x2e43 &g3esc x2f43
&alias ISO_8859-3
&alias ISO-8859-3
&alias latin3
&alias l3
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
NS H/ '( Pd Cu ?? H> SE ': I. S, G( J> -- ?? Z.
DG h/ 2S 3S '' My h> .M ', i. s, g( j> 12 ?? z.
A! A' A> ?? A: C. C> C, E! E' E> E: I! I' I> I:
?? N? O! O' O> G. O: *X G> U! U' U> U: U( S> ss
a! a' a> ?? a: c. c> c, e! e' e> e: i! i' i> i:
?? n? o! o' o> g. o: -: g> u! u' u> u: u( s> '.

```

```

&charset ISO_8859-4:1988
&rem source: ECMA registry
&alias iso-ir-110
&gllesc x2d44 &g2esc x2e44 &g3esc x2f44
&alias ISO_8859-4
&alias ISO-8859-4
&alias latin4
&alias l4
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
NS A; kk R, Cu I? L, SE ': S< E- G, T/ -- Z< '-
DG a; 'i r, '' i? l, '< ', s< e- g, t/ NG z< ng
A- A' A> A? A: AA AE I; C< E' E; E: E. I' I> I-
D/ N, O- K, O> O? O: *X O/ U; U' U> U: U? U- ss

```

a- a' a> a? a: aa ae i; c< e' e; e: e. i' i> i-  
d/ n, o- k, o> o? o: -: o/ u; u' u> u: u? u- '.

```
&charset ECMA-cyrillic
&rem source: ECMA registry
&alias iso-ir-111
&glesc x2d40 &g2esc x2e40 &g3esc x2f40
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
NS IO D% G% IE DS II YI J% LJ NJ Ts KJ -- V% DZ
N0 io d% g% ie ds ii yi j% lj nj ts kj Cu v% dz
A= B= V= G= D= E= Z% Z= I= J= K= L= M= N= O= P=
R= S= T= U= F= H= C= C% S% Sc =" Y= %" JE JU JA
a= b= v= g= d= e= z% z= i= j= k= l= m= n= o= p=
r= s= t= u= f= h= c= c% s% sc =' y= %' je ju ja
```

```
&charset CSA_Z243.4-1985-1
&rem source: ECMA registry
&alias iso-ir-121
&g0esc x2877 &glesc x2977 &g2esc x2a77 &g3esc x2b77
&alias ISO646-CA
&alias csa7-1
&alias ca
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
a! A B C D E F G H I J K L M N O P Q R S T U V W X Y Z a> c, e> i> _
o> a b c d e f g h i j k l m n o p q r s t u v w x y z e' u! e! u> DT
```

```
&charset CSA_Z243.4-1985-2
&rem source: ECMA registry
&alias iso-ir-122
&alias ISO646-CA2
&g0esc x2878 &glesc x2978 &g2esc x2a78 &g3esc x2b78
&alias csa7-2
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
a! A B C D E F G H I J K L M N O P Q R S T U V W X Y Z a> c, e> E' _
o> a b c d e f g h i j k l m n o p q r s t u v w x y z e' u! e! u> DT
```

```
&charset CSA_Z243.4-1985-gr
&rem source: ECMA registry
&alias iso-ir-123
&glesc x2d45 &g2esc x2e45 &g3esc x2f45
```

```

&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
NS !I ': Pd Ct Ye +- '' (S )S 12 +S ', -- .M -S
0S 1S 2S 3S 4S 5S 6S 7S 8S 9S 14 34 <= != >= ?I
A! A' A> C, E! E' E> E: I' I> I: N? O' O> U! U'
U> U: Rg SE PI m* -a -o '6 '9 "6 "9 << >> DG BB
a! a' a> c, e! e' e> e: i' i> i: n? o' o> u! u'
u> u: Co hh vv ur ul dl dr vr uh vl dh vh NO FB

```

```

&charset ISO_8859-7:1987
&rem source: ECMA registry
&alias iso-ir-126
&gllesc x2d46 &g2esc x2e46 &g3esc x2f46
&alias ISO_8859-7
&alias ISO-8859-7
&alias EL0T_928
&alias ECMA-118
&alias greek
&alias greek8
&code 0

```

```

NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
NS 9' '9 Pd ?? ?? BB SE ': Co ?? << NO -- ?? -M
DG +- 2S 3S '' '% A% .M E% Y% I% >> O% 12 U% W%
i3 A* B* G* D* E* Z* Y* H* I* K* L* M* N* C* O*
P* R* ?? S* T* U* F* X* Q* W* J* V* a% e% y% i%
u3 a* b* g* d* e* z* y* h* i* k* l* m* n* c* o*
p* r* *s s* t* u* f* x* q* w* j* v* o% u% w% ??

```

```

&charset ISO_8859-6:1987
&rem source: ECMA registry
&alias iso-ir-127
&gllesc x2d47 &g2esc x2e47 &g3esc x2f47
&alias ISO_8859-6
&alias ISO-8859-6
&alias ECMA-114
&alias ASMO-708
&alias arabic
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?

```

```

At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
NS ?? ?? ?? Cu ?? ?? ?? ?? ?? ?? ?? ,+ -- ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ;+ ?? ?? ?? ?+
?? H' aM aH wH ah yH a+ b+ tm t+ tk g+ hk x+ d+
dk r+ z+ s+ sn c+ dd tj zH e+ i+ ?? ?? ?? ?? ??
++ f+ q+ k+ l+ m+ n+ h+ w+ j+ y+ :+ "+ =+ /+ '+
1+ 3+ 0+ ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??

```

```
&charset T.101-G2
```

```
&rem source: ECMA registry
```

```
&alias iso-ir-128
```

```
&g0esc x287c &g1esc x297c &g2esc x2a7c &g3esc x2b7c
```

```
&code 0
```

```

NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " ?? ?? % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
NS !I Ct Pd DO Ye Nb SE Cu '6 "6 << <- -! -> -v
DG +- 2S 3S *X My PI .M -: '9 "9 >> 14 12 34 ?I
?? " ! " ' " > " ? " - " ( " . " : " / " 0 " , " _ " " " ; " <
-M 1S Rg Co TM Md HH VV FD BD Fd Bd 18 38 58 78
Om AE D- -a H/ VH IJ L. L/ O/ OE -o TH T/ NG 'n
kk ae d/ d- h/ i. ij l. l/ o/ oe ss th t/ ng ??
&comb2 ' ' SP ' ' a a' A A' e e' E E' i i' I I' o o' O O' u u' U U'
      y y' Y Y' c c' C C' l l' L L' n n' N N' r r' R R'
      s s' S S' z z' Z Z'
&comb2 "( SP '( a a( A A( g g( G G(          u u( U U(
&comb2 "< SP '< c c< C C< d d< D D< e e< E E< l l< L L< n n< N N<
      r r< R R< s s< S S< t t< T T< z z< Z Z<
&comb2 ", SP ', c c, C C, g g, G G, k k, K K, l l, L L, n n, N N,
      r r, R R, s s, S S, t t, T T,
&comb2 ">      a a> A A> e e> E E> i i> I I> o o> O O> u u> U U>
      y y> Y Y> c c> C C> g g> G G> h h> H H> j j> J J>
      s s> S S> w w> W W>
&comb2 ": SP ': a a: A A: e e: E E: i i: I I: o o: O O: u u: U U:
      y y: Y Y:
&comb2 ". SP '. c c. C C. e e. E E. g g. G G.          I I. z z. Z Z.
&comb2 "\" SP '\"          o o" O O" u u" U U"
&comb2 " !      a a! A A! e e! E E! i i! I I! o o! O O! u u! U U!
&comb2 "- SP '- a a- A A- e e- E E- i i- I I- o o- O O- u u- U U-
&comb2 "; SP ';' a a; A A; e e; E E; i i; I I; u u; U U;
&comb2 "0 SP '0 a aa A AA          u u0 U U0
&comb2 "?      a a? A A? n n? N N? i i? I I? o o? O O? u u? U U?

```

```
&charset ISO_8859-8:1988
```

```
&rem source: ECMA registry
```

```
&alias iso-ir-138
```

```

&glesc x2d48 &g2esc x2e48 &g3esc x2f48
&alias ISO_8859-8
&alias ISO-8859-8
&alias hebrew
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
NS ?? Ct Pd Cu Ye BB SE ': Co *X << NO -- Rg '-
DG +- 2S 3S '' My PI .M ', 1S -: >> 14 12 34 ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? =2
A+ B+ G+ D+ H+ W+ Z+ X+ Tj J+ K% K+ L+ M% M+ N%
N+ S+ E+ P% P+ Zj ZJ Q+ R+ Sh T+ ?? ?? ?? ?? ??

```

```

&charset CSN_369103
&rem source: ECMA registry
&alias iso-ir-139
&glesc x2d49 &g2esc x2e49 &g3esc x2f49
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb Cu % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
NS A; '( L/ DO L< S' SE ': S< S, T< Z' -- Z< Z.
DG a; '; l/ '' l< s' '< ', s< s, t< z' '' z< z.
R' A' A> A( A: L' C' C, C< E' E; E: E< I' I> D<
D/ N' N< O' O> O" O: *X R< U0 U' U" U: Y' T, ss
r' a' a> a( a: l' c' c, c< e' e; e: e< i' i> d<
d/ n' n< o' o> o" o: -: r< u0 u' u" u: y' t, '.

```

```

&charset JUS_I.B1.002
&rem source: ECMA registry
&alias iso-ir-141
&g0esc x287a &glesc x297a &g2esc x2a7a &g3esc x2b7a
&alias ISO646-YU
&alias js
&alias yu
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
Z< A B C D E F G H I J K L M N O P Q R S T U V W X Y Z S< D/ C' C< _
z< a b c d e f g h i j k l m n o p q r s t u v w x y z s< d/ c' c< DT

```

```

&charset ISO_6937-2-add

```

```

&rem source: ECMA registry and ISO 6937-2:1983
&alias iso-ir-142
&glesc x2d4a &g2esc x2e4a &g3esc x2f4a
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb Cu % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
NS !I Ct Pd DO Ye ?? SE ?? '6 "6 << <- -! -> -v
DG +- 2S 3S *X My PI .M -: '9 "9 >> 14 12 34 ?I
?? " ! " ' "> "? "- "( ". ": ?? "0 ", "_ "" "; "<
-M 1S Rg Co TM Md NO BB ?? ?? ?? ?? 18 38 58 78
Om AE D- -a H/ ?? IJ L. L/ O/ OE -o TH T/ NG 'n
kk ae d/ d- h/ i. ij l. l/ o/ oe ss th t/ ng --
&comb2 "' SP '' a a' A A' e e' E E' i i' I I' o o' O O' u u' U U'
      y y' Y Y' c c' C C' l l' L L' n n' N N' r r' R R'
      s s' S S' z z' Z Z'
&comb2 "( SP '( a a( A A( g g( G G( u u( U U(
&comb2 "< SP '< c c< C C< d d< D D< e e< E E< l l< L L< n n< N N<
      r r< R R< s s< S S< t t< T T< z z< Z Z<
&comb2 ", SP ', c c, C C, g g, G G, k k, K K, l l, L L, n n, N N,
      r r, R R, s s, S S, t t, T T,
&comb2 "> a a> A A> e e> E E> i i> I I> o o> O O> u u> U U>
      y y> Y Y> c c> C C> g g> G G> h h> H H> j j> J J>
      s s> S S> w w> W W>
&comb2 ": SP ': a a: A A: e e: E E: i i: I I: o o: O O: u u: U U:
      y y: Y Y:
&comb2 ". SP '. c c. C C. e e. E E. g g. G G. I I. z z. Z Z.
&comb2 "" SP '' o o" O O" u u" U U"
&comb2 "! a a! A A! e e! E E! i i! I I! o o! O O! u u! U U!
&comb2 "- SP '- a a- A A- e e- E E- i i- I I- o o- O O- u u- U U-
&comb2 "; SP ';' a a; A A; e e; E E; i i; I I; u u; U U;
&comb2 "0 SP '0 a aa A AA u u0 U U0
&comb2 "? a a? A A? n n? N N? i i? I I? o o? O O? u u? U U?

```

```

&charset IEC_P27-1
&rem source: ECMA registry
&alias iso-ir-143
&glesc x2d4b &g2esc x2e4b&g3esc x2f4b
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
'< =3 AN OR (U )U (C )C <= => .: :. (- -) ( _ )_
In Io 00 NB dP ?1 ?2 ?- ?= <= != >= <> NO FA TE
A+ OS PP G* D* -T -V -L H* </ /> L* 1' 2' C* -+

```

```
P* 2S S* *X 3S U* F* .M Q* W* /0 >V RT f( 0( +-
DG a* b* g* d* e* z* y* h* i* k* l* m* n* c* %0
p* r* s* -: t* u* f* x* q* w* /- <- -! -> -v '-
```

```
&charset ISO_8859-5:1988
&rem source: ECMA registry
&alias iso-ir-144
&glesc x2d4c &g2esc x2e4c &g3esc x2f4c
&alias ISO_8859-5
&alias ISO-8859-5
&alias cyrillic
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
NS IO D% G% IE DS II YI J% LJ NJ Ts KJ -- V% DZ
A= B= V= G= D= E= Z% Z= I= J= K= L= M= N= O= P=
R= S= T= U= F= H= C= C% S% Sc =" Y= %" JE JU JA
a= b= v= g= d= e= z% z= i= j= k= l= m= n= o= p=
r= s= t= u= f= h= c= c% s% sc =' y= %' je ju ja
N0 io d% g% ie ds ii yi j% lj nj ts kj SE v% dz
```

```
&charset JUS_I.B1.003-serb
&rem source: ECMA registry
&alias iso-ir-146
&g0esc x287b &glesc x297b &g2esc x2a7b &g3esc x2b7b
&alias serbian
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
Z% A= B= C= D= E= F= G= H= I= J% K= L= M= N= O=
P= LJ R= S= T= U= V= NJ DZ DS Z= S% D% Ts C% _
z% a= b= c= d= e= f= g= h= i= j% k= l= m= n= o=
p= lj r= s= t= u= v= nj dz ds z= s% d% ts c% DT
```

```
&charset JUS_I.B1.003-mac
&rem source: ECMA registry
&alias macedonian
&alias iso-ir-147
&g0esc x287d &glesc x297d &g2esc x2a7d &g3esc x2b7d
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
Z% A= B= C= D= E= F= G= H= I= J% K= L= M= N= O=
P= LJ R= S= T= U= V= NJ DZ DS Z= S% G% KJ C% _
z% a= b= c= d= e= f= g= h= i= j% k= l= m= n= o=
p= lj r= s= t= u= v= nj dz ds z= s% g% kj c% DT
```

```

&charset ISO_8859-9:1989
&rem source: ECMA registry
&alias iso-ir-148
&glesc x2d4d &g2esc x2e4d &g3esc x2f4d
&alias ISO_8859-9
&alias ISO-8859-9
&alias latin5
&alias l5
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
NS !I Ct Pd Cu Ye BB SE ': Co -a << NO -- Rg '-
DG +- 2S 3S '' My PI .M ', 1S -o >> 14 12 34 ?I
A! A' A> A? A: AA AE C, E! E' E> E: I! I' I> I:
G( N? O! O' O> O? O: *X O/ U! U' U> U: I. S, ss
a! a' a> a? a: aa ae c, e! e' e> e: e. i' i> i-
g( n? o! o' o> o? o: -: o/ u! u' u> u: i. s, y:

```

```

&charset KS_C_5601-1987
&rem source: ECMA registry
&alias iso-ir-149
&alias KS_C_5601-1989
&alias KSC_5601
&bits 16
&g0esc x2443 &glesc x242943 &g2esc x242a43 &g3esc x242b43
&alias korean
&code2 1 1
SP ,_ .6 .M .. .3 ': +" -N -M PP // ?1 '6 '9 "6 "9 ( ' )' <1 >1 <+ >+
<' >' <" >" (" )" +- *X -: != =< >= 00
.: DG 1' 2' oC Ye AA Ct Pd Ml Fm
-V -T (A dP NB =3 HI SE :X *1 *2
0m 0M 0o Dw Db OS fS uT UT dT DT -> <-
-! -v <> =2 <* *> RT CG 0( :. In DI
&code2 2 1
=> == FA TE '' '? '<' (' ' " '0 ' . ' , ' ; !I ?I :R Io +Z *P Cu oF %0 Tl
PL Tr PR cS- cS cH cH- cC- cC 0. cD-
Rr 0L 0R .S RF RY RK RZ RH RX =T:) tel TEL
<H >H PI /- /= UD //> <// <!! !!>
Mb Md M8 M16 KSC (JU) N0 Co TM am pm Tel
&code2 3 1
! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7
8 9 : ; < = > ? At A B C D E F G H I J K L M N O
P Q R S T U V W X Y Z <( W= )> '> _ a b c d e f g
h i j k l m n o p q r s t u v w x y z (! !! !) '-
&codex k 4 4 1 94
&code2 5 1
1r 2r 3r 4r 5r 6r 7r 8r 9r ar br cr

```



```

&code2 5 16
1R 2R 3R 4R 5R 6R 7R 8R 9R aR bR cR
&code2 5 33
A* B* G* D* E* Z* Y* H* I* K* L* M* N* C* O*
P* R* S* T* U* F* X* Q* W*
&code2 5 65
a* b* g* d* e* z* y* h* i* k* l* m* n* c* o*
p* r* s* t* u* f* x* q* w*
&code2 6 1
hh vv dr dl ul ur vr dh vl uh vh
HH VV DR LD UL UR VR DH VL UH VH Vr
dH Vl uH vH vR Dh vL Uh Vh Dl dL Ul uL Ur uR Dr dR
Udr uDr UdR uDR Udl uDl UdL
uDL dLr dLr DLR dLr uLr uLr ULr vLr vLr Udh uDh
UdLr UdLr uDLr uDLr UdH uDH VLr VLr
&codex k 7 7 1 79
&code2 8 1
AE D- -a H/ ?? IJ ?? L. L/ O/ OE -o TH T/ NG
&codex k 8 8 17 44
&code2 8 45
a-o b-o c-o d-o e-o f-o g-o h-o i-o j-o k-o l-o m-o n-o o-o
p-o q-o r-o s-o t-o u-o v-o w-o x-o y-o z-o
1-o 2-o 3-o 4-o 5-o 6-o 7-o 8-o 9-o 10-o 11-o 12-o 13-o 14-o 15-o
12 13 23 14 34 18 38 58 78
&code2 9 1
ae d/ d- h/ i. ij kk l. l/ o/ oe ss th t/ ng 'n
&codex k 9 9 17 44
&code2 9 45
(a) (b) (c) (d) (e) (f) (g) (h) (i) (j) (k) (l) (m) (n) (o)
(p) (q) (r) (s) (t) (u) (v) (w) (x) (y) (z)
(1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14) (15)
1S 2S 3S 4S nS 1s 2s 3s 4s
&code2 10 1
A5 a5 I5 i5 U5 u5 E5 e5 O5 o5 ka ga ki gi ku
gu ke ge ko go sa za si zi su zu se ze so zo ta
da ti di tU tu du te de to do na ni nu ne no ha
ba pa hi bi pi hu bu pu he be pe ho bo po ma mi
mu me mo yA ya yU yu yO yo ra ri ru re ro wA wa
wi we wo n5
&code2 11 1
a6 A6 i6 I6 u6 U6 e6 E6 o6 O6 Ka Ga Ki Gi Ku
Gu Ke Ge Ko Go Sa Za Si Zi Su Zu Se Ze So Zo Ta
Da Ti Di TU Tu Du Te De To Do Na Ni Nu Ne No Ha
Ba Pa Hi Bi Pi Hu Bu Pu He Be Pe Ho Bo Po Ma Mi
Mu Me Mo YA Ya YU Yu YO Yo Ra Ri Ru Re Ro WA Wa
Wi We Wo N6 Vi KA KE
&code2 12 1
A= B= V= G= D= E= IO Z% Z= I= J= K= L= M= N= O= P=
R= S= T= U= F= H= C= C% S% Sc =" Y= %" JE JU JA
&code2 12 49
a= b= v= g= d= e= io z% z= i= j= k= l= m= n= o= p=
r= s= t= u= f= h= c= c% s% sc =' y= %' je ju ja
&codex k 16 40 1 94

```

```
&codex k 42 93 1 94
```

```
&charset greek-ccitt
```

```
&rem source: ECMA registry
```

```
&alias iso-ir-150
```

```
&g0esc x282140 &g1esc x292140 &g2esc x2a2140 &g3esc x2b2140
```

```
&code 0
```

```
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb Cu % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A* B* G* D* E* Z* Y* H* I* K* L* M* N* C* O*
P* R* ?? S* T* U* F* X* Q* W* ?? <( // )> '> _
?? a* b* g* d* e* z* y* h* i* k* l* m* n* c* o*
p* r* *s s* t* u* f* x* q* w* ?? (! !! !) '- DT
```

```
&charset NC_NC00-10:81
```

```
&rem source: ECMA registry
```

```
&alias cuba
```

```
&alias iso-ir-151
```

```
&alias ISO646-CU
```

```
&g0esc x282141 &g1esc x292141 &g2esc x2a2141 &g3esc x2b2141
```

```
&code 0
```

```
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb Cu % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z !I N? )> ?I _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z ' ' n? <( ': DT
```

```
&charset ISO_6937-2-25
```

```
&rem source: ECMA registry
```

```
&alias iso-ir-152
```

```
&g1esc x2d4e &g2esc x2e4e &g3esc x2f4e
```

```
&code 0
```

```
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb Cu % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
NS ?? ?? ?? ?? ?? ?? ?? ?? ?? "6 ?? <- -! -> -v
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? "9 ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? TM Md ?? ?? ?? ?? ?? ?? 18 38 58 78
Om ?? ?? ?? ?? ?? IJ L. ?? ?? OE ?? W> Y> Y: 'n
?? ?? ?? ?? ?? ?? ij l. ?? ?? oe ?? w> y> ?? ??
```

```
&charset GOST_19768-74
```

```
&rem source: ECMA registry
```

```
&alias ST_SEV_358-88
```

```
&alias iso-ir-153
```

```
&g1esc x2d4f &g2esc x2e4f &g3esc x2f4f
```

```
&code 0
```

```

NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
NS IO ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
A= B= V= G= D= E= Z% Z= I= J= K= L= M= N= O= P=
R= S= T= U= F= H= C= C% S% Sc =" Y= %" JE JU JA
a= b= v= g= d= e= z% z= i= j= k= l= m= n= o= p=
r= s= t= u= f= h= c= c% s% sc =' y= %' je ju ja
?? io ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??

```

&charset ISO\_8859-suppl

&rem source: ECMA registry

&alias iso-ir-154

&alias latin1-2-5

&glesc x2d50 &g2esc x2e50 &g3esc x2f50

&code 0

```

NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
?? ?? A- C> C. ?? E. E- G> '6 "6 TM <- -! -> -v
?? ?? a- c> c. d- e. e- g> '9 "9 Md 18 38 58 78
?? G( G. G, H> H/ I? I. I- I; IJ J> K, L, L. N,
-M NG O- OE R, S> T/ TH U? U( U- U; W> Y' Y> Y:
Om g( g. g, h> h/ i? i. i- i; ij j> k, l, l. n,
kk ng o- oe r, s> t/ th u? u( u- u; w> y' y> 'n

```

&charset ISO\_10367-box

&rem source: ECMA registry

&alias iso-ir-155

&glesc x2d51 &g2esc x2e51 &g3esc x2f51

&code 0

```

NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
VV HH DR LD UR UL VR VL DH UH VH UB LB FB sB ??
vv hh dr dl ur ul vr vl dh uh vh .S :S ?S ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??

```

```

&charset latin6
&rem source: ECMA registry
&alias iso-ir-157
&alias l6
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
NS A; E- G, I- I? K, L, N' R, S< T/ Z< -- kk NG
d/ a; e- g, i- i? k, l, n' r, s< t/ z< SE ss ng
A- A' A> A? A: AA AE I; C< E' E; E: E. I' I> I:
D/ N, O- O' O> O? O: U? O/ U; U' U> U: Y' TH U-
a- a' a> a? a: aa ae i; c< e' e; e: e. i' i> i:
d- n, o- o' o> o? o: u? o/ u; u' u> u: y' th u-

```

```

&charset latin-lap
&rem source: ECMA registry
&alias lap
&alias iso-ir-158
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
'' ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
;S ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
A( A> A! A- A1 A7 A3 E( E! E- G/ G< K< O( O! O;
O1 U- ED EZ ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
a( a> a! a- a1 a7 a3 e( e! e- g/ g< k< o( o! o;
o1 u- ed ez ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??

```

```

&charset JIS_X0212-1990
&rem source: ECMA registry
&alias x0212
&alias iso-ir-159
&bits 16
&g0esc x2444 &g1esc x242944 &g2esc x242a44 &g3esc x242b44
&code2 2 15
' ( '< ' , ' . ' " ' - ' ; ' 0 ' ?
' ' ' %
&code2 2 34
! I BB ? I TM Cu N0
&code2 2 75
-o -a Co Rg
&code2 6 65
A% E% Y% I% J* ?? O% ?? U% V* ?? W%

```

```

&code2 6 81
a% e% y% i% j* i3 o% *s u% v* u3 w%
&code2 7 34
D% G% IE DS II YI J% LJ NJ Ts KJ V% DZ
&code2 7 82
d% g% ie ds ii yi j% lj nj ts kj v% dz
&code2 9 1
AE D/ ?? H/ ?? IJ ?? L/ L. ?? NG O/ OE ?? T/ TH
&code2 9 33
ae d/ d- h/ i. ij kk l/ l. 'n ng o/ oe ss t/ th
&code2 10 1
A' A! A: A> A( A< A; AA A? C' C> C< C, C. D< E' E! E: E> E( E. E-
E; ?? G> G( G, G. H> I' I! I: I> I< I. I- I; I? J> K, L' L, N' N< N,
N? O' O! O: O> O< O" O- O? R' R< R, S' S> S< S, T< T, U' U! U: U( U<
U" U- U; U0 U:' U:! U:< U:- W. Y' Y: Y> Z' Z< Z.
&code2 11 1
a' a! a: a> a( a< a; aa a? c' c> c< c, c. d< e' e! e: e> e( e. e-
e; g' g> g( ?? g. h> i' i! i: i> i< ?? i- i; i? j> k, l' l, n' n< n,
n? o' o! o: o> o< o" o- o? r' r< r, s' s> s< s, t< t, u' u! u: u( u<
u" u- u; u0 u:' u:! u:< u:- w. y' y: y> z' z< z.
&codex J 16 76 1 94
&codex J 77 77 1 67

```

```

&charset DS_2089
&rem source: Danish Standard, DS 2089, February 1974
&alias DS2089
&alias ISO646-DK
&alias dk
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z AE O/ AA '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z ae o/ aa '? DT

```

```

&charset us-dk
&rem for compatibility with ASCII
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
&duplicate 91 AE
&duplicate 92 O/
&duplicate 93 AA
&duplicate 123 ae
&duplicate 124 o/
&duplicate 125 aa
&duplicate 91 A:
&duplicate 92 O:
&duplicate 123 a:
&duplicate 124 o:

```

```

&charset dk-us
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z AE O/ AA '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z ae o/ aa '? DT
&duplicate 91 <(
&duplicate 92 //
&duplicate 93 )>
&duplicate 123 (!
&duplicate 124 !!
&duplicate 125 !)
&duplicate 91 A:
&duplicate 92 O:
&duplicate 123 a:
&duplicate 124 o:

```

```

&charset JIS_X0201
&alias X0201
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( Ye )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '- DT
PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
NS .__ <' >' ,_ .6 Wo a6 i6 u6 e6 o6 YA YU YO TU
-6 A6 I6 U6 E6 O6 Ka Ki Ku Ke Ko Sa Si Su Se So
Ta Ti Tu Te To Na Ni Nu Ne No Ha Hi Hu He Ho Ma
Mi Mu Me Mo Ya Yu Yo Ra Ri Ru Re Ro Wa N6 "5 05
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??

```

```

&charset KSC5636
&alias ISO646-KR
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( W= )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT

```

```

&charset DEC-MCS
&rem VAX/VMS User's Manual, Order Number: AI-Y517A-TE, April 1986.
&alias dec
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _

```

```
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
?? !I Ct Pd ?? Ye ?? SE Cu Co -a << ?? ?? ?? ??
DG +- 2S 3S ?? My PI .M ?? 1S -o >> 14 12 ?? ?I
A! A' A> A? A: AA AE C, E! E' E> E: I! I' I> I:
?? N? O! O' O> O? O: OE O/ U! U' U> U: Y: ?? ss
a! a' a> a? a: aa ae c, e! e' e> e: i! i' i> i:
?? n? o! o' o> o? o: oe o/ u! u' u> u: y: ?? ??
```

&charset hp-roman8

&rem source: LaserJet IIP Printer User's Manual,  
&rem HP part no 33471-90901, Hewlett-Packard, June 1989.

&alias roman8

&alias r8

&code 0

```
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
PA HO BH NH IN NL SA ES HS HJ VS PD PU RI S2 S3
DC P1 P2 TS CC MW SG EG SS GC SC CI ST OC PM AC
NS A! A> E! E> E: I> I: ' ' 1" AN ': ?1 U! U> Li
'- Y' y' DG C, c, N? n? !I ?I Cu Pd Ye SE Fl Ct
a> e> o> u> a' e' o' u' a! e! o! u! a: e: o: u:
AA i> O/ AE aa i' o/ ae A: i! O: U: E' i: ss O>
A' A? a? D- d- I' I! O' O! O? o? S< s< U' Y: y:
TH th .M My PI 34 -M 14 12 -a -o << fS >> +- ??
```

&charset macintosh

&rem source: The Unicode Standard ver1.0, ISBN 0-201-56788-1, Oct 1991

&alias mac

&code 0

```
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
A: AA C, E' N? O: U: a' a! a> a: a? aa c, e' e!
e> e: i' i! i> i: n? o' o! o> o: o? u' u! u> u:
/- DG Ct Pd SE Sb PI ss Rg Co TM ' ' ': != AE O/
00 +- =< >= Ye My dP +Z *P p* In -a -o W* ae o/
?I !I NO RT Fl ?2 D* << >> .3 NS A! A? O? OE oe
-M -N "6 "9 '6 '9 -: Db y: Y: /f Cu <1 >1 fi fl
/= .M .9 :9 %0 A> E> A' E: E! I' I> I: I! O' O>
?? O! U' U> U! i. ?? ?? '- '( '. '0 ', '" ' ; '<
```

&charset IBM037

&rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990

&alias cp037

&alias ebcdic-cp-us

&alias ebcdic-cp-ca

```

&alias ebcdic-cp-wt
&alias ebcdic-cp-nl
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
SP NS a> a: a! a' a? aa c, n? Ct . < ( + !!
& e' e> e: e! i' i> i: i! ss ! DO * ) ; NO
- / A> A: A! A' A? AA C, N? BB , % _ > ?
o/ E' E> E: E! I' I> I: I! ' ! : Nb At ' = "
O/ a b c d e f g h i << >> d- y' th +-
DG j k l m n o p q r -a -o ae ', AE Cu
My '? s t u v w x y z !I ?I D- Y' TH Rg
'> Pd Ye .M Co SE PI 14 12 34 <( )> '- ': '' *X
(! A B C D E F G H I -- o> o: o! o' o?
!) J K L M N O P Q R 1S u> u: u! u' y:
// -: S T U V W X Y Z 2S O> O: O! O' O?
0 1 2 3 4 5 6 7 8 9 3S U> U: U! U' DT

```

&charset IBM038

&rem source: IBM 3174 Character Set Ref, GA27-3831-02, March 1990

&alias EBCDIC-INT

&alias cp038

```

&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
SP ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? <( . < ( + !
& ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? )> DO * ) ; '>
- / ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? BB , % _ > ?
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ' ! : Nb At ' = "
?? a b c d e f g h i ?? ?? ?? ?? ?? ?? ??
?? j k l m n o p q r ?? ?? ?? ?? ?? ?? ??
?? '? s t u v w x y z ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
(! A B C D E F G H I ?? ?? ?? ?? ?? ?? ??
!) J K L M N O P Q R ?? ?? ?? ?? ?? ?? ??
// ?? S T U V W X Y Z ?? ?? ?? ?? ?? ?? ??
0 1 2 3 4 5 6 7 8 9 ?? ?? ?? ?? ?? ?? DT

```

&charset IBM273

&rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990

&alias CP273

```

&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
SP NS a> (! a! a' a? aa c, n? A: . < ( + !
& e' e> e: e! i' i> i: i! '? U: DO * ) ; '>
- / A> <( A! A' A? AA C, N? o: , % _ > ?

```



```

o/ E' E> E: E! I' I> I: I! '!: Nb SE ' = "
O/ a b c d e f g h i << >> d- y' th +-
DG j k l m n o p q r -a -o ae ', AE Cu
My ss s t u v w x y z !I ?I D- Y' TH Rg
Ct Pd Ye .M Co At PI 14 12 34 NO !! '- ': '' *X
a: A B C D E F G H I -- o> BB o! o' o?
u: J K L M N O P Q R 1S u> !) u! u' y:
O: -: S T U V W X Y Z 2S O> // O! O' O?
0 1 2 3 4 5 6 7 8 9 3S U> )> U! U' DT

```

&charset IBM274

&rem source: IBM 3174 Character Set Ref, GA27-3831-02, March 1990

&alias EBCDIC-BE

&alias CP274

&code 0

```

NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
SP ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? <( . < ( + !
& ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? )> DO * ) ; '>
- / ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? u! , % _ > ?
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? '!: Nb a! ' = "
?? a b c d e f g h i ?? ?? ?? ?? ?? ?? ??
?? j k l m n o p q r ?? ?? ?? ?? ?? ?? ??
?? ': s t u v w x y z ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
e' A B C D E F G H I ?? ?? ?? ?? ?? ?? ??
e! J K L M N O P Q R ?? ?? ?? ?? ?? ?? ??
c, ?? S T U V W X Y Z ?? ?? ?? ?? ?? ?? ??
0 1 2 3 4 5 6 7 8 9 ?? ?? ?? ?? ?? DT

```

&charset IBM275

&rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990

&alias EBCDIC-BR

&alias cp275

&code 0

```

NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
SP ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? E' . < ( + !
& ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? DO C, * ) ; '>
- / ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? c, , % _ > ?
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? a? : O? A? ' = "
?? a b c d e f g h i ?? ?? ?? ?? ?? ?? ??
?? j k l m n o p q r ?? ?? ?? ?? ?? ?? ??
?? '? s t u v w x y z ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
o? A B C D E F G H I ?? ?? ?? ?? ?? ?? ??
e' J K L M N O P Q R ?? ?? ?? ?? ?? ?? ??
// ?? S T U V W X Y Z ?? ?? ?? ?? ?? ?? ??
0 1 2 3 4 5 6 7 8 9 ?? ?? ?? ?? ?? DT

```

```

&charset IBM277
&rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990
&alias EBCDIC-CP-DK
&alias EBCDIC-CP-NO
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
SP NS a> a: a! a' a? ! ) c, n? Nb . < ( + !
& e' e> e: e! i' i> i: i! ss Cu AA * ) ; '>
- / A> A: A! A' A? DO C, N? o/ , % _ > ?
BB E' E> E: E! I' I> I: I! ' ! : AE O/ ' = "
At a b c d e f g h i << >> d- y' th +-
DG j k l m n o p q r -a -o (! ', <( )>
My u: s t u v w x y z !I ?I D- Y' TH Rg
Ct Pd Ye .M Co SE PI 14 12 34 NO !! '- ': '' *X
ae A B C D E F G H I -- o> o: o! o' o?
aa J K L M N O P Q R 1S u> '? u! u' y:
// -: S T U V W X Y Z 2S O> O: O! O' O?
0 1 2 3 4 5 6 7 8 9 3S U> U: U! U' DT

```

```

&charset IBM278
&rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990
&alias CP278
&alias ebcdic-cp-fi
&alias ebcdic-cp-se
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
SP NS a> (! a! a' a? ! ) c, n? SE . < ( + !
& ' ! e> e: e! i' i> i: i! ss Cu AA * ) ; '>
- / A> Nb A! A' A? DO C, N? o: , % _ > ?
o/ E' E> E: E! I' I> I: I! e' : A: O: ' = "
O/ a b c d e f g h i << >> d- y' th +-
DG j k l m n o p q r -a -o ae ', AE )>
My u: s t u v w x y z !I ?I D- Y' TH Rg
Ct Pd Ye .M Co <( PI 14 12 34 NO !! '- ': '' *X
a: A B C D E F G H I -- o> BB o! o' o?
aa J K L M N O P Q R 1S u> '? u! u' y:
// -: S T U V W X Y Z 2S O> At O! O' O?
0 1 2 3 4 5 6 7 8 9 3S U> U: U! U' DT

```

```

&charset IBM280
&rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990
&alias CP280
&alias ebcdic-cp-it
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US

```

```

?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
SP NS a> a: (! a' a? aa // n? DG . < ( + !
& )> e> e: !) i' i> i: '? ss e' DO * ) ; '>
- / A> A: A! A' A? AA C, N? o! , % _ > ?
o/ E' E> E: E! I' I> I: I! u! : Pd SE ' = "
O/ a b c d e f g h i << >> d- y' th +-
<( j k l m n o p q r -a -o ae ', AE Cu
My i! s t u v w x y z !I ?I D- Y' TH Rg
Ct Nb Ye .M Co At PI 14 12 34 NO !! '- ': '' *X
a! A B C D E F G H I -- o> o: BB o' o?
e! J K L M N O P Q R 1S u> u: '! u' y:
c, -: S T U V W X Y Z 2S O> O: O! O' O?
0 1 2 3 4 5 6 7 8 9 3S U> U: U! U' DT

```

&charset IBM281

&rem source: IBM 3174 Character Set Ref, GA27-3831-02, March 1990

&alias EBCDIC-JP-E

&alias cp281

&code 0

```

NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
SP ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? Pd . < ( + !!
& ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ! Ye * ) ; NO
- / ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? BB , % _ > ?
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? '! : Nb At ' = "
?? a b c d e f g h i ?? ?? ?? ?? ?? ?? ??
?? j k l m n o p q r ?? ?? ?? ?? ?? ?? ??
?? '- s t u v w x y z ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
(! A B C D E F G H I ?? ?? ?? ?? ?? ?? ??
!) J K L M N O P Q R ?? ?? ?? ?? ?? ?? ??
DO ?? S T U V W X Y Z ?? ?? ?? ?? ?? ?? ??
0 1 2 3 4 5 6 7 8 9 ?? ?? ?? ?? ?? ?? DT

```

&charset IBM284

&rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990

&alias CP284

&alias ebcdic-cp-es

&code 0

```

NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
SP NS a> a: a! a' a? aa c, BB <( . < ( + !!
& e' e> e: e! i' i> i: i! ss )> DO * ) ; NO
- / A> A: A! A' A? AA C, Nb n? , % _ > ?
o/ E' E> E: E! I' I> I: I! '! : N? At ' = "
O/ a b c d e f g h i << >> d- y' th +-
DG j k l m n o p q r -a -o ae ', AE Cu
My ': s t u v w x y z !I ?I D- Y' TH Rg

```

```

Ct Pd Ye .M Co SE PI 14 12 34 '> ! '- '? '' *X
(! A B C D E F G H I -- o> o: o! o' o?
!) J K L M N O P Q R 1S u> u: u! u' y:
// -: S T U V W X Y Z 2S O> O: O! O' O?
0 1 2 3 4 5 6 7 8 9 3S U> U: U! U' DT

```

&charset IBM285

&rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990

&alias CP285

&alias ebcdic-cp-gb

&code 0

```

NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
SP NS a> a: a! a' a? aa c, n? DO . < ( + !!
& e' e> e: e! i' i> i: i! ss ! Pd * ) ; NO
- / A> A: A! A' A? AA C, N? BB , % _ > ?
o/ E' E> E: E! I' I> I: I! ' ! : Nb At ' = "
O/ a b c d e f g h i << >> d- y' th +-
DG j k l m n o p q r -a -o ae ', AE Cu
My '? s t u v w x y z !I ?I D- Y' TH Rg
Ct <( Ye .M Co SE PI 14 12 34 '> )> '- ': '' *X
(! A B C D E F G H I -- o> o: o! o' o?
!) J K L M N O P Q R 1S u> u: u! u' y:
// -: S T U V W X Y Z 2S O> O: O! O' O?
0 1 2 3 4 5 6 7 8 9 3S U> U: U! U' DT

```

&charset IBM290

&rem source: IBM 3174 Character Set Ref, GA27-3831-02, March 1990

&alias cp290

&alias EBCDIC-JP-kana

&code 0

```

NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
SP . _ <' >' , _ .6 Wo a6 i6 u6 Pd . < ( + !!
& e6 o6 YA YU YO TU ?? -6 ?? ! Ye * ) ; NO
- / ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? BB , % _ > ?
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ' ! : Nb At ' = "
?? A6 I6 U6 E6 O6 Ka Ki Ku Ke Ko ?? Sa Si Su Se
So Ta Ti Tu Te To Na Ni Nu Ne No ?? ?? Ha Hi Hu
?? '- He Ho Ma Mi Mu Me Mo Ya Yu ?? Yo Ra Ri Ru
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? Re Ro Wa N6 "5 05
?? A B C D E F G H I ?? ?? ?? ?? ?? ?? ??
?? J K L M N O P Q R ?? ?? ?? ?? ?? ?? ??
DO ?? S T U V W X Y Z ?? ?? ?? ?? ?? ?? ??
0 1 2 3 4 5 6 7 8 9 ?? ?? ?? ?? ?? ?? DT

```

&charset IBM297

&rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990

&alias cp297

```

&alias ebcdic-cp-fr
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
SP NS a> a: At a' a? aa // n? DG . < ( + !
& (! e> e: !) i' i> i: i! ss SE DO * ) ; '>
- / A> A: A! A' A? AA C, N? u! , % _ > ?
o/ E' E> E: E! I' I> I: I! My : Pd a! ' = "
O/ a b c d e f g h i << >> d- y' th +-
<( j k l m n o p q r -a -o ae ', AE Cu
'! ': s t u v w x y z !I ?I D- Y' TH Rg
Ct Nb Ye .M Co )> PI 14 12 34 NO !! '- '? '' *X
e' A B C D E F G H I -- o> o: o! o' o?
e! J K L M N O P Q R 1S u> u: BB u' y:
c, -: S T U V W X Y Z 2S O> O: O! O' O?
0 1 2 3 4 5 6 7 8 9 3S U> U: U! U' DT

```

```

&charset IBM420

```

```

&rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990

```

```

&rem IBM NLS RM p 11-11

```

```

&alias cp420

```

```

&alias ebcdic-cp-ar1

```

```

&code 0

```

```

NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
SP NS 3+ 3+; ++ ?? H' aM aM. aH Ct . < ( + !!
& aH. wH ?? ?? yH a+ a+. b+ b+, ! DO * ) ; NO
- / tm t+ t+, tk tk, g+ g+, hk BB , % _ > ?
hk, x+ x+, d+ dk r+ z+ s+ s+, ,+ : Nb At ' = "
sn a b c d e f g h i sn, c+ c+, dd dd, tj
zH j k l m n o p q r e+ e+. e+, e+; i+ i+.
i+, -: s t u v w x y z i+; f+ f+, q+ q+, k+
k+, l+ lM- lM. lH- lH. ?? ?? la- la. l+, m+ m+, n+ n+, h+
;+ A B C D E F G H I -- h+, ?? h+; ?? w+
?+ J K L M N O P Q R j+ j+. y+ y+. y+, 0a
*X ?? S T U V W X Y Z la 2a ?? 3a 4a 5a
0 1 2 3 4 5 6 7 8 9 ?? 6a 7a 8a 9a DT

```

```

&charset IBM423

```

```

&rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990

```

```

&alias cp423

```

```

&alias ebcdic-cp-gr

```

```

&code 0

```

```

NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
SP A* B* G* D* E* Z* Y* H* I* <( . < ( + !
& K* L* M* N* C* O* P* R* S* )> DO * ) ; '>

```

```

- / T* U* F* X* Q* W* ?? ?? ?? , % _ > ?
?? A% E% Y% ?? I% O% U% W% ' ! : Pd SE ' = "
A: a b c d e f g h i a* b* g* d* e* z*
O: j k l m n o p q r y* h* i* k* l* m*
U: ' : s t u v w x y z n* c* o* p* r* *s
?? a% e% y% j* i% o% u% v* w% s* t* u* f* x* q*
%' y= z= s% je sc c% =' JU A= B= C= D= E= F= G=
', A B C D E F G H I ?? w* A> a! a: e>
'' J K L M N O P Q R +- e' e! e: i> i:
DG ?? S T U V W X Y Z 12 o: o> u> u! u:
0 1 2 3 4 5 6 7 8 9 y: c, C, ?? ?? DT

```

&charset IBM424

&rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990

&alias cp424

&alias ebcdic-cp-he

&code 0

```

NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
SP A+ B+ G+ D+ H+ W+ Z+ X+ Tj Ct . < ( + !!
& J+ K% K+ L+ M% M+ N% N+ S+ ! DO * ) ; NO
- / E+ P% P+ Zj ZJ Q+ R+ Sh BB , % _ > ?
?? T+ ?? ?? NS ?? ?? ?? == ' ! : Nb At ' = "
?? a b c d e f g h i << >> ?? ?? ?? ??
DG j k l m n o p q r ?? ?? ?? ' , ?? Cu
My '? s t u v w x y z ?? ?? ?? ?? ?? Rg
'> Pd Ye .M Co SE PI 14 12 34 <( )> '- ': '' *X
(! A B C D E F G H I -- ?? ?? ?? ?? ??
!) J K L M N O P Q R 1S ?? ?? ?? ?? ??
// -: S T U V W X Y Z 2S ?? ?? ?? ?? ??
0 1 2 3 4 5 6 7 8 9 3S ?? ?? ?? ?? DT

```

&charset IBM437

&rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990

&alias cp437

&alias 437

&code 0

```

NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
' ! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
C, u: e' a> a: a! aa c, e> e: e! i: i> i! A: AA
E' ae AE o> o: o! u> u! y: O: U: Ct Pd Ye Pt Fl
a' i' o' u' n? N? -a -o ?I NI NO 12 14 !I << >>
.S :S ?S vv vl vL V1 D1 dL VL VV LD UL uL d1
ur uh dh vr hh vh vR Vr UR DR UH DH VR HH VH uH
Uh dH Dh Ur uR dR Dr Vh vH ul dr FB LB lB RB TB
a* b* G* p* S* s* m* t* F* H* W* d* 00 /0 e* (U
=3 +- >= =< Iu Il -: ?2 Ob .M Sb RT nS 2S fS NS

```

```

&charset IBM500
&rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990
&alias CP500
&alias ebcdic-cp-be
&alias ebcdic-cp-ch
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
SP NS a> a: a! a' a? aa c, n? <( . < ( + !
& e' e> e: e! i' i> i: i! ss )> DO * ) ; '>
- / A> A: A! A' A? AA C, N? BB , % _ > ?
o/ E' E> E: E! I' I> I: I! '!: Nb At ' = "
O/ a b c d e f g h i << >> d- y' th +-
DG j k l m n o p q r -a -o ae ', AE Cu
My '? s t u v w x y z !I ?I D- Y' TH Rg
Ct Pd Ye .M Co SE PI 14 12 34 NO !! '- ': '' *X
(! A B C D E F G H I -- o> o: o! o' o?
!) J K L M N O P Q R 1S u> u: u! u' y:
// -: S T U V W X Y Z 2S O> O: O! O' O?
0 1 2 3 4 5 6 7 8 9 3S U> U: U! U' DT

```

```

&charset IBM850
&rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990
&alias cp850
&alias 850
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
C, u: e' a> a: a! aa c, e> e: e! i: i> i! A: AA
E' ae AE o> o: o! u> u! y: O: U: o/ Pd O/ *X Fl
a' i' o' u' n? N? -a -o ?I Rg NO 12 14 !I << >>
.S :S ?S vv vl A' A> A! Co VL VV LD UL Ct Ye dl
ur uh dh vr hh vh a? A? UR DR UH DH VR HH VH Cu
d- D- E> E: E! i. I' I> I: ul dr FB LB BB I! TB
O' ss O> O! o? O? m* TH th U' U> U! y' Y' -M ''
-- +- == 34 PI SE -: '; DG ': '. 1S 3S 2S fS NS

```

```

&charset IBM851
&rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990
&alias cp851
&alias 851
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
C, u: e' a> a: a! A% c, e> e: e! i: i> E% A: Y%

```

```

I% ?? O% o> o: U% u> u! W% O: U: a% Pd e% y% i%
j* i3 o% u% A* B* G* D* E* Z* Y* 12 H* I* << >>
.S :S ?S vv vl K* L* N* M* VL VV LD UL C* O* dl
ur uh dh vr hh vh P* R* UR DR UH DH VR HH VH S*
T* U* F* X* Q* W* a* b* g* ul dr FB LB d* e* TB
z* y* h* i* k* l* m* n* c* o* p* r* s* *s t* ''
-- +- u* f* x* SE q* ';' DG ': w* v* u3 w% fS NS

```

&charset IBM852

&rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990

&alias cp852

&alias 852

&code 0

```

NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
C, u: e' a> a: u0 c' c, l/ e: O" o" i> z' A: C'
E' L' l' o> o: L< l< S' s' O: U: T< t< L/ *X c<
a' i' o' u' A; a; Z< z< E; e; ?? z' C< s, << >>
.S :S ?S vv vl A' A> E< S, VL VV LD UL Z. z. dl
ur uh dh vr hh vh A( a( UR DR UH DH VR HH VH Cu
d/ D/ D< E: d< N< I' U> e< ul dr FB LB T, U0 TB
O' ss O> N' n' n< S< s< R' U' r' U" y' Y' t, ''
-- '" ', '<' ( SE -: ';' DG ': '. u" R< r< fS NS

```

&charset IBM855

&rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990

&alias cp855

&alias 855

&code 0

```

NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
d% D% g% G% io IO ie IE ds DS ii II yi YI j% J%
lj LJ nj NJ ts TS kj KJ v% V% dz DZ ju JU =' ="
a= A= b= B= c= C= d= D= e= E= f= F= g= G= << >>
.S :S ?S vv vl h= H= i= I= VL VV LD UL j= J= dl
ur uh dh vr hh vh k= K= UR DR UH DH VR HH VH Cu
l= L= m= M= n= N= o= O= p= ul dr FB LB P= ja TB
JA r= R= s= S= t= T= u= U= z% Z% v= V= %' %" ''
-- y= Y= z= Z= s% S% je JE sc Sc c% C% ?? fS NS

```

&charset IBM857

&rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990

&alias cp857

&alias 857

&code 0

```

NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US

```



```

SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
C, u: e' a> a: a! aa c, e> e: e! i: i> i. A: AA
E' ae AE o> o: o! u> u! I. O: U: o/ Pd O/ S, s,
a' i' o' u' n? N? G( ?I Rg NO 12 14 !I << >>
.S :S ?S vv vl A' A> A! Co VL VV LD UL Ct Ye dl
ur uh dh vr hh vh a? A? UR DR UH DH VR HH VH Cu
-o -a E> E: E! ?? I' I> I: ul dr FB LB BB I! TB
O' ss O> O! o? O? m* ?? *X U' U> U! i! y: -M ''
-- +- ?? 34 PI SE -: '; DG ': '. 1S 3S 2S fS NS

```

&charset IBM860

&rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990

&alias cp860

&alias 860

&code 0

```

NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
C, u: e' a> a? a! A' c, e> E> e! I> O> i! A? A>
E' A! E! o> o? o! U' u! I! O? U: Ct Pd U! Pt O!
a' i' o' u' n? N? -a -o ?I O' NO 12 14 !I << >>
.S :S ?S vv vl vL V1 D1 dL VL VV LD UL U1 uL dl
ur uh dh vr hh vh vR Vr UR DR UH DH VR HH VH uH
Uh dH Dh Ur uR dR Dr Vh vH ul dr FB LB lB RB TB
a* b* G* p* S* s* m* t* F* H* W* d* 00 /0 e* (U
=3 +- >= =< Iu Il -: ?2 Ob .M Sb RT nS 2S fS NS

```

&charset IBM861

&rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990

&alias cp861

&alias 861

&alias cp-is

&code 0

```

NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
C, u: e' a> a: a! aa c, e> e: e! D- d- TH A: AA
E' ae AE o> o: th u> Y' y' O: U: o/ Pd O/ Pt O!
a' i' o' u' A' I' O' U' ?I ?? NO 12 14 !I << >>
.S :S ?S vv vl vL V1 D1 dL VL VV LD UL U1 uL dl
ur uh dh vr hh vh vR Vr UR DR UH DH VR HH VH uH
Uh dH Dh Ur uR dR Dr Vh vH ul dr FB LB lB RB TB
a* b* G* p* S* s* m* t* F* H* W* d* 00 /0 e* (U
=3 +- >= =< Iu Il -: ?2 Ob .M Sb RT nS 2S fS NS

```

&charset IBM862

&rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990

```

&alias cp862
&alias 862
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
A+ B+ G+ D+ H+ W+ Z+ X+ Tj J+ K% K+ L+ M% M+ N%
N+ S+ E+ P% P+ Zj ZJ Q+ R+ Sh T+ Ct Pd U! Pt O!
a' i' o' u' n? N? -a -o ?I ?? NO 12 14 !I << >>
.S :S ?S vv vl vL V1 D1 dL VL VV LD UL U1 uL d1
ur uh dh vr hh vh vR Vr UR DR UH DH VR HH VH uH
Uh dH Dh Ur uR dR Dr Vh vH ul dr FB LB lB RB TB
a* b* G* p* S* s* m* t* F* H* W* d* 00 /0 e* (U
=3 +- >= =< Iu Il -: ?2 Ob .M Sb RT nS 2S fS NS

```

```

&charset IBM863
&rem source: IBM Keyboard layouts and code pages, PN 07G4586 June 1991
&alias cp863
&alias 863
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
C, u: e' a> A> a! PI c, e> e: e! i: i> i! A! SE
E' E! E> o> E: I: u> u! Cu O> U: Ct Pd U! U> Fl
BB '' o' u' ': ', 3S '- I> NI NO 12 14 34 << >>
.S :S ?S vv vl vL V1 D1 dL VL VV LD UL U1 uL d1
ur uh dh vr hh vh vR Vr UR DR UH DH VR HH VH uH
Uh dH Dh Ur uR dR Dr Vh vH ul dr FB LB lB RB TB
a* b* G* p* S* s* m* t* F* H* W* d* 00 /0 e* (U
=3 +- >= =< Iu Il -: ?2 Ob .M Sb RT nS 2S fS NS

```

```

&charset IBM864
&rem source: IBM Keyboard layouts and code pages, PN 07G4586 June 1991
&alias cp864
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
DG .M Ob RT :S hh vv vh vl dh vr uh dl dr ur ul
ss 00 o/ +- 12 14 ?2 << >> lH- lH. ?? ?? la- la. a+:
?? -- aM. Pd Cu aH. ?? ?? a+. b+ t+ tk ,+ g+ hk x+
0a 1a 2a 3a 4a 5a 6a 7a 8a 9a v+ ;+ s+ sn c+ ?+
Ct H' aM aH wH e+. yH a+ b+, tm t+, tk, g+, hk, x+, d+
dk r+ z+ s+, sn, c+, dd, tj zH e+, i+, BB NO -: *X e+
++ f+. q+. k+, l+. m+, n+. h+, w+ j+ y+, dd m+. i+. i+ m+
3+; 3+ n+ h+ h+; j+. y+. f+ q+ lM- lM. l+ k+ y+ fS NS

```

```

&charset IBM865
&rem source: IBM DOS 3.3 Ref (Abridged), 94X9575 (Feb 1987)
&alias cp865
&alias 865
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
C, u: e' a> a: a! aa c, e> e: e! i: i> i! A: AA
E' ae AE o> o: o! u> u! y: O: U: o/ Pd O/ Pt Fl
a' i' o' u' n? N? -a -o ?I NI NO 12 14 !I << >>
.S :S ?S vv vl vL V1 D1 dL VL VV LD UL Ul uL dl
ur uh dh vr hh vh vR Vr UR DR UH DH VR HH VH uH
Uh dH Dh Ur uR dR Dr Vh vH ul dr FB LB lB RB TB
a* b* G* p* S* s* m* t* F* H* W* d* 00 /0 e* (U
=3 +- >= =< Iu Il -: ?2 Ob .M Sb RT nS 2S fS NS

```

```

&charset IBM868
&rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990
&alias CP868
&alias cp-ar
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
0a 1a 2a 3a 4a 5a 6a 7a 8a 9a ,+ ;+ ?+ aM a+ a+.
a+: b+ b+, p+ ?? tm t+ t+, ?? ?? tk tk, g+ g+, ?? ??
hk hk, x+ x+, d+ ?? dk r+ ?? z+ ?? s+ s+, sn << >>
sn, c+ .S :S ?S vv vl c+, dd dd, tj VL VV LD UL zH
e+ dl ur uh dh vr hh vh e+. e+, UR DR UH DH VR HH
VH e+; i+ i+. i+, i+; f+ f+, q+ q+, k+. ul dr FB TB k+,
?? LB ?? l+ l+. l+; m+ m+, ?? n+ n+, ?? w+ ?? ?? ??
?? H' -- ?? ?? ?? ?? ?? ?? ?? ?? 3+ 3+; ?? fS NS

```

```

&charset IBM869
&rem source: IBM Keyboard layouts and code pages, PN 07G4586 June 1991
&alias cp869
&alias 869
&alias cp-gr
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
?? ?? ?? ?? ?? ?? A% ?? .M NO BB 9' '9 E% -M Y%
I% J* O% ?? ?? U% V* Co W% 2S 3S a% Pd e% y% i%
j* i3 o% u% A* B* G* D* E* Z* Y* 12 H* I* << >>

```

```
.S :S ?S vv vl K* L* M* N* VL VV LD UL C* O* dl
ur uh dh vr hh vh P* R* UR DR UH DH VR HH VH S*
T* U* F* X* Q* W* a* b* g* ul dr FB LB d* e* TB
z* y* h* i* k* l* m* n* c* o* p* r* s* *s t* ''
-- +- u* f* x* SE q* '%' DG ': w* v* u3 w% fS NS
```

```
&charset IBM870
```

```
&rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990
```

```
&alias CP870
```

```
&alias ebcdic-cp-roece
```

```
&alias ebcdic-cp-yu
```

```
&code 0
```

```
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
SP NS ?? a: ?? a' a( c< c, c' <( . < ( + !
& e' ?? e: u0 i' ?? l< l' ss )> DO * ) ; '>
- / ?? A: '" A' ?? C< C, C' !! , % _ > ?
'< E' ?? E: U0 I' ?? L< L' '!: Nb At ' = "
'( a b c d e f g h i s' n< d/ y' r< ??
DG j k l m n o p q r l/ n' s< ', ' ; Cu
a; '? s t u v w x y z S' N< D/ Y' R< ??
.M A; z. ?? Z. SE PI z< z' Z< Z' N' S< ': '' *X
(! A B C D E F G H I -- o> o: r' o' o"
!) J K L M N O P Q R E< u" u: t< u' e<
// -: S T U V W X Y Z d< O> O: R' O' O"
0 1 2 3 4 5 6 7 8 9 D< U" U: T< U' DT
```

```
&charset IBM871
```

```
&rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990
```

```
&alias CP871
```

```
&alias ebcdic-cp-is
```

```
&code 0
```

```
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
SP NS a> a: a! a' a? aa c, n? th . < ( + !
& e' e> e: e! i' i> i: i! ss AE DO * ) ; O:
- / A> A: A! A' A? AA C, N? BB , % _ > ?
o/ E' E> E: E! I' I> I: I! d- : Nb D- ' = "
O/ a b c d e f g h i << >> '! y' (! +-
DG j k l m n o p q r -a -o !) ', )> Cu
My o: s t u v w x y z !I ?I At Y' <( Rg
Ct Pd Ye .M Co SE PI 14 12 34 NO !! '- ': // *X
TH A B C D E F G H I -- o> '? o! o' o?
ae J K L M N O P Q R 1S u> u: u! u' y:
'' -: S T U V W X Y Z 2S O> '> O! O' O?
0 1 2 3 4 5 6 7 8 9 3S U> U: U! U' DT
```

```
&charset IBM880
```

```
&rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990
```

```

&alias cp880
&alias EBCDIC-Cyrillic
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
SP ?? d% g% io ?? ds ii yi j% <( . < ( + !
& lj nj ts kj ?? dz =" N0 D% )> DO * ) ; '>
- / G% IO ?? DS II YI J% LJ BB , % _ > ?
NJ Ts KJ ?? ?? DZ ju a= b= ?? : Nb At ' = "
c= a b c d e f g h i d= e= f= g= h= i=
j= j k l m n o p q r k= l= m= n= o= p=
ja ?? s t u v w x y z r= s= t= u= z% v=
%' y= z= s% je sc c% =' JU A= B= C= D= E= F= G=
?? A B C D E F G H I H= I= J= K= L= M=
?? J K L M N O P Q R N= O= P= JA R= S=
// Cu S T U V W X Y Z T= U= Z% V= %" Y=
0 1 2 3 4 5 6 7 8 9 Z= S% JE Sc C% DT

```

```

&charset IBM891
&rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990
&alias cp891
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
'! a b c d e f g h i j k l m n o p q r s t u v w x y z (! !! !) '? DT
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??
?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ?? ??

```

```

&charset IBM903
&rem source: IBM NLS RM Vol2 SE09-8002-01, March 1990
&alias cp903
&code 0
NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
SP ! " Nb DO % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ?
At A B C D E F G H I J K L M N O P Q R S T U V W X Y Z <( // )> '> _
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g( J K L M N O P Q R '! u> // u! u' ??
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-   /   tk, g+  g+, ??  ??  hk  hk, x+  '!  ,  %  _  >  ?
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x+, a  b  c  d  e  f  g  h  i  d+  ??  dk  r+  ??  z+
??  j  k  l  m  n  o  p  q  r  s+  s+, sn  sn, c+  c+,
dd  '?  s  t  u  v  w  x  y  z  dd, tj  zH  e+  e+. e+,
e+; i+  i+. i+, i+; f+  f+, q+  q+, k+  k+, !!  ??  ??  l+  l+.
(!  A  B  C  D  E  F  G  H  I  --  ??  m+  m+, ??  n+
!)  J  K  L  M  N  O  P  Q  R  n+, ??  w+  ??  ??  ??
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&rem source: IBM 3270 Char Set Ref Ch 10, GA27-2837-9, April 1987

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NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI
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NU SH SX EX ET EQ AK BL BS HT LF VT FF CR SO SI

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DL D1 D2 D3 D4 NK SY EB CN EM SB EC FS GS RS US
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0 1 2 3 4 5 6 7 8 9 ?? ?? ?? ?? ?? ?? DT

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## ACKNOWLEDGEMENTS

This memo has been produced with a grant from Nordisk Industrifond project number 91030. I thank all of the people in the IETF 822ext WG for their constructive discussion and remarks on this memo. People from many other circles have also commented on the text and the tables. The following is a list of persons that I remember bringing forward suggestions that made me change the specifications - my aging memory may have forgot even significant contributions, and I apologize for that.

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Cuong Bui	Dan Oscarsson
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Erik van der Poel	Geir Petersen
Greg Vaudreuil	Harald Tveit Alvestrand
Hugh Tucker	Isai Scheinberg
James Do	Jan-Michael Rynning
Johan van Wingen	John C. Klensin
John F. Chandler	Johnny Erikson
Justin Bur	Keith Moore
Kevin Donnelly	Kim F. Storm
Marius Olofson	Masahiro Sekiguchi
Maurizio Sichera	Michael Patton
Nandor Horvath	Nathaniel Borenstein
Ned Freed	Neil Katin
Olle Jaernefors	Patrick Faelststroem
Paul Pomes	Peter Svanberg
Philippe-Andre' Prindeville	Randall Atkinson
Steve Hardcastle-Kille	

## REFERENCES

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