# Compound Text Encoding

X Consortium Standard

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!

" #

$

"%& '(")*+& , +'-,.&. /* , 0 ),"%'1" )*++*2"3 '( *23
4,2. &5 +& '+ ,6 7,&. ,2871.,29 :1" 2'" 7,6,"&. "' "%&
)*++*2",& '( 6&+8%*2"*:,7,"3 (,"2& ('+ * *+",817*+
1+ ' & *2. 2'2,2(+,29&6&2'$ ,2 2' &-&2" %*77 "%& 5
8'2 '+",16 :& 7,*:7& ('+ *23 87*,6 .*6*9& '+ '"%&+ 7,*:,7,
"3 )%&"%&+ ,2 *2 *8",'2 '( 8'2"+*8" '"+" '+ '"%&+), &
*+, ,29 (+'6 '1" '( '+ ,2 8'22&8",'2 ),"% "%& '(")*+& '+
"%& 1 & '+ '"%&+ .&*7,29 ,2 "%& '(")*+&$

&; 5 8

#

< 5 8 $

5 ) = " ' 9 $

# Table of Contents

'# # $$$$

# Overview

8 ";
; $ " , '
$ 8 "; ; !

,8886 @ $ $
,8886 @ $ $ 5 5 , $

8 "; ;
$ , ; A
# 8 ";
# 8 "; #
; $

# Values

" 8'6 '12.B"&5" $ ) ; #
,8886
# 8'6 '12.B"&5" $

' #
$ " # C >D E $ ( ; F? F> #
GG$

( # !

| | | |
|---|---|---|
| 8F | FF FF | F> >H |
| 97 | F? FF | FI >H |
| 8> | FJ FF | FK >H |
| 9+ | >F FF | >H >H |

8F 8> 97 9+
$ ' 8F 8>
97 9+ 97 9+
@ $ * FF FF >H >H
; ; $

L( , ' ?F?? J #
9F 97 9> 9+$M

# Control Characters

, 8F # !

| | | |
|---|---|---|
| FF FK | %" | %'+,N'2"*7 "*:17*",'2 |
| FF >F | 27 | 2&) 7,2& |
| F> >> | & 8 | & 8* & |

, 8> # !

| | | |
|---|---|---|
| FK >> | 8 , | 8'2"+'7 &O1&28& ,2"+'.18&+ |

L" I 8 , F> >> FH >> 8 "; $M

2 A 8 "; 8F 8>
$

* < FF FK$
8 "; ;
$

L, < "+,29
,8886$M

* FF >F$

L2 FF >F 7,2&(&&. 2&)7,2&$ "
2&) 7,2& &$>$G , ' DP?K$
1 # FJ FH 2&7 2&5" 7,2&
"+,29 ,8886$M

" 8F 8> # F> >> FK >>
A $

# Standard Character Set Encodings

" 97 9+ 8 "; #
, ' JJHK > 7 > $ * "+,29
,8886 8'6 '12.B"&5"$

L" , ' ?F?? A ! F> >> F? FF
FP FG 9' 9> J # $ . # = $ F> >> F? FF
FP FI , J # 8> J $ F> >> F? FF FP FK 9
KP KD$ F> >> F? FF FP >> J $ F> >> F? FJ
FP F? . * 8,, 9F$ F> >> F? >G FP F> . , '
7 > 9>$ M

" # 97
A !

F> >> F? FJ Q,R ( KP
F> >> F? FP F? FJQ,R ( $KP^2$

" # 9+
A !

F> >> F? FK Q,R ( KP
F> >> F? >G Q,R ( KD
F> >> F? FP F? FK Q,R ( $KP^2$

" ( A # (
FP FF FI >P$ " Q,R <
F? FF F? >H
F? F> F? FG$ "
Q,R ( A $

L( # FG FF FG >H
8 "; $M

( 97 F? FF *8& FI >H .&7&"&
# $ ( KP 9+ >F FF >H >H
# $

L" , ' ?F??$M

* KP [2] 2 2 S > $ " # 2
# # (!

FP FH ?
FD G
FI P

, KP [2] # F? FF FI >H 97 >F FF >H >H
9+ # $

L" , ' ?F??$M

' 97 9+ ;
A ;
97 9+ $ 97 9+
# $

2 9+
FJ FF
>F FF >H >H$

L8 A # D$G$>G
, ' ?F?? 8 "; $ + #
# ; 8 "; $ "
# # $M

# Approved Standard Encodings

" # 8 "; $
2 # , @ #
, #
$

P F? KP I * 8,, *2 , 5G$P >KDJ 7 , ' JJHK
FP FK KP + T, 5F?F> >KID >KJP J : *
4 = 8
FP >F KP 7 T, 5F?F> >KID >KJP J : *
4 = 8
FP F> KD + , ' JJHK > 7 2 $ >
FP F? KD + , ' JJHK ? 7 2 $ ?
FP FG KD + , ' JJHK G 7 2 $ G
FP FP KD + , ' JJHK P 7 2 $ P

| | | | |
|---|---|---|---|
| FP FD | KD | + | , ' JJHK I 7 9 = |
| FP FI | KD | + | , ' JJHK D 7 * |
| FP FJ | KD | + | , ' JJHK J 7 % |
| FP >? | KD | + | , ' JJHK H 7 8 |
| FP >G | KD | + | , ' JJHK K 7 2 $ H |
| FP F> | KP? | 9:?G>? >KJF 8 | +8 % < |
| FP F? | KP? | T, 5F?FJ >KJG T | 9 8 |
| FP FG | KP? | 4 8HDF> >KJI 4 | 9 8 |

" 7 $$$ 97$ "
+ $$$ 9+$ '
97 9+$

# Non-Standard Character Set Encodings

8 #
; $ * ;
A !

F> >> ? FH F? >H FG FF 6 #
7

F> >> ? FH F? >H FG F> 6 >
7

F> >> ? FH F? >H FG F? 6 ?
7

F> >> ? FH F? >H FG FG 6 G
7

F> >> ? FH F? >H FG FP 6 P
7

L" , ' ?F?? # ( $M

" 6 7 >P # #
$ " 6
>?J C >?J E 7 >?J $ " 6 7 $
"

; $ "
; FF F? "5 "*+" '( "&5" $ 2
6 7 $

L" # # < 8 ";
217 # 8
$ " < #
; ; # < $M

" 5 8 #
8 + &
5 7 ( . $ "

, ' JJHK > 7 > A = FG >H =
F? >F F? >G 5 7 (
. $

&;
97 9+ # $ ( ;
; , ' JJHK $

, ; @ ;
8F 8> FF FF
# $

L, ' 8 "; @ ;
?F?? $M

# Directionality

, < ;
A !

FK >> FG F> FH >G ;
FK >> FG F? FH >G ;
FK >> FH >G

L" . "*+" .,+&8"&. "+,29 . :
* , ' DP?K$M

. $ 7 = $ &
A =
A # =$ " =
8 "; $ ) =
; $

. A ; 97 9+ ;
$ , 97 9+ ;
A $

2 97 9+ @
97 9+
97 9+ $

@ ;
; $ % #
8 "; # ; #
$ " A
A 8 ";
# =
$

# Resources

" 8 ";
* 8,, 7 > U FH >? UU

FF >F U <
UFFF $ , =
8 "; @
8 "; $

# Font Names

" 8
5 7 ( . !

| | | |
|---|---|---|
| , 'JJHK > | , 'JJHK > | 7 2 $ > |
| , 'JJHK ? | , 'JJHK ? | 7 2 $ ? |
| , 'JJHK G | , 'JJHK G | 7 2 $ G |
| , 'JJHK P | , 'JJHK P | 7 2 $ P |
| , 'JJHK H | , ' JJHK H | 7 8 |
| , 'JJHK D | , ' JJHK D | 7 * |
| , 'JJHK I | , 'JJHK I | 7 9 = |
| , 'JJHK J | , 'JJHK J | 7 % |
| , 'JJHK K | , 'JJHK K | 7 2 $ H |
| T, 5F?F>$>KID F | T, 5F?F> >KID >KJP | J * 4 = 8 |
| 9:?G>?$>KJF F | 9:?G>? >KJF 97 | 8 +8 % < |
| T, 5F?FJ$>KJG F | T, 5F?FJ >KJG 97 | T 9 8 |
| 4 8HDF>$>KJI F | 4 8HDF> >KJI 97 | 4 9 8 |

# Extensions

" A
; $ % # 8
"; ;
?F?? DP?K ; $

" # A ;
; !

F> >> Q,R (

( , F? FF F? >H (
FG FF FI >P$

FK >> Q R Q,R (

( FG FF FG >H ,
F? FF F? >H ( FP FF FI >P$

, 8F 8>
$

( = ;
; !

F> >> F? FH F? >H ( 6 7

( ( FG FH G >H$ 6 7 ;
$
6 7$ " # #
; $

, ;
;
A !

F> >> F? FG - FG FF ; '4
F> >> F? FG - FG F> ; '4

, - F? FF F? >H #
$ " # A
# # $
" A ;
A @ $ "
A ;
A @ $ ,
8 "; A
$

# Errors

, 8 "; $ $
A
; # ;
# A $