

あ“あ・い()あ Ryumin-Light
あ“あ・い← IPA明朝 (ipam)
あ“あ・い← KozMinPr6N-Regular
あ“あ・い← IPA P明朝 (ipamp)
あ 123 \relax

ここからは、欧文文字フォントは IPA EX ゴシック

文字範囲の代入/取得テスト

「ô」は9番の文字範囲なので、和文扱いのはず
iso8859-1 和文扱い:0 § ¶ ° £ ¥ ô
iso8859-1 欧文扱い:1 § ¶ ° £ ¥ ô
標準:1 § ¶ ° £ ¥ ô

文字範囲の状況取得

010

文字コード 文字範囲

-1689-1217

あ あ1 ← CFFFF 欧文扱いあ あ0 ← CFFFF 和文扱い

Ticket #25121

あいうえお か き く け こ さ し す せ そ a
あいうえお か き く け こ さ し す せ そ
あいうえお さ し す せ そ

以下はJFM グルー挿入検証

JA-JA (penなし)

	D whatsit 44 userid:4 (direction) (node list) dir: 4
	F glue 0 9.4pt plus 2.3pt minus 4.5pt
	D glyph 256 あ 69 (8.8+1.2)x10.0
あ	6 kern 1 20.0pt (from JFM: priority 0)
ア	D glyph 256 ア 69 (8.8+1.2)x10.0
<hr/>	
	D whatsit 44 userid:4 (direction) (node list) dir: 4
	F glue 0 9.4pt plus 2.3pt minus 4.5pt
	D glyph 256 あ 69 (8.8+1.2)x10.0
あい	9 glue 0 0.0pt plus 0.4pt minus 0.4pt (kanjiskip)
	D glyph 256 い 69 (8.8+1.2)x10.0
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	D whatsit 44 userid:4 (direction) (node list) dir: 4
	F glue 0 9.4pt plus 2.3pt minus 4.5pt
	D glyph 256 あ 69 (8.8+1.2)x10.0
あ	6 glue 0 14.1pt (from JFM: priority 0)
ウ	D glyph 256 ウ 69 (8.8+1.2)x10.0
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	D whatsit 44 userid:4 (direction) (node list) dir: 4
	D glyph 256 い 69 (8.8+1.2)x10.0
い	6 kern 1 20.0pt (from JFM: priority 0)
ア	D glyph 256 ア 69 (8.8+1.2)x10.0
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	D whatsit 44 userid:4 (direction) (node list) dir: 4
	D glyph 256 い 69 (8.8+1.2)x10.0
いい	9 glue 0 0.0pt plus 0.4pt minus 0.4pt (kanjiskip)
	D glyph 256 い 69 (8.8+1.2)x10.0
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	D whatsit 44 userid:4 (direction) (node list) dir: 4
	D glyph 256 い 69 (8.8+1.2)x10.0
い	6 glue 0 14.1pt (from JFM: priority 0)
ウ	D glyph 256 ウ 69 (8.8+1.2)x10.0

JA-EN (penなし)

	D whatsit 44 userid:4 (direction) (node list) dir: 4
	F glue 0 9.4pt plus 2.3pt minus 4.5pt
	D glyph 256 あ 69 (8.8+1.2)x10.0
あ	6 kern 1 12.1pt (from JFM: priority 0)
a	D glyph 256 a 68 (5.2002+0.03906)x5.49805
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	D whatsit 44 userid:4 (direction) (node list) dir: 4
	D glyph 256 い 69 (8.8+1.2)x10.0
い	B glue 0 2.40553pt plus 1.0pt minus 1.0pt (xkanjiskip)
い	D glyph 256 a 68 (5.2002+0.03906)x5.49805
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	D whatsit 44 userid:4 (direction) (node list) dir: 4
	D glyph 256 う 69 (8.8+1.2)x10.0
う	6 glue 0 17.3pt (from JFM: priority 0)
a	D glyph 256 a 68 (5.2002+0.03906)x5.49805
<hr/>	
	D whatsit 44 userid:4 (direction) (node list) dir: 4
	D glyph 256 え 69 (8.8+1.2)x10.0
え	6 kern 1 17.3pt (from JFM: priority 0)
a	D glyph 256 a 68 (5.2002+0.03906)x5.49805
<hr/>	
	D whatsit 44 userid:4 (direction) (node list) dir: 4
	D glyph 256 お 69 (8.8+1.2)x10.0
お	B glue 0 2.40553pt plus 1.0pt minus 1.0pt (xkanjiskip)
a	D glyph 256 a 68 (5.2002+0.03906)x5.49805

EN-JA (penなし)

	D whatsit 44 userid:4 (direction) (node list) dir: 4
	D glyph 256 a 68 (5.2002+0.03906)x5.49805
a	B glue 0 2.40553pt plus 1.0pt minus 1.0pt (xkanjiskip)
あ	D glyph 256 あ 69 (8.8+1.2)x10.0
<hr/>	
	D whatsit 44 userid:4 (direction) (node list) dir: 4
	D glyph 256 a 68 (5.2002+0.03906)x5.49805
a	6 glue 0 14.1pt (from JFM: priority 0)
い	D glyph 256 い 69 (8.8+1.2)x10.0
<hr/>	
	D whatsit 44 userid:4 (direction) (node list) dir: 4
	D glyph 256 a 68 (5.2002+0.03906)x5.49805
a	6 kern 1 20.0pt (from JFM: priority 0)
う	D glyph 256 う 69 (8.8+1.2)x10.0

JA-明 kern (penなし)

	D whatsit 44 userid:4 (direction) (node list) dir: 4
	F glue 0 9.4pt plus 2.3pt minus 4.5pt
	D glyph 256 あ 69 (8.8+1.2)x10.0
あ	6 kern 1 12.1pt (from JFM: priority 0)
	D kern 1 3.0pt
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	D whatsit 44 userid:4 (direction) (node list) dir: 4
	D glyph 256 い 69 (8.8+1.2)x10.0
い	D kern 1 3.0pt
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	D whatsit 44 userid:4 (direction) (node list) dir: 4
	D glyph 256 う 69 (8.8+1.2)x10.0
う	3 penalty 0 10000 (for kinsoku)
	6 glue 0 17.3pt (from JFM: priority 0)
	D kern 1 3.0pt

明 kern-JA (pen なし)

	D whatsit 44 userid:4 (direction) (node list) dir: 4
	D kern 1 3.0pt
あ	D glyph 256 あ 69 (8.8+1.2)x10.0

	D whatsit 44 userid:4 (direction) (node list) dir: 4
	D kern 1 3.0pt
	3 penalty 0 10000 (for kinsoku)
	6 glue 0 14.1pt (from JFM: priority 0)
い	D glyph 256 い 69 (8.8+1.2)x10.0

	D whatsit 44 userid:4 (direction) (node list) dir: 4
	D kern 1 3.0pt
	6 kern 1 20.0pt (from JFM: priority 0)
う	D glyph 256 う 69 (8.8+1.2)x10.0

JA-hbox (pen なし)

	D whatsit 44 userid:4 (direction) (node list) dir: 4
	F glue 0 9.4pt plus 2.3pt minus 4.5pt
	D glyph 256 あ 69 (8.8+1.2)x10.0
	3 penalty 0 0 (for kinsoku)
	6 kern 1 12.1pt (from JFM: priority 0)
	D hlist 2 (0.0+0.0)x0.0, dir=0
あ	.D whatsit 44 userid:4 (direction) (node list) dir: 4

	D whatsit 44 userid:4 (direction) (node list) dir: 4
	D glyph 256 い 69 (8.8+1.2)x10.0
	3 penalty 0 0 (for kinsoku)
	D hlist 2 (0.0+0.0)x0.0, dir=0
い	.D whatsit 44 userid:4 (direction) (node list) dir: 4

	D whatsit 44 userid:4 (direction) (node list) dir: 4
	D glyph 256 う 69 (8.8+1.2)x10.0
	6 glue 0 17.3pt (from JFM: priority 0)
	D hlist 2 (0.0+0.0)x0.0, dir=0
う	.D whatsit 44 userid:4 (direction) (node list) dir: 4

	D whatsit 44 userid:4 (direction) (node list) dir: 4
	D glyph 256 え 69 (8.8+1.2)x10.0
	3 penalty 0 0 (for kinsoku)
	6 kern 1 17.3pt (from JFM: priority 0)
	D hlist 2 (0.0+0.0)x0.0, dir=0
え	.D whatsit 44 userid:4 (direction) (node list) dir: 4

	D whatsit 44 userid:4 (direction) (node list) dir: 4
	F glue 0 9.4pt plus 2.3pt minus 4.5pt
	D glyph 256 あ 69 (8.8+1.2)x10.0
	6 kern 1 12.1pt (from JFM: priority 0)
	D hlist 2 (8.8+1.2)x10.0, dir=0
あ ア	.D whatsit 44 userid:4 (direction) (node list) dir: 4
	.D glyph 256 ア 69 (8.8+1.2)x10.0

	D whatsit 44 userid:4 (direction) (node list) dir: 4
	F glue 0 9.4pt plus 2.3pt minus 4.5pt
	D glyph 256 あ 69 (8.8+1.2)x10.0
	6 kern 1 12.1pt (from JFM: priority 0)
	D hlist 2 (5.2002+0.03906)x5.49805, dir=0
あ a	.D whatsit 44 userid:4 (direction) (node list) dir: 4
	.D glyph 256 a 68 (5.2002+0.03906)x5.49805

	D whatsit 44 userid:4 (direction) (node list) dir: 4
	D glyph 256 い 69 (8.8+1.2)x10.0
	B glue 0 2.40553pt plus 1.0pt minus 1.0pt (xkanjiskip)
	D hlist 2 (5.2002+0.03906)x5.49805, dir=0
い a	.D whatsit 44 userid:4 (direction) (node list) dir: 4
	.D glyph 256 a 68 (5.2002+0.03906)x5.49805

hbox-JA (pen なし)

	D whatsit 44 userid:4 (direction) (node list) dir: 4
	D hlist 2 (0.0+0.0)x0.0, dir=0
	.D whatsit 44 userid:4 (direction) (node list) dir: 4
	3 penalty 0 0 (for kinsoku)
あ	D glyph 256 あ 69 (8.8+1.2)x10.0

	D whatsit 44 userid:4 (direction) (node list) dir: 4
	D hlist 2 (0.0+0.0)x0.0, dir=0
	.D whatsit 44 userid:4 (direction) (node list) dir: 4
	6 glue 0 14.1pt (from JFM: priority 0)
い	D glyph 256 い 69 (8.8+1.2)x10.0

	D whatsit 44 userid:4 (direction) (node list) dir: 4
	D hlist 2 (0.0+0.0)x0.0, dir=0
	.D whatsit 44 userid:4 (direction) (node list) dir: 4
	3 penalty 0 0 (for kinsoku)
	6 kern 1 20.0pt (from JFM: priority 0)
う	D glyph 256 う 69 (8.8+1.2)x10.0

JA-JA (pen あり)

	D whatsit 44 userid:4 (direction) (node list) dir: 4 F glue 0 9.4pt plus 2.3pt minus 4.5pt D glyph 256 あ 69 (8.8+1.2)x10.0 6 kern 1 20.0pt (from JFM: priority 0) D glyph 256 ア 69 (8.8+1.2)x10.0
あ ア	----- D whatsit 44 userid:4 (direction) (node list) dir: 4 F glue 0 9.4pt plus 2.3pt minus 4.5pt D glyph 256 あ 69 (8.8+1.2)x10.0 3 penalty 0 123 (for kinsoku) 9 glue 0 0.0pt plus 0.4pt minus 0.4pt (kanjiskip) D glyph 256 イ 69 (8.8+1.2)x10.0
あい	----- D whatsit 44 userid:4 (direction) (node list) dir: 4 F glue 0 9.4pt plus 2.3pt minus 4.5pt D glyph 256 あ 69 (8.8+1.2)x10.0 3 penalty 0 123 (for kinsoku) 6 glue 0 14.1pt (from JFM: priority 0) D glyph 256 ウ 69 (8.8+1.2)x10.0
あ ウ	----- D whatsit 44 userid:4 (direction) (node list) dir: 4 D glyph 256 い 69 (8.8+1.2)x10.0 6 kern 1 20.0pt (from JFM: priority 0) D glyph 256 ア 69 (8.8+1.2)x10.0
い ア	----- D whatsit 44 userid:4 (direction) (node list) dir: 4 D glyph 256 い 69 (8.8+1.2)x10.0 3 penalty 0 123 (for kinsoku) 9 glue 0 0.0pt plus 0.4pt minus 0.4pt (kanjiskip) D glyph 256 イ 69 (8.8+1.2)x10.0
いイ	----- D whatsit 44 userid:4 (direction) (node list) dir: 4 D glyph 256 い 69 (8.8+1.2)x10.0 3 penalty 0 123 (for kinsoku) 6 glue 0 14.1pt (from JFM: priority 0) D glyph 256 ウ 69 (8.8+1.2)x10.0
い ウ	-----

JA-EN (pen あり)

	D whatsit 44 userid:4 (direction) (node list) dir: 4 F glue 0 9.4pt plus 2.3pt minus 4.5pt D glyph 256 あ 69 (8.8+1.2)x10.0 6 kern 1 12.1pt (from JFM: priority 0) D glyph 256 a 68 (5.2002+0.03906)x5.49805
あ a	----- D whatsit 44 userid:4 (direction) (node list) dir: 4 D glyph 256 い 69 (8.8+1.2)x10.0 3 penalty 0 123 (for kinsoku) B glue 0 2.40553pt plus 1.0pt minus 1.0pt (xkanjiskip) D glyph 256 a 68 (5.2002+0.03906)x5.49805
いa	----- D whatsit 44 userid:4 (direction) (node list) dir: 4 D glyph 256 う 69 (8.8+1.2)x10.0 3 penalty 0 123 (for kinsoku) 6 glue 0 17.3pt (from JFM: priority 0) D glyph 256 a 68 (5.2002+0.03906)x5.49805
う a	----- D whatsit 44 userid:4 (direction) (node list) dir: 4 D glyph 256 え 69 (8.8+1.2)x10.0 6 kern 1 17.3pt (from JFM: priority 0) D glyph 256 a 68 (5.2002+0.03906)x5.49805
え a	----- D whatsit 44 userid:4 (direction) (node list) dir: 4 D glyph 256 お 69 (8.8+1.2)x10.0 3 penalty 0 123 (for kinsoku) B glue 0 2.40553pt plus 1.0pt minus 1.0pt (xkanjiskip) D glyph 256 a 68 (5.2002+0.03906)x5.49805
お a	-----

EN-JA (pen あり)

	D whatsit 44 userid:4 (direction) (node list) dir: 4 D glyph 256 a 68 (5.2002+0.03906)x5.49805 3 penalty 0 321 (for kinsoku) B glue 0 2.40553pt plus 1.0pt minus 1.0pt (xkanjiskip) D glyph 256 あ 69 (8.8+1.2)x10.0
a あ	----- D whatsit 44 userid:4 (direction) (node list) dir: 4 D glyph 256 a 68 (5.2002+0.03906)x5.49805 3 penalty 0 892 (for kinsoku) 6 glue 0 14.1pt (from JFM: priority 0) D glyph 256 い 69 (8.8+1.2)x10.0
a い	----- D whatsit 44 userid:4 (direction) (node list) dir: 4 D glyph 256 a 68 (5.2002+0.03906)x5.49805 6 kern 1 20.0pt (from JFM: priority 0) D glyph 256 う 69 (8.8+1.2)x10.0
a う	-----

JA-hbox (pen あり)

	D whatsit 44 userid:4 (direction) (node list) dir: 4 F glue 0 9.4pt plus 2.3pt minus 4.5pt D glyph 256 あ 69 (8.8+1.2)x10.0 3 penalty 0 123 (for kinsoku) 6 kern 1 12.1pt (from JFM: priority 0) D hlist 2 (0.0+0.0)x0.0, dir=0
あ	----- .D whatsit 44 userid:4 (direction) (node list) dir: 4

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D whatsit 44 userid:4 (direction) (node list) dir: 4
D glyph 256 ゐ 69 (8.8+1.2)x10.0
3 penalty 0 123 (for kinsoku)
D hlist 2 (0.0+0.0)x0.0, dir=0
.D whatsit 44 userid:4 (direction) (node list) dir: 4
D whatsit 44 userid:4 (direction) (node list) dir: 4
D glyph 256 う 69 (8.8+1.2)x10.0
3 penalty 0 123 (for kinsoku)
6 glue 0 17.3pt (from JFM: priority 0)
D hlist 2 (0.0+0.0)x0.0, dir=0
.D whatsit 44 userid:4 (direction) (node list) dir: 4
D whatsit 44 userid:4 (direction) (node list) dir: 4
D glyph 256 え 69 (8.8+1.2)x10.0
3 penalty 0 123 (for kinsoku)
6 kern 1 17.3pt (from JFM: priority 0)
D hlist 2 (0.0+0.0)x0.0, dir=0
.D whatsit 44 userid:4 (direction) (node list) dir: 4
D whatsit 44 userid:4 (direction) (node list) dir: 4
F glue 0 9.4pt plus 2.3pt minus 4.5pt
D glyph 256 あ 69 (8.8+1.2)x10.0
6 kern 1 12.1pt (from JFM: priority 0)
D hlist 2 (8.8+1.2)x10.0, dir=0
.D whatsit 44 userid:4 (direction) (node list) dir: 4
.D glyph 256 ア 69 (8.8+1.2)x10.0
D whatsit 44 userid:4 (direction) (node list) dir: 4
F glue 0 9.4pt plus 2.3pt minus 4.5pt
D glyph 256 あ 69 (8.8+1.2)x10.0
6 kern 1 12.1pt (from JFM: priority 0)
D hlist 2 (5.2002+0.03906)x5.49805, dir=0
.D whatsit 44 userid:4 (direction) (node list) dir: 4
.D glyph 256 a 68 (5.2002+0.03906)x5.49805
D whatsit 44 userid:4 (direction) (node list) dir: 4
D glyph 256 ゐ 69 (8.8+1.2)x10.0
3 penalty 0 123 (for kinsoku)
B glue 0 2.40553pt plus 1.0pt minus 1.0pt (xkanjiskip)
D hlist 2 (5.2002+0.03906)x5.49805, dir=0
.D whatsit 44 userid:4 (direction) (node list) dir: 4
.D glyph 256 a 68 (5.2002+0.03906)x5.49805
D whatsit 44 userid:4 (direction) (node list) dir: 4
D hlist 2 (8.8+1.2)x10.0, dir=0
.D whatsit 44 userid:4 (direction) (node list) dir: 4
.D glyph 256 ( 69 (8.8+1.2)x10.0
3 penalty 0 571 (for kinsoku)
6 glue 0 14.1pt (from JFM: priority 0)
D glyph 256 ゐ 69 (8.8+1.2)x10.0
3 penalty 0 123 (for kinsoku)
9 glue 0 0.0pt plus 0.4pt minus 0.4pt (kanjiskip)
D hlist 2 (8.8+1.2)x10.0, dir=0
.D whatsit 44 userid:4 (direction) (node list) dir: 4
.D glyph 256 ) 69 (8.8+1.2)x10.0

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hbox-JA (pen あり)

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D whatsit 44 userid:4 (direction) (node list) dir: 4
D hlist 2 (0.0+0.0)x0.0, dir=0
.D whatsit 44 userid:4 (direction) (node list) dir: 4
3 penalty 0 0 (for kinsoku)
D glyph 256 あ 69 (8.8+1.2)x10.0
D whatsit 44 userid:4 (direction) (node list) dir: 4
D hlist 2 (0.0+0.0)x0.0, dir=0
.D whatsit 44 userid:4 (direction) (node list) dir: 4
3 penalty 0 571 (for kinsoku)
6 glue 0 14.1pt (from JFM: priority 0)
D glyph 256 ゐ 69 (8.8+1.2)x10.0
D whatsit 44 userid:4 (direction) (node list) dir: 4
D hlist 2 (0.0+0.0)x0.0, dir=0
.D whatsit 44 userid:4 (direction) (node list) dir: 4
3 penalty 0 0 (for kinsoku)
6 kern 1 20.0pt (from JFM: priority 0)
D glyph 256 う 69 (8.8+1.2)x10.0

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italic correction

f(あ)

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D whatsit 44 userid:4 (direction) (node list) dir: 4
D glyph 256 f 37 (6.94444+1.94444)x3.06665
3 penalty 0 123 (for kinsoku)
6 glue 0 5.0pt minus 5.0pt (from JFM: priority 0)
2 hlist 0 (8.8+1.2)x5.0, dir=0 (packed)
.0 glyph 256 ( 66 (8.32031+0.71777)x5.09766
E kern 1 0.0pt (italic correction)
3 penalty 0 10000 (for kinsoku)
6 glue 0 0.0pt (from JFM: priority 0)
2 hlist 0 (8.8+1.2)x10.0, dir=0 (packed)
.0 glyph 256 あ 66 (8.11035+0.36133)x8.99902

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[x]kanjiskip の挿入

kanjiskip from JFM, autospacing (JA-JA)

	D whatsit 44 userid:4 (direction) (node list) dir: 4 F glue 0 9.4pt plus 2.3pt minus 4.5pt D glyph 256 あ 69 (8.8+1.2)x10.0 9 glue 0 0.0pt plus 0.4pt minus 0.4pt (kanjiskip) D glyph 256 あ 69 (8.8+1.2)x10.0
ああ	----- D whatsit 44 userid:4 (direction) (node list) dir: 4 F glue 0 9.4pt plus 2.3pt minus 4.5pt D glyph 256 あ 69 (8.8+1.2)x10.0 A glue 0 1.0pt plus 0.4pt minus 0.5pt (kanjiskip, JFM specified) D glyph 256 あ 69 (8.8+1.2)x10.0
ああ	----- D whatsit 44 userid:4 (direction) (node list) dir: 4 D glyph 256 は 72 (10.56+1.44)x12.0 A glue 0 1.1pt plus 0.44pt minus 0.55pt (kanjiskip, JFM specified) D glyph 256 あ 69 (8.8+1.2)x10.0
はあ	----- D whatsit 44 userid:4 (direction) (node list) dir: 4 F glue 0 9.4pt plus 2.3pt minus 4.5pt D glyph 256 あ 69 (8.8+1.2)x10.0 9 glue 0 0.0pt plus 0.4pt minus 0.4pt (kanjiskip) D glyph 256 あ 69 (8.8+1.2)x10.0 9 glue 0 0.0pt (kanjiskip) D glyph 256 あ 69 (8.8+1.2)x10.0
あああ	----- D glyph 256 あ 69 (8.8+1.2)x10.0

kanjiskip from JFM/autospacing (JA-EN)

	D whatsit 44 userid:4 (direction) (node list) dir: 4 D glyph 256 ま 69 (8.8+1.2)x10.0 B glue 0 2.40553pt plus 1.0pt minus 1.0pt (xkanjiskip) D glyph 256 x 68 (5.07813+0.0)x4.8877
ま x	----- D whatsit 44 userid:4 (direction) (node list) dir: 4 D glyph 256 ま 69 (8.8+1.2)x10.0 B glue 0 2.40553pt plus 1.0pt minus 1.0pt (xkanjiskip) D glyph 256 x 68 (5.07813+0.0)x4.8877
ま x	----- D whatsit 44 userid:4 (direction) (node list) dir: 4 D glyph 256 ま 69 (8.8+1.2)x10.0 B glue 0 0.0pt (xkanjiskip) D glyph 256 x 68 (5.07813+0.0)x4.8877
ま x	----- D whatsit 44 userid:4 (direction) (node list) dir: 4 D glyph 256 ま 69 (8.8+1.2)x10.0 C glue 0 3.1pt plus 0.45pt minus 0.57pt (xkanjiskip, JFM specified) D glyph 256 x 68 (5.07813+0.0)x4.8877
ま x	----- D whatsit 44 userid:4 (direction) (node list) dir: 4 D glyph 256 ま 69 (8.8+1.2)x10.0 B glue 0 0.0pt (xkanjiskip) D glyph 256 x 68 (5.07813+0.0)x4.8877
ま x	----- D whatsit 44 userid:4 (direction) (node list) dir: 4 D glyph 256 ま 69 (8.8+1.2)x10.0 B glue 0 0.0pt (xkanjiskip) D glyph 256 x 68 (5.07813+0.0)x4.8877

xkanjiskip from JFM/autospacing (EN-JA)

	D whatsit 44 userid:4 (direction) (node list) dir: 4 D glyph 256 x 68 (5.07813+0.0)x4.8877 B glue 0 2.40553pt plus 1.0pt minus 1.0pt (xkanjiskip) D glyph 256 ま 69 (8.8+1.2)x10.0
x ま	----- D whatsit 44 userid:4 (direction) (node list) dir: 4 D glyph 256 x 68 (5.07813+0.0)x4.8877 B glue 0 2.40553pt plus 1.0pt minus 1.0pt (xkanjiskip) D glyph 256 ま 69 (8.8+1.2)x10.0
x ま	----- D whatsit 44 userid:4 (direction) (node list) dir: 4 D glyph 256 x 68 (5.07813+0.0)x4.8877 B glue 0 0.0pt (xkanjiskip) D glyph 256 ま 69 (8.8+1.2)x10.0
x ま	----- D whatsit 44 userid:4 (direction) (node list) dir: 4 D glyph 256 x 68 (5.07813+0.0)x4.8877 C glue 0 3.1pt plus 0.45pt minus 0.57pt (xkanjiskip, JFM specified) D glyph 256 ま 69 (8.8+1.2)x10.0
x ま	----- D whatsit 44 userid:4 (direction) (node list) dir: 4 D glyph 256 x 68 (5.07813+0.0)x4.8877 B glue 0 0.0pt (xkanjiskip) D glyph 256 ま 69 (8.8+1.2)x10.0
x ま	----- D whatsit 44 userid:4 (direction) (node list) dir: 4 D glyph 256 x 68 (5.07813+0.0)x4.8877 B glue 0 0.0pt (xkanjiskip) D glyph 256 ま 69 (8.8+1.2)x10.0 9 glue 0 0.0pt plus 0.4pt minus 0.4pt (kanjiskip) D glyph 256 お 69 (8.8+1.2)x10.0 B glue 0 0.0pt (xkanjiskip) D glyph 256 x 68 (5.07813+0.0)x4.8877
xまおx	----- D glyph 256 x 68 (5.07813+0.0)x4.8877

more than one penalty

D whatsit 44 userid:4 (direction) (node list) dir: 4
D glyph 256 ㊦ 69 (8.8+1.2)x10.0
D penalty 0 1701
D penalty 0 1701
D penalty 0 1701
9 glue 0 0.0pt plus 0.4pt minus 0.4pt (kanjiskip)
D glyph 256 ㊧ 69 (8.8+1.2)x10.0

D whatsit 44 userid:4 (direction) (node list) dir: 4
D glyph 256 ㊦ 69 (8.8+1.2)x10.0
D penalty 0 1701
D penalty 0 1701
D penalty 0 1701
9 glue 0 0.0pt plus 0.4pt minus 0.4pt (kanjiskip)
D glyph 256 ㊦ 69 (8.8+1.2)x10.0

D whatsit 44 userid:4 (direction) (node list) dir: 4
F glue 0 9.4pt plus 2.3pt minus 4.5pt
D glyph 256 ㊦ 69 (8.8+1.2)x10.0
D penalty 0 1701
D penalty 0 1701
D penalty 0 1701
9 glue 0 0.0pt plus 0.4pt minus 0.4pt (kanjiskip)
D glyph 256 ㊧ 69 (8.8+1.2)x10.0

D whatsit 44 userid:4 (direction) (node list) dir: 4
F glue 0 9.4pt plus 2.3pt minus 4.5pt
D glyph 256 ㊦ 69 (8.8+1.2)x10.0
D penalty 0 1701
D penalty 0 1701
D penalty 0 1701
9 glue 0 0.0pt plus 0.4pt minus 0.4pt (kanjiskip)
D glyph 256 ㊦ 69 (8.8+1.2)x10.0

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その他: italic correction and accents

D whatsit 44 userid:4 (direction) (node list) dir: 4
2 hlist 0 (8.8+1.2)x10.0, dir=0 (packed)
.O glyph 256 ㊦ 66 (8.11035+0.36133)x8.99902
E kern 1 0.0pt (italic correction)
B glue 0 2.40553pt plus 1.0pt minus 1.0pt (xkanjiskip)
D glyph 256 j 1 (6.67859+1.94444)x3.05557

D whatsit 44 userid:4 (direction) (node list) dir: 4
2 hlist 0 (8.8+1.2)x5.0, dir=0 (packed)
.O glyph 256) 66 (8.32031+0.71777)x5.09766
E kern 1 0.0pt (italic correction)
6 glue 0 5.0pt minus 5.0pt (from JFM: priority 0)
D glyph 256 j 1 (6.67859+1.94444)x3.05557

D whatsit 44 userid:4 (direction) (node list) dir: 4
D glyph 256 ㊦ 69 (8.8+1.2)x10.0
B glue 0 2.40553pt plus 1.0pt minus 1.0pt (xkanjiskip)
D kern 2 1.25pt (for accent)
D hlist 0 (6.28473+0.0)x5.00002, dir=0, shifted -2.52777
.O glyph 0 ~ 1 (6.28473+0.0)x5.00002
D kern 2 -6.25002pt (for accent)
D glyph 256 A 1 (6.83331+0.0)x7.50002
3 penalty 0 10000 (for kinsoku)
B glue 0 0.0pt (xkanjiskip)
D glyph 256) 69 (8.8+1.2)x10.0

あ j

) j

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その他: box boundary

D whatsit 44 userid:4 (direction) (node list) dir: 4
F glue 0 10.3pt
D glyph 256 ㊦ 69 (8.8+1.2)x10.0
9 glue 0 0.0pt plus 0.4pt minus 0.4pt (kanjiskip)
D glyph 256 ㊦ 69 (8.8+1.2)x10.0
9 glue 0 0.0pt plus 0.4pt minus 0.4pt (kanjiskip)
D glyph 256 ㊦ 69 (8.8+1.2)x10.0
F kern 1 8.5pt

D whatsit 44 userid:4 (direction) (node list) dir: 4
D glyph 256 a 68 (5.2002+0.03906)x5.49805
B glue 0 2.40553pt plus 1.0pt minus 1.0pt (xkanjiskip)
D glyph 512 ㊦ 69 (8.8+1.2)x10.0
9 glue 0 0.0pt plus 0.4pt minus 0.4pt (kanjiskip)
D glyph 512 ㊦ 69 (8.8+1.2)x10.0
9 glue 0 0.0pt plus 0.4pt minus 0.4pt (kanjiskip)
D glyph 512 ㊦ 69 (8.8+1.2)x10.0
B glue 0 2.40553pt plus 1.0pt minus 1.0pt (xkanjiskip)
D glyph 256 a 68 (5.2002+0.03906)x5.49805

D whatsit 44 userid:4 (direction) (node list) dir: 4
D glyph 256 a 68 (5.2002+0.03906)x5.49805
D hlist 2 (8.8+1.2)x28.8, dir=0
.D whatsit 44 userid:4 (direction) (node list) dir: 4
.F glue 0 10.3pt
.D glyph 256 ㊦ 69 (8.8+1.2)x10.0
.F kern 1 8.5pt
D glyph 256 a 68 (5.2002+0.03906)x5.49805

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D whatsit 44 userid:4 (direction) (node list) dir: 4
D glyph 256 き 69 (8.8+1.2)x10.0
3 penalty 0 0 (for kinsoku)
D hlist 2 (8.8+1.2)x28.8, dir=0
.D whatsit 44 userid:4 (direction) (node list) dir: 4
.F glue 0 10.3pt
.D glyph 256 か 69 (8.8+1.2)x10.0
.F kern 1 8.5pt
3 penalty 0 0 (for kinsoku)
D glyph 256 き 69 (8.8+1.2)x10.0
9 glue 0 0.0pt plus 0.4pt minus 0.4pt (kanjiskip)
D hlist 2 (8.8+1.2)x10.0, dir=0
.D whatsit 44 userid:4 (direction) (node list) dir: 4
.D glyph 256 き 69 (8.8+1.2)x10.0
9 glue 0 0.0pt plus 0.4pt minus 0.4pt (kanjiskip)
D glyph 256 き 69 (8.8+1.2)x10.0
-----
D whatsit 44 userid:4 (direction) (node list) dir: 4
2 hlist 0 (8.8+1.2)x10.0, dir=0 (packed)
.0 glyph 256 あ 66 (8.11035+0.36133)x8.99902
3 penalty 0 1000 (for kinsoku)
9 glue 0 0.0pt plus 0.4pt minus 0.4pt (kanjiskip)
D hlist 2 (8.8+1.2)x5.0, dir=0
.D whatsit 44 userid:4 (direction) (node list) dir: 4
.2 hlist 0 (8.8+1.2)x5.0, dir=0 (packed)
..0 glyph 256 ( 66 (8.32031+0.71777)x5.09766
3 penalty 0 1000 (for kinsoku)
9 glue 0 0.0pt plus 0.4pt minus 0.4pt (kanjiskip)
2 hlist 0 (8.8+1.2)x10.0, dir=0 (packed)
.0 glyph 256 あ 66 (8.11035+0.36133)x8.99902
3 penalty 0 1000 (for kinsoku)
6 glue 0 5.0pt minus 5.0pt (from JFM: priority 0)
2 hlist 0 (8.8+1.2)x5.0, dir=0 (packed)
.0 glyph 256 ( 66 (8.32031+0.71777)x5.09766
3 penalty 0 10000 (for kinsoku)
6 glue 0 0.0pt (from JFM: priority 0)
2 hlist 0 (8.8+1.2)x10.0, dir=0 (packed)
.0 glyph 256 あ 66 (8.11035+0.36133)x8.99902
-----
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その他: paragraph, hbox and math boundary

		0 whatsit 44 userid:4 (direction) (node list) dir: 4
		0 whatsit 6 6
		0 hlist 3 (0.0+0.0)x19.2, dir=0
		F glue 0 6.8pt plus 0.2pt minus 0.4pt
		D glyph 256 か 69 (8.8+1.2)x10.0
		3 penalty 0 500 (for kinsoku)
		9 glue 0 0.0pt plus 0.4pt minus 0.4pt (kanjiskip)
		D glyph 256 工 69 (8.8+1.2)x10.0
		D penalty 0 10000
		0 glue 15 30.0pt
		0 glue 9 0.0pt
か	工	-----
		0 whatsit 44 userid:4 (direction) (node list) dir: 4
		0 whatsit 6 6
		F glue 0 10.3pt
		D glyph 256 か 69 (8.8+1.2)x10.0
		3 penalty 0 500 (for kinsoku)
		9 glue 0 0.0pt plus 0.4pt minus 0.4pt (kanjiskip)
		D glyph 256 工 69 (8.8+1.2)x10.0
		D penalty 0 10000
		0 glue 15 30.0pt
		0 glue 9 0.0pt
か	工	-----
		D whatsit 44 userid:4 (direction) (node list) dir: 4
		F glue 0 10.3pt
		D glyph 256 か 69 (8.8+1.2)x10.0
		9 glue 0 0.0pt plus 0.4pt minus 0.4pt (kanjiskip)
		D glyph 256 工 69 (8.8+1.2)x10.0
		F glue 0 7.8pt
か工		-----
		D whatsit 44 userid:4 (direction) (node list) dir: 4
		F glue 0 9.4pt plus 2.3pt minus 4.5pt
		D glyph 256 あ 69 (8.8+1.2)x10.0
		6 glue 0 12.5pt plus 4.3pt minus 8.7pt (from JFM: priority 0)
		D math 0
		D glyph 256 a 7 (4.30554+0.0)x5.28589
		D math 1
		6 glue 0 6.8pt plus 0.2pt minus 0.4pt (from JFM: priority 0)
		D glyph 256 さ 69 (8.8+1.2)x10.0
		B glue 0 2.40553pt plus 1.0pt minus 1.0pt (xkanjiskip)
		D math 0
		D glyph 256 a 7 (4.30554+0.0)x5.28589
		D math 1
		B glue 0 2.40553pt plus 1.0pt minus 1.0pt (xkanjiskip)
		D glyph 256 か 69 (8.8+1.2)x10.0
		F kern 1 8.5pt
あ a さ a か		-----

その他: unhbox の連続

		D whatsit 44 userid:4 (direction) (node list) dir: 4
		2 hlist 0 (8.4675+1.15466)x4.81108, dir=0 (packed)
		.0 glyph 256) 51 (8.4675+1.15466)x9.62216
)a		D glyph 512 a 68 (5.2002+0.03906)x5.49805

		D whatsit 44 userid:4 (direction) (node list) dir: 4
		2 hlist 0 (8.4675+1.15466)x4.81108, dir=0 (packed)
		.0 glyph 256) 51 (8.4675+1.15466)x9.62216
)a		D glyph 512 a 68 (5.2002+0.03906)x5.49805

		D whatsit 44 userid:4 (direction) (node list) dir: 4
		2 hlist 0 (8.4675+1.15466)x4.81108, dir=0 (packed)
		.0 glyph 256 (51 (8.4675+1.15466)x9.62216
		3 penalty 0 10000 (for kinsoku)
		6 glue 0 0.0pt (from JFM: priority 0)
		2 hlist 0 (8.4675+1.15466)x4.81108, dir=0 (packed)
		.0 glyph 256) 51 (8.4675+1.15466)x9.62216
		2 hlist 0 (8.4675+1.15466)x4.81108, dir=0 (packed)
		.0 glyph 256 (51 (8.4675+1.15466)x9.62216
		3 penalty 0 10000 (for kinsoku)
		6 glue 0 0.0pt (from JFM: priority 0)
		2 hlist 0 (8.4675+1.15466)x4.81108, dir=0 (packed)
		.0 glyph 256) 51 (8.4675+1.15466)x9.62216
		2 hlist 0 (8.4675+1.15466)x4.81108, dir=0 (packed)
		.0 glyph 256 r 51 (8.4675+1.15466)x9.62216
		3 penalty 0 10000 (for kinsoku)
		6 glue 0 0.0pt (from JFM: priority 0)
		2 hlist 0 (8.4675+1.15466)x4.81108, dir=0 (packed)
		.0 glyph 256 r 51 (8.4675+1.15466)x9.62216
(r) r		-----
		D whatsit 44 userid:4 (direction) (node list) dir: 4
		D glyph 256 あ 51 (8.4675+1.15466)x9.62216
		9 glue 0 0.0pt plus 0.4pt minus 0.4pt (kanjiskip)
あい		D glyph 256 れ 51 (8.4675+1.15466)x9.62216

		D whatsit 44 userid:4 (direction) (node list) dir: 4
		D glyph 256 あ 51 (8.4675+1.15466)x9.62216
		9 glue 0 0.0pt plus 0.4pt minus 0.4pt (kanjiskip)
あい		D glyph 256 れ 51 (8.4675+1.15466)x9.62216

その他: 「前由来」「後由来」JFM 由来グルー

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D whtsit 44 userid:4 (direction) (node list) dir: 4
D glyph 256 あ 51 (8.4675+1.15466)x9.62216
6 glue 0 2.40555pt minus 2.40555pt (from JFM: priority 0)
2 hlist 0 (4.23375+0.57733)x2.40555, dir=0 (packed)
.0 glyph 256 ( 53 (4.23375+0.57733)x4.81108
-----
D whtsit 44 userid:4 (direction) (node list) dir: 4
D glyph 256 あ 53 (4.23375+0.57733)x4.81108
6 glue 0 4.81108pt minus 4.81108pt (from JFM: priority 0)
2 hlist 0 (8.4675+1.15466)x4.81108, dir=0 (packed)
.0 glyph 256 ( 51 (8.4675+1.15466)x9.62216
-----
D whtsit 44 userid:4 (direction) (node list) dir: 4
2 hlist 0 (4.23375+0.57733)x2.40555, dir=0 (packed)
.0 glyph 256 . 53 (4.23375+0.57733)x4.81108
3 penalty 0 10000 (for kinsoku)
7 glue 0 4.81108pt minus 1.6037pt (from JFM: priority 1)
2 hlist 0 (8.4675+1.15466)x4.81108, dir=0 (packed)
.0 glyph 256 . 51 (8.4675+1.15466)x9.62216
-----
D whtsit 44 userid:4 (direction) (node list) dir: 4
2 hlist 0 (8.4675+1.15466)x4.81108, dir=0 (packed)
.0 glyph 256 . 51 (8.4675+1.15466)x9.62216
3 penalty 0 10000 (for kinsoku)
7 glue 0 6.01385pt minus 2.00462pt (from JFM: priority 1)
2 hlist 0 (4.23375+0.57733)x2.40555, dir=0 (packed)
.0 glyph 256 . 53 (4.23375+0.57733)x4.81108
-----

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その他: JFM and kerning

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D whtsit 44 userid:4 (direction) (node list) dir: 4
2 hlist 0 (8.8+1.2)x10.0, dir=0 (packed)
.0 glyph 256 タ 73 (8.12+0.44)x10.0
E kern 1 -0.5pt (italic correction)
9 glue 0 0.0pt plus 0.4pt minus 0.4pt (kanjiskip)
2 hlist 0 (8.8+1.2)x10.0, dir=0 (packed)
.0 glyph 256 ノ 73 (7.83+0.38)x10.0
9 glue 0 0.0pt plus 0.4pt minus 0.4pt (kanjiskip)
2 hlist 0 (8.8+1.2)x10.0, dir=0 (packed)
.0 glyph 256 タ 73 (8.12+0.44)x10.0
E kern 1 -0.09999pt (italic correction)
9 glue 0 0.0pt plus 0.4pt minus 0.4pt (kanjiskip)
2 hlist 0 (8.8+1.2)x10.0, dir=0 (packed)
.0 glyph 256 イ 73 (8.08+0.42)x10.0
E kern 1 -0.2pt (italic correction)
9 glue 0 0.0pt plus 0.4pt minus 0.4pt (kanjiskip)
2 hlist 0 (8.8+1.2)x10.0, dir=0 (packed)
.0 glyph 256 ク 73 (8.19+0.44)x10.0
E kern 1 -0.79999pt (italic correction)
9 glue 0 0.0pt plus 0.4pt minus 0.4pt (kanjiskip)
2 hlist 0 (8.8+1.2)x10.0, dir=0 (packed)
.0 glyph 256 ノ 73 (7.83+0.38)x10.0
-----
D whtsit 44 userid:4 (direction) (node list) dir: 4
2 hlist 0 (8.8+1.2)x10.0, dir=0 (packed)
.0 glyph 256 タ 74 (8.12+0.44)x10.0
9 glue 0 0.0pt plus 0.4pt minus 0.4pt (kanjiskip)
2 hlist 0 (8.8+1.2)x10.0, dir=0 (packed)
.0 glyph 256 ノ 74 (7.83+0.38)x10.0
9 glue 0 0.0pt plus 0.4pt minus 0.4pt (kanjiskip)
2 hlist 0 (8.8+1.2)x10.0, dir=0 (packed)
.0 glyph 256 タ 74 (8.12+0.44)x10.0
9 glue 0 0.0pt plus 0.4pt minus 0.4pt (kanjiskip)
2 hlist 0 (8.8+1.2)x10.0, dir=0 (packed)
.0 glyph 256 イ 74 (8.08+0.42)x10.0
9 glue 0 0.0pt plus 0.4pt minus 0.4pt (kanjiskip)
2 hlist 0 (8.8+1.2)x10.0, dir=0 (packed)
.0 glyph 256 ク 74 (8.19+0.44)x10.0
9 glue 0 0.0pt plus 0.4pt minus 0.4pt (kanjiskip)
2 hlist 0 (8.8+1.2)x10.0, dir=0 (packed)
.0 glyph 256 ノ 74 (7.83+0.38)x10.0
-----
D whtsit 44 userid:4 (direction) (node list) dir: 4
2 hlist 0 (8.8+1.2)x10.0, dir=0 (packed)
.0 glyph 256 タ 73 (8.12+0.44)x10.0
E kern 1 0.0pt (italic correction)
9 glue 0 0.0pt plus 0.4pt minus 0.4pt (kanjiskip)
2 hlist 0 (8.8+1.2)x10.0, dir=0 (packed)
.0 glyph 256 ノ 73 (7.83+0.38)x10.0
-----
D whtsit 44 userid:4 (direction) (node list) dir: 4
2 hlist 0 (8.8+1.2)x10.0, dir=0 (packed)
.0 glyph 256 ャ 73 (6.68+0.83)x10.0
9 glue 0 0.0pt plus 0.4pt minus 0.4pt (kanjiskip)
2 hlist 0 (8.8+1.2)x10.0, dir=0 (packed)
.0 glyph 256 ャ 73 (6.68+0.83)x10.0
3 penalty 0 10000 (for kinsoku)
9 glue 0 0.0pt plus 0.4pt minus 0.4pt (kanjiskip)
2 hlist 0 (8.8+1.2)x10.0, dir=0 (packed)
.0 glyph 256 . 73 (1.35+0.0)x10.0
-----

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