

X_YLaTeX-ja パッケージ

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目次

1	はじめに	2
1.1	使い方	2
2	expl3 インターフェイス	3
2.1	組方向	3
2.2	フォント	3
2.3	文字クラス	3
2.4	組版パラメーター	4
2.4.1	グルー・カーン	4
2.4.2	文字幅調整	5
2.4.3	禁則ペナルティ	5
2.4.4	和欧文間空白挿入設定	5
2.5	ボックス	6
3	実装	8
3.1	変数	8
3.2	ヘルパー関数	9
3.3	オプション	9
3.4	組方向	10
3.5	フォント	10
3.5.1	フォント設定	13
3.6	文字クラス	13
3.6.1	JFM パラメータ	24
3.6.2	グルー・カーン	26
3.6.3	文字幅調整	27
3.6.4	禁則ペナルティ	28
3.6.5	和欧文間空白挿入設定	29
3.7	ボックス	30

3.7.1	ボックス回転	30
3.7.2	ボックスのベースライン補正	32
3.7.3	縦組中の横組ボックス	32
3.7.4	横組中の縦組ボックス	35
3.8	ページ出力	37
3.8.1	縦組み時のページ回転処理	37
3.8.2	トンボ	38
3.9	ユーティリティ関数	41
3.10	pL ^A T _E X 2 _ε 互換インターフェイス	41
3.11	JFM ファイルの読み込み	42
3.12	xltjext パッケージ	42
3.13	JFM ファイル	45
3.13.1	和文文字の設定	45
3.14	BXJS ドキュメントクラス用和文ドライバファイル	50

Index 52

1 はじめに

これは X_qL^AT_EX で和文組版を行う実験的なパッケージである。

1.1 使い方

本パッケージは X_qL^AT_EX 上で動作する。

`\usepackge` で読み込む。

```
\usepackage[<options>]{xelatexja}
```

オプションは以下の通り。

- `tate` : 文書全体を縦組みにする。
- `jascale=<fpexpr>` : 和文フォントスケールを指定する。
- `jfm=<name>` : JFM を指定する。

本パッケージは X_qL^AT_EX の「文字間トークン自動挿入機能」を独占的に利用する。これらを利用する他のパッケージとは共存できない。

2 expl3 インターフェイス

2.1 組方向

```
\xltj_if_tate_document_p: * \xltj_if_tate_document:TF {\true code} {\false code}
\xltj_if_tate_document:TF *
```

文書全体が縦組かどうかの条件式。

```
\xltj_if_tate_text_p: * \xltj_if_tate_text:TF {\true code} {\false code}
\xltj_if_tate_text:TF *
```

現在の組方向が縦組かどうかの条件式。

2.2 フォント

```
\xltj_get_jascale: * \xltj_get_jascale:
```

和文フォントスケール値を取得する。

```
\l_xltj_zw_dim 和文文字サイズ。
\zw
```

2.3 文字クラス

```
\xltj_class_new_kanji:n \xltj_class_new_kanji:n {\class}
```

和文文字クラスを新規に作成する。

```
\xltj_class_new_alpha:n \xltj_class_new_alpha:n {\class}
```

欧文文字クラスを新規に作成する。

```
\xltj_class_new_kanji:nn \xltj_class_new_kanji:nn {\class} {\integer}
```

`\newXeTeXintercharclass` で作成した文字クラスを和文文字クラスとして定義する。

```
\xltj_class_new_alpha:nn \xltj_class_new_alpha:nn {\class} {\integer}
```

`\newXeTeXintercharclass` で作成した文字クラスを欧文文字クラスとして定義する。

<hr/> <code>kanji/default</code> <hr/>	定義済み文字クラス。
<code>alpha/default</code>	
<code>boundary</code>	<code>kanji/default</code> デフォルトの和文文字クラス。
<code>ignored</code> <hr/>	<code>alpha/default</code> デフォルトの欧文文字クラス。
	<code>boundary</code> 文字境界。
	<code>ignored</code> 無視される文字。

<hr/> <code>\xltj_char_set_class:nn</code> <hr/>	<code>\xltj_char_set_class:nn</code> $\{\langle\text{charcode}\rangle\}$ $\{\langle\text{class}\rangle\}$ 文字コードが $\langle\text{charcode}\rangle$ の文字の文字クラスを $\langle\text{class}\rangle$ に設定する。
--------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

<hr/> <code>\xltj_char_set_class_range:nnn</code> <hr/>	<code>\xltj_char_set_class_range:nnn</code> $\{\langle\text{charcode}_1\rangle\}$ $\{\langle\text{charcode}_2\rangle\}$ $\{\langle\text{class}\rangle\}$ 文字コードが $\langle\text{charcode}_1\rangle$ から $\langle\text{charcode}_2\rangle$ の文字の文字クラスを $\langle\text{class}\rangle$ に設定する。
---------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

<hr/> <code>\xltj_class_update:</code> <hr/>	<code>\xltj_class_update:</code> 文字クラス設定を更新する。
----------------------------------------------	---------------------------------------------------

2.4 組版パラメーター

<hr/> <code>\xltj_set_kanjiskip:n</code> <hr/>	<code>\xltj_set_kanjiskip:n</code> $\{\langle\text{tl}\rangle\}$ 和文間空白 (kanjiskip) を $\langle\text{tl}\rangle$ に設定する。
------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------

<hr/> <code>\xltj_get_kanjiskip: *</code> <hr/>	<code>\xltj_get_kanjiskip:</code> kanjiskip を取得する。
-------------------------------------------------	-------------------------------------------------------

<hr/> <code>\xltj_set_xkanjiskip:n</code> <hr/>	<code>\xltj_set_xkanjiskip:n</code> $\{\langle\text{tl}\rangle\}$ 和欧文間空白 (xkanjiskip) を $\langle\text{tl}\rangle$ に設定する。
-------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------

<hr/> <code>\xltj_get_xkanjiskip: *</code> <hr/>	<code>\xltj_get_xkanjiskip:</code> xkanjiskip を取得する。
--------------------------------------------------	---------------------------------------------------------

2.4.1 グルー・カーン

<hr/> <code>\xltj_jfm_set_glue:nnn</code> <hr/>	<code>\xltj_jfm_set_glue:nnn</code> $\{\langle\text{class}_1\rangle\}$ $\{\langle\text{class}_2\rangle\}$ $\{\langle\text{glue}\rangle\}$
<code>\xltj_jfm_set_kern:nnn</code> <hr/>	<code>\xltj_jfm_set_kern:nnn</code> $\{\langle\text{class}_1\rangle\}$ $\{\langle\text{class}_2\rangle\}$ $\{\langle\text{kern}\rangle\}$
	和文文字クラス間に挿入するグルー・カーンを設定する。 $\langle\text{glue}\rangle$ および $\langle\text{kern}\rangle$ は挿入時に評価される。グルーとカーンを同時に設定することはできず、後から設定した方で上書きされる。

```
\xltj_jfm_clear_glue_kern:nn \xltj_jfm_clear_glue_kern:nn {\langle class_1 \rangle} {\langle class_2 \rangle}
```

和文文字クラス間に挿入するグルー・カーンを削除する。

2.4.2 文字幅調整

```
\xltj_jfm_set_precharwd:nn \xltj_jfm_set_precharwd:nn {\langle class \rangle} {\langle width \rangle}  
\xltj_jfm_set_postcharwd:nn \xltj_jfm_set_postcharwd:nn {\langle class \rangle} {\langle width \rangle}
```

和文文字クラスの文字幅調整を設定する。例えば全角の括弧類・句読点類を半角で組むために `-0.5\zw` を設定する。

```
\xltj_jfm_clear_precharwd:n \xltj_jfm_clear_precharwd:n {\langle class \rangle}  
\xltj_jfm_clear_postcharwd:n \xltj_jfm_clear_postcharwd:n {\langle class \rangle}
```

和文文字クラスの文字幅調整を削除する。

2.4.3 禁則ペナルティ

```
\xltj_jfm_set_prebreakpenalty:nn \xltj_jfm_set_prebreakpenalty:nn {\langle class \rangle} {\langle intexpr \rangle}  
\xltj_jfm_set_postbreakpenalty:nn \xltj_jfm_set_postbreakpenalty:nn {\langle class \rangle} {\langle intexpr \rangle}
```

和文文字クラス $\langle class \rangle$ の行頭・行末禁則ペナルティを $\langle intexpr \rangle$ に設定する。

```
\xltj_jfm_clear_prebreakpenalty:n \xltj_jfm_clear_prebreakpenalty:n {\langle class \rangle}  
\xltj_jfm_clear_postbreakpenalty:n \xltj_jfm_clear_postbreakpenalty:n {\langle class \rangle}
```

和文文字クラス $\langle class \rangle$ の行頭・行末禁則ペナルティを削除する。

2.4.4 和欧文間空白挿入設定

```
\xltj_jfm_set_xspmode:nn \xltj_jfm_set_xspmode:nn {\langle class \rangle} {\langle xspmode \rangle}
```

文字クラス $\langle class \rangle$ の前後に和欧文間空白の挿入を許可するかどうかを設定する。 $\langle xspmode \rangle$ に指定できる値は以下の

inhibit 文字の前後とも和欧文間空白の挿入を許可しない。

preonly 文字の前のみ和欧文間空白の挿入を許可し、後ろには許可しない。

postonly 文字の後ろのみ和欧文間空白の挿入を許可し、前には許可しない。

allow 文字の前後とも和欧文間空白の挿入を許可する。(デフォルト)

2.5 ボックス

```
\xltj_box_yjabaselineshift:n \xltj_box_yjabaselineshift:n {\langle box function \rangle}
\xltj_box_tjabaselineshift:n
```

ボックスを和文ベースライン補正して挿入する。

```
\xltj_yoko_in_tate_hbox:n \xltj_yoko_in_tate_hbox:n {\langle contents \rangle}
```

```
\xltj_yoko_in_tate_hbox_to_wd:nn \xltj_yoko_in_tate_hbox_to_wd:nn {\langle dimexpr \rangle} {\langle contents \rangle}
```

```
\xltj_yoko_in_tate_hbox_to_zero:n \xltj_yoko_in_tate_hbox_to_zero:n {\langle contents \rangle}
```

```
\xltj_yoko_in_tate_hbox_set:Nn \xltj_yoko_in_tate_hbox_set:Nn <box> {\langle contents \rangle}
\xltj_yoko_in_tate_hbox_set:cn
\xltj_yoko_in_tate_hbox_gset:Nn
\xltj_yoko_in_tate_hbox_gset:cn
```

```
\xltj_yoko_in_tate_hbox_set_to_wd:Nnn \xltj_yoko_in_tate_hbox_set_to_wd:Nnn <box> {\langle dimexpr \rangle}
\xltj_yoko_in_tate_hbox_set_to_wd:cnn {\langle contents \rangle}
\xltj_yoko_in_tate_hbox_gset_to_wd:Nnn
\xltj_yoko_in_tate_hbox_gset_to_wd:cnn
```

```
\xltj_yoko_in_tate_hbox_overlap_center:n \xltj_yoko_in_tate_hbox_overlap_center:n {\langle contents \rangle}
```

```
\xltj_yoko_in_tate_hbox_overlap_right:n \xltj_yoko_in_tate_hbox_overlap_right:n {\langle contents \rangle}
```

```
\xltj_yoko_in_tate_hbox_overlap_left:n \xltj_yoko_in_tate_hbox_overlap_left:n {\langle contents \rangle}
```

```
\xltj_yoko_in_tate_vbox:n \xltj_yoko_in_tate_vbox:n {\langle contents \rangle}
```

```
\xltj_yoko_in_tate_vbox_to_ht:nn \xltj_yoko_in_tate_vbox_to_ht:nn {\langle dimexpr \rangle} {\langle contents \rangle}
```

```
\xltj_yoko_in_tate_vbox_to_zero:n \xltj_yoko_in_tate_vbox_to_zero:n {\langle contents \rangle}
```

```
\xltj_yoko_in_tate_vbox_set:Nn \xltj_yoko_in_tate_vbox_set:Nn <box> {\langle contents \rangle}
\xltj_yoko_in_tate_vbox_set:cn
\xltj_yoko_in_tate_vbox_gset:Nn
\xltj_yoko_in_tate_vbox_gset:cn
```

```

\sltj_yoko_in_tate_vbox_set_to_ht:Nnn \sltj_yoko_in_tate_vbox_set_to_ht:Nnn <box> {\dimexpr}
\sltj_yoko_in_tate_vbox_set_to_ht:cnn {\contents}
\sltj_yoko_in_tate_vbox_gset_to_ht:Nnn
\sltj_yoko_in_tate_vbox_gset_to_ht:cnn

```

```

\sltj_tate_in_yoko_hbox:n \sltj_tate_in_yoko_hbox:n {\contents}

```

```

\sltj_tate_in_yoko_hbox_to_wd:nn \sltj_tate_in_yoko_hbox_to_wd:nn {\dimexpr} {\contents}

```

```

\sltj_tate_in_yoko_hbox_to_zero:n \sltj_tate_in_yoko_hbox_to_zero:n {\contents}

```

```

\sltj_tate_in_yoko_hbox_set:Nn \sltj_tate_in_yoko_hbox_set:Nn <box> {\contents}
\sltj_tate_in_yoko_hbox_set:cn
\sltj_tate_in_yoko_hbox_gset:Nn
\sltj_tate_in_yoko_hbox_gset:cn

```

```

\sltj_tate_in_yoko_hbox_set_to_wd:Nnn \sltj_tate_in_yoko_hbox_set_to_wd:Nnn <box> {\dimexpr}
\sltj_tate_in_yoko_hbox_set_to_wd:cnn {\contents}
\sltj_tate_in_yoko_hbox_gset_to_wd:Nnn
\sltj_tate_in_yoko_hbox_gset_to_wd:cnn

```

```

\sltj_tate_in_yoko_hbox_overlap_center:n \sltj_tate_in_yoko_hbox_overlap_center:n {\contents}

```

```

\sltj_tate_in_yoko_hbox_overlap_right:n \sltj_tate_in_yoko_hbox_overlap_right:n {\contents}

```

```

\sltj_tate_in_yoko_hbox_overlap_left:n \sltj_tate_in_yoko_hbox_overlap_left:n {\contents}

```

```

\sltj_tate_in_yoko_vbox:n \sltj_tate_in_yoko_vbox:n {\contents}

```

```

\sltj_tate_in_yoko_vbox_to_ht:nn \sltj_tate_in_yoko_vbox_to_ht:nn {\dimexpr} {\contents}

```

```

\sltj_tate_in_yoko_vbox_to_zero:n \sltj_tate_in_yoko_vbox_to_zero:n {\contents}

```

```

\sltj_tate_in_yoko_vbox_set:Nn \sltj_tate_in_yoko_vbox_set:Nn <box> {\contents}
\sltj_tate_in_yoko_vbox_set:cn
\sltj_tate_in_yoko_vbox_gset:Nn
\sltj_tate_in_yoko_vbox_gset:cn

```

```

\ltj_tate_in_yoko_vbox_set_to_ht:Nnn \ltj_tate_in_yoko_vbox_set_to_ht:Nnn <box> {\dimexpr}
\ltj_tate_in_yoko_vbox_set_to_ht:cnn {\contents}
\ltj_tate_in_yoko_vbox_gset_to_ht:Nnn
\ltj_tate_in_yoko_vbox_gset_to_ht:cnn

```

3 実装

```

1 <*package>
2 <@@=xltj>

XeTeX が必要。
3 \msg_new:nnn { xelatexja } { needs-xetex }
4   { XeLaTeX-ja-needs-XeTeX. }
5 \sys_if_engine_xetex:F
6   {
7     \msg_critical:nn { xelatexja } { needs-xetex }
8   }

```

依存パッケージの読込。

```
9 \RequirePackage{l3keys2e,xparse}
```

3.1 変数

`\g__xltj_tate_document_bool` 文書全体が縦組かどうかを表す変数。

```
10 \bool_new:N \g__xltj_tate_document_bool
```

(End definition for `\g__xltj_tate_document_bool`.)

`\l__xltj_tate_text_bool` 現在の組方向が縦組かどうかを表す変数。

```
11 \bool_new:N \l__xltj_tate_text_bool
```

(End definition for `\l__xltj_tate_text_bool`.)

`\g__xltj_jascale_fp` 和文フォントスケール値。

```
12 \fp_new:N \g__xltj_jascale_fp
```

```
13 \fp_gset:Nn \g__xltj_jascale_fp { 1 }
```

(End definition for `\g__xltj_jascale_fp`.)

`\l_xltj_zw_dim` 和文フォント全角寸法。

```
\zw 14 \dim_new:N \l_xltj_zw_dim
```

```
15 \cs_new_eq:NN \zw \l_xltj_zw_dim
```

(End definition for `\l_xltj_zw_dim` and `\zw`. These functions are documented on page 3.)

`\l__xltj_kanjiskip_tl` 和文文字間に挿入するグルー。

```
16 \tl_new:N \l__xltj_kanjiskip_tl
```

```
17 \tl_set:Nn \l__xltj_kanjiskip_tl { 0.0pt plus 0.4pt minus 0.5pt }
```

(End definition for `\l__xltj_kanjiskip_tl`.)

`\l__xltj_xkanjiskip_tl` 和欧文間に挿入するグルー。

```

18 \tl_new:N \l__xltj_xkanjiskip_tl
19 \tl_set:Nn \l__xltj_xkanjiskip_tl { 0.25\l_xltj_zw_dim plus 1.0pt minus 1.0pt }

(End definition for \l__xltj_xkanjiskip_tl.)

```

`\l__xltj_noautospadding_bool`
`\l__xltj_noautoxspacing_bool`

```

20 \bool_new:N \l__xltj_noautospadding_bool
21 \bool_new:N \l__xltj_noautoxspacing_bool

(End definition for \l__xltj_noautospadding_bool and \l__xltj_noautoxspacing_bool.)

```

`\g__xltj_jfm_name_tl`

```

22 \tl_new:N \g__xltj_jfm_name_tl

(End definition for \g__xltj_jfm_name_tl.)

```

`\l__xltj_yjabaselineshift_tl` それぞれ横組み・縦組みでの和文ベースラインの補正值。(u)p_AT_EX とは異なり欧文ではなく和文に対して補正を行う。正の値が設定されている場合、和文のベースラインを指定値だけ行送り方向に移動する。

`\l__xltj_tjabaselineshift_tl`

```

23 \tl_new:N \l__xltj_yjabaselineshift_tl
24 \tl_new:N \l__xltj_tjabaselineshift_tl
25 \tl_set:Nn \l__xltj_yjabaselineshift_tl { 0\l_xltj_zw_dim }
26 \tl_set:Nn \l__xltj_tjabaselineshift_tl { -0.38\l_xltj_zw_dim }

(End definition for \l__xltj_yjabaselineshift_tl and \l__xltj_tjabaselineshift_tl.)

```

`\l__xltj_tmpa_dim` 一時変数。
`\l__xltj_tmpa_int`
`\l__xltj_tmpa_seq`
`\l__xltj_tmpa_tl`
`\l__xltj_tmpb_tl`

```

27 \dim_new:N \l__xltj_tmpa_dim
28 \int_new:N \l__xltj_tmpa_int
29 \seq_new:N \l__xltj_tmpa_seq
30 \tl_new:N \l__xltj_tmpa_tl
31 \tl_new:N \l__xltj_tmpb_tl

(End definition for \l__xltj_tmpa_dim and others.)

```

3.2 ヘルパー関数

```

32 \cs_new:Npn \__xltj_swap_dim:NN #1#2
33 {
34   \dim_set_eq:NN \l__xltj_tmpa_dim #1
35   \dim_set_eq:NN #1 #2
36   \dim_set_eq:NN #2 \l__xltj_tmpa_dim
37 }

```

3.3 オプション

```

38 \keys_define:nn { xelatexja }
39 {
40   tate .bool_gset:N = \g__xltj_tate_document_bool,
41   jascale .fp_gset:N = \g__xltj_jascale_fp,
42   jfm .tl_gset:N = \g__xltj_jfm_name_tl,
43 }

```

```

44 \keys_set:nn { xelatexja } { jfm = standard }
45 \ProcessKeysOptions { xelatexja }

```

3.4 組方向

```

46 \bool_set_eq:NN \l__xltj_tate_text_bool \g__xltj_tate_document_bool

```

`\xltj_if_tate_document_p:` 文書全体が縦組かどうかの条件式。

```

\xltj_if_tate_document:TF 47 \prg_new_conditional:Npnn \xltj_if_tate_document: { p, T, F, TF }
48 {
49   \bool_if:NTF \g__xltj_tate_document_bool
50   { \prg_return_true: } { \prg_return_false: }
51 }

```

(End definition for `\xltj_if_tate_document:TF`. This function is documented on page 3.)

`\xltj_if_tate_text_p:` 現在の組方向が縦組かどうかの条件式。

```

\xltj_if_tate_text:TF 52 \prg_new_conditional:Npnn \xltj_if_tate_text: { p, T, F, TF }
53 {
54   \bool_if:NTF \l__xltj_tate_text_bool
55   { \prg_return_true: } { \prg_return_false: }
56 }

```

(End definition for `\xltj_if_tate_text:TF`. This function is documented on page 3.)

3.5 フォント

```

57 \dim_new:N \l_xltj_em_dim
58 \tl_new:N \l__xltj_yoko_kanji_font_tl
59 \tl_new:N \l__xltj_tate_kanji_font_tl
60 \tl_new:N \l__xltj_alpha_font_tl

61 \cs_new:Npn \xltj_set_yoko_kanji_font:n #1
62 { \tl_set:Nn \l__xltj_yoko_kanji_font_tl {#1} }
63 \cs_new:Npn \xltj_set_tate_kanji_font:n #1
64 { \tl_set:Nn \l__xltj_tate_kanji_font_tl {#1} }
65 \cs_new:Npn \xltj_set_alpha_font:n #1
66 { \tl_set:Nn \l__xltj_alpha_font_tl {#1} }
67 \cs_generate_variant:Nn \xltj_set_yoko_kanji_font:n { x }
68 \cs_generate_variant:Nn \xltj_set_tate_kanji_font:n { x }
69 \cs_generate_variant:Nn \xltj_set_alpha_font:n { x }

```

`\xltj_get_jascale:` 和文フォントスケール値を取得する。

```

70 \cs_new:Npn \xltj_get_jascale:
71 { \fp_use:N \g__xltj_jascale_fp }

```

(End definition for `\xltj_get_jascale:.` This function is documented on page 3.)

```

72 \hook_gput_code:nnn { selectfont } { . }
73 {
74   \dim_set:Nn \l_xltj_zw_dim
75   { \fp_to_dim:n { \g__xltj_jascale_fp * \f@size } }
76   \dim_set:Nn \l_xltj_em_dim { 1em }

```

```

77 \xltj_set_yoko_kanji_font:x
78 {
79     \exp_not:N \__xltj_select_yoko_kanji_font:nnnn
80     { \l__xltj_kanji_family_tl }
81     { \f@series } { \f@shape } { \f@size }
82 }
83 \xltj_set_tate_kanji_font:x
84 {
85     \exp_not:N \__xltj_select_tate_kanji_font:nnnn
86     { \l__xltj_kanji_family_tl }
87     { \f@series } { \f@shape } { \f@size }
88 }
89 \xltj_set_alpha_font:x { \tex_the:D \tex_font:D }
90 }

和文フォントエンコーディング。横組みは JY4、縦組みは JT4。

91 \str_const:Nn \c_xltj_yoko_encoding_str { JY4 }
92 \str_const:Nn \c_xltj_tate_encoding_str { JT4 }

93 \prop_new:N \g__xltj_kanji_family_prop
94 \prop_new:N \g__xltj_kanji_shape_prop
95 \tl_new:N \l__xltj_kanji_family_tl

96 \cs_new:Npn \xltj_declare_kanji_family:nn #1#2
97 {
98     \prop_gput:Nnn \g__xltj_kanji_family_prop {#1} {#2}
99 }
100 \cs_generate_variant:Nn \xltj_declare_kanji_family:nn { xn }

101 \cs_new:Npn \xltj_declare_kanji_shape:nnnn #1#2#3#4
102 {
103     \prop_gput:Nnn \g__xltj_kanji_shape_prop { #1 / #2 / #3 } {#4}
104 }
105 \cs_generate_variant:Nn \xltj_declare_kanji_shape:nnnn { xxxx }

106 \cs_new:Npn \xltj_set_kanji_family:n #1
107 {
108     \tl_set:Nx \l__xltj_kanji_family_tl {#1}
109 }
110 \cs_generate_variant:Nn \xltj_set_kanji_family:n { x }

111 \cs_new:Npn \__xltj_select_yoko_kanji_font:nnnn #1#2#3#4
112 {
113     \__xltj_select_kanji_font:nnnnnn
114     { \c_xltj_yoko_encoding_str } {#1} {#2} {#3} {#4} {}
115     \xltj_set_yoko_kanji_font:x { \tex_the:D \tex_font:D }
116 }
117 \cs_new:Npn \__xltj_select_tate_kanji_font:nnnn #1#2#3#4
118 {
119     \__xltj_select_kanji_font:nnnnnn
120     { \c_xltj_tate_encoding_str } {#1} {#2} {#3} {#4} { vertical }
121     \xltj_set_tate_kanji_font:x { \tex_the:D \tex_font:D }
122 }

123 \cs_new:Npn \__xltj_select_kanji_font:nnnnnn #1#2#3#4#5#6
124 {
125     \exp_args:Nc \__xltj_select_kanji_font:Nnnnnn

```

```

126     { #1/#2/#3/#4/#5 } {#2} {#3} {#4} {#5} {#6}
127   }
128   \cs_new:Npn \__xltj_select_kanji_font:Nnnnnn #1#2#3#4#5#6
129   {
130     \cs_if_exist:NF #1
131     {
132       \__xltj_select_kanji_font_new:Nnnnnn
133       #1 {#2} {#3} {#4} {#5} {#6}
134     }
135     #1
136   }
137   \cs_new:Npn \__xltj_select_kanji_font_new:Nnnnnn #1#2#3#4#5#6
138   {
139     \dim_set:Nn \l__xltj_tmpa_dim
140     { \fp_to_dim:n { #5 * \g__xltj_jascale_fp } }
141     \seq_clear:N \l__xltj_tmpa_seq
142     \seq_put_right:Nn \l__xltj_tmpa_seq { #2/#3/#4 }
143     \tl_if_eq:nnF {#4} { n }
144     { \seq_put_right:Nn \l__xltj_tmpa_seq { #2/#3/n } }
145     \tl_if_eq:nnF {#3} { m }
146     { \seq_put_right:Nn \l__xltj_tmpa_seq { #2/m/n } }
147     \tl_if_eq:nnF {#2} { mc }
148     { \seq_put_right:Nn \l__xltj_tmpa_seq { mc/m/n } }
149     \seq_map_inline:Nn \l__xltj_tmpa_seq
150     {
151       \__xltj_select_kanji_font_new_try:NnnnT #1
152       {##1} { \l__xltj_tmpa_dim } {#6}
153       {
154         \tl_if_eq:nnF { #2/#3/#4 } {##1}
155         {
156           \msg_warning:nxxx { xelatexja } { kanji-shape-instead }
157           { #2/#3/#4 } {##1}
158         }
159         \seq_map_break:n { \use_none:n }
160       }
161     }
162     {
163       \msg_error:nxx { xelatexja } { kanji-shape-undefined }
164       { #2/#3/#4 }
165       \cs_gset_eq:NN #1 \nullfont
166     }
167   }
168   \msg_new:nnn { xelatexja } { kanji-shape-instead }
169   { Kanji-shape~‘#1’~undefined.~using ‘#2’~instead. }
170   \msg_new:nnn { xelatexja } { kanji-shape-undefined }
171   { Kanji-shape~‘#1’~undefined. }
172   \prg_new_conditional:Npnn \__xltj_select_kanji_font_new_try:Nnnn #1#2#3#4
173   { T }
174   {
175     \prop_get:NnNTF \g__xltj_kanji_shape_prop {#2}
176     \l__xltj_tmpa_tl
177     {
178       \tl_if_empty:nF {#4}

```

```

179         {
180             \tl_if_in:NnTF \l__xltj_tmpa_tl { : }
181             { \tl_put_right:Nn \l__xltj_tmpa_tl { , #4 } }
182             { \tl_put_right:Nn \l__xltj_tmpa_tl { : #4 } }
183         }
184         \exp_args:NNV
185         \__xltj_new_kanji_font:Nnn #1 \l__xltj_tmpa_tl {#3}
186         \prg_return_true:
187     }
188     {
189         \prg_return_false:
190     }
191 }

192 \cs_new:Npn \__xltj_new_kanji_font:Nnn #1#2#3
193 {
194     \tex_global:D \tex_font:D #1 = "#2" ~ at ~ #3 \scan_stop:
195 }

```

3.5.1 フォント設定

明朝（mc）とゴシック（gt）ファミリーを定義する。

```

196 \xltj_declare_kanji_family:nn { mc } {}
197 \xltj_declare_kanji_family:nn { gt } {}

198 \xltj_declare_kanji_shape:nnnn { mc } { m } { n }
199 { [HaranoAjiMincho-Regular.otf]:+fwid }
200 \xltj_declare_kanji_shape:nnnn { gt } { m } { n }
201 { [HaranoAjiGothic-Medium.otf]:+fwid }
202 \xltj_declare_kanji_shape:nnnn { mc } { b } { n }
203 { [HaranoAjiGothic-Medium.otf]:+fwid }
204 \xltj_declare_kanji_shape:nnnn { gt } { b } { n }
205 { [HaranoAjiGothic-Medium.otf]:+fwid }
206 \xltj_declare_kanji_shape:nnnn { mc } { bx } { n }
207 { [HaranoAjiGothic-Medium.otf]:+fwid }
208 \xltj_declare_kanji_shape:nnnn { gt } { bx } { n }
209 { [HaranoAjiGothic-Medium.otf]:+fwid }

210 \xltj_set_kanji_family:n { mc }

```

3.6 文字クラス

文字間トークン挿入機能の有効化

```

211 \tex_XeTeXinterchartokenstate:D = 1 ~

```

\g__xltj_class_seq 文字クラス一覧。

```

212 \seq_new:N \g__xltj_class_seq

```

(End definition for \g__xltj_class_seq.)

```

213 \msg_new:nnnn { xelatexja } { class-exists }
214 { Class~'#1'~has~already~been~declared. }
215 {
216     There~already~exists~a~class~declaration~with~this~name.\\

```

```

217     Please~use~a~different~name~for~your~class.
218   }
219   \msg_new:nnnn { xelatexja } { class-not }
220   {
221     Class~'~#2'~is~not~#1~class.
222   }
223   {
224     The class~'~#2'~is~not~#1~class.\\
225     Please~use~#1~class~insted.
226   }
227   \msg_new:nnn { xelatexja } { class-unknown }
228   {
229     Unknown~class~'~#1'~used.
230   }

```

`__xltj_class_new:n` 新しい文字クラスを定義する。

```

231   \cs_new:Npn \__xltj_class_new:n #1
232   {
233     \seq_if_in:NnTF \g__xltj_class_seq {#1}
234     {
235       \msg_error:nnn { xelatexja } { class-exists } {#1}
236     }
237     {
238       \exp_args:Nc
239       \newXeTeXintercharclass
240       { c__xltj_class_#1_int }
241       \seq_gput_right:Nn \g__xltj_class_seq {#1}
242     }
243   }

```

(End definition for __xltj_class_new:n.)

`__xltj_class_new:nn` 文字クラスを定義する。

```

244   \cs_new:Npn \__xltj_class_new:nn #1#2
245   {
246     \seq_if_in:NnTF \g__xltj_class_seq {#1}
247     {
248       \msg_error:nnn { xelatexja } { class-exists } {#1}
249     }
250     {
251       \int_const:cn
252       { c__xltj_class_#1_int }
253       {#2}
254       \seq_gput_right:Nn \g__xltj_class_seq {#1}
255     }
256   }

```

(End definition for __xltj_class_new:nn.)

`__xltj_class_use:n`

```

257   \cs_new:Npn \__xltj_class_use:n #1
258   {
259     \int_use:c
260     { c__xltj_class_#1_int }
261   }

```

(End definition for _xltj_class_use:n.)

\g__xltj_class_kanji_seq

\g__xltj_class_alpha_seq 262 \seq_new:N \g__xltj_class_kanji_seq
 263 \seq_new:N \g__xltj_class_alpha_seq

(End definition for \g__xltj_class_kanji_seq and \g__xltj_class_alpha_seq.)

\xltj_class_new_kanji:n 和文・欧文文字クラスを新規に作成する。

\xltj_class_new_alpha:n 264 \cs_new:Npn \xltj_class_new_kanji:n #1
 265 {
 266 __xltj_class_new:n {#1}
 267 \seq_gput_right:Nn \g__xltj_class_kanji_seq {#1}
 268 }
 269 \cs_new:Npn \xltj_class_new_alpha:n #1
 270 {
 271 __xltj_class_new:n {#1}
 272 \seq_gput_right:Nn \g__xltj_class_alpha_seq {#1}
 273 }

(End definition for \xltj_class_new_kanji:n and \xltj_class_new_alpha:n. These functions are documented on page 3.)

\xltj_class_new_kanji:nn

\xltj_class_new_alpha:nn 274 \cs_new:Npn \xltj_class_new_kanji:nn #1#2
 275 {
 276 __xltj_class_new:nn {#1} {#2}
 277 \seq_gput_right:Nn \g__xltj_class_kanji_seq {#1}
 278 }
 279 \cs_new:Npn \xltj_class_new_alpha:nn #1#2
 280 {
 281 __xltj_class_new:nn {#1} {#2}
 282 \seq_gput_right:Nn \g__xltj_class_alpha_seq {#1}
 283 }

(End definition for \xltj_class_new_kanji:nn and \xltj_class_new_alpha:nn. These functions are documented on page 3.)

kanji/default

alpha/default

boundary

ignored

284 \xltj_class_new_kanji:n { kanji/default }
 285 \xltj_class_new_alpha:nn { alpha/default } { 0 }
 286 __xltj_class_new:nn { boundary } { 4095 }
 287 % __xltj_class_new:nn { ignored } { 4096 }

(End definition for kanji/default and others. These functions are documented on page 4.)

\xltj_char_set_class:nn

\xltj_char_set_class_range:nn

\xltj_char_set_class_clist:nn

288 \cs_new:Npn \xltj_char_set_class:nn #1#2
 289 {
 290 \seq_if_in:NnTF \g__xltj_class_seq {#2}
 291 {
 292 \tex_XeTeXcharclass:D \int_eval:n {#1} =
 293 __xltj_class_use:n {#2} \scan_stop:
 294 }

```

295     {
296       \msg_error:nnn { xelatexja } { class-unknown } {#2}
297     }
298   }
299   \cs_new:Npn \xltj_char_set_class_range:nnn #1#2#3
300   {
301     \seq_if_in:NnTF \g__xltj_class_seq {#3}
302     {
303       \int_set:Nn \l__xltj_tmpa_int { \__xltj_class_use:n {#3} }
304       \int_step_inline:nnn {#1} {#2}
305       {
306         \tex_XeTeXcharclass:D ##1 = \l__xltj_tmpa_int \scan_stop:
307       }
308     }
309     {
310       \msg_error:nnn { xelatexja } { class-unknown } {#3}
311     }
312   }
313   \cs_new:Npn \xltj_char_set_class_clist:nn #1#2
314   {
315     \seq_if_in:NnTF \g__xltj_class_seq {#2}
316     {
317       \int_set:Nn \l__xltj_tmpa_int { \__xltj_class_use:n {#2} }
318       \clist_map_inline:nn {#1}
319       {
320         \tex_XeTeXcharclass:D \int_eval:n {##1} =
321         \l__xltj_tmpa_int \scan_stop:
322       }
323     }
324     {
325       \msg_error:nnn { xelatexja } { class-unknown } {#2}
326     }
327   }

```

(End definition for `\xltj_char_set_class:nn`, `\xltj_char_set_class_range:nnn`, and `\xltj_char_set_class_clist:nn`. These functions are documented on page 4.)

```

\xltj_gset_no_kanji_interchar:nn
\xltj_gclear_no_kanji_interchar:nn
328 \seq_new:N \g__xltj_nointerchar_seq
329 \cs_new:Npn \xltj_gset_no_kanji_interchar:nn #1#2
330 {
331   \seq_if_in:NnTF \g__xltj_class_kanji_seq {#1}
332   {
333     \seq_if_in:NnTF \g__xltj_class_kanji_seq {#2}
334     {
335       \seq_if_in:NnF \g__xltj_nointerchar_seq { #1->#2 }
336       {
337         \seq_gput_right:Nn \g__xltj_nointerchar_seq { #1->#2 }
338       }
339     }
340     {
341       \msg_error:nnnn { xelatexja } { class-not } { kanji } {#2}
342     }
343   }

```



```

344     {
345       \msg_error:nnnn { xelatexja } { class-not } { kanji } {#1}
346     }
347   }
348   \cs_new:Npn \xltj_gclear_no_kanji_interchar:nn #1#2
349   {
350     \seq_if_in:NnTF \g__xltj_class_kanji_seq {#1}
351     {
352       \seq_if_in:NnTF \g__xltj_class_kanji_seq {#2}
353       {
354         \seq_gremove_all:Nn \g__xltj_nointerchar_seq { #1->#2 }
355       }
356       {
357         \msg_error:nnnn { xelatexja } { class-not } { kanji } {#2}
358       }
359     }
360     {
361       \msg_error:nnnn { xelatexja } { class-not } { kanji } {#1}
362     }
363   }

```

(End definition for \xltj_gset_no_kanji_interchar:nn and \xltj_gclear_no_kanji_interchar:nn.
These functions are documented on page ??.)

\xltj_class_update: 文字クラス設定を更新する。

```

364   \cs_new:Npn \xltj_class_update:
365   {
366     \seq_map_inline:Nn \g__xltj_class_kanji_seq
367     {
368       \seq_map_inline:Nn \g__xltj_class_kanji_seq
369       {
370         \seq_if_in:NnTF \g__xltj_nointerchar_seq { ##1->####1 }
371         {
372           \__xltj_interchar_gset:nnn {##1} {####1} {}
373         }
374         {
375           \__xltj_interchar_gset:nnn {##1} {####1}
376             { \__xltj_interchar_kanji_to_kanji:nn {##1} {####1} }
377         }
378       }
379     \seq_map_inline:Nn \g__xltj_class_alpha_seq
380     {
381       \__xltj_interchar_gset:nnn {##1} {####1}
382       { \__xltj_interchar_kanji_to_alpha:nn {##1} {####1} }
383       \__xltj_interchar_gset:nnn {####1} {##1}
384       { \__xltj_interchar_alpha_to_kanji:nn {####1} {##1} }
385     }
386     \__xltj_interchar_gset:nnn {##1} { boundary }
387     { \__xltj_interchar_kanji_to_boundary:n {##1} }
388     \__xltj_interchar_gset:nnn { boundary } {##1}
389     { \__xltj_interchar_boundary_to_kanji:n {##1} }
390   }
391   \seq_map_inline:Nn \g__xltj_class_alpha_seq
392   {

```

```

393     \_xltj_interchar_gset:nnn {##1} { boundary }
394     { \_xltj_interchar_alpha_to_boundary:n {##1} }
395     \_xltj_interchar_gset:nnn { boundary } {##1}
396     { \_xltj_interchar_boundary_to_alpha:n {##1} }
397   }
398 }

```

(End definition for \xltj_class_update:. This function is documented on page 4.)

_xltj_interchar_gset:nnn

文字クラス間挿入トークンを設定する。

```

399 \cs_new:Npn \_xltj_interchar_gset:nnn #1#2#3
400 {
401   \tex_global:D \tex_XeTeXinterchartoks:D
402   \_xltj_class_use:n {#1} ~ \_xltj_class_use:n {#2} = {#3}
403 }

```

(End definition for _xltj_interchar_gset:nnn.)

_xltj_interchar_kanji_to_kanji:nn

和文→和文に挿入するトークン。

```

404 \cs_new:Npn \_xltj_interchar_kanji_to_kanji:nn #1#2
405 {
406   \_xltj_jfm_use_postcharwd:n {#1}
407   \_xltj_jabaselineshift_end:
408   \_xltj_jfm_use_postbreakpenalty:n {#1}
409   \_xltj_jfm_use_prebreakpenalty:n {#2}
410   \_xltj_jfm_use_glue_kern_or:nnn {#1} {#2}
411   {
412     \bool_if:NF \l__xltj_noautospadding_bool
413     { \_xltj_glue:n { \l__xltj_kanjiskip_tl } }
414   }
415   \_xltj_jabaselineshift_begin:
416   \_xltj_jfm_use_precharwd:n {#2}
417   % \iow_term:n { K2K:~#1->#2 }
418   \scan_stop:
419 }

```

(End definition for _xltj_interchar_kanji_to_kanji:nn.)

_xltj_interchar_alpha_to_kanji:nn

和文→欧文に挿入するトークン。

```

420 \cs_new:Npn \_xltj_interchar_kanji_to_alpha:nn #1#2
421 {
422   \_xltj_jfm_use_postcharwd:n {#1}
423   \_xltj_jabaselineshift_end:
424   \_xltj_jfm_use_postbreakpenalty:n {#1}
425   \_xltj_jfm_use_glue_kern_or:nnn {#1} { kanji/default }
426   {
427     \bool_if:NF \l__xltj_noautoxspacing_bool
428     {
429       \_xltj_jfm_if_xspmode_inhibit:nnF {#1} {#2}
430       { \_xltj_glue:n { \l__xltj_xkanjiskip_tl } }
431     }
432   }
433   \_xltj_swich_alpha_font:
434   % \iow_term:n { K2A:~#1->#2 }

```

```

435     \scan_stop:
436   }

(End definition for \_xltj_interchar_alpha_to_kanji:nn.)

```

_xltj_interchar_kanji_to_alpha:nn 欧文→和文に挿入するトークン。

```

437 \cs_new:Npn \_xltj_interchar_alpha_to_kanji:nn #1#2
438 {
439   \_xltj_swich_kanji_font:
440   \_xltj_jfm_use_prebreakpenalty:n {#2}
441   \_xltj_jfm_use_glue_kern_or:nnn { kanji/default } {#2}
442   {
443     \bool_if:NF \l__xltj_noautoxspacing_bool
444     {
445       \_xltj_jfm_if_xspmode_inhibit:nnF {#1} {#2}
446       { \_xltj_glue:n { \l__xltj_xkanjiskip_tl } }
447     }
448   }
449   \_xltj_jabaselineshift_begin:
450   \_xltj_jfm_use_precharwd:n {#2}
451   % \iow_term:n { A2K:~#1->#2 }
452   \scan_stop:
453 }

(End definition for \_xltj_interchar_kanji_to_alpha:nn.)

```

_xltj_interchar_kanji_to_boundary:n 和文→境界に挿入するトークン。

```

454 \cs_new:Npn \_xltj_interchar_kanji_to_boundary:n #1
455 {
456   \_xltj_jfm_use_postcharwd:n {#1}
457   \_xltj_jabaselineshift_end:
458   \_xltj_jfm_use_postbreakpenalty:n {#1}
459   \_xltj_swich_alpha_font:
460   % \iow_term:n { K2B:~#1->boundary }
461   \scan_stop:
462   \peek_catcode_ignore_spaces:NTF \c_math_toggle_token
463   {
464     \_xltj_jfm_use_glue_kern_or:nnn {#1} { kanji/default }
465     {
466       \bool_if:NF \l__xltj_noautoxspacing_bool
467       {
468         \_xltj_jfm_if_xspmode_inhibit:nnF {#1} { kanji/default }
469         { \_xltj_glue:n { \l__xltj_xkanjiskip_tl } }
470       }
471     }
472   }
473   {
474     \_xltj_lastnode_kanji:n {#1}
475   }
476 }

(End definition for \_xltj_interchar_kanji_to_boundary:n.)

```

_xltj_interchar_boundary_to_kanji:n 境界→和文に挿入するトークン。

```
477 \cs_new:Npn \_xltj_interchar_boundary_to_kanji:n #1
478 {
479   \_xltj_lastnode_check:
480   \_xltj_swich_kanji_font:
481   \_xltj_jfm_use_prebreakpenalty:n {#1}
482   \_xltj_lastnode_switch:nnn
483   {
484     \_xltj_jfm_use_glue_kern_or:nnn { kanji/default } {#1}
485     {
486       \bool_if:NF \l__xltj_noautoxspacing_bool
487       {
488         \_xltj_jfm_if_xspmode_inhibit:nnF { kanji/default } {#1}
489         { \_xltj_glue:n { \l__xltj_xkanjiskip_tl } }
490       }
491     }
492   }
493   {
494     \_xltj_jfm_use_glue_kern_or:nnn
495     { \g__xltj_lastnode_class_tl } {#1}
496     {
497       \bool_if:NF \l__xltj_noautoxspacing_bool
498       { \_xltj_glue:n { \l__xltj_kanjiskip_tl } }
499     }
500   }
501   {
502     \_xltj_jfm_use_glue_kern_or:nnn
503     { kanji/default } {#1}
504     {
505       \bool_if:NF \l__xltj_noautoxspacing_bool
506       {
507         \_xltj_jfm_if_xspmode_inhibit:nnF
508         { \g__xltj_lastnode_class_tl } {#1}
509         { \_xltj_glue:n { \l__xltj_xkanjiskip_tl } }
510       }
511     }
512   }
513   \_xltj_jabaselineshift_begin:
514   \_xltj_jfm_use_precharwd:n {#1}
515   \_xltj_lastnode_clear:
516   % \iow_term:n { B2K:~boundary->#1 }
517   \scan_stop:
518 }
```

(End definition for _xltj_interchar_boundary_to_kanji:n.)

_xltj_interchar_alpha_to_boundary:n 欧文→境界に挿入するトークン。

```
519 \cs_new:Npn \_xltj_interchar_alpha_to_boundary:n #1
520 {
521   \_xltj_lastnode_alpha:n {#1}
522   % \iow_term:n { A2B:~#1->boundary }
523   \scan_stop:
524 }
```

(End definition for _xltj_interchar_alpha_to_boundary:n.)

_xltj_interchar_boundary_to_alpha:n 境界→欧文に挿入するトークン。

```
525 \cs_new:Npn \_xltj_interchar_boundary_to_alpha:n #1
526 {
527   \_xltj_lastnode_check:
528   \_xltj_lastnode_switch:nnn
529   {}
530   {
531     \_xltj_jfm_use_glue_kern_or:nnn
532     { \g__xltj_lastnode_class_tl } { kanji/default }
533     {
534       \bool_if:NF \l__xltj_noautoxspacing_bool
535       {
536         \_xltj_jfm_if_xspmode_inhibit:nnF
537         { \g__xltj_lastnode_class_tl } {#1}
538         { \_xltj_glue:n { \l__xltj_xkanjiskip_tl } }
539       }
540     }
541   }
542   {}
543   \_xltj_lastnode_clear:
544   % \iow_term:n { B2A:~boundary->#1 }
545   \scan_stop:
546 }
```

(End definition for _xltj_interchar_boundary_to_alpha:n.)

```
547 \cs_new:Npn \_xltj_swich_kanji_font:
548 {
549   \xltj_if_tate_text:TF
550   { \l__xltj_tate_kanji_font_tl }
551   { \l__xltj_yoko_kanji_font_tl }
552 }
553 \cs_new:Npn \_xltj_swich_alpha_font:
554 {
555   \l__xltj_alpha_font_tl
556 }
557 \bool_new:N \l__xltj_lastnode_math_bool
558 \bool_new:N \g__xltj_lastnode_kanji_bool
559 \bool_new:N \g__xltj_lastnode_alpha_bool
560 \tl_new:N \g__xltj_lastnode_class_tl
```

_xltj_lastnode_kanji:n

_xltj_lastnode_alpha:n

_xltj_lastnode_clear:

```
561 \cs_new:Npn \_xltj_lastnode_kanji:n #1
562 {
563   \bool_gset_true:N \g__xltj_lastnode_kanji_bool
564   \bool_gset_false:N \g__xltj_lastnode_alpha_bool
565   \tl_gset:Nn \g__xltj_lastnode_class_tl {#1}
566 }
567 \cs_new:Npn \_xltj_lastnode_alpha:n #1
568 {
569   \bool_gset_false:N \g__xltj_lastnode_kanji_bool
570   \bool_gset_true:N \g__xltj_lastnode_alpha_bool
```

```

571 \tl_gset:Nn \g__xltj_lastnode_class_tl {#1}
572 }
573 \cs_new:Npn \__xltj_lastnode_clear:
574 {
575   \bool_gset_false:N \g__xltj_lastnode_kanji_bool
576   \bool_gset_false:N \g__xltj_lastnode_alpha_bool
577 }

```

(End definition for __xltj_lastnode_kanji:n, __xltj_lastnode_alpha:n, and __xltj_lastnode_clear:.)

```

578 \hook_gput_code:nnn { para/begin } { . }
579 { \__xltj_lastnode_clear: }
580 \hook_gput_code:nnn { para/end } { . }
581 { \__xltj_lastnode_clear: }

```

__xltj_lastnode_check:

__xltj_lastnode_switch:nnn

```

582 \bool_new:N \l__xltj_lastpenalty_bool
583 \int_new:N \l__xltj_lastpenalty_int
584 \cs_new:Npn \__xltj_lastnode_check:
585 {

```

直前の node が penalty node の時は一旦取り除いてから判定する。

```

586   \bool_set_false:N \l__xltj_lastpenalty_bool
587   \int_zero:N \l__xltj_lastpenalty_int
588   \int_while_do:nNnn { \tex_lastnodetype:D } = { 13 }
589   {
590     \bool_set_true:N \l__xltj_lastpenalty_bool
591     \int_add:Nn \l__xltj_lastpenalty_int { \tex_lastpenalty:D }
592     \tex_unpenalty:D
593   }
594   \bool_set_false:N \l__xltj_lastnode_math_bool
595   \int_case:nnF { \tex_lastnodetype:D }
596   {
597     { 0 } {}% char node
598     { 9 } {}% whatsit node
599     { 10 }% math node
600     {
601       \__xltj_lastnode_clear:
602       \bool_set_true:N \l__xltj_lastnode_math_bool
603     }
604     { 12 }% kern
605     {
606       \dim_compare:nNnF { \tex_lastkern:D } = { \c_zero_dim }
607       {
608         \__xltj_lastnode_clear:
609       }
610     }
611   }
612   {
613     \__xltj_lastnode_clear:
614   }

```

取り除いた penalty node を戻す。

```

615     \bool_if:NT \l__xltj_lastpenalty_bool
616     { \tex_penalty:D \l__xltj_lastpenalty_int \scan_stop: }
617   }
618   \cs_new:Npn \__xltj_lastnode_switch:nnn
619   {
620     \bool_case_true:nF
621     {
622       { \l__xltj_lastnode_math_bool } { \use_i:nnn }
623       { \g__xltj_lastnode_kanji_bool } { \use_ii:nnn }
624       { \g__xltj_lastnode_alpha_bool } { \use_iii:nnn }
625     }
626     { \use_none:nnn }
627   }

```

(End definition for __xltj_lastnode_check: and __xltj_lastnode_switch:nnn.)

```

\__xltj_jabaselineshift_begin:
\__xltj_jabaselineshift_end:
628 \bool_new:N \l__xltj_jabaselineshift_bool
629 \box_new:N \l__xltj_jabaselineshift_box
630 \dim_new:N \l__xltj_jabaselineshift_dim
631 \cs_new:Npn \__xltj_jabaselineshift_begin:
632 {
633   \dim_set:Nn \l__xltj_jabaselineshift_dim
634   {
635     \xltj_if_tate_text:TF
636     { \l__xltj_tjabaselineshift_tl }
637     { \l__xltj_yjabaselineshift_tl }
638   }
639   \bool_set_false:N \l__xltj_jabaselineshift_bool
640   \xltj_if_tate_text:T
641   { \bool_set_true:N \l__xltj_jabaselineshift_bool }
642   \dim_compare:nNnF { \l__xltj_jabaselineshift_dim } = { \c_zero_dim }
643   { \bool_set_true:N \l__xltj_jabaselineshift_bool }
644   \bool_if:NT \l__xltj_jabaselineshift_bool
645   {
646     \tex_hbox:D \c_group_begin_token
647   }
648 }
649 \cs_new:Npn \__xltj_jabaselineshift_end:
650 {
651   \bool_if:NT \l__xltj_jabaselineshift_bool
652   {
653     \c_group_end_token
654     \box_set_to_last:N \l__xltj_jabaselineshift_box
655     \box_set_ht:Nn \l__xltj_jabaselineshift_box { 0.5\l_xltj_zw_dim }
656     \box_set_dp:Nn \l__xltj_jabaselineshift_box { 0.5\l_xltj_zw_dim }
657     \box_move_down:nn { \l__xltj_jabaselineshift_dim }
658     { \box_use_drop:N \l__xltj_jabaselineshift_box }
659     \__xltj_kern:n { \c_zero_dim }
660   }
661 }

```

(End definition for __xltj_jabaselineshift_begin: and __xltj_jabaselineshift_end:.)

3.6.1 JFM パラメータ

\xltj_set_kanjiskip:n

```
662 \cs_new:Npn \xltj_set_kanjiskip:n #1
663 {
664   \tl_set:Nx \l__xltj_kanjiskip_tl { \skip_eval:n {#1} }
665 }
666 \cs_new:Npn \xltj_set_kanjiskip_lazy:n #1
667 {
668   \tl_set:Nn \l__xltj_kanjiskip_tl {#1}
669 }
```

(End definition for \xltj_set_kanjiskip:n. This function is documented on page 4.)

\xltj_get_kanjiskip:

```
670 \cs_new:Npn \xltj_get_kanjiskip:
671 {
672   \skip_eval:n { \l__xltj_kanjiskip_tl }
673 }
```

(End definition for \xltj_get_kanjiskip:. This function is documented on page 4.)

\xltj_set_xkanjiskip:n

```
674 \cs_new:Npn \xltj_set_xkanjiskip:n #1
675 {
676   \tl_set:Nx \l__xltj_xkanjiskip_tl { \skip_eval:n {#1} }
677 }
678 \cs_new:Npn \xltj_set_xkanjiskip_lazy:n #1
679 {
680   \tl_set:Nn \l__xltj_xkanjiskip_tl {#1}
681 }
```

(End definition for \xltj_set_xkanjiskip:n. This function is documented on page 4.)

\xltj_get_xkanjiskip:

```
682 \cs_new:Npn \xltj_get_xkanjiskip:
683 {
684   \skip_eval:n { \l__xltj_xkanjiskip_tl }
685 }
```

(End definition for \xltj_get_xkanjiskip:. This function is documented on page 4.)

_xltj_jfm_exp_args_param:Nnn

_xltj_jfm_exp_args_param:Nnnn

```
686 \cs_new:Npn \_xltj_jfm_exp_args_param:Nnn #1#2#3
687 {
688   \exp_args:Nc #1 { l__xltj_jfm_#2_#3_tl }
689 }
690 \cs_new:Npn \_xltj_jfm_exp_args_param:Nnnn #1#2#3#4
691 {
692   \exp_args:Nc #1 { l__xltj_jfm_#2_#3->#4_tl }
693 }
```

(End definition for _xltj_jfm_exp_args_param:Nnn and _xltj_jfm_exp_args_param:Nnnn.)


```

\__xltj_jfm_set_param:nnn
\__xltj_jfm_set_param:nnnn
694 \cs_new:Npn \__xltj_jfm_set_param:nnn #1#2#3
695 {
696   \__xltj_jfm_exp_args_param:Nnn
697   \__xltj_jfm_set_param:Nn {#1} {#2}
698   {#3}
699 }
700 \cs_new:Npn \__xltj_jfm_set_param:nnnn #1#2#3#4
701 {
702   \__xltj_jfm_exp_args_param:Nnnn
703   \__xltj_jfm_set_param:Nn {#1} {#2} {#3}
704   {#4}
705 }
706 \cs_new:Npn \__xltj_jfm_set_param:Nn #1#2
707 {
708   \tl_if_exist:NF #1 { \tl_new:N #1 }
709   \tl_set:Nn #1 {#2}
710 }

(End definition for \__xltj_jfm_set_param:nnn and \__xltj_jfm_set_param:nnnn.)

\__xltj_jfm_clear_param:nn
\__xltj_jfm_clear_param:nnn
711 \cs_new:Npn \__xltj_jfm_clear_param:nn #1#2
712 {
713   \__xltj_jfm_exp_args_param:Nnn
714   \__xltj_jfm_clear_param:N {#1} {#2}
715 }
716 \cs_new:Npn \__xltj_jfm_clear_param:nnn #1#2#3
717 {
718   \__xltj_jfm_exp_args_param:Nnnn
719   \__xltj_jfm_clear_param:N {#1} {#2} {#3}
720 }
721 \cs_new:Npn \__xltj_jfm_clear_param:N #1
722 {
723   \tl_if_exist:NF #1 { \tl_clear:N #1 }
724 }

(End definition for \__xltj_jfm_clear_param:nn and \__xltj_jfm_clear_param:nnn.)

\__xltj_jfm_if_exist_use_param:nnTF
\__xltj_jfm_if_exist_use_param:nnnTF
725 \cs_new:Npn \__xltj_jfm_if_exist_use_param:nnTF #1#2#3#4
726 {
727   \__xltj_jfm_exp_args_param:Nnn
728   \__xltj_jfm_if_exist_use_param:NTF {#1} {#2}
729   {#3} {#4}
730 }
731 \cs_new:Npn \__xltj_jfm_if_exist_use_param:nnnTF #1#2#3#4#5
732 {
733   \__xltj_jfm_exp_args_param:Nnnn
734   \__xltj_jfm_if_exist_use_param:NTF {#1} {#2} {#3}
735   {#4} {#5}
736 }
737 \cs_new:Npn \__xltj_jfm_if_exist_use_param:NTF #1#2#3
738 {

```

```

739 \tl_if_exist:NTF #1
740 { \tl_if_empty:NTF #1 {#3} { #1 #2 } }
741 {#3}
742 }

```

(End definition for `__xltj_jfm_if_exist_use_param:nnTF` and `__xltj_jfm_if_exist_use_param:nnnTF`.)

`__xltj_glue:n`

```

743 \cs_new_eq:NN \__xltj_glue:n \skip_horizontal:n

```

(End definition for `__xltj_glue:n`.)

`__xltj_kern:n`

```

744 \cs_new:Npn \__xltj_kern:n #1
745 { \tex_kern:D \dim_eval:n {#1} }

```

(End definition for `__xltj_kern:n`.)

`__xltj_vrule_zero:` ゼロ幅（不可視）垂直罫線の挿入。

```

746 \cs_new:Npn \__xltj_vrule_zero:
747 { \tex_vrule:D width \c_zero_dim \scan_stop: }

```

(End definition for `__xltj_vrule_zero:.`)

```

748 \cs_new:Npn \__xltj_vrule:nnn #1#2#3
749 {
750   \tex_vrule:D
751     width \dim_eval:n {#1}
752     height \dim_eval:n {#2}
753     depth \dim_eval:n {#3}
754   \scan_stop:
755 }

```

`__xltj_penalty:n` ペナルティの挿入。

```

756 \cs_new:Npn \__xltj_penalty:n #1
757 { \tex_penalty:D \int_eval:n {#1} \exp_stop_f: }

```

(End definition for `__xltj_penalty:n`.)

3.6.2 グルー・カーン

`\xltj_jfm_set_glue:nnn`

`\xltj_jfm_set_kern:nnn`

```

758 \cs_new:Npn \xltj_jfm_set_glue:nnn #1#2#3
759 {
760   \__xltj_jfm_set_param:nnnn { glue_kern } {#1} {#2}
761   { \__xltj_glue:n {#3} }
762 }
763 \cs_new:Npn \xltj_jfm_set_kern:nnn #1#2#3
764 {
765   \__xltj_jfm_set_param:nnnn { glue_kern } {#1} {#2}
766   { \__xltj_kern:n {#3} }
767 }

```

(End definition for `\xltj_jfm_set_glue:nnn` and `\xltj_jfm_set_kern:nnn`. These functions are documented on page 4.)

\xltj_jfm_clear_glue_kern:nn

```
768 \cs_new:Npn \xltj_jfm_clear_glue_kern:nn #1#2
769 {
770   \__xltj_jfm_clear_param:nnn { glue_kern } {#1} {#2}
771 }
```

(End definition for \xltj_jfm_clear_glue_kern:nn. This function is documented on page 5.)

__xltj_jfm_use_glue_kern_or:nnn

```
772 \cs_new:Npn \__xltj_jfm_use_glue_kern_or:nnn #1#2#3
773 {
774   \bool_if:NF \l__xltj_inhibitglue_bool
775   {
776     \__xltj_jfm_if_exist_use_param:nnnTF { glue_kern } {#1} {#2} {} {#3}
777   }
778   \bool_set_false:N \l__xltj_inhibitglue_bool
779 }
```

(End definition for __xltj_jfm_use_glue_kern_or:nnn.)

\xltj_inhibitglue:

```
780 \bool_new:N \l__xltj_inhibitglue_bool
781 \cs_new:Npn \xltj_inhibitglue:
782 { \bool_set_true:N \l__xltj_inhibitglue_bool }
```

(End definition for \xltj_inhibitglue:. This function is documented on page ??.)

3.6.3 文字幅調整

__xltj_jfm_precharwd:n

文字幅調整処理。

__xltj_jfm_postcharwd:n

```
783 \cs_new:Npn \__xltj_jfm_precharwd:n #1
784 { \__xltj_vrule_zero: \__xltj_kern:n {#1} }
785 \cs_new:Npn \__xltj_jfm_postcharwd:n #1
786 { \__xltj_kern:n {#1} \__xltj_vrule_zero: \__xltj_kern:n { \c_zero_dim } }
```

(End definition for __xltj_jfm_precharwd:n and __xltj_jfm_postcharwd:n.)

\xltj_jfm_set_precharwd:nn

文字幅調整を設定する。

\xltj_jfm_set_postcharwd:nn

```
787 \cs_new:Npn \xltj_jfm_set_precharwd:nn #1#2
788 {
789   \__xltj_jfm_set_param:nnn { precharwd } {#1}
790   { \__xltj_jfm_precharwd:n {#2} }
791 }
792 \cs_new:Npn \xltj_jfm_set_postcharwd:nn #1#2
793 {
794   \__xltj_jfm_set_param:nnn { postcharwd } {#1}
795   { \__xltj_jfm_postcharwd:n {#2} }
796 }
```

(End definition for \xltj_jfm_set_precharwd:nn and \xltj_jfm_set_postcharwd:nn. These functions are documented on page 5.)

`\xltj_jfm_clear_precharwd:n` 文字幅調整の設定をクリアする。

`\xltj_jfm_clear_postcharwd:n`

```

797 \cs_new:Npn \xltj_jfm_clear_precharwd:n #1
798 {
799   \__xltj_jfm_clear_param:nn { precharwd } {#1}
800 }
801 \cs_new:Npn \xltj_jfm_clear_postcharwd:n #1
802 {
803   \__xltj_jfm_clear_param:nn { postcharwd } {#1}
804 }

```

(End definition for `\xltj_jfm_clear_precharwd:n` and `\xltj_jfm_clear_postcharwd:n`. These functions are documented on page 5.)

`__xltj_jfm_use_precharwd:n` 文字幅調整が設定されていたら挿入する。

`__xltj_jfm_use_postcharwd:n`

```

805 \cs_new:Npn \__xltj_jfm_use_precharwd:n #1
806 { \__xltj_jfm_if_exist_use_param:nnTF { precharwd } {#1} {} {} }
807 \cs_new:Npn \__xltj_jfm_use_postcharwd:n #1
808 { \__xltj_jfm_if_exist_use_param:nnTF { postcharwd } {#1} {} {} }

```

(End definition for `__xltj_jfm_use_precharwd:n` and `__xltj_jfm_use_postcharwd:n`.)

3.6.4 禁則ペナルティ

`\xltj_jfm_set_prebreakpenalty:nn` 禁則ペナルティを設定する。

`\xltj_jfm_set_postbreakpenalty:nn`

```

809 \cs_new:Npn \xltj_jfm_set_prebreakpenalty:nn #1#2
810 {
811   \__xltj_jfm_set_param:nnn { prebreakpenalty } {#1}
812   { \__xltj_penalty:n {#2} }
813 }
814 \cs_new:Npn \xltj_jfm_set_postbreakpenalty:nn #1#2
815 {
816   \__xltj_jfm_set_param:nnn { postbreakpenalty } {#1}
817   { \__xltj_penalty:n {#2} }
818 }

```

(End definition for `\xltj_jfm_set_prebreakpenalty:nn` and `\xltj_jfm_set_postbreakpenalty:nn`. These functions are documented on page 5.)

`\xltj_jfm_clear_prebreakpenalty:n` 禁則をクリアする。

`\xltj_jfm_clear_postbreakpenalty:n`

```

819 \cs_new:Npn \xltj_jfm_clear_prebreakpenalty:n #1
820 {
821   \__xltj_jfm_clear_param:nn { prebreakpenalty } {#1}
822 }
823 \cs_new:Npn \xltj_jfm_clear_postbreakpenalty:n #1
824 {
825   \__xltj_jfm_clear_param:nn { postbreakpenalty } {#1}
826 }

```

(End definition for `\xltj_jfm_clear_prebreakpenalty:n` and `\xltj_jfm_clear_postbreakpenalty:n`. These functions are documented on page 5.)

```

\__xltj_jfm_use_prebreakpenalty:n 禁則が設定されていたら禁則ペナルティを挿入する。
\__xltj_jfm_use_postbreakpenalty:n 827 \cs_new:Npn \__xltj_jfm_use_prebreakpenalty:n #1
828 { \__xltj_jfm_if_exist_use_param:nnTF { prebreakpenalty } {#1} {} {} }
829 \cs_new:Npn \__xltj_jfm_use_postbreakpenalty:n #1
830 { \__xltj_jfm_if_exist_use_param:nnTF { postbreakpenalty } {#1} {} {} }

(End definition for \__xltj_jfm_use_prebreakpenalty:n and \__xltj_jfm_use_postbreakpenalty:n.)

```

3.6.5 和欧文間空白挿入設定

`\xltj_jfm_set_xspmode:nn`

```

831 \cs_new:Npn \xltj_jfm_set_xspmode:nn #1#2
832 {
833   \str_case:nnF {#2}
834   {
835     { inhibit }
836     { \__xltj_jfm_set_param:nnn { xspmode } {#1} { 0 } }
837     { preonly }
838     { \__xltj_jfm_set_param:nnn { xspmode } {#1} { 1 } }
839     { postonly }
840     { \__xltj_jfm_set_param:nnn { xspmode } {#1} { 2 } }
841     { allow }
842     { \__xltj_jfm_set_param:nnn { xspmode } {#1} { 3 } }
843   }
844   { \msg_error:nnn { xelatexja } { unknown-xspmode } {#2} }
845 }

```

(End definition for `\xltj_jfm_set_xspmode:nn`. This function is documented on page 5.)

```

846 \msg_new:nnnn { xelatexja } { unknown-xspmode }
847 { Unknown~xspmode~'~#1'~.~Perhaps~a~misspelling?. }
848 {
849   The~xspmode~used~not~known.~
850   Allowed~values~are~'inhibit',~'preonly',~'postonly'~or~'allow'.
851 }

```

`__xltj_jfm_use_xspmode:n`

```

852 \cs_new:Npn \__xltj_jfm_use_xspmode:n #1
853 { \__xltj_jfm_if_exist_use_param:nnTF { xspmode } {#1} {} { 3 } }

```

(End definition for `__xltj_jfm_use_xspmode:n`.)

`__xltj_jfm_if_xspmode_inhibit:nnF`

```

854 \cs_new:Npn \__xltj_jfm_if_xspmode_preinhibit_p:n #1
855 {
856   \int_case:nnF { \__xltj_jfm_use_xspmode:n {#1} }
857   {
858     { 0 } { \c_true_bool }
859     { 2 } { \c_true_bool }
860   }
861   { \c_false_bool }
862 }
863 \cs_new:Npn \__xltj_jfm_if_xspmode_postinhibit_p:n #1
864 {

```

```

865 \int_case:nnF { \_xltj_jfm_use_xspmode:n {#1} }
866 {
867   { 0 } { \c_true_bool }
868   { 1 } { \c_true_bool }
869 }
870 { \c_false_bool }
871 }
872 \cs_new:Npn \_xltj_jfm_if_xspmode_inhibit:nnF #1#2#3
873 {
874   \bool_lazy_or:nnF
875     { \_xltj_jfm_if_xspmode_postinhibit_p:n {#1} }
876     { \_xltj_jfm_if_xspmode_preinhibit_p:n {#2} }
877     {#3}
878 }

```

(End definition for _xltj_jfm_if_xspmode_inhibit:nnF.)

3.7 ボックス

3.7.1 ボックス回転

```

879 \cs_set_eq:NN \_xltj_special:n \tex_special:D
880 \cs_new:Npn \_xltj_graphics_save:
881   { \_xltj_special:n { x:gsave } }
882 \cs_new:Npn \_xltj_graphics_restore:
883   { \_xltj_special:n { x:grestore } }
884 \cs_new:Npn \_xltj_graphics_rotate:n #1
885   { \_xltj_special:n { x:rotate~ #1 } }
886 \box_new:N \l__xltj_rotate_box
887 \dim_new:N \l__xltj_rotate_box_ht_dim
888 \dim_new:N \l__xltj_rotate_box_dp_dim
889 \dim_new:N \l__xltj_rotate_box_wd_dim

```

_xltj_rotate_box_tate_in_yoko:N ボックスを時計回りに 90 度回転する。回転後のボックス下端がベースラインになる。

```

890 \cs_new:Npn \_xltj_rotate_box_tate_in_yoko:N #1
891 {

```

元のボックスの寸法を取得する。

```

892   \dim_set:Nn \l__xltj_rotate_box_ht_dim { \box_ht:N #1 }
893   \dim_set:Nn \l__xltj_rotate_box_dp_dim { \box_dp:N #1 }
894   \dim_set:Nn \l__xltj_rotate_box_wd_dim { \box_wd:N #1 }

```

元のボックスの右端が回転後にベースラインに来るように位置調整する。

```

895   \hbox_set:Nn \l__xltj_rotate_box
896   {
897     \tex_kern:D -\l__xltj_rotate_box_wd_dim
898     \box_use_drop:N #1
899   }

```

ボックスを時計回りに 90 度回転する。

```

900   \hbox_set:Nn \l__xltj_rotate_box
901   {
902     \_xltj_graphics_save:
903     \_xltj_graphics_rotate:n { -90 }

```

```

904     \box_use:N \l__xltj_rotate_box
905     \__xltj_graphics_restore:
906 }

```

元のボックスの下端が左端になるように位置調整する。

```

907 \hbox_set:Nn \l__xltj_rotate_box
908 {
909     \tex_kern:D \l__xltj_rotate_box_dp_dim
910     \box_use:N \l__xltj_rotate_box
911 }

```

ボックス寸法を調整する。

```

912 \box_set_ht:Nn \l__xltj_rotate_box
913 { \l__xltj_rotate_box_wd_dim }
914 \box_set_dp:Nn \l__xltj_rotate_box { 0pt }
915 \box_set_wd:Nn \l__xltj_rotate_box
916 { \l__xltj_rotate_box_ht_dim + \l__xltj_rotate_box_dp_dim }
917 \box_set_eq_drop:NN #1 \l__xltj_rotate_box
918 }

```

(End definition for __xltj_rotate_box_tate_in_yoko:N.)

__xltj_rotate_box_yoko_in_tate:N ボックスを反時計回りに 90 度回転する。回転後のボックス中央がベースラインになる。

```

919 \cs_new:Npn \__xltj_rotate_box_yoko_in_tate:N #1
920 {

```

元のボックスの寸法を取得する。

```

921 \dim_set:Nn \l__xltj_rotate_box_ht_dim { \box_ht:N #1 }
922 \dim_set:Nn \l__xltj_rotate_box_dp_dim { \box_dp:N #1 }
923 \dim_set:Nn \l__xltj_rotate_box_wd_dim { \box_wd:N #1 }

```

元のボックスの中央が回転後にベースラインに来るように位置調整する。

```

924 \hbox_set:Nn \l__xltj_rotate_box
925 {
926     \tex_kern:D -0.5\l__xltj_rotate_box_wd_dim
927     \box_use_drop:N #1
928 }

```

ボックスを反時計回りに 90 度回転する。

```

929 \hbox_set:Nn \l__xltj_rotate_box
930 {
931     \__xltj_graphics_save:
932     \__xltj_graphics_rotate:n { 90 }
933     \box_use:N \l__xltj_rotate_box
934     \__xltj_graphics_restore:
935 }

```

元のボックスの上端が左端になるように位置調整する。

```

936 \hbox_set:Nn \l__xltj_rotate_box
937 {
938     \tex_kern:D \l__xltj_rotate_box_ht_dim
939     \box_use:N \l__xltj_rotate_box
940 }

```

ボックス寸法を調整する。

```
941 \box_set_ht:Nn \l__xltj_rotate_box
942 { 0.5\l__xltj_rotate_box_wd_dim }
943 \box_set_dp:Nn \l__xltj_rotate_box
944 { 0.5\l__xltj_rotate_box_wd_dim }
945 \box_set_wd:Nn \l__xltj_rotate_box
946 { \l__xltj_rotate_box_ht_dim + \l__xltj_rotate_box_dp_dim }
947 \box_set_eq_drop:NN #1 \l__xltj_rotate_box
948 }
```

(End definition for `_xltj_rotate_box_yoko_in_tate:N`.)

3.7.2 ボックスのベースライン補正

ボックスを和文ベースライン補正を適用して挿入する。水平モードでのみ利用できる。

`\xltj_box_yjabaselineshift:n`

`\xltj_box_tjabaselineshift:n`

```
949 \cs_new:Npn \xltj_box_yjabaselineshift:n #1
950 { \box_move_down:nn { \l__xltj_yjabaselineshift_tl } {#1} }
951 \cs_new:Npn \xltj_box_tjabaselineshift:n #1
952 { \box_move_down:nn { \l__xltj_tjabaselineshift_tl } {#1} }
```

(End definition for `\xltj_box_yjabaselineshift:n` and `\xltj_box_tjabaselineshift:n`. These functions are documented on page 6.)

3.7.3 縦組中の横組ボックス

縦組中に横組ボックスを配置する場合はボックスを反時計回りに 90 度回転する。

```
953 \cs_new:Npn \__xltj_yoko_in_tate_box:nnnn #1#2#3#4
954 {
955   #1
956   {
957     #2 \l__xltj_rotate_box #3
958     { \bool_set_false:N \l__xltj_tate_text_bool #4 }
959     \__xltj_rotate_box_yoko_in_tate:N \l__xltj_rotate_box
960     \box_use_drop:N \l__xltj_rotate_box
961   }
962 }
```

`\xltj_yoko_in_tate_hbox:n`

```
963 \cs_new:Npn \xltj_yoko_in_tate_hbox:n #1
964 {
965   \__xltj_yoko_in_tate_box:nnnn
966   { \hbox:n } { \hbox_set:Nn } {} {#1}
967 }
```

(End definition for `\xltj_yoko_in_tate_hbox:n`. This function is documented on page 6.)

`\xltj_yoko_in_tate_hbox_to_wd:nn`

`\xltj_yoko_in_tate_hbox_to_zero:n`

```
968 \cs_new:Npn \xltj_yoko_in_tate_hbox_to_wd:nn #1#2
969 {
970   \__xltj_yoko_in_tate_box:nnnn
971   { \hbox:n } { \hbox_set_to_wd:Nnn } {{#1}} {#2}
972 }
```



```

973 \cs_new:Npn \xltj_yoko_in_tate_hbox_to_zero:n #1
974 {
975     \__xltj_yoko_in_tate_box:nnnn
976     { \hbox:n } { \hbox_set_to_zero:Nn } {} {#1}
977 }

```

(End definition for \xltj_yoko_in_tate_hbox_to_wd:nn and \xltj_yoko_in_tate_hbox_to_zero:n. These functions are documented on page 6.)

\xltj_yoko_in_tate_hbox_set:Nn

\xltj_yoko_in_tate_hbox_set:cn

\xltj_yoko_in_tate_hbox_gset:Nn

\xltj_yoko_in_tate_hbox_gset:cn

```

978 \cs_new:Npn \xltj_yoko_in_tate_hbox_set:Nn #1#2
979 {
980     \__xltj_yoko_in_tate_box:nnnn
981     { \hbox_set:Nn #1 } { \hbox_set:Nn } {} {#2}
982 }
983 \cs_new:Npn \xltj_yoko_in_tate_hbox_gset:Nn #1#2
984 {
985     \__xltj_yoko_in_tate_box:nnnn
986     { \hbox_gset:Nn #1 } { \hbox_set:Nn } {} {#2}
987 }
988 \cs_generate_variant:Nn \xltj_yoko_in_tate_hbox_set:Nn { c }
989 \cs_generate_variant:Nn \xltj_yoko_in_tate_hbox_gset:Nn { c }

```

(End definition for \xltj_yoko_in_tate_hbox_set:Nn and \xltj_yoko_in_tate_hbox_gset:Nn. These functions are documented on page 6.)

\xltj_yoko_in_tate_hbox_set_to_wd:Nnn

\xltj_yoko_in_tate_hbox_set_to_wd:cn

\xltj_yoko_in_tate_hbox_gset_to_wd:Nnn

\xltj_yoko_in_tate_hbox_gset_to_wd:cn

```

990 \cs_new:Npn \xltj_yoko_in_tate_hbox_set_to_wd:Nnn #1#2#3
991 {
992     \__xltj_yoko_in_tate_box:nnnn
993     { \hbox_set:Nn #1 } { \hbox_set_to_wd:Nnn } {{#2}} {#3}
994 }
995 \cs_new:Npn \xltj_yoko_in_tate_hbox_gset_to_wd:Nnn #1#2#3
996 {
997     \__xltj_yoko_in_tate_box:nnnn
998     { \hbox_gset:Nn #1 } { \hbox_set_to_wd:Nnn } {{#2}} {#3}
999 }
1000 \cs_generate_variant:Nn \xltj_yoko_in_tate_hbox_set_to_wd:Nn { c }
1001 \cs_generate_variant:Nn \xltj_yoko_in_tate_hbox_gset_to_wd:Nn { c }

```

(End definition for \xltj_yoko_in_tate_hbox_set_to_wd:Nnn and \xltj_yoko_in_tate_hbox_gset_to_wd:Nnn. These functions are documented on page 6.)

\xltj_yoko_in_tate_hbox_overlap_center:n

\xltj_yoko_in_tate_hbox_overlap_right:n

\xltj_yoko_in_tate_hbox_overlap_left:n

```

1002 \cs_new:Npn \xltj_yoko_in_tate_hbox_overlap_center:n #1
1003 { \xltj_yoko_in_tate_hbox_to_zero:n { \tex_hss:D #1 \tex_hss:D } }
1004 \cs_new:Npn \xltj_yoko_in_tate_hbox_overlap_right:n #1
1005 { \xltj_yoko_in_tate_hbox_to_zero:n { \tex_hss:D #1 } }
1006 \cs_new:Npn \xltj_yoko_in_tate_hbox_overlap_left:n #1
1007 { \xltj_yoko_in_tate_hbox_to_zero:n { #1 \tex_hss:D } }

```

(End definition for \xltj_yoko_in_tate_hbox_overlap_center:n, \xltj_yoko_in_tate_hbox_overlap_right:n, and \xltj_yoko_in_tate_hbox_overlap_left:n. These functions are documented on page 6.)

`\xltj_yoko_in_tate_vbox:n`

```
1008 \cs_new:Npn \xltj_yoko_in_tate_vbox:n #1
1009 {
1010   \__xltj_yoko_in_tate_box:nnnn
1011   { \hbox:n } { \vbox_set:Nn } {} {#1}
1012 }
```

(End definition for `\xltj_yoko_in_tate_vbox:n`. This function is documented on page 6.)

`\xltj_yoko_in_tate_vbox_to_ht:nn`

`\xltj_yoko_in_tate_vbox_to_zero:n`

```
1013 \cs_new:Npn \xltj_yoko_in_tate_vbox_to_ht:nn #1#2
1014 {
1015   \__xltj_yoko_in_tate_box:nnnn
1016   { \hbox:n } { \vbox_set_to_ht:Nnn } {{#1}} {#2}
1017 }
1018 \cs_new:Npn \xltj_yoko_in_tate_vbox_to_zero:n #1
1019 {
1020   \__xltj_yoko_in_tate_box:nnnn
1021   { \hbox:n } { \vbox_set_to_zero:Nn } {} {#1}
1022 }
```

(End definition for `\xltj_yoko_in_tate_vbox_to_ht:nn` and `\xltj_yoko_in_tate_vbox_to_zero:n`. These functions are documented on page 6.)

`\xltj_yoko_in_tate_vbox_set:Nn`

`\xltj_yoko_in_tate_vbox_set:cn`

`\xltj_yoko_in_tate_vbox_gset:Nn`

`\xltj_yoko_in_tate_vbox_gset:cn`

```
1023 \cs_new:Npn \xltj_yoko_in_tate_vbox_set:Nn #1#2
1024 {
1025   \__xltj_yoko_in_tate_box:nnnn
1026   { \hbox_set:Nn #1 } { \vbox_set:Nn } {} {#2}
1027 }
1028 \cs_new:Npn \xltj_yoko_in_tate_vbox_gset:Nn #1#2
1029 {
1030   \__xltj_yoko_in_tate_box:nnnn
1031   { \hbox_gset:Nn #1 } { \vbox_set:Nn } {} {#2}
1032 }
1033 \cs_generate_variant:Nn \xltj_yoko_in_tate_vbox_set:Nn { c }
1034 \cs_generate_variant:Nn \xltj_yoko_in_tate_vbox_gset:Nn { c }
```

(End definition for `\xltj_yoko_in_tate_vbox_set:Nn` and `\xltj_yoko_in_tate_vbox_gset:Nn`. These functions are documented on page 6.)

`\xltj_yoko_in_tate_vbox_set_to_ht:Nnn`

`\xltj_yoko_in_tate_vbox_set_to_ht:cn`

`\xltj_yoko_in_tate_vbox_gset_to_ht:Nnn`

`\xltj_yoko_in_tate_vbox_gset_to_ht:cn`

```
1035 \cs_new:Npn \xltj_yoko_in_tate_vbox_set_to_ht:Nnn #1#2#3
1036 {
1037   \__xltj_yoko_in_tate_box:nnnn
1038   { \hbox_set:Nn #1 } { \vbox_set_to_ht:Nnn } {{#2}} {#3}
1039 }
1040 \cs_new:Npn \xltj_yoko_in_tate_vbox_gset_to_ht:Nnn #1#2#3
1041 {
1042   \__xltj_yoko_in_tate_box:nnnn
1043   { \hbox_gset:Nn #1 } { \vbox_set_to_ht:Nnn } {{#2}} {#3}
1044 }
1045 \cs_generate_variant:Nn \xltj_yoko_in_tate_vbox_set_to_ht:Nnn { c }
1046 \cs_generate_variant:Nn \xltj_yoko_in_tate_vbox_gset_to_ht:Nnn { c }
```

(End definition for \xltj_yoko_in_tate_vbox_set_to_ht:Nnn and \xltj_yoko_in_tate_vbox_gset_to_ht:Nnn. These functions are documented on page 7.)

3.7.4 横組中の縦組ボックス

横組中に縦組ボックスを配置する場合はボックスを時計回りに 90 度回転する。

```

1047 \cs_new:Npn \__xltj_tate_in_yoko_box:nnnn #1#2#3#4
1048 {
1049   #1
1050   {
1051     #2 \l__xltj_rotate_box #3
1052     { \bool_set_false:N \l__xltj_tate_text_bool #4 }
1053     \__xltj_rotate_box_tate_in_yoko:N \l__xltj_rotate_box
1054     \box_use_drop:N \l__xltj_rotate_box
1055   }
1056 }
```

`\xltj_tate_in_yoko_hbox:n`

```

1057 \cs_new:Npn \xltj_tate_in_yoko_hbox:n #1
1058 {
1059   \__xltj_tate_in_yoko_box:nnnn
1060   { \hbox:n } { \hbox_set:Nn } {} {#1}
1061 }
```

(End definition for \xltj_tate_in_yoko_hbox:n. This function is documented on page 7.)

`\xltj_tate_in_yoko_hbox_to_wd:nn`

`\xltj_tate_in_yoko_hbox_to_zero:n`

```

1062 \cs_new:Npn \xltj_tate_in_yoko_hbox_to_wd:nn #1#2
1063 {
1064   \__xltj_tate_in_yoko_box:nnnn
1065   { \hbox:n } { \hbox_set_to_wd:Nnn } {{#1}} {#2}
1066 }
1067 \cs_new:Npn \xltj_tate_in_yoko_hbox_to_zero:n #1
1068 {
1069   \__xltj_tate_in_yoko_box:nnnn
1070   { \hbox:n } { \hbox_set_to_zero:Nn } {} {#1}
1071 }
```

(End definition for \xltj_tate_in_yoko_hbox_to_wd:nn and \xltj_tate_in_yoko_hbox_to_zero:n. These functions are documented on page 7.)

`\xltj_tate_in_yoko_hbox_set:Nn`

`\xltj_tate_in_yoko_hbox_set:cn`

`\xltj_tate_in_yoko_hbox_gset:Nn`

`\xltj_tate_in_yoko_hbox_gset:cn`

```

1072 \cs_new:Npn \xltj_tate_in_yoko_hbox_set:Nn #1#2
1073 {
1074   \__xltj_tate_in_yoko_box:nnnn
1075   { \hbox_set:Nn #1 } { \hbox_set:Nn } {} {#2}
1076 }
1077 \cs_new:Npn \xltj_tate_in_yoko_hbox_gset:Nn #1#2
1078 {
1079   \__xltj_tate_in_yoko_box:nnnn
1080   { \hbox_gset:Nn #1 } { \hbox_set:Nn } {} {#2}
1081 }
1082 \cs_generate_variant:Nn \xltj_tate_in_yoko_hbox_set:Nn { c }
1083 \cs_generate_variant:Nn \xltj_tate_in_yoko_hbox_gset:Nn { c }
```

(End definition for `\xltj_tate_in_yoko_hbox_set:Nn` and `\xltj_tate_in_yoko_hbox_gset:Nn`. These functions are documented on page 7.)

`\xltj_tate_in_yoko_hbox_set_to_wd:Nnn`

`\xltj_tate_in_yoko_hbox_set_to_wd:cnm`

`\xltj_tate_in_yoko_hbox_gset_to_wd:Nnn`

`\xltj_tate_in_yoko_hbox_gset_to_wd:cnm`

```

1084 \cs_new:Npn \xltj_tate_in_yoko_hbox_set_to_wd:Nnn #1#2#3
1085 {
1086   \__xltj_tate_in_yoko_box:nnnn
1087   { \hbox_set:Nn #1 } { \hbox_set_to_wd:Nnn } {{#2}} {#3}
1088 }
1089 \cs_new:Npn \xltj_tate_in_yoko_hbox_gset_to_wd:Nnn #1#2#3
1090 {
1091   \__xltj_tate_in_yoko_box:nnnn
1092   { \hbox_gset:Nn #1 } { \hbox_set_to_wd:Nnn } {{#2}} {#3}
1093 }
1094 \cs_generate_variant:Nn \xltj_tate_in_yoko_hbox_set_to_wd:Nn { c }
1095 \cs_generate_variant:Nn \xltj_tate_in_yoko_hbox_gset_to_wd:Nn { c }

```

(End definition for `\xltj_tate_in_yoko_hbox_set_to_wd:Nnn` and `\xltj_tate_in_yoko_hbox_gset_to_wd:Nnn`. These functions are documented on page 7.)

`\xltj_tate_in_yoko_hbox_overlap_center:n`

`\xltj_tate_in_yoko_hbox_overlap_right:n`

`\xltj_tate_in_yoko_hbox_overlap_left:n`

```

1096 \cs_new:Npn \xltj_tate_in_yoko_hbox_overlap_center:n #1
1097 { \xltj_tate_in_yoko_hbox_to_zero:n { \tex_hss:D #1 \tex_hss:D } }
1098 \cs_new:Npn \xltj_tate_in_yoko_hbox_overlap_right:n #1
1099 { \xltj_tate_in_yoko_hbox_to_zero:n { \tex_hss:D #1 } }
1100 \cs_new:Npn \xltj_tate_in_yoko_hbox_overlap_left:n #1
1101 { \xltj_tate_in_yoko_hbox_to_zero:n { #1 \tex_hss:D } }

```

(End definition for `\xltj_tate_in_yoko_hbox_overlap_center:n`, `\xltj_tate_in_yoko_hbox_overlap_right:n`, and `\xltj_tate_in_yoko_hbox_overlap_left:n`. These functions are documented on page 7.)

`\xltj_tate_in_yoko_vbox:n`

```

1102 \cs_new:Npn \xltj_tate_in_yoko_vbox:n #1
1103 {
1104   \__xltj_tate_in_yoko_box:nnnn
1105   { \hbox:n } { \vbox_set:Nn } {} {#1}
1106 }

```

(End definition for `\xltj_tate_in_yoko_vbox:n`. This function is documented on page 7.)

`\xltj_tate_in_yoko_vbox_to_ht:nn`

`\xltj_tate_in_yoko_vbox_to_zero:n`

```

1107 \cs_new:Npn \xltj_tate_in_yoko_vbox_to_ht:nn #1#2
1108 {
1109   \__xltj_tate_in_yoko_box:nnnn
1110   { \hbox:n } { \vbox_set_to_ht:Nnn } {{#1}} {#2}
1111 }
1112 \cs_new:Npn \xltj_tate_in_yoko_vbox_to_zero:n #1
1113 {
1114   \__xltj_tate_in_yoko_box:nnnn
1115   { \hbox:n } { \vbox_set_to_zero:Nn } {} {#1}
1116 }

```

(End definition for `\xltj_tate_in_yoko_vbox_to_ht:nn` and `\xltj_tate_in_yoko_vbox_to_zero:n`. These functions are documented on page 7.)

```

\ltj_tate_in_yoko_vbox_set:Nn
\ltj_tate_in_yoko_vbox_set:cn 1117 \cs_new:Npn \ltj_tate_in_yoko_vbox_set:Nn #1#2
1118 {
1119   \__ltj_tate_in_yoko_box:nnnn
\ltj_tate_in_yoko_vbox_gset:Nn 1120   { \hbox_set:Nn #1 } { \vbox_set:Nn } {} {#2}
\ltj_tate_in_yoko_vbox_gset:cn 1121 }
1122 \cs_new:Npn \ltj_tate_in_yoko_vbox_gset:Nn #1#2
1123 {
1124   \__ltj_tate_in_yoko_box:nnnn
1125   { \hbox_gset:Nn #1 } { \vbox_set:Nn } {} {#2}
1126 }
1127 \cs_generate_variant:Nn \ltj_tate_in_yoko_vbox_set:Nn { c }
1128 \cs_generate_variant:Nn \ltj_tate_in_yoko_vbox_gset:Nn { c }

```

(End definition for `\ltj_tate_in_yoko_vbox_set:Nn` and `\ltj_tate_in_yoko_vbox_gset:Nn`. These functions are documented on page 7.)

```

\ltj_tate_in_yoko_vbox_set_to_ht:Nnn
\ltj_tate_in_yoko_vbox_set_to_ht:cn 1129 \cs_new:Npn \ltj_tate_in_yoko_vbox_set_to_ht:Nnn #1#2#3
1130 {
1131   \__ltj_tate_in_yoko_box:nnnn
\ltj_tate_in_yoko_vbox_gset_to_ht:Nnn 1132   { \hbox_set:Nn #1 } { \vbox_set_to_ht:Nnn } {{#2}} {#3}
\ltj_tate_in_yoko_vbox_gset_to_ht:cn 1133 }
1134 \cs_new:Npn \ltj_tate_in_yoko_vbox_gset_to_ht:Nnn #1#2#3
1135 {
1136   \__ltj_tate_in_yoko_box:nnnn
1137   { \hbox_gset:Nn #1 } { \vbox_set_to_ht:Nnn } {{#2}} {#3}
1138 }
1139 \cs_generate_variant:Nn \ltj_tate_in_yoko_vbox_set_to_ht:Nnn { c }
1140 \cs_generate_variant:Nn \ltj_tate_in_yoko_vbox_gset_to_ht:Nnn { c }

```

(End definition for `\ltj_tate_in_yoko_vbox_set_to_ht:Nnn` and `\ltj_tate_in_yoko_vbox_gset_to_ht:Nnn`. These functions are documented on page 8.)

3.8 ページ出力

3.8.1 縦組み時のページ回転処理

縦組みにするためページの回転処理を行う。

LaTeX では出力ルーチンで本文領域が `\@outputbox` に構築された後 `\@outputpage` が実行されるので、`\@outputpage` のまゝに `\@outputbox` を 90 度回転する処理を入れる。

```

1141 \hook_gput_code:nnn { cmd/\@outputpage/before } { ./rotate-page }
1142 { \__ltj_output_page_before: }
1143 \hook_gput_code:nnn { cmd/\@outputpage/after } { ./rotate-page }
1144 { \__ltj_output_page_after: }

1145 \cs_set:Npn \__ltj_output_page_before:
1146 {
1147   \bool_if:NT \g__ltj_tate_document_bool
1148   {

```

`\@outputbox` を時計回りに 90 度回転する。

```

1149   \__ltj_rotate_box_tate_in_yoko:N \@outputbox

```

\textwidth と \textheight を入れ替える。

```
1150         \_xltj_swap_dim:NN \textwidth \textheight
```

横組み状態で元の \@outputpage を実行する。

```
1151         \bool_set_false:N \l__xltj_tate_text_bool
1152     }
1153 }
```

```
1154 \cs_set:Npn \_xltj_output_page_after:
```

```
1155 {
1156     \bool_if:NT \g__xltj_tate_document_bool
1157     {
```

縦組みに戻す。

```
1158         \bool_set_true:N \l__xltj_tate_text_bool
```

\textwidth と \textheight をもとに戻す。

```
1159         \_xltj_swap_dim:NN \textwidth \textheight
```

\textwidth と \textheight を入れ替えた状態で \@colht が設定されているので、戻った後もう一度設定しなおす。

```
1160         \dim_gset_eq:NN \@colht \textheight
1161     }
1162 }
```

3.8.2 トンボ

```
1163 \bool_new:N \g__xltj_tombow_bool
1164 \tl_new:N \g__xltj_tombow_color_tl
1165 \tl_new:N \g__xltj_tombow_banner_tl
1166 \tl_new:N \g__xltj_tombow_banner_font_tl
1167 \dim_new:N \g__xltj_tombow_thickness_dim
1168 \dim_new:N \g__xltj_tombow_length_dim
1169 \dim_new:N \g__xltj_tombow_bleed_dim
1170 \dim_new:N \g__xltj_tombow_hoffset_dim
1171 \dim_new:N \g__xltj_tombow_voffset_dim

1172 \keys_define:nn { xelatexja / tombow }
1173 {
1174     tombow      .bool_gset:N = \g__xltj_tombow_bool,
1175     color       .tl_gset:N   = \g__xltj_tombow_color_tl,
1176     banner      .tl_gset:N   = \g__xltj_tombow_banner_tl,
1177     banner-font .tl_gset:N   = \g__xltj_tombow_banner_font_tl,
1178     thickness   .dim_gset:N  = \g__xltj_tombow_thickness_dim,
1179     length      .dim_gset:N  = \g__xltj_tombow_length_dim,
1180     bleed       .dim_gset:N  = \g__xltj_tombow_bleed_dim,
1181     hoffset     .dim_gset:N  = \g__xltj_tombow_hoffset_dim,
1182     voffset     .dim_gset:N  = \g__xltj_tombow_voffset_dim,
1183 }

1184 \keys_set:nn { xelatexja / tombow }
1185 {
1186     tombow      = false,
1187     color       = \normalcolor,
1188     banner      = {},
```

```

1189     banner-font = \usefont{TU}{lmtt}{m}{n}\fontsize{9}{9}\selectfont,
1190     thickness   = 0.1pt,
1191     length      = 10mm,
1192     bleed       = 3mm,
1193     hoffset     = 1in,
1194     voffset     = 1in,
1195   }

1196 \NewDocumentCommand \xltjTombowSetup { m }
1197 { \keys_set:nn { xelatexja / tombow } {#1} }

```

トンボの出力

```

1198 \cs_new:Npn \__xltj_output_tombow:
1199 {
1200   \group_begin:
1201   \g__xltj_tombow_color_tl

```

線幅をセット

```

1202   \linethickness{\g__xltj_tombow_thickness_dim}

```

左上

```

1203   \put(0,\g__xltj_tombow_bleed_dim)
1204   {\line(-1,0){\g__xltj_tombow_length_dim+\g__xltj_tombow_bleed_dim}}
1205   \put(0,\g__xltj_tombow_bleed_dim)
1206   {\line(0,1){\g__xltj_tombow_length_dim}}
1207   \put(-\g__xltj_tombow_bleed_dim,0)
1208   {\line(-1,0){\g__xltj_tombow_length_dim}}
1209   \put(-\g__xltj_tombow_bleed_dim,0)
1210   {\line(0,1){\g__xltj_tombow_length_dim+\g__xltj_tombow_bleed_dim}}

```

上

```

1211   \put(0.5\paperwidth,\g__xltj_tombow_bleed_dim)
1212   {\line(-1,0){\g__xltj_tombow_length_dim}}
1213   \put(0.5\paperwidth,\g__xltj_tombow_bleed_dim)
1214   {\line(0,1){\g__xltj_tombow_length_dim}}
1215   \put(0.5\paperwidth,\g__xltj_tombow_bleed_dim)
1216   {\line(1,0){\g__xltj_tombow_length_dim}}

```

右上

```

1217   \put(\paperwidth,\g__xltj_tombow_bleed_dim)
1218   {\line(1,0){\g__xltj_tombow_length_dim+\g__xltj_tombow_bleed_dim}}
1219   \put(\paperwidth,\g__xltj_tombow_bleed_dim)
1220   {\line(0,1){\g__xltj_tombow_length_dim}}
1221   \put(\paperwidth+\g__xltj_tombow_bleed_dim,0)
1222   {\line(1,0){\g__xltj_tombow_length_dim}}
1223   \put(\paperwidth+\g__xltj_tombow_bleed_dim,0)
1224   {\line(0,1){\g__xltj_tombow_length_dim+\g__xltj_tombow_bleed_dim}}

```

左

```

1225   \put(-\g__xltj_tombow_bleed_dim,-0.5\paperheight)
1226   {\line(0,-1){\g__xltj_tombow_length_dim}}
1227   \put(-\g__xltj_tombow_bleed_dim,-0.5\paperheight)
1228   {\line(-1,0){\g__xltj_tombow_length_dim}}
1229   \put(-\g__xltj_tombow_bleed_dim,-0.5\paperheight)
1230   {\line(0,1){\g__xltj_tombow_length_dim}}

```

右

```
1231 \put(\paperwidth+\g__xltj_tombow_bleed_dim,-0.5\paperheight)
1232   {\line(0,-1){\g__xltj_tombow_length_dim}}
1233 \put(\paperwidth+\g__xltj_tombow_bleed_dim,-0.5\paperheight)
1234   {\line(1,0){\g__xltj_tombow_length_dim}}
1235 \put(\paperwidth+\g__xltj_tombow_bleed_dim,-0.5\paperheight)
1236   {\line(0,1){\g__xltj_tombow_length_dim}}
```

左下

```
1237 \put(0,-\paperheight-\g__xltj_tombow_bleed_dim)
1238   {\line(-1,0){\g__xltj_tombow_length_dim+\g__xltj_tombow_bleed_dim}}
1239 \put(0,-\paperheight-\g__xltj_tombow_bleed_dim)
1240   {\line(0,-1){\g__xltj_tombow_length_dim}}
1241 \put(-\g__xltj_tombow_bleed_dim,-\paperheight)
1242   {\line(-1,0){\g__xltj_tombow_length_dim}}
1243 \put(-\g__xltj_tombow_bleed_dim,-\paperheight)
1244   {\line(0,-1){\g__xltj_tombow_length_dim+\g__xltj_tombow_bleed_dim}}
```

下

```
1245 \put(0.5\paperwidth,-\paperheight-\g__xltj_tombow_bleed_dim)
1246   {\line(-1,0){\g__xltj_tombow_length_dim}}
1247 \put(0.5\paperwidth,-\paperheight-\g__xltj_tombow_bleed_dim)
1248   {\line(0,-1){\g__xltj_tombow_length_dim}}
1249 \put(0.5\paperwidth,-\paperheight-\g__xltj_tombow_bleed_dim)
1250   {\line(1,0){\g__xltj_tombow_length_dim}}
```

右下

```
1251 \put(\paperwidth,-\paperheight-\g__xltj_tombow_bleed_dim)
1252   {\line(1,0){\g__xltj_tombow_length_dim+\g__xltj_tombow_bleed_dim}}
1253 \put(\paperwidth,-\paperheight-\g__xltj_tombow_bleed_dim)
1254   {\line(0,-1){\g__xltj_tombow_length_dim}}
1255 \put(\paperwidth+\g__xltj_tombow_bleed_dim,-\paperheight)
1256   {\line(1,0){\g__xltj_tombow_length_dim}}
1257 \put(\paperwidth+\g__xltj_tombow_bleed_dim,-\paperheight)
1258   {\line(0,-1){\g__xltj_tombow_length_dim+\g__xltj_tombow_bleed_dim}}
```

バナー

```
1259 \put(5mm,\g__xltj_tombow_bleed_dim+4pt)
1260   { \g__xltj_tombow_banner_font_tl \g__xltj_tombow_banner_tl }
1261 \group_end:
1262 }
```

shipout/background フックでトンボを描画する。

```
1263 \hook_gput_code:nnn { shipout/background } { ./tombow }
1264 {
1265   \bool_if:NT \g__xltj_tombow_bool
1266     { \__xltj_output_tombow: }
1267 }
1268 \hook_gput_code:nnn { begindocument } { ./tombow }
1269 {
1270   \bool_if:NT \g__xltj_tombow_bool
1271     {
1272       \dim_gadd:Nn \tex_hoffset:D { \g__xltj_tombow_hoffset_dim }
1273       \dim_gadd:Nn \tex_voffset:D { \g__xltj_tombow_voffset_dim }
1274     }
1275 }
```



```
1275 }
```

3.9 ユーティリティ関数

`\xltj_int_to_kansuji:n`

```
1276 \cs_new:Npn \xltj_int_to_kansuji:n #1
1277 {
1278   \int_compare:nNnF {#1} < { 0 }
1279   {
1280     \exp_args:Nf
1281     \tl_map_function:nN
1282     { \int_eval:n {#1} }
1283     \__xltj_int_to_kansuji_digit:n
1284   }
1285 }
1286 \cs_new:Npn \__xltj_int_to_kansuji_digit:n #1
1287 {
1288   \int_case:nn {#1}
1289   {
1290     { 0 } { 〇 }
1291     { 1 } { 一 }
1292     { 2 } { 二 }
1293     { 3 } { 三 }
1294     { 4 } { 四 }
1295     { 5 } { 五 }
1296     { 6 } { 六 }
1297     { 7 } { 七 }
1298     { 8 } { 八 }
1299     { 9 } { 九 }
1300   }
1301 }
```

(End definition for `\xltj_int_to_kansuji:n`. This function is documented on page ??.)

3.10 p_{La}T_EX 2_ε 互換インターフェイス

```
1302 \prg_new_conditional:Npnn \platex_if_direction_yoko: { p, T, F, TF }
1303 {
1304   \bool_if:NTF \l__xltj_tate_text_bool
1305   { \prg_return_false: }
1306   { \prg_return_true: }
1307 }
1308 \prg_new_conditional:Npnn \platex_if_direction_tate: { p, T, F, TF }
1309 {
1310   \bool_if:NTF \l__xltj_tate_text_bool
1311   { \prg_return_true: }
1312   { \prg_return_false: }
1313 }
1314 \cs_new_eq:NN \IfDirectionYokoT \platex_if_direction_yoko:T
1315 \cs_new_eq:NN \IfDirectionYokoF \platex_if_direction_yoko:F
1316 \cs_new_eq:NN \IfDirectionYokoTF \platex_if_direction_yoko:TF
1317 \cs_new_eq:NN \IfDirectionTateT \platex_if_direction_tate:T
1318 \cs_new_eq:NN \IfDirectionTateF \platex_if_direction_tate:F
```

```

1319 \cs_new_eq:NN \IfDirectionTateTF \latex_if_direction_tate:TF
1320 \cs_new_eq:NN \xltjsetkanjiskip \xltj_set_kanjiskip:n
1321 \cs_new_eq:NN \xltjgetkanjiskip \xltj_get_kanjiskip:
1322 \cs_new_eq:NN \xltjsetxkanjiskip \xltj_set_xkanjiskip:n
1323 \cs_new_eq:NN \xltjgetxkanjiskip \xltj_get_xkanjiskip:
1324 \cs_new_eq:NN \setkanjiskip \xltj_set_kanjiskip:n
1325 \cs_new_eq:NN \getkanjiskip \xltj_get_kanjiskip:
1326 \cs_new_eq:NN \setxkanjiskip \xltj_set_xkanjiskip:n
1327 \cs_new_eq:NN \getxkanjiskip \xltj_get_xkanjiskip:
1328 \cs_new_protected:Npn \autospacing
1329 { \bool_set_false:N \l__xltj_noautospacing_bool }
1330 \cs_new_protected:Npn \autoxspacing
1331 { \bool_set_false:N \l__xltj_noautoxspacing_bool }
1332 \cs_new_protected:Npn \noautospacing
1333 { \bool_set_true:N \l__xltj_noautospacing_bool }
1334 \cs_new_protected:Npn \noautoxspacing
1335 { \bool_set_true:N \l__xltj_noautoxspacing_bool }
1336 \cs_new_protected:Npn \inhibitglue
1337 { \bool_set_true:N \l__xltj_inhibitglue_bool }
1338 \hook_gput_code:nnn { normalfont } { . }
1339 { \xltj_set_kanji_family:x { \kanjifamilydefault } }
1340 \cs_new:Npn \mcdefault { mc }
1341 \cs_new:Npn \gtdefault { gt }
1342 \cs_new:Npn \kanjifamilydefault { \mcdefault }
1343 \NewDocumentCommand \mcfamily {}
1344 { \xltj_set_kanji_family:x { \mcdefault } \selectfont }
1345 \NewDocumentCommand \gtfamily {}
1346 { \xltj_set_kanji_family:x { \gtdefault } \selectfont }
1347 \DeclareTextFontCommand{\textmc}{\mcfamily}
1348 \DeclareTextFontCommand{\textgt}{\gtfamily}
1349 \cs_new_eq:NN \tokansuji \xltj_int_to_kansuji:n

```

3.11 JFM ファイルの読み込み

```

1350 \input{xltjfm-\g__xltj_jfm_name_tl.def}
1351 </package>

```

3.12 xltjext パッケージ

```

1352 <*xltjext>

```

\pbox

```

1353 \bool_new:N \l__xltj_make_pbox_tate_bool
1354 \bool_new:N \l__xltj_make_pbox_rotate_bool
1355 \NewDocumentCommand \pbox { d<> o O{c} m }
1356 {
1357   \scan_stop:
1358   \mode_if_vertical:T { \mode_leave_vertical: }
1359   \bool_set_eq:NN \l__xltj_make_pbox_tate_bool \l__xltj_tate_text_bool
1360   \bool_set_false:N \l__xltj_make_pbox_rotate_bool
1361   \IfValueT {#1}

```

```

1362 {
1363   \str_case:nn {#1}
1364   {
1365     { y }
1366     {
1367       \bool_set_false:N \l__xltj_make_pbox_tate_bool
1368       \xltj_if_tate_text:T
1369       { \bool_set_true:N \l__xltj_make_pbox_rotate_bool }
1370     }
1371     { t }
1372     {
1373       \bool_set_true:N \l__xltj_make_pbox_tate_bool
1374       \xltj_if_tate_text:F
1375       { \bool_set_true:N \l__xltj_make_pbox_rotate_bool }
1376     }
1377     { z }
1378     {
1379       \bool_set_false:N \l__xltj_make_pbox_tate_bool
1380     }
1381   }
1382 }
1383 \hbox_set:Nn \l__xltj_rotate_box
1384 {
1385   \bool_set_eq:NN \l__xltj_tate_text_bool \l__xltj_make_pbox_tate_bool
1386   \IfValueTF {#2} { \makebox[#2][#3]{#4} } { \makebox{#4} }
1387 }
1388 \bool_if:NTF \l__xltj_make_pbox_rotate_bool
1389 {
1390   \xltj_if_tate_text:TF
1391   {
1392     \__xltj_rotate_box_yoko_in_tate:N \l__xltj_rotate_box
1393     \xltj_box_tjabaselineshift:n { \box_use_drop:N \l__xltj_rotate_box }
1394   }
1395   {
1396     \__xltj_rotate_box_tate_in_yoko:N \l__xltj_rotate_box
1397     \xltj_box_yjabaselineshift:n { \box_use_drop:N \l__xltj_rotate_box }
1398   }
1399 }
1400 {
1401   \box_use_drop:N \l__xltj_rotate_box
1402 }
1403 }

```

(End definition for \pbox. This function is documented on page ??.)

\rensuji

```

1404 \newskip\rensuji skip
1405 \rensuji skip=0.25\l_xltj_zw_dim plus.25\l_xltj_zw_dim minus.25\l_xltj_zw_dim
1406 \NewDocumentCommand \rensuji { s O{c} m }
1407 {
1408   \scan_stop:
1409   \mode_if_vertical:T { \mode_leave_vertical: }
1410   \xltj_if_tate_text:TF
1411   {

```

```

1412 \skip_horizontal:n { \rensjiskip }
1413 \IfBooleanF {#1}
1414 {
1415   \xltj_yoko_in_tate_hbox_set:Nn \l_tmpa_box {#3}
1416   \dim_set:Nn \l_tmpa_dim
1417     { \box_ht:N \l_tmpa_box + \box_dp:N \l_tmpa_box }
1418   \hbox_set:Nn \l_tmpa_box
1419     {
1420       \str_case:nn {#2}
1421       {
1422         { c }
1423         {
1424           \__xltj_vrule:nnn
1425             { \c_zero_dim }
1426             { 0.5\l_tmpa_dim }
1427             { 0.5\l_tmpa_dim }
1428         }
1429         { r }
1430         {
1431           \__xltj_vrule:nnn
1432             { \c_zero_dim }
1433             { 0.5\l_xltj_zw_dim }
1434             { \l_tmpa_dim - 0.5\l_xltj_zw_dim }
1435         }
1436         { l }
1437         {
1438           \__xltj_vrule:nnn
1439             { \c_zero_dim }
1440             { \l_tmpa_dim - 0.5\l_xltj_zw_dim }
1441             { 0.5\l_xltj_zw_dim }
1442         }
1443       }
1444     }
1445   \xltj_box_tjabaselineshift:n
1446     { \box_use_drop:N \l_tmpa_box }
1447 }
1448 \xltj_box_tjabaselineshift:n
1449 {
1450   \xltj_yoko_in_tate_hbox_to_wd:nn { 1\l_xltj_zw_dim }
1451   {
1452     \str_case:nn {#2}
1453     {
1454       { c } { \tex_hss:D #3 \tex_hss:D }
1455       { r } { \tex_hss:D #3 }
1456       { l } { #3 \tex_hss:D }
1457     }
1458   }
1459 }
1460 \skip_horizontal:n { \rensjiskip }
1461 }
1462 {
1463   \hbox:n {#3}
1464 }
1465 }

```

```

1466 \let\Rensuji\rensuji
1467 \let\prensuji\rensuji

```

(End definition for \rensuji. This function is documented on page ??.)

\Kanji

```

1468 \NewExpandableDocumentCommand \Kanji { m }
1469 {
1470   \xltj_int_to_kansuji:n { \use:c { c@#1 } }
1471 }

```

(End definition for \Kanji. This function is documented on page ??.)

\kanji

```

1472 \NewExpandableDocumentCommand \kanji { m }
1473 {
1474   \xltj_if_tate_text:TF
1475     { \xltj_int_to_kansuji:n {#1} }
1476     {#1}
1477 }

```

(End definition for \kanji. This function is documented on page ??.)

```

1478 \</xltjtext>

```

3.13 JFM ファイル

```

1479 <*jfm>

```

```

1480 <*standard>

```

```

1481 \xltj_set_kanjiskip_lazy:n { Opt plus .25\l_xltj_zw_dim minus Opt }

```

```

1482 \xltj_set_xkanjiskip_lazy:n { .25\l_xltj_zw_dim plus .25\l_xltj_zw_dim minus .125\l_xltj_zw_

```

文字クラス

```

1483 \xltj_class_new_kanji:n { kanji/open }

```

```

1484 \xltj_class_new_kanji:n { kanji/close }

```

```

1485 \xltj_class_new_kanji:n { kanji/middle }

```

```

1486 \xltj_class_new_kanji:n { kanji/fullstop }

```

```

1487 \xltj_class_new_kanji:n { kanji/nodiv }

```

```

1488 \xltj_class_new_kanji:n { kanji/noprebreak }

```

```

1489 \xltj_class_new_kanji:n { kanji/nopostbreak }

```

```

1490 \xltj_class_new_kanji:n { kanji/smallkana }

```

```

1491 \xltj_class_new_kanji:n { kanji/combining }

```

```

1492 \xltj_class_new_alpha:n { alpha/left }

```

```

1493 \xltj_class_new_alpha:n { alpha/right }

```

```

1494 \xltj_class_new_alpha:n { alpha/middle }

```

```

1495 \xltj_gset_no_kanji_interchar:nn { kanji/default } { kanji/combining }
1496 \xltj_gset_no_kanji_interchar:nn { kanji/smallkana } { kanji/combining }

```

```

1497 \xltj_class_update:

```

3.13.1 和文文字の設定

和文文字の設定は Lua_T_EX-ja をベースにする。

```

1498 \xltj_char_set_class_range:nnn { "00 } { "FFFF } { alpha/default }

```

```

1499 \xltj_char_set_class_range:nnn { "10000 } { "1FFFF } { alpha/default }

```

ギリシャ文字とキリル文字

```
1500 \xltj_char_set_class_range:nnn { "0370 } { "04FF } { kanji/default }
1501 \xltj_char_set_class_range:nnn { "1F00 } { "1FFF } { kanji/default }
```

記号類

```
1502 \xltj_char_set_class_range:nnn { "2000 } { "20CF } { kanji/default }
1503 \xltj_char_set_class_range:nnn { "2100 } { "243F } { kanji/default }
1504 \xltj_char_set_class_range:nnn { "2500 } { "27BF } { kanji/default }
1505 \xltj_char_set_class_range:nnn { "2900 } { "29FF } { kanji/default }
1506 \xltj_char_set_class_range:nnn { "2B00 } { "2BFF } { kanji/default }
```

CJK 文字

```
1507 \xltj_char_set_class_range:nnn { "2460 } { "24FF } { kanji/default }
1508 \xltj_char_set_class_range:nnn { "2E80 } { "2EFF } { kanji/default }
1509 \xltj_char_set_class_range:nnn { "3000 } { "30FF } { kanji/default }
1510 \xltj_char_set_class_range:nnn { "3190 } { "319F } { kanji/default }
1511 \xltj_char_set_class_range:nnn { "31F0 } { "4DBF } { kanji/default }
1512 \xltj_char_set_class_range:nnn { "4E00 } { "9FFF } { kanji/default }
1513 \xltj_char_set_class_range:nnn { "F900 } { "FAFF } { kanji/default }
1514 \xltj_char_set_class_range:nnn { "FE10 } { "FE1F } { kanji/default }
1515 \xltj_char_set_class_range:nnn { "FE30 } { "FE6F } { kanji/default }
1516 \xltj_char_set_class_range:nnn { "FF00 } { "FFEF } { kanji/default }
1517 \xltj_char_set_class_range:nnn { "1AFF0 } { "1B16F } { kanji/default }
1518 \xltj_char_set_class_range:nnn { "1F100 } { "1F2FF } { kanji/default }
1519 \xltj_char_set_class_range:nnn { "20000 } { "3FFFF } { kanji/default }
```

CJK 文字

```
1520 \xltj_char_set_class_range:nnn { "1100 } { "11FF } { kanji/default }
1521 \xltj_char_set_class_range:nnn { "2F00 } { "2FFF } { kanji/default }
1522 \xltj_char_set_class_range:nnn { "3100 } { "318F } { kanji/default }
1523 \xltj_char_set_class_range:nnn { "31A0 } { "31EF } { kanji/default }
1524 \xltj_char_set_class_range:nnn { "A000 } { "A4CF } { kanji/default }
1525 \xltj_char_set_class_range:nnn { "A960 } { "A97F } { kanji/default }
1526 \xltj_char_set_class_range:nnn { "AC00 } { "D7FF } { kanji/default }
```

CJK 文字

```
1527 \xltj_char_set_class_clist:nn
1528 { "A7, "A8, "B0, "B1, "B4, "B6, "D7, "F7 } { kanji/default }
```

結合文字 結合文字は文字クラス ignored (4096) にしたいのだが、Xe_{La}T_E-ja が（主に縦組みで）完全に壊れてしまうため設定できない。

ダイアクリティカルマーク

```
1529 % \xltj_char_set_class_range:nnn { "0300 } { "036F } { ignored }
1530 % \xltj_char_set_class_range:nnn { "1AB0 } { "1AFF } { ignored }
1531 % \xltj_char_set_class_range:nnn { "1DC0 } { "1DFF } { ignored }
1532 % \xltj_char_set_class_range:nnn { "20D0 } { "20FF } { ignored }
1533 % \xltj_char_set_class_range:nnn { "FE20 } { "FE2F } { ignored }
```

異体字セレクタ

```
1534 \xltj_char_set_class_range:nnn { "FE00 } { "FE0F } { kanji/combining }
1535 \xltj_char_set_class_range:nnn { "E0100 } { "E01EF } { kanji/combining }
```

結合可能濁点・半濁点

```
1536 \xltj_char_set_class:nn { "3099 } { kanji/combining }
1537 \xltj_char_set_class:nn { "309A } { kanji/combining }
```

開き括弧類

```
1538 \xltj_char_set_class_clist:nn
1539 {
1540     "2018 , "201C , "2329 , "3008 , "300A , "300C , "300E , "3010 ,
1541     "3014 , "3016 , "3018 , "301A , "301D , "FF08 , "FF3B , "FF5B ,
1542     "FF5F
1543 }
1544 { kanji/open }
```

閉じ括弧類

```
1545 \xltj_char_set_class_clist:nn
1546 {
1547     "2019 , "201D , "232A , "3001 , "3009 , "300B , "300D , "300F ,
1548     "3011 , "3015 , "3017 , "3019 , "301B , "301E , "301F , "FF09 ,
1549     "FF0C , "FF3D , "FF5D , "FF60
1550 }
1551 { kanji/close }
```

中点類

```
1552 \xltj_char_set_class_clist:nn
1553 {
1554     "00B7 , "30FB , "FF1A , "FF1B
1555 }
1556 { kanji/middle }
```

句点類

```
1557 \xltj_char_set_class_clist:nn
1558 {
1559     "3002 , "FF0E
1560 }
1561 { kanji/fullstop }
```

分割禁止文字

```
1562 \xltj_char_set_class_clist:nn
1563 {
1564     "2014 , "2015 , "2025 , "2026
1565 }
1566 { kanji/nodiv }
```

行頭禁則文字

```
1567 \xltj_char_set_class_clist:nn
1568 {
1569     "00AA , "00B2 , "00B3 , "00B4 , "00B9 , "00BA , "02D0 , "2122 ,
1570     "3005 , "3033 , "3034 , "3035 , "303B , "309B , "309C , "309D ,
1571     "309E , "30FC , "30FD , "30FE , "FF01 , "FF1F , "FF61 , "FF63 ,
1572     "FF64 , "FF9E , "FF9F

```

```

1573 }
1574 { kanji/noprebreak }

```

行末禁則文字

```

1575 \xltj_char_set_class_clist:nn
1576 {
1577     "00A1 , "00BF , "20AC , "FF40 , "FF62
1578 }
1579 { kanji/nopostbreak }

```

小書き仮名

```

1580 \xltj_char_set_class_clist:nn
1581 {
1582     "3041 , "3043 , "3045 , "3047 , "3049 , "3063 , "3083 , "3085 ,
1583     "3087 , "308E , "30A1 , "30A3 , "30A5 , "30A7 , "30A9 , "30C3 ,
1584     "30E3 , "30E5 , "30E7 , "30EE , "30F5 , "30F6 , "3095 , "3096 ,
1585     "31F0 , "31F1 , "31F2 , "31F3 , "31F4 , "31F5 , "31F6 , "31F7 ,
1586     "31F8 , "31F9 , "31FA , "31FB , "31FC , "31FD , "31FE , "31FF
1587 }
1588 { kanji/smallkana }

1589 \xltj_char_set_class_clist:nn
1590 {
1591     "0028 , "005B , "0060
1592 }
1593 { alpha/left }

1594 \xltj_char_set_class_clist:nn
1595 {
1596     "0027 , "0029 , "002C , "002E , "003A , "003B , "005D
1597 }
1598 { alpha/right }

1599 \xltj_char_set_class_clist:nn
1600 {
1601     "0021 , "0022 , "0023 , "0024 , "0025 , "0026 , "002A , "002B ,
1602     "002D , "002F , "003C , "003D , "003E , "003F , "0040 , "005C ,
1603     "005E , "005F , "007B , "007C , "007D , "007E ,
1604 }
1605 { alpha/middle }

```

和文文字クラス間のグルー・カーン設定

```

1606 \xltj_jfm_set_glue:nnn { kanji/default } { kanji/open }
1607 { 0.5\l_xltj_zw_dim minus 0.5\l_xltj_zw_dim }
1608 \xltj_jfm_set_glue:nnn { kanji/default } { kanji/middle }
1609 { 0.25\l_xltj_zw_dim minus 0.25\l_xltj_zw_dim }

1610 \xltj_jfm_set_glue:nnn { kanji/open } { kanji/middle }
1611 { 0.25\l_xltj_zw_dim minus 0.25\l_xltj_zw_dim }

1612 \xltj_jfm_set_glue:nnn { kanji/close } { kanji/default }
1613 { 0.5\l_xltj_zw_dim minus 0.5\l_xltj_zw_dim }
1614 \xltj_jfm_set_glue:nnn { kanji/close } { kanji/open }
1615 { 0.5\l_xltj_zw_dim minus 0.5\l_xltj_zw_dim }
1616 \xltj_jfm_set_glue:nnn { kanji/close } { kanji/middle }
1617 { 0.25\l_xltj_zw_dim minus 0.25\l_xltj_zw_dim }
1618 \xltj_jfm_set_glue:nnn { kanji/close } { kanji/nodiv }

```



```

1619 { 0.5\l_xltj_zw_dim minus 0.5\l_xltj_zw_dim }
1620 \xltj_jfm_set_glue:nnn { kanji/close } { kanji/noprebreak }
1621 { 0.5\l_xltj_zw_dim minus 0.5\l_xltj_zw_dim }
1622 \xltj_jfm_set_glue:nnn { kanji/close } { kanji/nopostbreak }
1623 { 0.5\l_xltj_zw_dim minus 0.5\l_xltj_zw_dim }
1624 \xltj_jfm_set_glue:nnn { kanji/close } { kanji/smallkana }
1625 { 0.5\l_xltj_zw_dim minus 0.5\l_xltj_zw_dim }
1626 \xltj_jfm_set_glue:nnn { kanji/close } { kanji/combining }
1627 { 0.5\l_xltj_zw_dim minus 0.5\l_xltj_zw_dim }

1628 \xltj_jfm_set_glue:nnn { kanji/middle } { kanji/default }
1629 { 0.25\l_xltj_zw_dim minus 0.25\l_xltj_zw_dim }
1630 \xltj_jfm_set_glue:nnn { kanji/middle } { kanji/open }
1631 { 0.25\l_xltj_zw_dim minus 0.25\l_xltj_zw_dim }
1632 \xltj_jfm_set_glue:nnn { kanji/middle } { kanji/close }
1633 { 0.25\l_xltj_zw_dim minus 0.25\l_xltj_zw_dim }
1634 \xltj_jfm_set_glue:nnn { kanji/middle } { kanji/middle }
1635 { 0.5\l_xltj_zw_dim minus 0.25\l_xltj_zw_dim }
1636 \xltj_jfm_set_glue:nnn { kanji/middle } { kanji/fullstop }
1637 { 0.25\l_xltj_zw_dim minus 0.25\l_xltj_zw_dim }
1638 \xltj_jfm_set_glue:nnn { kanji/middle } { kanji/nodiv }
1639 { 0.25\l_xltj_zw_dim minus 0.25\l_xltj_zw_dim }
1640 \xltj_jfm_set_glue:nnn { kanji/middle } { kanji/noprebreak }
1641 { 0.25\l_xltj_zw_dim minus 0.25\l_xltj_zw_dim }
1642 \xltj_jfm_set_glue:nnn { kanji/middle } { kanji/nopostbreak }
1643 { 0.25\l_xltj_zw_dim minus 0.25\l_xltj_zw_dim }
1644 \xltj_jfm_set_glue:nnn { kanji/middle } { kanji/smallkana }
1645 { 0.25\l_xltj_zw_dim minus 0.25\l_xltj_zw_dim }
1646 \xltj_jfm_set_glue:nnn { kanji/middle } { kanji/combining }
1647 { 0.25\l_xltj_zw_dim minus 0.25\l_xltj_zw_dim }

1648 \xltj_jfm_set_glue:nnn { kanji/fullstop } { kanji/default }
1649 { 0.5\l_xltj_zw_dim }
1650 \xltj_jfm_set_glue:nnn { kanji/fullstop } { kanji/open }
1651 { 0.5\l_xltj_zw_dim }
1652 \xltj_jfm_set_glue:nnn { kanji/fullstop } { kanji/middle }
1653 { 0.75\l_xltj_zw_dim minus 0.25\l_xltj_zw_dim }
1654 \xltj_jfm_set_glue:nnn { kanji/fullstop } { kanji/nodiv }
1655 { 0.5\l_xltj_zw_dim }
1656 \xltj_jfm_set_glue:nnn { kanji/fullstop } { kanji/noprebreak }
1657 { 0.5\l_xltj_zw_dim }
1658 \xltj_jfm_set_glue:nnn { kanji/fullstop } { kanji/nopostbreak }
1659 { 0.5\l_xltj_zw_dim }
1660 \xltj_jfm_set_glue:nnn { kanji/fullstop } { kanji/smallkana }
1661 { 0.5\l_xltj_zw_dim }
1662 \xltj_jfm_set_glue:nnn { kanji/fullstop } { kanji/combining }
1663 { 0.5\l_xltj_zw_dim }

1664 \xltj_jfm_set_glue:nnn { kanji/nodiv } { kanji/open }
1665 { 0.5\l_xltj_zw_dim minus 0.5\l_xltj_zw_dim }
1666 \xltj_jfm_set_glue:nnn { kanji/nodiv } { kanji/middle }
1667 { 0.25\l_xltj_zw_dim minus 0.25\l_xltj_zw_dim }
1668 \xltj_jfm_set_kern:nnn { kanji/nodiv } { kanji/nodiv }
1669 { \c_zero_dim }

1670 \xltj_jfm_set_glue:nnn { kanji/noprebreak } { kanji/open }
1671 { 0.5\l_xltj_zw_dim minus 0.5\l_xltj_zw_dim }

```

```

1672 \xltj_jfm_set_glue:nnn { kanji/noprebreak } { kanji/middle }
1673 { 0.25\l_xltj_zw_dim minus 0.25\l_xltj_zw_dim }

1674 \xltj_jfm_set_glue:nnn { kanji/nopostbreak } { kanji/open }
1675 { 0.5\l_xltj_zw_dim minus 0.5\l_xltj_zw_dim }
1676 \xltj_jfm_set_glue:nnn { kanji/nopostbreak } { kanji/middle }
1677 { 0.25\l_xltj_zw_dim minus 0.25\l_xltj_zw_dim }

1678 \xltj_jfm_set_glue:nnn { kanji/smallkana } { kanji/open }
1679 { 0.5\l_xltj_zw_dim minus 0.5\l_xltj_zw_dim }
1680 \xltj_jfm_set_glue:nnn { kanji/smallkana } { kanji/middle }
1681 { 0.25\l_xltj_zw_dim minus 0.25\l_xltj_zw_dim }

1682 \xltj_jfm_set_glue:nnn { kanji/combining } { kanji/open }
1683 { 0.5\l_xltj_zw_dim minus 0.5\l_xltj_zw_dim }
1684 \xltj_jfm_set_glue:nnn { kanji/combining } { kanji/middle }
1685 { 0.25\l_xltj_zw_dim minus 0.25\l_xltj_zw_dim }

```

和文文字の文字幅調整設定

```

1686 \xltj_jfm_set_precharwd:nn { kanji/open } { -0.5\l_xltj_zw_dim }
1687 \xltj_jfm_set_postcharwd:nn { kanji/close } { -0.5\l_xltj_zw_dim }
1688 \xltj_jfm_set_precharwd:nn { kanji/middle } { -0.25\l_xltj_zw_dim }
1689 \xltj_jfm_set_postcharwd:nn { kanji/middle } { -0.25\l_xltj_zw_dim }
1690 \xltj_jfm_set_postcharwd:nn { kanji/fullstop } { -0.5\l_xltj_zw_dim }

```

和文文字の禁則設定

```

1691 \xltj_jfm_set_postbreakpenalty:nn { kanji/open } { 10000 }
1692 \xltj_jfm_set_prebreakpenalty:nn { kanji/close } { 10000 }
1693 \xltj_jfm_set_prebreakpenalty:nn { kanji/fullstop } { 10000 }
1694 \xltj_jfm_set_prebreakpenalty:nn { kanji/middle } { 10000 }
1695 \xltj_jfm_set_prebreakpenalty:nn { kanji/nodiv } { 250 }
1696 \xltj_jfm_set_postbreakpenalty:nn { kanji/nopostbreak } { 10000 }
1697 \xltj_jfm_set_prebreakpenalty:nn { kanji/noprebreak } { 10000 }
1698 \xltj_jfm_set_prebreakpenalty:nn { kanji/smallkana } { 150 }

```

和欧文間空白の挿入設定

```

1699 \xltj_jfm_set_xspmode:nn { kanji/open } { preonly }
1700 \xltj_jfm_set_xspmode:nn { kanji/close } { postonly }
1701 \xltj_jfm_set_xspmode:nn { kanji/fullstop } { postonly }
1702 \xltj_jfm_set_xspmode:nn { kanji/middle } { inhibit }
1703 \xltj_jfm_set_xspmode:nn { kanji/nodiv } { inhibit }
1704 \xltj_jfm_set_xspmode:nn { kanji/nopostbreak } { preonly }
1705 \xltj_jfm_set_xspmode:nn { kanji/noprebreak } { postonly }

1706 \xltj_jfm_set_xspmode:nn { alpha/left } { preonly }
1707 \xltj_jfm_set_xspmode:nn { alpha/right } { postonly }
1708 \xltj_jfm_set_xspmode:nn { alpha/middle } { inhibit }

1709 </standard>
1710 </jfm>

```

3.14 BXJS ドキュメントクラス用和文ドライバファイル

```

1711 <*bxjsja>

```

minimal 和文ドライバを読み込む。

```

1712 \input{bxjsja-minimal.def}

    \zw が二重定義になるので削除する。
1713 \cs_if_exist:NT \zw
1714 { \cs_undefine:N \zw }

    XeLATEX-ja を読み込む。
1715 \RequirePackage[jascale={\jsZw/\f@size pt}]{xelatexja}

    単位等を定義する。
1716 \dim_const:Nn \jQ { 0.25mm }
1717 \cs_new_eq:NN \jH \jQ
1718 \dim_const:Nn \trueQ { 0.25truemm }
1719 \cs_new_eq:NN \trueH \trueQ
1720 \dim_const:Nn \ascQ { \fp_to_dim:n { 1\trueQ / \xltj_get_jascale: } }
1721 \dim_const:Nn \ascpt
1722 { \fp_to_dim:n { \dim_eval:n { 1truept } / \xltj_get_jascale: } }

    和文フォント命令を定義する。
1723 \DeclareJaTextFontCommand{\textmc}{\mcfamily}
1724 \DeclareJaTextFontCommand{\textgt}{\gtfamily}

    欧文フォントファミリと和文フォントファミリを連動させる。
1725 \hook_gput_code:nnn { rmfamily } { . }
1726 { \mcfamily }
1727 \hook_gput_code:nnn { sffamily } { . }
1728 { \gtfamily }
1729 \hook_gput_code:nnn { ttfamily } { . }
1730 { \gtfamily }

    和文間空白
1731 \def\bxjs@kanjiskip{0pt}
1732 \renewcommand*\setkanjiskip[1]{%
1733   \edef\bxjs@kanjiskip{#1}%
1734   \bxjs@reset@kanjiskip}
1735 \renewcommand*\getkanjiskip{%
1736   \bxjs@kanjiskip}
1737 \bxjs@robust@def\bxjs@reset@kanjiskip{%
1738   \setlength{\@tempskipa}{\bxjs@kanjiskip}%
1739   \bxjs@apply@kanjiskip}

    和文欧文間空白
1740 \def\bxjs@xkanjiskip{0pt}
1741 \renewcommand*\setxkanjiskip[1]{%
1742   \edef\bxjs@xkanjiskip{#1}%
1743   \bxjs@reset@xkanjiskip}
1744 \renewcommand*\getxkanjiskip{%
1745   \bxjs@xkanjiskip}
1746 \bxjs@robust@def\bxjs@reset@xkanjiskip{%
1747   \setlength{\@tempskipa}{\bxjs@xkanjiskip}%
1748   \bxjs@apply@xkanjiskip}

    フォントサイズ変更時に (x)kanjiskip を連動
1749 \g@addto@macro\jsResetDimen{%
1750   \bxjs@reset@kanjiskip
1751   \bxjs@reset@xkanjiskip}
1752 \let\bxjs@apply@kanjiskip\relax

```

```

1753 \let\bxjs@apply@xkanjiskip\relax
1754 \def\bxjs@apply@kanjiskip{%
1755   \xltjsetkanjiskip{\@tempskipa}}
1756 \def\bxjs@apply@xkanjiskip{%
1757   \xltjsetxkanjiskip{\@tempskipa}}

(x)kanjiskip の初期値を設定する。
1758 \setkanjiskip{Opt plus.1\zw minus.01\zw}
1759 \ifx\jsDocClass\jsSlide
1760   \setxkanjiskip{0.1em}
1761 \else
1762   \setxkanjiskip{0.25em plus 0.15em minus 0.06em}
1763 \fi
1764 </bxjsja>

```

Index

The italic numbers denote the pages where the corresponding entry is described, numbers underlined point to the definition, all others indicate the places where it is used.

Symbols			
\\	216, 224	\c_true_bool	858, 859, 867, 868
A		boundary	4, <u>284</u>
alpha/default	4, <u>284</u>	box commands:	
\ascpt	1721	\box_dp:N	893, 922, 1417
\ascQ	1720	\box_ht:N	892, 921, 1417
\autospadding	1328	\box_move_down:nn	657, 950, 952
\autoxspacing	1330	\box_new:N	629, 886
B		\box_set_dp:Nn	656, 914, 943
bool commands:		\box_set_eq_drop:NN	917, 947
\bool_case_true:nTF	620	\box_set_ht:Nn	655, 912, 941
\bool_gset_false:N	564, 569, 575, 576	\box_set_to_last:N	654
\bool_gset_true:N	563, 570	\box_set_wd:Nn	915, 945
\bool_if:NTF	49,	\box_use:N	904, 910, 933, 939
	54, 412, 427, 443, 466, 486, 497,	\box_use_drop:N	658, 898,
	505, 534, 615, 644, 651, 774, 1147,		927, 960, 1054, 1393, 1397, 1401, 1446
	1156, 1265, 1270, 1304, 1310, 1388	\box_wd:N	894, 923
\bool_lazy_or:nnTF	874	\l_tmpa_box	1415, 1417, 1418, 1446
\bool_new:N	10, 11, 20, 21, 557, 558,	C	
	559, 582, 628, 780, 1163, 1353, 1354	clist commands:	
\bool_set_eq:NN	46, 1359, 1385	\clist_map_inline:nn	318
\bool_set_false:N	586, 594, 639, 778, 958, 1052,	cs commands:	
	1151, 1329, 1331, 1360, 1367, 1379	\cs_generate_variant:Nn	67, 68, 69,
\bool_set_true:N	590, 602, 641, 643, 782, 1158,		100, 105, 110, 988, 989, 1000, 1001,
	1333, 1335, 1337, 1369, 1373, 1375		1033, 1034, 1045, 1046, 1082, 1083,
\c_false_bool	861, 870		1094, 1095, 1127, 1128, 1139, 1140
		\cs_gset_eq:NN	165
		\cs_if_exist:NTF	130, 1713
		\cs_new:Npn	32, 61, 63,
			65, 70, 96, 101, 106, 111, 117, 123,

128, 137, 192, 231, 244, 257, 264, 269, 274, 279, 288, 299, 313, 329, 348, 364, 399, 404, 420, 437, 454, 477, 519, 525, 547, 553, 561, 567, 573, 584, 618, 631, 649, 662, 666, 670, 674, 678, 682, 686, 690, 694, 700, 706, 711, 716, 721, 725, 731, 737, 744, 746, 748, 756, 758, 763, 768, 772, 781, 783, 785, 787, 792, 797, 801, 805, 807, 809, 814, 819, 823, 827, 829, 831, 852, 854, 863, 872, 880, 882, 884, 890, 919, 949, 951, 953, 963, 968, 973, 978, 983, 990, 995, 1002, 1004, 1006, 1008, 1013, 1018, 1023, 1028, 1035, 1040, 1047, 1057, 1062, 1067, 1072, 1077, 1084, 1089, 1096, 1098, 1100, 1102, 1107, 1112, 1117, 1122, 1129, 1134, 1198, 1276, 1286, 1340, 1341, 1342		\exp_args:NNV 184 \exp_not:N 79, 85 \exp_stop_f: 757
D		F
\cs_new_eq:NN 15, 743, 1314, 1315, 1316, 1317, 1318, 1319, 1320, 1321, 1322, 1323, 1324, 1325, 1326, 1327, 1349, 1717, 1719		\fi 1763 \fontsize 1189 fp commands: \fp_gset:Nn 13 \fp_new:N 12 \fp_to_dim:n 75, 140, 1720, 1722 \fp_use:N 71
\cs_new_protected:Npn 1328, 1330, 1332, 1334, 1336		G
\cs_set:Npn 1145, 1154		\getkanjiskip 1325, 1735 \getxkanjiskip 1327, 1744 group commands: \group_begin: 1200 \c_group_begin_token 646 \group_end: 1261 \c_group_end_token 653 \gtdefault 1341, 1346 \gtfamily 1345, 1348, 1724, 1728, 1730
\cs_undefine:N 1714		H
D		hbox commands: \hbox:n 966, 971, 976, 1011, 1016, 1021, 1060, 1065, 1070, 1105, 1110, 1115, 1463 \hbox_gset:Nn 986, 998, 1031, 1043, 1080, 1092, 1125, 1137 \hbox_set:Nn 895, 900, 907, 924, 929, 936, 966, 981, 986, 993, 1026, 1038, 1060, 1075, 1080, 1087, 1120, 1132, 1383, 1418 \hbox_set_to_wd:Nnn 971, 993, 998, 1065, 1087, 1092 \hbox_set_to_zero:Nn 976, 1070
\DeclareJaTextFontCommand 1723, 1724		hook commands: \hook_gput_code:nnn 72, 578, 580, 1141, 1143, 1263, 1268, 1338, 1725, 1727, 1729
\DeclareTextFontCommand 1347, 1348		I
\def 1731, 1740, 1754, 1756		\IfBooleanF 1413 \IfDirectionTateF 1318 \IfDirectionTateT 1317 \IfDirectionTateTF 1319 \IfDirectionYokoF 1315 \IfDirectionYokoT 1314 \IfDirectionYokoTF 1316 \IfValueT 1361 \IfValueTF 1386 \ifx 1759 ignored 4, 284
dim commands:		
\dim_compare:nNnTF 606, 642		
\dim_const:Nn 1716, 1718, 1720, 1721		
\dim_eval:n 745, 751, 752, 753, 1722		
\dim_gadd:Nn 1272, 1273		
\dim_gset_eq:NN 1160		
\dim_new:N 14, 27, 57, 630, 887, 888, 889, 1167, 1168, 1169, 1170, 1171		
\dim_set:Nn 74, 76, 139, 633, 892, 893, 894, 921, 922, 923, 1416		
\dim_set_eq:NN 34, 35, 36		
\l_tmpa_dim 1416, 1426, 1427, 1434, 1440		
\c_zero_dim 606, 642, 659, 747, 786, 1425, 1432, 1439, 1669		
E		
\edef 1733, 1742		
\else 1761		
exp commands:		
\exp_args:Nc 125, 238, 688, 692		
\exp_args:Nf 1280		

R	
<code>\relax</code>	1752, 1753
<code>\renewcommand</code>	1732, 1735, 1741, 1744
<code>\Rensuji</code>	1466
<code>\rensuji</code>	1404
<code>\rensujskip</code>	1404, 1405, 1412, 1460
<code>\RequirePackage</code>	9, 1715
S	
scan commands:	
<code>\scan_stop:</code>	194,
293, 306, 321, 418, 435, 452, 461,	
517, 523, 545, 616, 747, 754, 1357, 1408	
<code>\selectfont</code>	1189, 1344, 1346
seq commands:	
<code>\seq_clear:N</code>	141
<code>\seq_gput_right:Nn</code>	
....	241, 254, 267, 272, 277, 282, 337
<code>\seq_gremove_all:Nn</code>	354
<code>\seq_if_in:NnTF</code> ...	233, 246, 290,
301, 315, 331, 333, 335, 350, 352, 370	
<code>\seq_map_break:n</code>	159
<code>\seq_map_inline:Nn</code>	
.....	149, 366, 368, 379, 391
<code>\seq_new:N</code>	29, 212, 262, 263, 328
<code>\seq_put_right:Nn</code> ..	142, 144, 146, 148
<code>\setkanjskip</code>	1324, 1732, 1758
<code>\setxkanjskip</code>	1738, 1747
<code>\setxkanjskip</code> ...	1326, 1741, 1760, 1762
skip commands:	
<code>\skip_eval:n</code>	664, 672, 676, 684
<code>\skip_horizontal:n</code> ...	743, 1412, 1460
str commands:	
<code>\str_case:nn</code>	1363, 1420, 1452
<code>\str_case:nnTF</code>	833
<code>\str_const:Nn</code>	91, 92
sys commands:	
<code>\sys_if_engine_xetex:TF</code>	5
T	
T _E X and L ^A T _E X 2 _ε commands:	
<code>\@colht</code>	1160
<code>\@outputbox</code>	1149
<code>\@tempskipa</code> ...	1738, 1747, 1755, 1757
<code>\bxjs@apply@kanjskip</code>	1739, 1752, 1754
<code>\bxjs@apply@xkanjskip</code>	
.....	1748, 1753, 1756
<code>\bxjs@kanjskip</code>	1731, 1733, 1736, 1738
<code>\bxjs@reset@kanjskip</code>	1734, 1737, 1750
<code>\bxjs@reset@xkanjskip</code>	
.....	1743, 1746, 1751
<code>\bxjs@robust@def</code>	1737, 1746
<code>\bxjs@xkanjskip</code>	1740, 1742, 1745, 1747
<code>\f@series</code>	81, 87
<code>\f@shape</code>	81, 87
<code>\f@size</code>	75, 81, 87, 1715
<code>\g@addto@macro</code>	1749
tex commands:	
<code>\tex_font:D</code>	89, 115, 121, 194
<code>\tex_global:D</code>	194, 401
<code>\tex_hbox:D</code>	646
<code>\tex_hoffset:D</code>	1272
<code>\tex_hss:D</code>	1003, 1005, 1007,
1097, 1099, 1101, 1454, 1455, 1456	
<code>\tex_kern:D</code> ...	745, 897, 909, 926, 938
<code>\tex_lastkern:D</code>	606
<code>\tex_lastnodetype:D</code>	588, 595
<code>\tex_lastpenalty:D</code>	591
<code>\tex_penalty:D</code>	616, 757
<code>\tex_special:D</code>	879
<code>\tex_the:D</code>	89, 115, 121
<code>\tex_unpenalty:D</code>	592
<code>\tex_voffset:D</code>	1273
<code>\tex_vrule:D</code>	747, 750
<code>\tex_XeTeXcharclass:D</code> ..	292, 306, 320
<code>\tex_XeTeXinterchartokenstate:D</code> ..	211
<code>\tex_XeTeXinterchartoks:D</code>	401
<code>\textgt</code>	1348, 1724
<code>\textheight</code>	1150, 1159, 1160
<code>\textmc</code>	1347, 1723
<code>\textwidth</code>	1150, 1159
tl commands:	
<code>\tl_clear:N</code>	723
<code>\tl_gset:Nn</code>	565, 571
<code>\tl_if_empty:NnTF</code>	740
<code>\tl_if_empty:nTF</code>	178
<code>\tl_if_eq:nnTF</code>	143, 145, 147, 154
<code>\tl_if_exist:NnTF</code>	708, 723, 739
<code>\tl_if_in:NnTF</code>	180
<code>\tl_map_function:nN</code>	1281
<code>\tl_new:N</code> 16, 18, 22, 23, 24, 30, 31, 58,	
59, 60, 95, 560, 708, 1164, 1165, 1166	
<code>\tl_put_right:Nn</code>	181, 182
<code>\tl_set:Nn</code>	17, 19, 25, 26,
62, 64, 66, 108, 664, 668, 676, 680, 709	
<code>\tokansuji</code>	1349
token commands:	
<code>\c_math_toggle_token</code>	462
<code>\trueH</code>	1719
<code>\trueQ</code>	1718, 1719, 1720
U	
use commands:	
<code>\use:N</code>	1470
<code>\use_i:nnn</code>	622
<code>\use_ii:nnn</code>	623
<code>\use_iii:nnn</code>	624
<code>\use_none:n</code>	159

\use_none:nnn 626
\usefont 1189

V

vbox commands:

\vbox_set:Nn
... 1011, 1026, 1031, 1105, 1120, 1125
\vbox_set_to_ht:Nnn
... 1016, 1038, 1043, 1110, 1132, 1137
\vbox_set_to_zero:Nn 1021, 1115

X

xltj commands:

\xltj_box_tjabaselineshift:n ...
... 6, 949, 951, 1393, 1445, 1448
\xltj_box_yjabaselineshift:n ...
... 6, 949, 949, 1397
\xltj_char_set_class:nn
... 4, 288, 288, 1536, 1537
\xltj_char_set_class_clist:nn ...
... 288, 313,
1527, 1538, 1545, 1552, 1557, 1562,
1567, 1575, 1580, 1589, 1594, 1599
\xltj_char_set_class_range:nnn ...
... 4, 288, 299,
1498, 1499, 1500, 1501, 1502, 1503,
1504, 1505, 1506, 1507, 1508, 1509,
1510, 1511, 1512, 1513, 1514, 1515,
1516, 1517, 1518, 1519, 1520, 1521,
1522, 1523, 1524, 1525, 1526, 1529,
1530, 1531, 1532, 1533, 1534, 1535
\xltj_class_new_alpha:n
... 3, 264, 269, 1492, 1493, 1494
\xltj_class_new_alpha:nn
... 3, 274, 279, 285
\xltj_class_new_kanji:n 3,
264, 264, 284, 1483, 1484, 1485,
1486, 1487, 1488, 1489, 1490, 1491
\xltj_class_new_kanji:nn . 3, 274, 274
\xltj_class_update: 4, 364, 364, 1497
\xltj_declare_kanji_family:nn ...
... 96, 100, 196, 197
\xltj_declare_kanji_shape:nnnn ...
101, 105, 198, 200, 202, 204, 206, 208
\l_xltj_em_dim 57, 76
\xltj_gclear_no_kanji_interchar:nn
... 328, 348
\xltj_get_jascale: 3, 70, 70, 1720, 1722
\xltj_get_kanjiskip:
... 4, 670, 670, 1321, 1325
\xltj_get_xkanjiskip:
... 4, 682, 682, 1323, 1327
\xltj_gset_no_kanji_interchar:nn
... 328, 329, 1495, 1496

\xltj_if_tate_document: 47
\xltj_if_tate_document:TF 3, 47
\xltj_if_tate_document_p: 3, 47
\xltj_if_tate_text: 52
\xltj_if_tate_text:TF . 3, 52, 549,
635, 640, 1368, 1374, 1390, 1410, 1474
\xltj_if_tate_text_p: 3, 52
\xltj_inhibitglue: 780, 781
\xltj_int_to_kansuji:n
... 1276, 1276, 1349, 1470, 1475
\xltj_jfm_clear_glue_kern:nn ...
... 5, 768, 768
\xltj_jfm_clear_postbreakpenalty:n
... 5, 819, 823
\xltj_jfm_clear_postcharwd:n ...
... 5, 797, 801
\xltj_jfm_clear_prebreakpenalty:n
... 5, 819, 819
\xltj_jfm_clear_precharwd:n
... 5, 797, 797
\xltj_jfm_set_glue:nnn
... 4, 758, 758, 1606, 1608, 1610,
1612, 1614, 1616, 1618, 1620, 1622,
1624, 1626, 1628, 1630, 1632, 1634,
1636, 1638, 1640, 1642, 1644, 1646,
1648, 1650, 1652, 1654, 1656, 1658,
1660, 1662, 1664, 1666, 1670, 1672,
1674, 1676, 1678, 1680, 1682, 1684
\xltj_jfm_set_kern:nnn
... 4, 758, 763, 1668
\xltj_jfm_set_postbreakpenalty:nn
... 5, 809, 814, 1691, 1696
\xltj_jfm_set_postcharwd:nn
... 5, 787, 792, 1687, 1689, 1690
\xltj_jfm_set_prebreakpenalty:nn
... 5, 809,
809, 1692, 1693, 1694, 1695, 1697, 1698
\xltj_jfm_set_precharwd:nn
... 5, 787, 787, 1686, 1688
\xltj_jfm_set_xspmode:nn 5,
831, 831, 1699, 1700, 1701, 1702,
1703, 1704, 1705, 1706, 1707, 1708
\xltj_set_alpha_font:n 65, 69, 89
\xltj_set_kanji_family:n
... 106, 110, 210, 1339, 1344, 1346
\xltj_set_kanjiskip:n
... 4, 662, 662, 1320, 1324
\xltj_set_kanjiskip_lazy:n 666, 1481
\xltj_set_tate_kanji_font:n
... 63, 68, 83, 121
\xltj_set_xkanjiskip:n
... 4, 674, 674, 1322, 1326
\xltj_set_xkanjiskip_lazy:n 678, 1482

\xltj_set_yoko_kanji_font:n	\xltj_yoko_in_tate_hbox_overlap_-
. 61, 67, 77, 115	right:n 6, 1002, 1004
\c_xltj_tate_encoding_str . . . 92, 120	\xltj_yoko_in_tate_hbox_set:Nn . .
\xltj_tate_in_yoko_hbox:n . . . . .	. . . . . 6, 978, 978, 988, 1415
. 7, 1057, 1057	\xltj_yoko_in_tate_hbox_set_to_-
\xltj_tate_in_yoko_hbox_gset:Nn .	wd:Nn 1000
. 7, 1072, 1077, 1083	\xltj_yoko_in_tate_hbox_set_to_-
\xltj_tate_in_yoko_hbox_gset_to_-	wd:Nnn 6, 990, 990
wd:Nn 1095	\xltj_yoko_in_tate_hbox_to_wd:nn
\xltj_tate_in_yoko_hbox_gset_to_-	. . . . . 6, 968, 968, 1450
wd:Nnn 7, 1084, 1089	\xltj_yoko_in_tate_hbox_to_-
\xltj_tate_in_yoko_hbox_overlap_-	zero:n 6, 968, 973, 1003, 1005, 1007
center:n 7, 1096, 1096	\xltj_yoko_in_tate_vbox:n
\xltj_tate_in_yoko_hbox_overlap_-	. . . . . 6, 1008, 1008
left:n 7, 1096, 1100	\xltj_yoko_in_tate_vbox_gset:Nn .
\xltj_tate_in_yoko_hbox_overlap_-	. . . . . 6, 1023, 1028, 1034
right:n 7, 1096, 1098	\xltj_yoko_in_tate_vbox_gset_to_-
\xltj_tate_in_yoko_hbox_set:Nn . .	ht:Nnn 7, 1035, 1040, 1046
. 7, 1072, 1072, 1082	\xltj_yoko_in_tate_vbox_set:Nn . .
\xltj_tate_in_yoko_hbox_set_to_-	. . . . . 6, 1023, 1023, 1033
wd:Nn 1094	\xltj_yoko_in_tate_vbox_set_to_-
\xltj_tate_in_yoko_hbox_set_to_-	ht:Nnn 7, 1035, 1035, 1045
wd:Nnn 7, 1084, 1084	\xltj_yoko_in_tate_vbox_to_ht:nn
\xltj_tate_in_yoko_hbox_to_wd:nn	. . . . . 6, 1013, 1013
. 7, 1062, 1062	\xltj_yoko_in_tate_vbox_to_-
\xltj_tate_in_yoko_hbox_to_-	zero:n 6, 1013, 1018
zero:n 7, 1062, 1067, 1097, 1099, 1101	\l_xltj_zw_dim 3, 14, 19, 25, 26, 74,
\xltj_tate_in_yoko_vbox:n	655, 656, 1405, 1433, 1434, 1440,
. 7, 1102, 1102	1441, 1450, 1481, 1482, 1607, 1609,
\xltj_tate_in_yoko_vbox_gset:Nn .	1611, 1613, 1615, 1617, 1619, 1621,
. 7, 1117, 1122, 1128	1623, 1625, 1627, 1629, 1631, 1633,
\xltj_tate_in_yoko_vbox_gset_to_-	1635, 1637, 1639, 1641, 1643, 1645,
ht:Nnn 8, 1129, 1134, 1140	1647, 1649, 1651, 1653, 1655, 1657,
\xltj_tate_in_yoko_vbox_set:Nn . .	1659, 1661, 1663, 1665, 1667, 1671,
. 7, 1117, 1117, 1127	1673, 1675, 1677, 1679, 1681, 1683,
\xltj_tate_in_yoko_vbox_set_to_-	1685, 1686, 1687, 1688, 1689, 1690
ht:Nnn 8, 1129, 1129, 1139	xltj internal commands:
\xltj_tate_in_yoko_vbox_to_ht:nn	\l_xltj_alpha_font_tl . . . 60, 66, 555
. 7, 1107, 1107	\g_xltj_class_alpha_seq
\xltj_tate_in_yoko_vbox_to_-	. . . . . 262, 272, 282, 379, 391
zero:n 7, 1107, 1112	\g_xltj_class_kanji_seq . . . 262,
\c_xltj_yoko_encoding_str . . . 91, 114	267, 277, 331, 333, 350, 352, 366, 368
\xltj_yoko_in_tate_hbox:n 6, 963, 963	_xltj_class_new:n 231, 231, 266, 271
\xltj_yoko_in_tate_hbox_gset:Nn .	_xltj_class_new:nn
. 6, 978, 983, 989	. . . . . 244, 244, 276, 281, 286, 287
\xltj_yoko_in_tate_hbox_gset_to_-	\g_xltj_class_seq
wd:Nn 1001	212, 233, 241, 246, 254, 290, 301, 315
\xltj_yoko_in_tate_hbox_gset_to_-	_xltj_class_use:n
wd:Nnn 6, 990, 995	. . . . . 257, 257, 293, 303, 317, 402
\xltj_yoko_in_tate_hbox_overlap_-	_xltj_glue:n 413, 430, 446,
center:n 6, 1002, 1002	469, 489, 498, 509, 538, 743, 743, 761
\xltj_yoko_in_tate_hbox_overlap_-	_xltj_graphics_restore:
left:n 6, 1002, 1006	. . . . . 882, 905, 934

_xltj_graphics_rotate:n	884, 903, 932	_xltj_jfm_if_xspmode_postinhibit_-	p:n	863, 875
_xltj_graphics_save:	880, 902, 931	_xltj_jfm_if_xspmode_preinhibit_-	p:n	854, 876
\l_xltj_inhibitglue_bool	774, 778, 780, 782, 1337	\g_xltj_jfm_name_tl	22, 42, 1350	
_xltj_int_to_kansuji_digit:n	1283, 1286	_xltj_jfm_postcharwd:n	783, 785, 795	
_xltj_interchar_alpha_to_-	boundary:n	_xltj_jfm_precharwd:n	783, 783, 790	
_xltj_interchar_alpha_to_-	kanji:nn	_xltj_jfm_set_param:Nn	697, 703, 706	
_xltj_interchar_boundary_to_-	alpha:n	_xltj_jfm_set_param:nnn	694, 694, 789, 794, 811, 816, 836, 838, 840, 842	
_xltj_interchar_boundary_to_-	kanji:n	_xltj_jfm_set_param:nnnn	694, 700, 760, 765	
_xltj_interchar_gset:nnn	372, 375, 381, 383, 386, 388, 393, 395, 399, 399	_xltj_jfm_use_glue_kern_or:nnn	410, 425, 441, 464, 484, 494, 502, 531, 772, 772	
_xltj_interchar_kanji_to_-	alpha:nn	_xltj_jfm_use_postbreakpenalty:n	408, 424, 458, 827, 829	
_xltj_interchar_kanji_to_-	boundary:n	_xltj_jfm_use_postcharwd:n	406, 422, 456, 805, 807	
_xltj_interchar_kanji_to_-	kanji:nn	_xltj_jfm_use_prebreakpenalty:n	409, 440, 481, 827, 827	
_xltj_jabaselineshift_begin:	415, 449, 513, 628, 631	_xltj_jfm_use_precharwd:n	416, 450, 514, 805, 805	
\l_xltj_jabaselineshift_bool	628, 639, 641, 643, 644, 651	_xltj_jfm_use_xspmode:n	852, 852, 856, 865	
\l_xltj_jabaselineshift_box	629, 654, 655, 656, 658	\g_xltj_kanji_family_prop	93, 98	
\l_xltj_jabaselineshift_dim	630, 633, 642, 657	\l_xltj_kanji_family_tl	80, 86, 95, 108	
_xltj_jabaselineshift_end:	407, 423, 457, 628, 649	\g_xltj_kanji_shape_prop	94, 103, 175	
\g_xltj_jascale_fp	12, 41, 71, 75, 140	\l_xltj_kanjiskip_tl	16, 413, 498, 664, 668, 672	
_xltj_jfm_clear_param:N	714, 719, 721	_xltj_kern:n	659, 744, 744, 766, 784, 786	
_xltj_jfm_clear_param:nn	711, 711, 799, 803, 821, 825	_xltj_lastnode_alpha:n	521, 561, 567	
_xltj_jfm_clear_param:nnn	711, 716, 770	\g_xltj_lastnode_alpha_bool	559, 564, 570, 576, 624	
_xltj_jfm_exp_args_param:Nnn	686, 686, 696, 713, 727	_xltj_lastnode_check:	479, 527, 582, 584	
_xltj_jfm_exp_args_param:Nnnn	686, 690, 702, 718, 733	\g_xltj_lastnode_class_tl	495, 508, 532, 537, 560, 565, 571	
_xltj_jfm_if_exist_use_-	param:nnnTF	_xltj_lastnode_clear:	515, 543, 561, 573, 579, 581, 601, 608, 613	
_xltj_jfm_if_exist_use_-	param:nnTF	_xltj_lastnode_kanji:n	474, 561, 561	
_xltj_jfm_if_exist_use_-	param:NTF	\g_xltj_lastnode_kanji_bool	558, 563, 569, 575, 623	
_xltj_jfm_if_xspmode_inhibit:nnTF	429, 445, 468, 488, 507, 536, 854, 872	\l_xltj_lastnode_math_bool	557, 594, 602, 622	
		_xltj_lastnode_switch:nnn	482, 528, 582, 618	
		\l_xltj_lastpenalty_bool	582, 586, 590, 615	
		\l_xltj_lastpenalty_int	583, 587, 591, 616	

\l__xltj_make_pbox_rotate_bool . .	__xltj_tate_in_yoko_box:nnnn . . .
..... 1354, 1360, 1369, 1375, 1388	..... 1047, 1059, 1064,
\l__xltj_make_pbox_tate_bool . . .	1069, 1074, 1079, 1086, 1091, 1104,
.. 1353, 1359, 1367, 1373, 1379, 1385	1109, 1114, 1119, 1124, 1131, 1136
__xltj_new_kanji_font:Nnn . 185, 192	\l__xltj_tate_kanji_font_tl
\l__xltj_noautospadding_bool . . . .	..... 59, 64, 550
..... 20, 412, 497, 1329, 1333	\l__xltj_tate_text_bool
\l__xltj_noautoxspacing_bool 20,	..... 11, 46, 54, 958, 1052,
427, 443, 466, 486, 505, 534, 1331, 1335	1151, 1158, 1304, 1310, 1359, 1385
\g__xltj_nointerchar_seq	\l__xltj_tjabaselineshift_tl . . .
..... 328, 335, 337, 354, 370	..... 23, 636, 952
__xltj_output_page_after: 1144, 1154	\l__xltj_tmpa_dim . 27, 34, 36, 139, 152
__xltj_output_page_before:	\l__xltj_tmpa_int 27, 303, 306, 317, 321
..... 1142, 1145	\l__xltj_tmpa_seq
__xltj_output_tombow: . . . 1198, 1266	..... 27, 141, 142, 144, 146, 148, 149
__xltj_penalty:n . . 756, 756, 812, 817	\l__xltj_tmpa_tl
\l__xltj_rotate_box . . . . .	..... 27, 176, 180, 181, 182, 185
..... 886, 895, 900, 904, 907,	\l__xltj_tmppb_tl 27
910, 912, 914, 915, 917, 924, 929,	\g__xltj_tombow_banner_font_tl . .
933, 936, 939, 941, 943, 945, 947,	..... 1166, 1177, 1260
957, 959, 960, 1051, 1053, 1054,	\g__xltj_tombow_banner_tl
1383, 1392, 1393, 1396, 1397, 1401	..... 1165, 1176, 1260
\l__xltj_rotate_box_dp_dim	\g__xltj_tombow_bleed_dim
..... 888, 893, 909, 916, 922, 946	..... 1169, 1180, 1203,
\l__xltj_rotate_box_ht_dim	1204, 1205, 1207, 1209, 1210, 1211,
..... 887, 892, 916, 921, 938, 946	1213, 1215, 1217, 1218, 1219, 1221,
__xltj_rotate_box_tate_in-	1223, 1224, 1225, 1227, 1229, 1231,
yoko:N . . 890, 890, 1053, 1149, 1396	1233, 1235, 1237, 1238, 1239, 1241,
\l__xltj_rotate_box_wd_dim	1243, 1244, 1245, 1247, 1249, 1251,
889, 894, 897, 913, 923, 926, 942, 944	1252, 1253, 1255, 1257, 1258, 1259
__xltj_rotate_box_yoko_in-	\g__xltj_tombow_bool
tate:N 919, 919, 959, 1392	..... 1163, 1174, 1265, 1270
__xltj_select_kanji_font:Nnnnnn	\g__xltj_tombow_color_tl
..... 125, 128	..... 1164, 1175, 1201
__xltj_select_kanji_font:nnnnnn	\g__xltj_tombow_hoffset_dim
..... 113, 119, 123	..... 1170, 1181, 1272
__xltj_select_kanji_font-	\g__xltj_tombow_length_dim
new:Nnnnnn 132, 137	1168, 1179, 1204, 1206, 1208, 1210,
__xltj_select_kanji_font_new-	1212, 1214, 1216, 1218, 1220, 1222,
try:Nnnn 172	1224, 1226, 1228, 1230, 1232, 1234,
__xltj_select_kanji_font_new-	1236, 1238, 1240, 1242, 1244, 1246,
try:NnnnTF 151	1248, 1250, 1252, 1254, 1256, 1258
__xltj_select_tate_kanji-	\g__xltj_tombow_thickness_dim . . .
font:nnnn 85, 117	..... 1167, 1178, 1202
__xltj_select_yoko_kanji-	\g__xltj_tombow_voffset_dim
font:nnnn 79, 111	..... 1171, 1182, 1273
__xltj_special:n . . 879, 881, 883, 885	__xltj_vrule:nnn 748, 1424, 1431, 1438
__xltj_swap_dim:NN . . 32, 1150, 1159	__xltj_vrule_zero: 746, 746, 784, 786
__xltj_swich_alpha_font:	\l__xltj_xkanjiskip_tl . . 18, 430,
..... 433, 459, 553	446, 469, 489, 509, 538, 676, 680, 684
__xltj_swich_kanji_font:	\l__xltj_yjabaselineshift_tl . . .
..... 439, 480, 547	..... 23, 637, 950
\g__xltj_tate_document_bool	__xltj_yoko_in_tate_box:nnnn . . .
..... 10, 40, 46, 49, 1147, 1156	..... 953, 965,

970, 975, 980, 985, 992, 997, 1010,	\xltjsetkanjiskip	1320, 1755
1015, 1020, 1025, 1030, 1037, 1042	\xltjsetxkanjiskip	1322, 1757
\l__xltj_yoko_kanji_font_tl	\xltjTombowSetup	1196
58, 62, 551		
\xltjgetkanjiskip		Z
\xltjgetxkanjiskip	\zw	3, <u>14</u> , 1713, 1714, 1758