

## The akshar package

Vu Van Dung

Version 0.1 — 2020/05/17

# Contents

<b>1</b>	<b>User guide</b>	<b>1</b>
<b>2</b>	<b>Implementation</b>	<b>1</b>
<b>Index</b>		<b>3</b>

## 1 User guide

Nothing here yet! Just a test:

a क्ष  
b कौ  
c क्ष्य  
d

## 2 Implementation

Declare the package.

```

1 <@@=akshar>
2 <*package>
3 \RequirePackage{fontspec}
4 \ProvidesExplPackage {akshar} {2020/05/17} {0.1}
5   {Support for syllables in the Devanagari script (JV)}

```

The code.

```

6 \tl_const:Nn \c_foo_joining_tl { }
7 \tl_const:Nn \c_foo_diacritics_tl {oooooooooooooooo}
8 \tl_new:N \l_foo_input_tl
9 \tl_new:N \l_foo_tmp_tl
10 \bool_new:N \l_foo_prev_joining_bool
11 \seq_new:N \l_foo_char_seq
12 \prg_generate_conditional_variant:Nnn \tl_if_in:Nn { No } { TF }
13 \cs_new:Npn \foo_str_getchar:nn #1 #2

```

```

14 {
15   \seq_clear:N \l_foo_char_seq
16   \bool_set_false:N \l_foo_prev_joining_bool
17   \tl_set:Nn \l_foo_input_tl {#1}
18   \tl_map_variable:NNn \l_foo_input_tl \l_foo_map_tl
19   {
20     \tl_if_in:NoTF \c_foo_diacritics_tl {\l_foo_map_tl}
21     {
22       % It is a diacritic.
23       \seq_pop_right:NN \l_foo_char_seq \l_foo_tmp_tl
24       \seq_put_right:Nx \l_foo_char_seq { \l_foo_tmp_tl \l_foo_map_tl }
25     }
26     {
27       \tl_if_eq:NNTF \l_foo_map_tl \c_foo_joining_tl
28       {
29         % It is the joining character
30         \seq_pop_right:NN \l_foo_char_seq \l_foo_tmp_tl
31         \seq_put_right:Nx \l_foo_char_seq
32         { \l_foo_tmp_tl \l_foo_map_tl }
33         \bool_set_true:N \l_foo_prev_joining_bool
34       }
35       {
36         % It is a normal character
37         \bool_if:NTF \l_foo_prev_joining_bool
38         {
39           % but previously there is a joining character
40           \seq_pop_right:NN \l_foo_char_seq \l_foo_tmp_tl
41           \seq_put_right:Nx \l_foo_char_seq
42           { \l_foo_tmp_tl \l_foo_map_tl }
43           \bool_set_false:N \l_foo_prev_joining_bool
44         }
45         {
46           % Previously: nothing special.
47           \seq_put_right:Nx \l_foo_char_seq { \l_foo_map_tl }
48         }
49       }
50     }
51     % Plus two just to guard against breaking too soon
52     \int_compare:nNnT {\seq_count:N \l_foo_char_seq} > {#2 + 2}
53     {
54       \tl_map_break:
55     }
56   }
57   \seq_item:Nn \l_foo_char_seq {#2}
58 }
59 \NewDocumentCommand \mystrchar {mm}
60 {
61   \foo_str_getchar:nn {#1} {#2}
62 }
63 </package>

```

# 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.

<b>B</b>		<b>N</b>	
bool commands:		\NewDocumentCommand	59
\bool_if:NTF	37	<b>P</b>	
\bool_new:N	10	prg commands:	
\bool_set_false:N	16, 43	\prg_generate_conditional_	
\bool_set_true:N	33	variant:Nnn	12
<b>C</b>		\ProvidesExplPackage	4
cs commands:		<b>R</b>	
\cs_new:Npn	13	\RequirePackage	3
<b>F</b>		<b>S</b>	
foo commands:		seq commands:	
\l_foo_char_seq	11, 15, 23, 24, 30, 31, 40, 41, 47, 52, 57	\seq_clear:N	15
\c_foo_diacritics_tl	7, 20	\seq_count:N	52
\l_foo_input_tl	8, 17, 18	\seq_item:Nn	57
\c_foo_joining_tl	6, 27	\seq_new:N	11
\l_foo_map_tl	18, 20, 24, 27, 32, 42, 47	\seq_pop_right:NN	23, 30, 40
\l_foo_prev_joining_bool	10, 16, 33, 37, 43	\seq_put_right:Nn	24, 31, 41, 47
\foo_str_getchar:nn	13, 61	<b>T</b>	
\l_foo_tmp_tl	9, 23, 24, 30, 32, 40, 42	tl commands:	
<b>I</b>		\tl_const:Nn	6, 7
int commands:		\tl_if_eq:NNTF	27
\int_compare:nNnTF	52	\tl_if_in:Nn	12
<b>M</b>		\tl_if_in:NnTF	20
\mystchar	59	\tl_map_break:	54
		\tl_map_variable:NNn	18
		\tl_new:N	8, 9
		\tl_set:Nn	17