The akshar package

Vu Van Dung

Version 0.1 — 2020/05/17

Contents

1 User guide

Nothing here yet! Just a test:
a
क्ष
b
कौ
c
क्ष्य
d

2 Implementation

Declare the package.

```
⟨@@=akshar⟩
⟨*package⟩
\RequirePackage{fontspec}
\ProvidesExplPackage {akshar} {2020/05/17} {0.1}
  {Support for syllables in the Devanagari script (JV)}
```

The code.

```
\tl_const:Nn \c_foo_joining_tl { ◌्}
\tl_const:Nn \c_foo_diacritics_tl {◌ँ◌ं◌ः◌़◌ा◌ि◌ी◌ु◌ू◌ृ◌ॅ◌े◌ै◌ॉ◌ो◌ौ◌ॎ◌ॏ◌ॢ◌ॣ}
\tl_new:N \l_foo_input_tl
\tl_new:N \l_foo_tmp_tl
\bool_new:N \l_foo_prev_joining_bool
\seq_new:N \l_foo_char_seq
\prg_generate_conditional_variant:Nnn \tl_if_in:Nn { No } { TF }
\cs_new:Npn \foo_str_getchar:nn #1 #2
```

```
  {
    \seq_clear:N \l_foo_char_seq
    \bool_set_false:N \l_foo_prev_joining_bool
    \tl_set:Nn \l_foo_input_tl {#1}
    \tl_map_variable:NNn \l_foo_input_tl \l_foo_map_tl
      {
        \tl_if_in:NoTF \c_foo_diacritics_tl {\l_foo_map_tl}
          {
            % It is a diacritic.
            \seq_pop_right:NN \l_foo_char_seq \l_foo_tmp_tl
            \seq_put_right:Nx \l_foo_char_seq { \l_foo_tmp_tl \l_foo_map_tl }
          }
          {
            \tl_if_eq:NNTF \l_foo_map_tl \c_foo_joining_tl
              {
                % It is the joining character
                \seq_pop_right:NN \l_foo_char_seq \l_foo_tmp_tl
                \seq_put_right:Nx \l_foo_char_seq
                  { \l_foo_tmp_tl \l_foo_map_tl }
                \bool_set_true:N \l_foo_prev_joining_bool
              }
              {
                % It is a normal character
                \bool_if:NTF \l_foo_prev_joining_bool
                  {
                    % but previously there is a joining character
                    \seq_pop_right:NN \l_foo_char_seq \l_foo_tmp_tl
                    \seq_put_right:Nx \l_foo_char_seq
                      { \l_foo_tmp_tl \l_foo_map_tl }
                    \bool_set_false:N \l_foo_prev_joining_bool
                  }
                  {
                    % Previously: nothing special.
                    \seq_put_right:Nx \l_foo_char_seq { \l_foo_map_tl }
                  }
              }
          }
        % Plus two just to guard against breaking too soon
        \int_compare:nNnT {\seq_count:N \l_foo_char_seq} > {#2 + 2}
          {
            \tl_map_break:
          }
      }
    \seq_item:Nn \l_foo_char_seq {#2}
  }
\NewDocumentCommand \mystrchar {mm}
  {
    \foo_str_getchar:nn {#1} {#2}
  }
⟨/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.