langsci-affiliations

Felix Kopecky*

Version 1.0.2rc – 25th February 2021

1 User guide

This package provides a command `\ResolveAffiliations`, which collects author–affiliation pairs and outputs them according to the user configuration. It is aimed at class authors, i.e. maintainers of document templates in publishing houses, universities, etc. It is probably not that useful to document authors.

`\ResolveAffiliations` `\ResolveAffiliations [⟨options⟩] {⟨pairs of authors and affiliations⟩}`

Takes the `{`⟨*pairs of authors and affiliations*⟩`}`, orders them internally and outputs them according to the `[`⟨*options*⟩`]`.

`{`⟨*Pairs of authors and affiliations*⟩`}` is a list of authors and affiliations, where authors are separated by `and` and affiliations by `;`. Affiliations are given within a phantom command `\affiliation` within the `{`⟨*pairs*⟩`}` argument – i.e. the command is not defined by this package and possibly existing definitions are left unchanged.

For example:

```
\ResolveAffiliations{
  A. U. Thor\affiliation{University of the Moon; University of Mars}
  and B. U. Thor\affiliation{University of Mars}
}
```

results in:

A. U. Thor[a,b] & B. U. Thor[b]
[a]University of the Moon [b]University of Mars

The output can be customised using the `[`⟨*options*⟩`]`. They are described below.

*mailto:felix.kopecky@langsci-press.org. Please submit bug reports and feature requests to https://github.com/langsci/langsci-affiliations/issues.

\SetupAffiliations

`\SetupAffiliations {`⟨*options*⟩`}`

Options can be set either globally or locally. With `\SetupAffiliations{`⟨*options*⟩`}`, they apply globally. If they are set with `\ResolveAffiliations[`⟨*options*⟩`]`, they apply locally.

`mark style =` ⟨*style*⟩ (initially `alphabetic`)
: Controls which markers should be used in the indexes of affiliations. Can be a either of {`alphabetic`, `numeric`, `circled`, `none`}.

`output affiliation =` ⟨*boolean*⟩ (initially `true`)
: Affiliations are output if true, otherwise not.

`output in groups =` ⟨*boolean*⟩ (initially `true`)
: If `true`, authors and affiliations are output in the same line. When `false` each author and affiliation gets its own line. Only available if `output affiliation=true`.

`output authors font =` ⟨*font commands*⟩ (initially `\Large`)
: Stores the font settings for the ouput of authors.

`output affiliation font =` ⟨*font commands*⟩ (initially `\normalsize`)
: Stores the font settings for outputting affiliations.

Output separators between authors and affiliations are customisable as well:

`separator between two =` ⟨*tokens*⟩ (initially `~&~`)
: If there are only two authors, use these ⟨*tokens*⟩ to separate them.

`separator between multiple =` ⟨*tokens*⟩ (initially `,~`)
: If there are more than two authors, use these ⟨*tokens*⟩ to separate every pair except the last one.

`separator between final two =` ⟨*tokens*⟩ (initially `~&~`)
: Use these ⟨*tokens*⟩ to separate the last pair of authors if ther are more than two.

`separator between affiliations =` ⟨*tokens*⟩ (initially `,`)
: Use these to separate affiliations after each authors. The affiliations in the affiliation line are always separated by a space ().

`separator between groups =` ⟨*dimension*⟩ (initially `0.5ex`)
: Length of the space between authors and affiliations

The way the input is digested can be customised with these two settings:

`input names separator =` ⟨*tokens*⟩ (initially `~and~`)
: Separates the author names in the input.

`input affiliation separator =` ⟨*tokens*⟩ (intially `;`)
: Separates the affiliations in the input, within dummy command `\affiliation`.

2 Implementation

```
⟨*package⟩
⟨@@=affiliations⟩
\RequirePackage{xparse}
\ProvidesExplPackage {langsci-affiliations}
{2021-02-25} {1.0.2}
{A LaTeX3 package to collect and order authors and affiliations}
```

\ResolveAffiliations The top-level document command. It is grouped to keep assignments local.

```
\NewDocumentCommand{\ResolveAffiliations}{ O{} +m }
  {%
    \group_begin:
    \keys_set:nn { affiliations } { #1 }%
    \exp_args:No \affiliations_resolve:n { #2 }%
    \group_end:
  }
```

(*End definition for* `\ResolveAffiliations`*. This function is documented on page* 1.)

\SetupAffiliations A command to define options.

```
\NewDocumentCommand{\SetupAffiliations}{ m }
  {%
    \keys_set:nn { affiliations } { #1 }
  }
```

(*End definition for* `\SetupAffiliations`*. This function is documented on page* 2.)

```
\keys_define:nn { affiliations }
  {
    mark~style .tl_set:N
        = \l__affiliations_style_tl,
    mark~style .initial:n
        = { alphabetic },
    output~affiliation .bool_set:N
        = \l__affiliations_output_affiliation_bool,
    output~affiliation .initial:n
        = { true },
    output~in~groups .bool_set:N
        = \l__affiliations_output_grouped_bool,
    output~in~groups .initial:n
        = { true },
    separator~between~two .tl_set:N
        = \l__affiliations_separator_between_two_tl,
    separator~between~two .initial:n
        = {~\&~},
    separator~between~multiple .tl_set:N
        = \l__affiliations_separator_between_mult_tl,
    separator~between~multiple .initial:n
        = {,~},
    separator~between~final~two .tl_set:N
        = \l__affiliations_separator_between_last_two_tl,
    separator~between~final~two .initial:n
        = {~\&~},
    separator~between~groups .dim_set:N
```

```
      = \l__affiliations_separator_between_groups_dim,
  separator~between~groups .initial:n
      = {0.5ex},
  separator~between~affiliations .tl_set:N
      = \l__affiliations_afil_separator_tl,
  separator~between~affiliations .initial:n
      = {,},
  output~authors~font .cs_set:Np
      = \__affiliations_output_authors_font:,
  output~authors~font .initial:n
      = {\Large},
  output~affiliation~font .cs_set:Np
      = \__affiliations_output_affiliation_font:,
  output~affiliation~font .initial:n
      = {\normalsize},
  input~names~separator .tl_set:N
      = \l__affiliations_input_names_sep_tl,
  input~names~separator .initial:n
      = {~and~},
  input~affiliation~separator .tl_set:N
      = \l_affiliations_input_afil_sep_tl,
  input~affiliation~separator .initial:n
      = {;}
}
```

\prop_put:Nxx
\prop_put:Nnx
\seq_set_split:Nvn
\l__affiliations_tmpa_clist
\l__affiliations_tmpa_int
\l__affiliations_affiliations_seq
\l__affiliations_authors_seq
\l__affiliations_names_seq
\l__affiliations_tmpa_seq
\l__affiliations_tmpb_seq
\l__affiliations_tmpa_tl
\l__affiliations_tmpb_tl
\l__affiliations_output_prop
\l__affiliations_affiliations_prop

Internal variants and variables

```
\cs_generate_variant:Nn \prop_put:Nnn { Nxx }
\cs_generate_variant:Nn \prop_put:Nnn { Nnx }
\cs_generate_variant:Nn \seq_set_split:Nnn { NVn }
\clist_new:N \l__affiliations_tmpa_clist
\int_new:N \l__affiliations_tmpa_int
\prop_new:N \l__affiliations_tmpa_prop
\seq_new:N \l__affiliations_affiliations_seq
\seq_new:N \l__affiliations_authors_seq
\seq_new:N \l__affiliations_names_seq
\seq_new:N \l__affiliations_tmpa_seq
\seq_new:N \l__affiliations_tmpb_seq
\tl_new:N \l__affiliations_tmpa_tl
\tl_new:N \l__affiliations_tmpb_tl
\prop_new:N \l__affiliations_output_prop
\prop_new:N \l__affiliations_affiliations_prop
```

(*End definition for* `\prop_put:Nxx` *and others.*)

\l__affiliations_icons_prop

The data for the `circled` mark style. Since this uses the `\char`, it is only available in XeLaTeX.

```
\prop_const_from_keyval:Nn \l__affiliations_icons_prop
  {
     0 = \char"2460,  1 = \char"2461,  2 = \char"2462,  3 = \char"2463,
     4 = \char"2464,  5 = \char"2465,  6 = \char"2466,  7 = \char"2467,
     8 = \char"2468,  9 = \char"2469, 10 = \char"246A, 11 = \char"246B,
    12 = \char"246C, 13 = \char"246D, 14 = \char"246E, 15 = \char"246F,
    16 = \char"2470, 17 = \char"2471, 18 = \char"2472, 19 = \char"2473
  }
```

(*End definition for* `\l__affiliations_icons_prop`.)

`\__affiliations_resolve_affiliations:` A helper macro to order affiliations. Is called by `\affiliations_resolve:n`.

```
\cs_new:Npn \__affiliations_resolve_affiliations: #1#2
  {
    \clist_clear:N \l__affiliations_tmpa_clist
    \tl_if_empty:nTF {#2}
      {
        \prop_put:Nnn \l__affiliations_output_prop {#1} {}
      }
      {
        \seq_set_split:NVn \l__affiliations_tmpa_seq
                           \l_affiliations_input_afil_sep_tl
                           { #2 }
        \seq_map_inline:Nn \l__affiliations_tmpa_seq
          {
            \prop_get:NnNTF \l__affiliations_affiliations_prop
                            {##1}
                            \l__affiliations_tmpa_tl
              {
                \clist_put_right:NV \l__affiliations_tmpa_clist
                                    \l__affiliations_tmpa_tl
              }
              {
                %Not yet present
                \clist_put_right:Nx \l__affiliations_tmpa_clist
                  {
                    \prop_count:N \l__affiliations_affiliations_prop
                  }
                \prop_put:Nnx \l__affiliations_affiliations_prop {##1}
                  { \prop_count:N \l__affiliations_affiliations_prop }
              }
          }
        \prop_put:NnV \l__affiliations_output_prop
                      {#1}
                      \l__affiliations_tmpa_clist
      }
  }
```

(*End definition for* `\__affiliations_resolve_affiliations:`.)

`\__affiliations_output_affiliations:` A helper macro that outputs the list of affiliations, usually below the list of authors.

```
\cs_new:Nn \__affiliations_output_affiliations:
  {
    \prop_map_inline:Nn \l__affiliations_affiliations_prop
      {
        \int_set:Nn \l__affiliations_tmpa_int { ##2 }
        \str_case_e:nn { \l__affiliations_style_tl }
          {
            {alphabetic}
              {
                \textsuperscript{\int_to_alph:n{ \int_eval:n
                  {  \l__affiliations_tmpa_int + 1  }
                } }
```

```
            }
          {numeric}
            { \textsuperscript{\int_eval:n {\l__affiliations_tmpa_int + 1} } }
          {circled}
            {
              \prop_item:Nn \l__affiliations_icons_prop
                            {\l__affiliations_tmpa_int}
            }
          {none} { }
        }
      ##1 ~
    }
}
```

(*End definition for* `\__affiliations_output_affiliations:`.)

`\__affiliations_return_afil_text:n` A helper macro that returns the affiliation marks.

```
\cs_new:Npn \__affiliations_return_afil_text:n #1
  {
    \int_set:Nn \l__affiliations_tmpa_int { #1 }
    \str_case_e:nn { \l__affiliations_style_tl }
      {
        {alphabetic}
          {
            \seq_put_right:Nx \l__affiliations_tmpb_seq
                              { \int_to_alph:n{ \int_eval:n {#1 + 1} } }
           }
        {numeric}
          {
            \seq_put_right:Nx \l__affiliations_tmpb_seq
                              { \int_eval:n {\l__affiliations_tmpa_int + 1} }
          }
        {circled}
          {
            \seq_put_right:Nx \l__affiliations_tmpb_seq
                              { \prop_item:Nn \l__affiliations_icons_prop
                                              { \l__affiliations_tmpa_int} }
          }
        {none} { }
      }
  }
```

(*End definition for* `\__affiliations_return_afil_text:n`.)

`\__affiliations_output_authors:` A helper macro to output the list of authors, with affiliation marks (if any).

```
\cs_new:Nn \__affiliations_output_authors:
  {
    \seq_clear:N \l__affiliations_tmpa_seq
    \prop_map_inline:Nn \l__affiliations_output_prop
      {
        \seq_clear:N \l__affiliations_tmpb_seq
        \clist_map_function:nN {##2} \__affiliations_return_afil_text:n
        \tl_set:Nn \l__affiliations_tmpb_tl
          {
            \seq_use:Nn \l__affiliations_tmpb_seq
```

```
                        {\l__affiliations_afil_separator_tl}
          }
        \seq_put_right:Nx \l__affiliations_tmpa_seq
          {
            \tl_rescan:nn {} {##1}
            \exp_not:N \textsuperscript{\tl_use:N \l__affiliations_tmpb_tl}
          }
      }
    \seq_use:Nnnn \l__affiliations_tmpa_seq
                  {\l__affiliations_separator_between_two_tl}
                  {\l__affiliations_separator_between_mult_tl}
                  {\l__affiliations_separator_between_last_two_tl}
  }
```

(*End definition for* `\__affiliations_output_authors:`.)

`\affiliations_resolve:n` The main macro.

```
\cs_new:Npn \affiliations_resolve:n #1
  {
    \seq_set_split:NVn \l__affiliations_names_seq
                       \l__affiliations_input_names_sep_tl
                       { #1 }
    \seq_map_inline:Nn \l__affiliations_names_seq
      {
        \seq_clear_new:N \l__affiliations_names_tmp_seq
        \seq_set_split:Nnn \l__affiliations_names_tmp_seq { \affiliation }
                           { ##1 }
        \prop_put:Nxx \l__affiliations_tmpa_prop
        { \seq_item:Nn \l__affiliations_names_tmp_seq {1} }
        { \seq_item:Nn \l__affiliations_names_tmp_seq {2} }
      }
    \bool_if:NTF \l__affiliations_output_affiliation_bool
      {
        \bool_if:NTF \l__affiliations_output_grouped_bool
          {
            \prop_map_function:NN \l__affiliations_tmpa_prop
                                  \__affiliations_resolve_affiliations:
            \group_begin:
              \__affiliations_output_authors_font:
              \__affiliations_output_authors:
            \group_end:\\[\dim_use:N \l__affiliations_separator_between_groups_dim]
            \group_begin:
              \__affiliations_output_affiliation_font:
              \__affiliations_output_affiliations:
            \group_end:
          }
          {
            \seq_clear:N \l__affiliations_tmpa_seq
            \prop_map_inline:Nn \l__affiliations_tmpa_prop
              {
                \seq_put_right:Nx \l__affiliations_tmpa_seq
                  {
                    \group_begin:
                      \exp_not:N \__affiliations_output_authors_font:
```

```
                    \tl_rescan:nn {} {##1}\\[\dim_use:N \l__affiliations_separator_between_
                  \group_end:
                  \group_begin:
                    \exp_not:N \__affiliations_output_affiliation_font:
                    \tl_rescan:nn {} {##2}
                  \group_end:
                }
            }
          \seq_use:Nnnn \l__affiliations_tmpa_seq
                        {\l__affiliations_separator_between_two_tl}
                        {\l__affiliations_separator_between_mult_tl}
                        {\l__affiliations_separator_between_last_two_tl}
        }
    }
    {
      \group_begin:
      \__affiliations_output_authors_font:
      \seq_clear:N \l__affiliations_tmpa_seq
      \prop_map_inline:Nn \l__affiliations_tmpa_prop
        {
          \seq_put_right:Nx \l__affiliations_tmpa_seq
                            {\tl_rescan:nn {} {##1} }
        }
      \seq_use:Nnnn \l__affiliations_tmpa_seq
                    {\l__affiliations_separator_between_two_tl}
                    {\l__affiliations_separator_between_mult_tl}
                    {\l__affiliations_separator_between_last_two_tl}
      \group_end:
    }
}
```

(*End definition for* `\affiliations_resolve:n`.)

⟨/package⟩