

The komacv-lco Package^{*}

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1 Introduction

The komacv-lco package provides means for unifying the input data to a CV made with komacv and to a cover letter made with scrlltr2. Concretely:

- When the komacv-lco package is used within a document of the scrlltr2 class (e.g., a cover letter), it defines KOMA variables komacv's data fields such as `github` and `linkedin`. Values for these variables can therefore be specified in letter-class-option (LCO) files (see the KOMA manual for more on these files).
- When the komacv-lco package is used within CV of the komacv class, it provides a macro for loading LCO files and setting the komacv variables based on these macros.
- When the komacv-lco package is used with neither komacv nor scrlltr2 (e.g., a cover sheet), it provides the KOMA variables and macros for accessing them in the document.

2 Usage

The following code shows some basic usage of the komacv-lco package. The package provides the `\LoadLetterOption` macro for loading various variables. The content of the variables can be displayed, e.g., via the `\usekomavar` macro. The komacv-lco package provides these macros, whose interfaces originate from the scrlltr2 class, for use with other classes than scrlltr2 – particularly including komacv.

```
\usepackage{komacv-lco}
\LoadLetterOption{demo}

\begin{document}
\usekomavar{fromname} \\
\usekomavar*[fromphone] \usekomavar[fromphone]\\
\usekomavar*[fromgithub] \usekomavar{fromgithub}
\end{document}
```

John Doe
☎ 555 123456
⌚ github.com/JohnDoe

^{*}This document corresponds to komacv-lco v0.9b, dated 2018/11/02. The package is available online at <http://www.ctan.org/pkg/komacv-rg> and <https://github.com/Ri-Ga/komacv-rg>.

```

\ProvidesFile{demo.lco}
\KOMAoptions{fromemail=true, fromphone=false, frommobilephone=true}

\setkomavar{fromfirstname}{John}
\setkomavar{fromfamilyname}{Doe}
\setkomavar{fromaddressstreet}{Main Street 1}
\setkomavar{fromaddresscity}{12345 Springfield}

\setkomavar{fromphone}{[\Telefon~]{555\ 123456}}
\setkomavar{frommobilephone}{[\Mobilefone~]{555\ 98765}}
\setkomavar{fromemail}{[\Letter~]{john.doe@example.com}}
\setkomavar{place}{Springfield}

\setkomavar{fromgithub}{[\httpslink{github.com/JohnDoe}]}
\setkomavar{fromlinkedin}{[\httpslink{linkedin.com/in/JohnDoe}]}
\setkomavar{fromurl}{[www.example.com/~Doe]}

```

Figure 1: `demo.lco`

The content of the LCO file, `demo.lco`, is displayed in Figure 1. This file shows many of the variables defined. The remainder of this section provides the complete list of macros and variables made available by `komacv-lco`.

2.1 Variables

The `komacv-lco` package provides a set of variables that can be set in LCO files and can be used in `scrlltr2` letters, `komacv` CVs, and other L^AT_EX documents. Table 2 shows the set of variables in alphabetic order.

- Most of the variables correspond to a macro that the `komacv` class defines and that is displayed in the second column of the table. The `komacv-lco` package ensures that when the value of a variable is set (via `\setkomavar`), the corresponding `komacv` macro is updated as well. Note that the macros are only defined in documents that use the `komacv` class. Documents based on another class can access the respective variables via `\usekomavar`.
- Many of the variables are also defined by the `scrlltr2` class. The third column of the table shows which of the variables these are. The `komacv-lco` package makes all of the variables available for use in documents that use the `scrlltr2` class.
- Some of the variables have a symbol assigned to them, as shown in the fourth column of the table. The symbols are those that the `komacv` class uses.
- Some of the variables have KOMA options of the same name. These variables can be used for disabling the display of the respective variable's content.
- Two variables (from `scrlltr2`) have default values that are based on other, more fine-grained variables (from `komacv`). These variables are marked in the rightmost column of the table. Concretely:

variable name	komacv macro	scrlttr2	symbol	option	default
fromacadtitle	\acadtitle	no		no	
fromaddress	\address	yes		no	*
fromaddresscity	\addresscity	no		no	
fromaddressstreet	\addressesstreet	no		no	
fromemail	\email	yes	✉	yes	
fromextrainfo	\extrainfo	no		yes	
fromfax	\faxnr	yes	[FAX]	yes	
fromfacebook	\facebook	no	f	yes	
fromfamilyname	\familyname	no		no	
fromfirstname	\firstname	no		no	
fromgithub	\github	no	GH	yes	
fromlinkedin	\linkedin	no	in	yes	
frommobilephone	\mobile	yes	☎	yes	
fromname		yes		no	**
fromphone	\phonenr	yes	☎	yes	
fromtwitter	\twitter	no	🐦	yes	
fromurl	\homepage	yes		yes	
location		yes		no	
place		yes		no	

Table 2: Variables for use in letter options

- * The ‘fromaddress’ variable by default is set to a two-line combination of the contents of the ‘fromaddressstreet’ and ‘fromaddresscity’ variables.
- ** The ‘fromname’ variable by default is set to the concatenation of the contents of the ‘fromfirstname’ and the ‘fromfamilyname’ variables.

2.2 Macros

The following macros imitate the behavior of `scrlttr2`. For a documentation of the macros, we refer to the KOMA manual.

- `\newkomavar[⟨description⟩]{⟨name⟩}`
`\newkomavar*[⟨description⟩]{⟨name⟩}`
- `\setkomavar{⟨name⟩}[⟨description⟩]{⟨content⟩}`
`\setkomavar*{⟨name⟩}{⟨description⟩}`
- `\usekomavar[⟨command⟩]{⟨name⟩}`
`\usekomavar*[⟨command⟩]{⟨name⟩}`
- `\ifkomavareempty{⟨name⟩}{⟨true-code⟩}{⟨false-code⟩}`
`\ifkomavareempty*{⟨name⟩}{⟨true-code⟩}{⟨false-code⟩}`

- `\ifkomavar{\langle name\rangle}{\langle true-code\rangle}{\langle false-code\rangle}`
- `\LoadLetterOption{\langle name\rangle} \LoadLetterOptions{\langle names\rangle}`

The following macros of the `komacv` class are provided by `komacv-lco`.

- `\emaillink[\langle link-text\rangle]{\langle link\rangle}`
- `\httplink[\langle link-text\rangle]{\langle link\rangle}`

The following additional macros are defined by `komacv-lco`.

- `\ifkomavarenable{\langle name\rangle}{\langle true-code\rangle}{\langle false-code\rangle}`
This macro executes `\langle true-code\rangle` if the variable with name `\langle name\rangle` is enabled (through the KOMA option of the same name) and executes `\langle false-code\rangle` otherwise.
- `\httpslink[\langle link-text\rangle]{\langle link\rangle}`
This macro is analogous to `\httplink`, just for HTTPS links.

3 Limitations

The current version of `komacv-lco` has the following known limitations. Some of them might be eliminated in future versions.

- Enabled variables that are not already defined by `scrlltr2` are *not* displayed in the head of the letter. If you want the additional variables to be displayed, you currently have to set the `firsthead` variable manually (see the `scrlltr2` documentation).
- In a document based on the `komacv` class, KOMA options for enabling/disabling a variable must be set *before* the content of the variable is set. Only then the respective `komacv` macro is set appropriately (i.e., set empty if the variable is disabled and set to the respective content when enabled). In short, as shown also in [Figure 1](#): First use `\KOMAoptions` and afterwards use `\setkomavar`.

4 Implementation

We use the `etoolbox` package for simplifying the code and use the `scrkbase` package for KOMA options and related macros. The `marvosym` and `fontawesome` packages provide the symbols for some of the variables defined by this package.

```
1 \RequirePackage{etoolbox}
2 \RequirePackage{scrkbase}
3 \RequirePackage{marvosym,fontawesome}
```

4.1 KOMA Variables Interface

The “public” interface consists of the macros `\newkomavar`, `\setkomavar`, and `\usekomavar`, which we define to have the same arguments as the counterparts defined by `scrlltr2`.

- `\newkomavar` The `\newkomavar[⟨description⟩]{⟨name⟩}` macro defines a new KOMA variable with name `⟨name⟩` and description `⟨description⟩`. If `⟨description⟩` is omitted, no description is set. The `\newkomavar*[⟨description⟩]{⟨name⟩}` macro is defined equivalent to the un-starred macro.
- ```
4 \providetcommand{\newkomavar}{%
5 \Oifstar{\kcvlco@newkomavar}{\kcvlco@newkomavar}}
6 \newcommand{\kcvlco@newkomavar}[2][]{\relax}%
7 \ifkomavar[#2]%
8 {\kcvlco@error{KOMA variable ‘#2’ already defined}}%
9 {\csdef{kcvlco@@var@#2}{\emptyset}%
10 \begingroup\def\@tempa{#1}\def\@tempb{\relax}%
11 \ifx\@tempa\@tempb\endgroup\else
12 \endgroup\csdef{kcvlco@@desc@#2}{#1}\fi}}
```
- `\setkomavar` The `\setkomavar{⟨name⟩}[⟨description⟩]{⟨content⟩}` macro sets the content of the variable with name `⟨name⟩` to content `⟨content⟩` and sets the description of the variable to `⟨description⟩`. The `\setkomavar*[⟨name⟩]{⟨description⟩}` sets only the description of the variable with name `⟨name⟩` and sets it to `⟨description⟩`.
- ```
13 \providetcommand{\setkomavar}{%
14   \Oifstar{\kcvlco@setkomadesc}{\kcvlco@setkomavar}}
15 \newcommand{\kcvlco@setkomavar}[1]{\kcvlco@onlyifdef{#1}{\Oifnextchar[%
16   {\kcvlco@setkomavar@i{#1}}{\kcvlco@setkomavar@i{#1}[\relax]}}}
17 \long\def\kcvlco@setkomavar@i{#1}[#2]{%
18   \csdef{kcvlco@value@#1}{#2}}
19   \csuse{scr@#1@postsetvar}%
20   \begingroup\def\@tempa{#2}\def\@tempb{\relax}%
21   \ifx\@tempa\@tempb\endgroup\else
22     \endgroup\csdef{kcvlco@desc@#1}{#2}\fi}
23 \newcommand{\kcvlco@setkomadesc}[2]{%
24   \csdef{kcvlco@desc@#1}{#2}}
```
- `\usekomavar` The `\usekomavar[⟨command⟩]{⟨name⟩}` macro expands to the `⟨command⟩` applied to the content of the KOMA variable `⟨name⟩`. If omitted, `⟨command⟩` is

the identity. The `\usekomavar*[\langle command \rangle]{\langle name \rangle}` macro is analogous to `\usekomavar` except that the description of the variable is used rather than the content.

```
25 \providecommand{\usekomavar}{%
26   \Oifstar{\kcvlco@usekomadesc}{\kcvlco@usekomavar}%
27 \newcommand{\kcvlco@usekomavar}[2][\@firstofone]{%
28   \kcvlco@onlyifdef{#2}{#1{\csuse{kcvlco@@value@#2}}}}%
29 \newcommand{\kcvlco@usekomadesc}[2][\@firstofone]{%
30   \kcvlco@onlyifdef{#2}{#1{\csuse{kcvlco@@desc@#2}}}}%
```

`\ifkomavarempty` The `\ifkomavarempty{\langle name \rangle}{\langle true-code \rangle}{\langle false-code \rangle}` expands to `\langle true-code \rangle` if the content of the KOMA variable `\langle name \rangle` is empty, and expands to `\langle false-code \rangle` otherwise. The `\ifkomavarempty*{\langle name \rangle}{\langle true-code \rangle}{\langle false-code \rangle}` is analogous to `\ifkomavarempty`, except that the description of the variable is checked for emptiness rather than the content.

```
31 \providecommand{\ifkomavarempty}{%
32   \Oifstar{\kcvlco@ifemptydesc}{\kcvlco@ifemptyvar}%
33 \newcommand{\kcvlco@ifemptyvar}[1]{\ifcvoid{kcvlco@@value@#1}}%
34 \newcommand{\kcvlco@ifemptydesc}[1]{\ifcvoid{kcvlco@@desc@#1}}%
```

`\ifkomavar` The `\ifkomavar{\langle name \rangle}{\langle true-code \rangle}{\langle false-code \rangle}` macro checks whether the KOMA variable `\langle name \rangle` is defined and expands to `\langle true-code \rangle` (positive case) or `\langle false-code \rangle` (negative case) respectively.

```
35 \providecommand{\ifkomavar}[1]{\ifcsdef{kcvlco@@var@#1}}
```

`\ifkomavarenabled` The `\ifkomavarenabled{\langle name \rangle}{\langle true-code \rangle}{\langle false-code \rangle}` macro checks whether the corresponding KOMA option for `\langle name \rangle` exists and is set to `false`. In this case, the macro expands to `\langle false-code \rangle` and otherwise expands to `\langle true-code \rangle`.

```
36 \providecommand{\ifkomavarenabled}[1]{\csuse{kcvlco@@enab@#1}}
```

4.2 Letter Options Interface

`\LoadLetterOption` The `\LoadLetterOption{\langle name \rangle}` loads options from the file with filename `\langle name \rangle` (an “lco”-file, but without the file extension).

`\LoadLetterOptions` The `\LoadLetterOptions{\langle names \rangle}` loads options from the files in the comma-separated list `\langle names \rangle` of file names (again without “lco” extension).

```
37 \providecommand{\LoadLetterOption}[1]{\input{#1.lco}}
38 \providecommand{\LoadLetterOptions}[1]{\forcsvlist{\LoadLetterOption}{#1}}
```

4.3 URL Formatting

`\emaillink` The `\emaillink[\langle text \rangle]{\langle link \rangle}` macro, analogously to komacv’s `\emaillink` macro, provides a means for typesetting a “mailto” link.

```
39 \providecommand*{\emaillink}[2]{[]}{%
40   \ifstrempty{#1}{%
41     \href{mailto:#2}{\usefontofkomafont{\emaillinkfont}{#2}}}{%
```

```

42     \href{mailto:#2}{\usefontofkomafont{emaillinkfont}#1}}}
43 \IfExistskomafont{emaillinkfont}{}{\newkomafont{emaillinkfont}{}}

\httplink The \httplink[⟨text⟩]{⟨link⟩} macro, analogously to komacv’s \httplink macro, provides a means for typesetting an HTTP link.
44 \providecommand*\{\httplink}[2] [] {%
45   \ifstrempty{#1}{%
46     \href{http://#2}{\usefontofkomafont{httplinkfont}#2}}{%
47     \href{http://#2}{\usefontofkomafont{httplinkfont}#1}}}
48 \IfExistskomafont{httplinkfont}{}{\newkomafont{httplinkfont}{}}

\httpslink The \httpslink[⟨text⟩]{⟨link⟩} macro, analogously to komacv’s \httplink macro, provides a means for typesetting an HTTPS link.
49 \providecommand*\{\httpslink}[2] [] {%
50   \ifstrempty{#1}{%
51     \href{https://#2}{\usefontofkomafont{httplinkfont}#2}}{%
52     \href{https://#2}{\usefontofkomafont{httplinkfont}#1}}}

```

4.4 Registering KOMA Variables with komacv Macros

\kcvlco@newvar The \kcvlco@newvar[⟨description⟩]{⟨KOMAvar⟩}{⟨CVmacro⟩}{⟨conditional⟩} macro provides the KOMA variable ⟨KOMAvar⟩. If ⟨conditional⟩ is provided, a Boolean \KOMAoptions variable named ⟨KOMAvar⟩ is registered. This Boolean is stored in `if⟨conditional⟩` (as registered with \newif). The macro connects ⟨KOMAvar⟩ with the komacv macro ⟨CVmacro⟩. The connection establishes that when ⟨KOMAvar⟩ is changed, the ⟨CVmacro⟩ is updated (though *not* vice versa).

```

53 \newcommand\kcvlco@newvar[4][\relax]{%
54   \ifkomavar{#2}{%
55     {\begin{group}\def\@tempa{#1}\def\@tempb{\relax}%
56       \ifx\@tempa\@tempb\endgroup\else
57         \endgroup\setkomavar*{#2}{#1}\fi
58         {\newkomavar[{#1}]{#2}}%
59     \ifstrempty{#4}{%
60       {\csdef{kcvlco@@enab@#2}{\ifbool{true}}}%
61       {\csdef{kcvlco@@enab@#2}{\ifbool{#4}\KOMA@ifkey{#2}{#4}}}%

```

We use the ⟨postsetvar⟩ hook of KOMA, which we also implement in our \setkomavar surrogate.

```

62   \@ifclassloaded{komacv}{%
63     \ifstrempty{#4}{%
64       {\csappto{scr@#2@postsetvar}{\ifkomavarempty{#2}{%
65         {\let#3=\empty}%
66         {\kcvlco@storekomavar{#2}{#3}}}}}}%
67       {\csappto{scr@#2@postsetvar}{\ifkomavarempty{#2}{%
68         {\let#3=\empty}%
69         {\ifbool{#4}{\kcvlco@storekomavar{#2}{#3}}{\let#3=\empty}}}}}}%
70     \csuse{scr@#2@postsetvar}{}}

```

4.5 Internal Helper Macros

\kcvlco@error	The \kcvlco@error{\langle message\rangle} macro displays the given error \langle message\rangle.
	71 \providecommand{\kcvlco@error}[1]{%
	72 \PackageError{komacv-lco}{\#1}{}
\kcvlco@errundef	The \kcvlco@errundef{\langle name\rangle} macro displays an error message for KOMA variable \langle name\rangle not being defined. \langle message\rangle.
	73 \providecommand{\kcvlco@errundef}[1]{%
	74 \kcvlco@error{KOMA variable '#1' undefined}}
\kcvlco@onlyifdef	The \kcvlco@onlyifdef{\langle name\rangle}{\langle code\rangle} macro displays an error message if KOMA variable \langle name\rangle is undefined and expands to \langle code\rangle otherwise. \langle message\rangle.
	75 \providecommand{\kcvlco@onlyifdef}[2]{%
	76 \ifkomavar{\#1}{\#2}{\kcvlco@errundef{\#1}}}
\kcvlco@storekomavar	The \kcvlco@storekomavar{\langle name\rangle}{\langle macro\rangle} macro stores the content of the KOMA variable \langle name\rangle into the macro \langle macro\rangle.
	77 \newcommand{\kcvlco@storekomavar}[2]{\letcs{\kcvlco@@value}{\#1}}

4.6 Declaration of Concrete Variables

Shared variables The following variables are shared by `scrltr2` and `komacv`. The conditionals used in the last argument to `\kcvlco@newvar` are taken over from `scrltr2`.

```
78 \kcvlco@newvar[\Telefon]{fromphone}{\phonernr}{@phone}
79 \kcvlco@newvar[\Mobilefone]{frommobilephone}{\mobile}{@mobilephone}
80 \kcvlco@newvar[\FAX]{fromfax}{\faxnr}{@fax}
81 \kcvlco@newvar[\Letter]{fromemail}{\email}{@email}
82 \kcvlco@newvar[fromurl]{homepage}{@www}
```

scrltr2 variables The following variables are `scrltr2`-only.

```
83 \ifkomavar{fromname}{}{\newkomavar{fromname}}
84 \setkomavar{fromname}{%
85 \usekomavar{fromfirstname}\usekomavar{fromfamilyname}}
86 \ifkomavar{fromaddress}{}{\newkomavar{fromaddress}}
87 \setkomavar{fromaddress}{%
88 \usekomavar{fromaddressstreet}\usekomavar{fromaddresscity}}
89 \ifkomavar{place}{}{\newkomavar{place}}
90 \ifkomavar{location}{}{\newkomavar{location}}
```

komacv variables The following variables are `komacv`-only.

```
91 \kcvlco@newvar{fromfirstname}{\firstname}{}
92 \kcvlco@newvar{fromfamilyname}{\familyname}{}
93 \kcvlco@newvar{fromacadtitle}{\acadtitle}{}
94 \kcvlco@newvar{fromaddressstreet}{\addressstreet}{}
95 \kcvlco@newvar{fromaddresscity}{\addresscity}{}
```

```

96 \kcvlco@newvar[\faTwitter]{fromtwitter}{\twitter}{kcvlco@@twitter}
97 \kcvlco@newvar[\faGithub]{fromgithub}{\github}{kcvlco@@github}
98 \kcvlco@newvar[\faFacebook]{fromfacebook}{\facebook}{kcvlco@@facebook}
99 \kcvlco@newvar[\faLinkedin]{fromlinkedin}{\linkedin}{kcvlco@@linkedin}
100 \kcvlco@newvar{fromextrainfo}{\extrainfo}{kcvlco@@extrainfo}

```

Change History

v0.9	v0.9b
General: Initial version 1	General: Package author's name change 1

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