

The komacv-lco Package*

Richard Gay
richard.gay@t-online.de

May 9, 2018

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 v0.9, dated 2017/08/30. 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 \LaTeX 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	scrlltr2	symbol	option	default
fromacadtitle	\acadtitle	no		no	
fromaddress	\address	yes		no	*
fromaddresscity	\addresscity	no		no	
fromaddressstreet	\addressstreet	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	GitHub logo	yes	
fromlinkedin	\linkedin	no	in	yes	
frommobilephone	\mobile	yes	📞	yes	
fromname		yes		no	**
fromphone	\phonenr	yes	☎	yes	
fromtwitter	\twitter	no	Twitter logo	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 `scrlltr2`. 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{<name>}{<true-code>}{<false-code>}`
- `\LoadLetterOption{<name>} \LoadLetterOptions{<names>}`

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

- `\emaillink[<link-text>]{<link>}`
- `\httplink[<link-text>]{<link>}`

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

- `\ifkomavarenabled{<name>}{<true-code>}{<false-code>}`
This macro executes `<true-code>` if the variable with name `<name>` is enabled (through the KOMA option of the same name) and executes `<false-code>` otherwise.
- `\httpslink[<link-text>]{<link>}`
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 `scrلتtr2` 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 `scrلتtr2` 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 `scrtr2`.

`\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 \providecommand{\newkomavar}{%
5   \@ifstar{\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}{\empty}}%
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 \providecommand{\setkomavar}{%
14   \@ifstar{\kcvlco@setkomadesc}{\kcvlco@setkomavar}}
15 \newcommand{\kcvlco@setkomavar}[1]{\kcvlco@onlyifdef{#1}{\@ifnextchar[%
16   {\kcvlco@setkomavar@i{#1}}{\kcvlco@setkomavar@i{#1}[\relax]}}}%
17 \long\def\kcvlco@setkomavar@i#1[#2]#3{%
18   \csdef{kcvlco@@value@#1}{#3}%
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   \@ifstar{\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}}}}

```

`\ifkomavareempty` The `\ifkomavareempty{\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 `\ifkomavareempty*{\langle name \rangle}{\langle true-code \rangle}{\langle false-code \rangle}` is analogous to `\ifkomavareempty`, except that the description of the variable is checked for emptiness rather than the content.

```

31 \providecommand{\ifkomavareempty}{%
32   \@ifstar{\kcvlco@ifemptydesc}{\kcvlco@ifemptyvar}}
33 \newcommand{\kcvlco@ifemptyvar}[1]{\ifcsvoid{kcvlco@@value@#1}}
34 \newcommand{\kcvlco@ifemptydesc}[1]{\ifcsvoid{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   \ifstrempy{#1}{%
41     \href{mailto:#2}{\usefontofkomafont{emaillinkfont}{#2}}}{%

```

```

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

```

`\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 \ifstrempy{#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 \ifstrempy{#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]{KOMAv}{CVmacro}{conditional}` macro provides the KOMA variable `KOMAv`. If `conditional` is provided, a Boolean `\KOMAoptions` variable named `KOMAv` is registered. This Boolean is stored in `ifconditional` (as registered with `\newif`). The macro connects `KOMAv` with the `komacv` macro `CVmacro`. The connection establishes that when `KOMAv` is changed, the `CVmacro` is updated (though *not* vice versa).

```

53 \newcommand\kcvlco@newvar[4] [\relax] {%
54 \ifkomavar{#2}%
55 {\begingroup\def\@tempa{#1}\def\@tempb{\relax}%
56 \ifx\@tempa\@tempb\endgroup\else
57 \endgroup\setkomavar*{#2}{#1}\fi}
58 {\newkomavar[#1]{#2}}%
59 \ifstrempy{#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 \ifstrempy{#4}%
64 {\csappto{scr@#2@postsetvar}{\ifkomavarempy{#2}%
65 {\let#3=\empty}}%
66 {\kcvlco@storekomavar{#2}{#3}}}%
67 {\csappto{scr@#2@postsetvar}{\ifkomavarempy{#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

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

4.6 Declaration of Concrete Variables

Shared variables The following variables are shared by `scrlltr2` and `komacv`. The conditionals used in the last argument to `\kcvlco@newvar` are taken over from `scrlltr2`.

```
78 \kcvlco@newvar [\Telefon]{fromphone}{\phonenr}{@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}
```

scrlltr2 variables The following variables are `scrlltr2`-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
 General: Initial version 1

Index

Symbols	
\@firstofone	27, 29
\@ifclassloaded	62
\@ifnextchar	15
\@ifstar	5, 14, 26, 32
\@tempa	10, 11, 20, 21, 55, 56
\@tempb	10, 11, 20, 21, 55, 56
\\	88
A	
\acadtitle	93
\addresscity	95
\addressstreet	94
B	
\begingroup	10, 20, 55
C	
\csappto	64, 67
\csdef	9, 12, 18, 22, 24, 60, 61
\csuse	19, 28, 30, 36, 70
E	
\else	11, 21, 56
\email	81
\emailink	39
\empty	9, 65, 68, 69
\endgroup	11, 12, 21, 22, 56, 57
\extrainfo	100
F	
\facebook	98
\faFacebook	98
\faGithub	97
\faLinkedin	99
\familyname	92
\faTwitter	96
\FAX	80
\faxnr	80
\fi	12, 22, 57
\firstname	91
\forcsvlist	38
G	
\github	97
H	
\homepage	82
\href	41, 42, 46, 47, 51, 52
\httplink	44
\httpslink	49
I	
\ifbool	60, 61, 69
\ifcsdef	35
\ifcsvoid	33, 34
\IfExistskomafont	43, 48
\ifkomavar	7, 35, 54, 76, 83, 86, 89, 90
\ifkomavareempty	31, 64, 67
\ifkomavarenabled	36
\ifstreempty	40, 45, 50, 59, 63
\ifx	11, 21, 56
\input	37

K		
<code>\kcvlco@error</code>	8, 71 , 74	
<code>\kcvlco@errundef</code>	73 , 76	
<code>\kcvlco@ifemptydesc</code>	32, 34	
<code>\kcvlco@ifemptyvar</code>	32, 33	
<code>\kcvlco@newkomavar</code>	5, 6	
<code>\kcvlco@newvar</code>	53 , 78 , 79 , 80 , 81 , 82, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100	
<code>\kcvlco@onlyifdef</code>	15, 28, 30, 75	
<code>\kcvlco@setkomadesc</code>	14, 23	
<code>\kcvlco@setkomavar</code>	14, 15	
<code>\kcvlco@setkomavar@i</code>	16, 17	
<code>\kcvlco@storekomavar</code>	66 , 69 , 77	
<code>\kcvlco@usekomadesc</code>	26, 29	
<code>\kcvlco@usekomavar</code>	26, 27	
<code>\KOMAA@ifkey</code>	61	
L		
<code>\let</code>	65, 68 , 69	
<code>\letcs</code>	77	
<code>\Letter</code>	81	
<code>\linkedin</code>	99	
<code>\LoadLetterOption</code>	37	
<code>\LoadLetterOptions</code>	37	
<code>\long</code>	17	
M		
<code>\mobile</code>	79	
<code>\Mobilefone</code>	79	
N		
<code>\newkomafont</code>	43, 48	
<code>\newkomavar</code>	4 , 58, 83, 86, 89, 90	
P		
<code>\PackageError</code>	72	
<code>\phonenr</code>	78	
<code>\providecommand</code>	4, 13, 25, 31, 35, 36, 37, 38, 39, 44, 49, 71, 73, 75	
R		
<code>\relax</code>	6, 10, 16, 20, 53, 55	
<code>\RequirePackage</code>	1, 2, 3	
S		
<code>\setkomavar</code>	13 , 57, 84, 87	
T		
<code>\Telefon</code>	78	
<code>\twitter</code>	96	
U		
<code>\usefontofkomafont</code>	41, 42, 46, 47, 51, 52	
<code>\usekomavar</code>	25 , 85, 88	