Painless screenplay formatting[1]

Table of contents

Scene 1 — About `scenar` package

This package provides several macros for easier screenplay formatting. During the development, I discovered that no strict standard for theatre screenplay formatting exists. This is not necessarily the case for screenplays used in the filming industry. However, during a film shooting several types of specialized screenplays are made and that is just out of the scope of this work.

I have heard from several sources that formatting theatre screenplay is really up to the discretion of its author. This means that I had to make some design decisions myself that may not be appreciated by everyone. Still, I tried to follow the most unspoken rules and implemented the most common features that the script usually utilizes.

My main goal has always been to design a format that could be comfortably used on stage. I have done this from position of occasional amateur actor. I have discussed my work with both current and former student of dramaturgy.

Scene 2 — Making a screenplay

2.1 Document setup

First of all you need to include this package with `\load[scenar]`. Afterwards you should use `\beginscenar` which sets the document format in the reccomended way. That is A4 paper with 2.5cm borders and source pro font family. Implicit screenplay language is Czech. You may use `\enlang` for switching to English which is also implemented.

Interesting nonTEX standard document setting is `\repindent`⟨*dimension*⟩ that changes the distance of character names from their dialogue. Currently the maximum charactar name size is around 15 characters. You can safely use this register if necessary. `\parskip` register is also utilized for slight spacing between different character lines. This is up to personal preference and might be changed.

2.2 Title, content and character pages

Now our document is finally ready. Usually the script will start with three special pages.

`\titlepage` prints, as the name suggest, title page of script. However, before using this command you have to specify some parameters.

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[1] Available at https://github.com/BasileosFelices/optex-scenar

I `\title{`⟨*text*⟩`}` sets the name of the sript. This is the only mandatory parameter and has to be defined before `\titlepage`.

II `\subtitle{`⟨*text*⟩`}` provides an option to specify subtitle

III `\author{`⟨*text*⟩`}` prints written by ⟨*text*⟩. If you want to specify more authors please include them all in a single line.

IV `\basedon{`⟨*text*⟩`}` prints based on ⟨*text*⟩.

V `\date{`⟨*text*⟩`}` prints ⟨*text*⟩ to the left side. Specifying month and day is recommended.

`\characterpage` provides a page with automaticly generated list of characters. Any ⟨*character*⟩ in `\rep`⟨*character*⟩ is displayed here.

`\contentpage` prepares Table of Contents page with all acts and scenes listed.

2.3 Acts and scenes

`\act`⟨*text*⟩ starts a new act. ⟨*text*⟩ is optional. Act always starts a new page and is usually followed by a short description of events in this act. Acts show in table of content.

`\scene`⟨*text*⟩ starts a new scene. Scenes are numbered from 1 regardles of acts. ⟨*text*⟩ is optional. Scenes show in table of content as well.

2.4 Dialogue and event description

`\rep`⟨*character*⟩`:`⟨*text*⟩ is a macro used for printing dialogue and probably the most important macro here. Following `\rep` everything you write till : is considered a character name and is placed on the left side. The ⟨*text*⟩ which lasts till the end of paragraph (You must make a double enter to end this.) is then placed into the column which starts at a `\repindent` distance from left side of the page.

`\pop`⟨*text*⟩ meanwhile is used for printing event description and its behavior is dependent on context. When an event is not tied to a specific character then `\pop` should be used in a new paragraph and reads ⟨*text*⟩ till the end of an paragraph. Text is then printed in cursive.

However, if `\pop{`⟨*text*⟩`}` is used in `\rep` then text should be enclosed in `{}` parentheses. ⟨*text*⟩ keeps itself as part of the dialogue column but is printed in cursive and enclosed in (). You should use this option to describe events tied to a specific character.

Scene 3 — Regarding OpTEXmacros usage

As later described in the implementation section, this package does not use OpTEXin a read-only manner. Even some private parts and macros are redefined and adjusted here. After all that is the reason why the sections of this documentation are labelled `scenes` even though the usual `\sec` is used. I'd like to comment on why have I decided to do so in a broad manner. The exact changes are documented in 7.

To start, I find screenplay formatting a rather specific work and the work of this package is a document-type style implementation rather than a feature package. I find it highly unlikely anyone would find a use for this code outside of the screenplay formatting it is intended for. Therefore chances someone would find my modifications disruptive and hostile for his purposes are low.

First I redefined several declarations used in `\sec` and `\chap`. Acts and scenes are implemented basically as a wrapper for these OpTEXheaders. Considering how similar they were to my envisioned acts and scenes I found a way of redesigning them instead of making completely new headers much simpler and more useful. `\sec` and `\chap` come with built-in support for ToC and references. And already almost had a design I needed. So all changes here are pretty much graphical.

The next changed routine is generating a Table of content. Changes here are likewise mostly graphical.

The most controversial part in my eyes is the change to routine regarding the index. While the purpose of previous adjustments remained the same with simply different execution. Here I have forced `\makeindex` to make a list of characters instead of an index it is meant to create. I am not necessarily happy with this level of twisting the original purpose, however, the benefits were simply too nice to pass up. The index automatically catalogues all entries and works as a mathematical set. All same entries are grouped together and even sorted. Brilliant qualities that I needed to use.

Still, I believe I managed to make these adjustments maximally nondestructive. Instead of cutting the code completely, I introduced a new index type for hiding origin page numbers which is the difference between the original index and the list I needed. Thanks to that classic indexation should still be possible as demonstrated at the end of this documentation.

Scene 4 — Printing documentation

I have tried to follow OpTeXdocumentation and package practices. Meaning this documentation has been and can be generated with the following console command.

```
optex -jobname scenar-doc '\docgen scenar
```

You should run this command three times in order to properly generate Table of Contents and Index. Beware `\docgen` is first included in TeXlive 2023. If you encounter problems please ensure you have last OpTeX version.

Scene 5 — List of possible updates

- Printing act numbers in roman numerals
- Using `\_isempty` `\_isdefined` macros from OpTeX. I could not make them work.
- Title page is hardcoded with Source pro font and with A4 format in mind. More flexible approach would be welcome.
- Character page is implemented with automatic printing. Some helper macros for formatting character page manually with possibly character descriptions.
- Off switch for collecting character names to index.

Scene 6 — Credits and used resources

My thanks goes to Zuzana Novotná and Kristina Kalendová who discussed this work with me and pointed me the right way.

Jak napsat filmový scénář. Eichlerová Barbora 2013
Scenar.cz
OpTeX documantation
Documentation of math.opm
TeX pro pragmatiky
TeXbook naruby
Background grid for OpTeX documents (by Adam Barla)

Scene 7 — Implementation

```
 4  \_def\_scenar_version{1.0, 2023-06-19}
 5  \_codedecl \beginscenar {Painless screeplay formatting <\_scenar_version>}
 6  \_namespace{scenar}
```

`\beginscenar` sets up and formats the document in the recommended way. These settings may be overriden. `\repindent` holds distance of dialogue from character name.

```
13  \_def\.beginscenar{
14      \_initunifonts
15      \_cslang                    % české vzory dělení slov
16      \_fontfam[source pro]
17      \_margins/1 a4 (2.5,2.5,2.5,2.5)cm  % okraje 2.5 cm, strana A4
18      \_typosize[12/20]
19      \_parindent=0pt
20      \_parskip\_smallskipamount
21
22      \_scenar_repindent=3.5cm
23      }
24
25  \_nspublic \beginscenar ;
```

Helper `\toupper{`⟨*text*⟩`}` converts `text` to uppercase. Uses lua to make itself expandable. Unlike `\uppercase`.

```
32 \_def\.toupper#1{%
33     \_directlua{%
34         tex.print(unicode.utf8.upper("\_luaescapestring{\_unexpanded{#1}}") )%
35     }%
36 }
```

`\pop` prints description of events in cursive. If used outside of `\rep` reads text till the end of paragraph. Redefined behavior in `\rep` later.

```
43 \_def\.pop#1\_par{%
44     \_par\_abovetitle{\_penalty-151}\_smallskip%
45     {\_it #1\_par}%
46     \_smallskip%
47     }
48
49 \_nspublic \pop ;
```

`\rep`⟨*character name*⟩:⟨*text*⟩ for printing dialogue. Reads everything till the end of paragraph. Redefines `\pop` behaviour to wrap event description as (`text`). Furthermore saves character name for printing character list. This uses inserting into OpTEXindex with `\iitype {h}` for hiding location page number. See `\characterpage`

`\repindent` holds distance of character name from dialogue. If the character names are longer than +- 14 characters you may need to increse this.

```
59 \_newdimen\_scenar_repindent
60 \_scenar_repindent=4cm % implicit if beginscenar is not used
61
62 \_def\.rep#1:#2\_par{{\_def\pop##1{{\_it(##1)}}%
63                     \_nsprivate \pop ;
64                     \_iitype{h}\_iindex{\.toupper{#1}} % save to character list
65                     \_par\_leavevmode\_hbox to \_the\.repindent {\.toupper{#1}\_hfil}%
66                     \_hangindent=\_the\.repindent\_hangafter=1%
67                     #2\_par}}
68
69 \_nspublic \rep \repindent ;
```

`\act`⟨*act name*⟩ starts new act with with act names which is read till the end of line. Act name is optional. Implementation uses OpTEX`\chap` with several adjustments. We redefine following: `\_chapfont` `\_chapx` `\_printchap` and `\_mtext` definition for chapter header in English and Czech. Support for more languages can be easily added, see OpTEX documentation.

```
79 \_eoldef\.act#1{%
80     \_inchap{#1}%
81 }
82
83 % Redefinition of Kapitola to Destvi
84 \_sdef{_mt:chap:cs}{Dějství}
85 \_sdef{_mt:chap:en}{Act}
86
87 % redefinition of Headers fonts - removed \_boldify
88 \_def \_chapfont {\_scalemain\_typoscale[\_magstep3/\_magstep3]}
89
90 % redefinition of chapX - we do not reset scene counters in new acts
91 \_def \_chapx {\_secx\_lfnotenum=0}
92
93 % redefinition of \printchap - smaller belowtitle skip; removed upper glue
94 \_def\_printchap #1{\_vfill\_supereject \_prevdepth=0pt
95         % !!OFF \_topglue\_medskipamount % shifted by topkip+\medskipamount
96     {\_chapfont \_noindent \_mtext{chap} \_printrefnum[@]\_par
97     \_nobreak\_smallskip
98     \_noindent \_raggedright #1\_nbpar}\_mark{}%
99     \_nobreak \_belowtitle{\_smallskip}%
100 }
101
102 \_nspublic \act ;
```

4

\scene⟨*scene name*⟩ starts new act with with act names which is read till the end of line. Scene name is optional. Implementation uses OpTEX\sec with several adjustments. We redefine following: _secfont _thesecnum _printsec. We add new _mtext{scene} values for printing scene header in English and Czech. Support for more languages can be easily added, see OpTEX documentation.

```
112  % definiton of \scene - converts to \sec
113  \_eoldef\.scene#1{%
114      \_insec{#1}%
115  }
116
117  % Definition of Scene text in different languages
118  \_sdef{_mt:scene:cs}{Scéna}
119  \_sdef{_mt:scene:en}{Scene}
120
121  % redefinition of Headers fonts - removed \_boldify
122  \_def \_secfont {\_scalemain\_typoscale[\_magstep2/\_magstep2]}
123
124  % redefinition of _thesecnum / We dont want to print act number
125  \_def \_thesecnum {\_the\_secnum}
126
127  % redefinition of sec printing - Includes 'scena'
128  % In print ref num checks whether #1 is empty, if not prints  --- and #1
129  % \isempty does not work here ?
130  \_def\_printsec#1{\_par
131      \_abovetitle{\_penalty-400}{\_bigskip}
132      {\_secfont \_noindent \_raggedright
133      \_printrefnum[\_mtext{scene} @\_if\_relax#1\_relax\_else\_enskip---\_enskip\_fi]%
134      #1\_nbpar}\_insertmark{#1}%
135      \_nobreak\_belowtitle{\_medskip}%
136      \_firstnoindent
137  }
138
139  \_nspublic \scene ;
```

\titlepage prints an title page with before specified parameters. source pro font family is hardcoded here to avoid undefined command sequence: \light\rm. All in all using \titlepage when file format is changed is not adviced without editing macros below as well. \title{text} saves screenplay title. This is the only mandatory parameter. Similarly you can specify following: \subtitle{text}, \author{text}, \basedon{text} and \date{text}.

```
149  \_def\.title#1{ \_def\.savedtitle{#1} }
150  \_def\.subtitle#1{ \_def\.savedsubtitle{#1} }
151  \_def\.author#1{ \_def\.savedauthor{#1} }
152  \_def\.basedon#1{ \_def\.savedbasedon{#1} }
153  \_def\.date#1{ \_def\.saveddate{#1} }
154
155  \_def\.titlefont{\light\rm\_scalemain\_typoscale[\_magstep4/\_magstep4]}
156  \_def\.subtitlefont{\light\rm\_scalemain\_typoscale[\_magstep2/\_magstep2]}
157  \_def\.titletextfont{\light\rm\_scalemain\_typoscale[\_magstep1/\_magstep1]}
158
159  \_sdef{_mt:author:cs}{Autor}
160  \_sdef{_mt:author:en}{Written by}
161
162  \_sdef{_mt:basedon:cs}{Dle předlohy}
163  \_sdef{_mt:basedon:en}{Based on}
164
165  \_def\.titlepage{\_nopagenumbers
166      {
167      \_fontfam[source pro]
168      \.titletextfont
169      \_vfill\_break
170      \_vglue4.5cm
171      \_centerline{\.titlefont \.savedtitle \_unskip}\_par
172      \_ifx\.savedsubtitle\_undefined
173          \_else \_vglue1cm\_centerline{\.subtitlefont \.savedsubtitle \_unskip}\_par
174          \_fi
175      \_ifx\.savedauthor\_undefined
176          \_else \_vglue2cm\_centerline{\_mtext{author}\_unskip}\_par
```

```
177        \_centerline{\.savedauthor\_unskip}\_par
178        \_fi
179    \_ifx\.savedbasedon\_undefined
180        \_else \_vglue2cm\_centerline{\_mtext{basedon}\_unskip}\_par
181        \_centerline{\.savedbasedon\_unskip}\_par
182        \_fi
183    \_ifx\.saveddate\_undefined
184        \_else \_vglue3cm{\_hfill \.titletextfont \.saveddate \_par}
185        \_fi
186    }
187    \_vfill\_break\_footline={\_hss\_tenrm\_folio\_hss}
188 }
189
190 \_nspublic \title \subtitle \author \basedon \date \titlepage ;
```

\contentpage prints new page with screenplay content. OpTEX\maketoc is utilized here with adjustments for screenplay. In act and scene numbering we now include language dependent description for scenes and acts. As this breaks page layout whole ToC is also moved 1.2cm to the right. Page header is language dependent and can be easily edited or new langue definition might be added.

```
199 \_def\.contentpage{
200     {
201         \_vfill\_break
202         \_def \_secfont {\_scalemain\_typoscale[\_magstep3/\_magstep3]} %big font
203         \_notoc\_nonum\_insec{\_mtext{toc}}
204         \_maketoc
205     }
206 }
207
208 % Table of content settings
209 \_sdef{_mt:toc:cs}{Obsah}
210 \_sdef{_mt:toc:en}{Contents}
211
212 % Redefines toc levels to include 'scene' and 'act'
213 \_sdef{_tocl:1}#1#2#3{\_nofirst\_bigskip
214    \_bf\_llaptoclink{\_mtext{chap} #1}{#2}\_nobreak\_hfill \_pgn{#3}\_tocpar}
215 \_sdef{_tocl:2}#1#2#3{\_llaptoclink{\_mtext{scene} #1}{#2}\_tocdotfill\_pgn{#3}\_tocpar}
216
217 % Moved left side with kern 1.2cm to keep act and scenes in page layout
218 \_def\_llaptoclink#1{\_noindent\_kern1.2cm%
219    \_llap{\_ilink[toc:\_the\_tocrefnum]{\_enspace\_numprint{#1}\_kern.4em}\_kern.1em}}
220
221 \_nspublic \contentpage ;
```

\characterpage prints new page with all characters in screenplay automaticly. OpTEX\makeindex is utilized here. Page header and description is language dependent and can be easily edited or new langue definition might be added.

```
228 \_sdef{_mt:charlist:cs}{Postavy}
229 \_sdef{_mt:charlist:en}{Characters}
230
231 \_sdef{_mt:charlistdesc:cs}{Seznam všech postav díla se svou vlastní replikou.
232                            Postavy jsou vytištěné v abecedním pořadí.\_bigskip}
233 \_sdef{_mt:charlistdesc:en}{List of characters, alphabeticly sorted.\_bigskip}
234
235 \_def\.characterpage{
236     {
237         \_vfill\_break % New page
238         \_def \_secfont {\_scalemain\_typoscale[\_magstep3/\_magstep3]} %bigfont
239         \_notoc\_nonum\_insec{\_mtext{charlist}} % Page title
240         \_mtext{charlistdesc} % Short description
241         \_begmulti 2 % Two colums
242             \_makeindex
243         \_endmulti
244     }
245 }
246
247 \_nspublic \characterpage ;
```

Redefinition of OpTEXmacros for Index. To be precise: `\_printpages` `\_usepgcomma` `\_usepgdash` and `\_pgprint`. Here we add new index type `h` which does not show origin page.

```
254  % redefintes pageprinting so usepgcomma, and usepgdash receive pgtype
255  \_def\_printpages#1:#2,{% state automaton for compriming pages
256      \_ifx,#1,\_uselastpgnum
257      \_else \_def\_tmpa{#2}%
258          \_ifx\_pgtype\_tmpa \_else
259              \_let\_pgtype=\_tmpa
260              \_uselastpgnum \_usepgcomma{#2} \_pgprint#1:{#2}%
261              \_tmpnum=#1 \_returnfi \_fi
262          \_ifnum\_tmpnum=#1 \_returnfi \_fi
263          \_advance\_tmpnum by1
264          \_ifnum\_tmpnum=#1  \_ifx\_lastpgnum\_undefined \_usepgdash{#2}\_fi
265                              \_edef\_lastpgnum{\_the\_tmpnum:{\_pgtype}}%
266                              \_returnfi \_fi
267          \_uselastpgnum \_usepgcomma{#2} \_pgprint#1:{#2}%
268          \_tmpnum=#1
269          \_relax
270      \_ea\_printpages \_fi
271  }
272
273  % Disables printing if type is h
274  % comma+space between page numbers
275  \_def\_usepgcomma#1{\_ifx h#1\_relax\_else\_ifnum\_tmpnum>0, \_fi\_fi}
276  % dash in the <from>--<to> form
277  \_def\_usepgdash#1{\_ifx h#1\_relax\_else\_hbox{--}\_fi}
278
279  % Disables page printing when type is h
280  \_def\_pgprint #1:#2{%
281      \_ifx ,#2,\_pgprintA{#1}\_returnfi \_fi
282      \_ifx b#2{\_bf \_pgprintA{#1}}\_returnfi \_fi
283      \_ifx i#2{\_it \_pgprintA{#1}}\_returnfi \_fi
284      \_ifx u#2\_pgu{\_pgprintA{#1}}\_returnfi \_fi
285      \_ifx h#2{\_relax}\_returnfi \_fi
286      \_pgprintA{#1}\_relax
287  }
288
289  \_endnamespace
```

Scene 8 — Index