The rdaslides class: Research Data Alliance presentations

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This is the documentation for and a demonstration of rdaslides.cls, 'Class for Research Data Alliance presentations', v3.0, dated 18 August 2016.

1 Usage

1.1 Loading the class

The class is loaded in the usual way.

```
\documentclass{rdaslides}
```

The class defaults to producing slides. You can change this with an option:

handout (no value, initially unset)
  Lay slides out two to an A4 page, for easy printing.

trans (no value, initially unset)
  Produce less dynamic slides: useful for archival versions. See the beamer manual for a more detailed explanation of how this 'transparencies version' behaves.

article (no value, initially unset)
  Produce a document in article mode: useful for transcripts.

set (no value, initially unset)
  Produce a document in article mode, plus a set of slides (suffixed with '-slides').

Since this class was first released, the mode switching aspects have been improved and separated out into a separate class file, beamerswitch. The options above are only a subset; please see the beamerswitch documentation for the full set. Note that the set option is now simply shorthand for article and alsobeamer.

1.2 Loading the theme

If you don't want the article mode settings introduced by the full class, you can simply load the theme directly into beamer:

```
\documentclass{beamer}
\usetheme{RDA}
```

1.3 Preamble metadata

The class file provides some additional commands for describing your presentation. When filling out the document metadata, you can use the regular beamer conventions with a few differences:

\date{⟨*ISO date*⟩}
> This is not a new command (!) but it is handled slightly differently. Enter the date in ISO format, e.g. 2011-12-13.

\occasion{⟨*event name*⟩}
> Use this to provide the name of the event where the presentation will be given.

\authorurl{⟨*URL*⟩}
> Use this to provide a URL where more details about the author may be consulted (not so useful for multi-author presentations).

\hashtag{⟨*hashtag*⟩}
> Use this to specify exactly one hashtag for sharing on social media. Omit the hash (#), as the class will add it for you.

The above changes are not present in the standalone beamer theme. You can however sneak the information into your presentation by defining `\insertoccasion`, `\insertauthorurl` and `\inserthashtag` respectively. To trigger the change in date handling, load the isodate package.

1.4 Customizing the title slide

You can add elements to the title slide by using the hooks provided. (The hooks are also recognized in article mode but they mainly affect the `\finale` command, of which more later.) You use the hooks by defining them, so to use `\rdaGroupName`, for example, you would need to do something like this:

```
\def\rdaGroupName{Metadata}
```

You can associate your presentation with a particular group by defining the following hooks.

\rdaGroupLogo
> This should insert the logo of an RDA group. For best results, scale it to fit the width of the bounding box like so:

```
\def\licenseLogo{\insertgraphics[width=\hsize]{filename}}
```

\rdaGroupName
> The name of the RDA group, e.g. 'Metadata'.

\rdaGroupType
> The type of RDA group, e.g. 'Interest Group'.

\rdaGroupUrl
> The URL of the group web page.

By way of demonstration, the package rdamscwg.sty is provided for associating presentations with the Metadata Standards Catalog Working Group. Use it in the usual way:

```
\usepackage{rdamscwg}
```

Contributions of similar packages representing other groups are welcome, but there is no intention to provide a comprehensive set.

If releasing the presentation under licence, you can declare this by defining the following hooks.

\licenseLogo
> This should insert the logo of the licence under which the presentation is released, if applicable. For best results, scale it to fit the width of the bounding box like so:

```
\def\licenseLogo{\insertgraphics[width=\hsize]{filename}}
```

\licenseStatement
> A notice concerning the licence, e.g. 'Released under an X licence.'

\licenseUrl
> The URL of the full licence text, if applicable.

1.5   Composing your presentation

The class is set up to ignore non-frame text in presentation mode, and ignore frame titles in article mode. The idea is that you put additional commentary outside frames, and it shows up in the transcript but not the slides. With pictorial slides, you can wrap them in `figure` environments, and with textual slides you can run them into the text of the commentary.

In article mode, article-only text is shown in a serif font, while text that also appears on a slide is shown in a sans serif font, so you can tell them apart.

Both the class and standalone theme provide the RDA colour palette:

▮ rdayellow	▮ rdamidyellow	▮ rdalightyellow
▮ rdagreen	▮ rdamidgreen	▮ rdalightgreen
▮ rdabrown	▮ rdamidbrown	▮ rdalightbrown
▮ rdagray	▮ rdamidgray	▮ rdalightgray
▮ rdagrey	▮ rdamidgrey	▮ rdalightgrey

The class provides two new options for frames.

background=⟨*filename*⟩ (default `rda-bg-normal`)
> Use this option on its own to restore the usual slide background. Use it with an image filename to use that image as the background instead.

nobackground (no value, initially unset)
> This gives the slide a plain white background.

Note that the background image will be resized to fill the slide completely, so to avoid distortion use an image that has approximately the right aspect ratio. By default, beamer slides are 128 mm × 96 mm, which is a 4:3 ratio.

These two options have no effect in article mode.

Slides show progress information at the bottom right in the form of a charge-style indicator. To show progress as a fraction using frame numbers (e.g. 10/17):

```
\setbeamertemplate{progress}[fraction]
```

To show just the current frame number:

```
\setbeamertemplate{progress}[number]
```

To show nothing at all:

```
\setbeamertemplate{progress}{}
```

1.6 Finishing off

You can insert a closing slide in your presentation to parallel your opening slide.

\finale[⟨*important note*⟩]
> The optional argument lets you add an important note, such as a key link or date, to the end of the slide. There is not much room, so be sparing.
> Wrap it in a bare frame, as you would for \maketitle:

```
\begin{frame}
\finale
\end{frame}
```

In article mode, `\finale` inserts a postscript consisting of a horizontal line followed by the licence and RDA group information or, failing that, a brief statement about RDA.

The Metadata Standards Catalog Working Group is part of the Research Data Alliance, which is supported by the European Commission, the US Government and the Australian Government.

For more information, please visit `https://rd-alliance.org/groups/metadata-standards-catalog-working-group.html`

2 Implementation

Note that some code is duplicated across several files. Therefore the line numbers here are totally fictitious when it comes to the actual files.

2.1 Internal conveniences

We will need the etoolbox package's patching utilities, and calc will be helpful for calculating lengths.

```
1   \RequirePackage{etoolbox, calc}
```

2.2 Class: Options and mode switching

Mode switching is delegated to beamerswitch, but we need to support the legacy set option.

```
2   \DeclareOption{set}{\PassOptionsToClass{article,alsobeamer}{beamerswitch}}
```

All other options are passed to beamerswitch.

```
3   \DeclareOption*{%
4     \PassOptionsToClass{\CurrentOption}{beamerswitch}%
5   }
6   \ProcessOptions\relax
```

2.3 Class: Setting options in loaded classes and packages

Now we load everything we need.

It looks odd to have the \inst markers from beamer in the maths font, so we use the textinst option for beamerswitch.

```
7   \PassOptionsToClass{textinst}{beamerswitch}
```

In article mode, we use 12pt text to keep it readable on the podium.

```
8   \PassOptionsToClass{a4paper,12pt}{article}
```

I anticipate using fonts with the necessary symbols for beamer, but which may clash with amssymb.

```
9    \PassOptionsToClass{noamssymb}{beamer}
10   \PassOptionsToPackage{noamssymb}{beamerarticle}
```

We provide the possibility of using colourful tables.

```
11   \PassOptionsToPackage{table}{xcolor}
12   \LoadClass{beamerswitch}
```

2.4   Class: Layout, orthography and typography

In handout mode, we lay out two slides to an A4 page.

```
13   \handoutlayout{paper=a4paper,nup=2,pnos}
```

I find slide titles somewhat intrusive in article mode (unless repurposed as float captions, say), so we turn them off. I also make use of the more beamer-esque \maketitle routine provided by beamerswitch.

```
14   \articlelayout{maketitle,frametitles=none}
```

Left and right margins of 3cm and top and bottom margins of 2.5cm give a typeblock with an approximate golden aspect ratio.

```
15   \mode<article>{
16     \RequirePackage[hmargin=3cm,vmargin=2.5cm]{geometry}
17   }
```

I anticipate using fonts with professional features.

```
18   \mode<presentation>{
19     \usefonttheme{professionalfonts}
20   }
```

I use British orthography. If there is a demand for it, I might convert the following lines to respect class options instead of a hard-coded language, but it is easy enough to patch them with \PassOptionsToPackage before loading the class.

```
21   \RequirePackage[british]{babel}
22   \RequirePackage[british,cleanlook]{isodate}
```

We take advantage of microtype enhancements. We defer loading it until the end of the preamble in case the author loads fontspec.

```

```
23   \AtEndPreamble{%
24   \RequirePackage{microtype}%
25   }
```

In article mode, to give the speaker an impression of what appears on the slides and what doesn't, we switch to sans serif for slide contents.

```
26   \addtobeamertemplate{frame begin}{}{\sffamily}
27   \addtobeamertemplate{frame end}{\rmfamily}{}
```

When reading from a podium, some extra whitespace helps me keep track of where I am. So we switch to using Web-style paragraphs.

```
28   \mode<article>{%
29     \setlength{\parindent}{0pt}%
30     \setlength{\parskip}{1em plus 0.2em minus 0.2em}%
```

But this makes lists a bit too open, so we tighten them up again by reducing the \topsep to zero. We do this by injecting the appropriate code into the second argument of \list where this appears in the definition of the three main list environments.

```
31     \patchcmd{\itemize}{\def}{\topsep\z@\def}%
32       {\wlog{Patching itemize succeeded}}%
33       {\wlog{Patching itemize failed}}
34     \patchcmd{\@enum@}{\def}{\topsep\z@\def}%
35       {\wlog{Patching enumerate succeeded}}%
36       {\wlog{Patching enumerate failed}}
37     \patchcmd{\description}{\labelwidth\z@}{\labelwidth\z@\topsep\z@}%
38       {\wlog{Patching description succeeded}}%
39       {\wlog{Patching description failed}}
```

We make captions easier to spot. We try to make the placement of the final period more intelligent using \@addpunct from amsthm.

```
40     \usepackage[format=hang,justification=raggedright,labelfont=bf]{caption}
41     \usepackage{amsthm}
42     \DeclareCaptionTextFormat{condperiod}{#1\@addpunct{.}}
43     \captionsetup{textformat=condperiod}
```

We also make footnotes look a little neater.

```
44     \usepackage[hang,multiple,bottom]{footmisc}
45     \setlength{\footnotemargin}{1em}
46   }
```

The cleveref package is not essential, but it is nice to have.

```
47    \IfFileExists{cleveref.sty}{%
48      \RequirePackage[noabbrev,capitalize,nameinlink]{cleveref}
49    }
```

2.5 Theme: Presentation font theme

Some sensible font sizes and weights for use on slides.

```
50    \setbeamerfont{frametitle}{size=\LARGE}
51    \setbeamerfont{framesubtitle}{size=\large}
52    \setbeamerfont{headline}{size=\LARGE}
53    \setbeamerfont{footline}{size=\scriptsize}
54    \setbeamerfont{alerted text}{series=\bfseries}
```

2.6 Theme: Presentation colour theme

We load the RDA colour palette.

```
55    \RequirePackage{rdacolors}
```

Here are the basic colours:

```
56    \setbeamercolor{normal text}{bg=white,fg=black}
57    \setbeamercolor{alerted text}{fg=rdagreen}
58    \setbeamercolor{example text}{fg=rdagrey}
59    \setbeamercolor{structure}{fg=rdabrown}
```

Here are the colours for the inner theme elements:

```
60    \setbeamercolor{title}{fg=white}
61    \setbeamercolor{subtitle}{fg=white}
62    \setbeamercolor{author}{fg=white}
63    \setbeamercolor{institute}{fg=white}
64    \setbeamercolor{date}{fg=white}
```

Here are the colours for the outer theme elements:

```
65    \setbeamercolor{frametitle}{bg=,fg=rdagreen}
66    \setbeamercolor{headline}{parent=frametitle}
67    \setbeamercolor{footline}{bg=,fg=rdabrown}
68    \setbeamercolor{progress}{bg=rdalightyellow,fg=rdamidbrown}
```

2.7   Class: Metadata handling

We define some new elements of metadata. The `\occasion` command is used to record the event at which the presentation is given. The content is available if provided via `\insertoccasion`.

```
69   \newcommand*{\occasion}[1]{%
70     \def\insertoccasion{#1}%
71     \subject{Presentation given at #1}%
72     \mode<article>{%
73       \AtBeginDocument{\hypersetup{pdfsubject={Presentation given at #1}}}%
74     }%
75   }
```

The `\hashtag` command is used to suggest a hashtag people can use to share this presentation on social media. The content is available if provided via `\inserthashtag`

```
76   \newcommand*{\hashtag}[1]{%
77     \newcommand*{\inserthashtag}{\href{https://twitter.com/hashtag/#1}{\##1}}%
78   }
```

The `\authorurl` command is used to give a URL where more information about the speaker is available. The content is available if provided via `\insertauthorurl`

```
79   \newcommand*{\authorurl}[1]{%
80     \def\insertauthorurl{#1}%
81   }
```

In case the author forgets to include some key metadata, we provide some safety values to allow the document to compile.

```
82   \def\@title{Please provide a title}
83   \def\@author{Please specify the author}
84   \edef\@date{\the\year-\ifnum\month<10 0\fi\the\month-\ifnum\day<10 0\fi\the\day}
```

We add these new elements to the `\maketitle` routine in article mode.

```
85   \ifundef{\beamer@originstitute}{%
86     \renewcommand{\institute}[2][]{\def\insertinstitute{#2}}%
87   }{%
88     \renewcommand{\institute}[2][]{\def\insertinstitute{#2}\beamer@originstitute{#2}}%
89   }%
90   \mode<article>{
91     \patchcmd{\@maketitle}{%
92       \@author
93     }{%
94       \ifundef{\insertauthorurl}{\@author}{\href{\insertauthorurl}{\@author}}%
95     }{}{}
96     \patchcmd{\@maketitle}{%
97       \large \@date
```

```
 98        }{%
 99          \large
100          \ifdefvoid{\insertoccasion}{}{\insertoccasion, }%
101          \printdate{\@date}%
102        }{}{}
103      }
```

2.8   Theme: Presentation outer theme

We introduce a toggle, `titlepage`, that can be used to provide a different layout depending on whether this is a normal or a title slide.

```
104      \newtoggle{titlepage}
```

We provide another toggle, `bgpicture`, which is used to decide whether to use a blank background ('false') or an image ('true').

```
105      \newtoggle{bgpicture}\toggletrue{bgpicture}
```

The standard RDA slide template uses some distinctive background images. We apply them by default, but allow users to choose a different one if needs be.

The method used is to save the filename of the image to `\bgpicture`, and let the user change it with a frame option, `background`. The image can be turned off entirely by issuing with the frame option `nobackground`.

```
106      \newcommand{\bgpicture}{rda-bg-normal}
107      \define@key{beamerframe}{background}[rda-bg-normal]{%
108        \gdef\bgpicture{#1}\toggletrue{bgpicture}%
109      }
110      \define@key{beamerframe}{nobackground}[true]{%
111        \togglefalse{bgpicture}%
112      }
113      \setbeamertemplate{background}{%
114        \iftoggle{bgpicture}{%
115          \includegraphics[width=\paperwidth,height=\paperheight]{\bgpicture}%
116        }{}%
117      }
```

To prevent the settings for these switches persisting between slides, we reset them as part of the set-up of 'frame' environments.

```
118      \preto\beamer@reseteecodes{\setkeys{beamerframe}{background}\togglefalse{titlepage}}
```

This headline template is only shown on title slides. It is used to show details of the RDA group, if provided.

11

```
119    \defbeamertemplate*{headline}{RDA headline}{%
120      \iftoggle{titlepage}{
```

We need to widen the text block and strip out vertical white space to fit everything in.

```
121        \parindent \z@
122        \leftskip \z@ \@plus 1fil \@minus \textwidth
123        \rightskip\leftskip
124        \parfillskip \z@skip
```

Here we insert some hooks so that users can customize the title space with details of an RDA group by defining \rdaGroupLogo, \rdaGroupName and \rdaGroupType.

```
125        \begin{minipage}[b][24mm][c]{\paperwidth - 6mm}
126          \ifdefvoid{\rdaGroupLogo}{}{\parbox[c]{16mm}{\rdaGroupLogo}}%
127          \hfill
128          \ifdefvoid{\rdaGroupName}{}{%
129            \parbox[c]{42mm}{%
130              \raggedleft\rdaGroupName
131              \ifdefvoid{\rdaGroupType}{}{\par\smallskip{\small\textsc{\rdaGroupType}}}%
132              \par
133          }%
134        }%
135        \end{minipage}\par
136      }{}%
137    }
```

This is our new version of the frametitle template.

```
138    \defbeamertemplate*{frametitle}{RDA theme}{%
139      \ifbeamercolorempty[bg]{frametitle}{}{\nointerlineskip}%
```

The title page background image does not lend itself to a frame title, so just in case the user provides one, we deliberately ignore it.

```
140      \iftoggle{titlepage}{}{%
```

The frame title block in the default background image curves down in the middle, so we need to tell beamer to make its frametitle template a little deeper to cover it. The following code mimics the default, but adds a dp option to the beamercolorbox environment.

```
141        \@tempdima=\textwidth%
142        \advance\@tempdima by\beamer@leftmargin%
143        \advance\@tempdima by\beamer@rightmargin%
144        \begin{beamercolorbox}[sep=0.3cm,wd=\the\@tempdima,dp=6mm]{frametitle}
145          \usebeamerfont{frametitle}%
146          \vbox{}\vskip-1ex%
147          \strut\insertframetitle\strut\par%
```

```
148          {%
149            \ifdefvoid{\insertframesubtitle}{}{%
150              \usebeamerfont{framesubtitle}%
151              \usebeamercolor[fg]{framesubtitle}%
152              \insertframesubtitle\strut\par
153            }%
154          }%
155          \vskip-1ex%
156          \if@tempswa\else\vskip-.3cm\fi%
157        \end{beamercolorbox}%
158      }%
159    }
```

We provide a variety of progress indicators.

The default is a charge-style indicator. The mathematics here makes sure the indicator start at 0% on the first slide and ends up at 100% on the last, with linear variation between. The case of a single slide is handled differently to prevent division by zero.

```
160    \RequirePackage{tikz}
161    \defbeamertemplate*{progress}{charge}{%
162      \raisebox{2.7mm}[0pt][0pt]{%
163        %\usebeamercolor{progress}%
164        \begin{tikzpicture}[line join=round,baseline=1mm]
165          \pgfmathparse{equal(\inserttotalframenumber,1)}%
166          \ifnum1=\pgfmathresult
167            \def\PerCentComplete{12}%
168          \else
169            \pgfmathqparse{12pt * ((\insertframenumber pt - 1pt) /
              ↪  (\inserttotalframenumber pt - 1pt))}%
170            \let\PerCentComplete\pgfmathresult
171          \fi
172          \draw[fg,fill=bg] (0mm,0mm) rectangle (12mm,1.35mm);
173          \filldraw[fg] (0mm,0mm) rectangle (\PerCentComplete mm,1.35mm);
174        \end{tikzpicture}%
175      }%
176    }
```

As an alternative, progress can be shown as a fraction of frame number over total number of frames.

```
177    \defbeamertemplate{progress}{fraction}{%
178      \insertframenumber\slash\inserttotalframenumber
179    }
```

Another possibility is just displaying the frame number.

```
180    \defbeamertemplate{progress}{number}{%
181      \insertframenumber%
182    }
```

The beamer footline template lays out elements along the bottom of the screen. We set

the height of the footline to 8mm so it fits over the RDA logo in the standard background image.

```
183   \setbeamertemplate{footline}{%
184     \vbox to 8mm{%
185       \vfil
```

We use a typical layout: a left-aligned box at the left, a centre-aligned box in the middle and a right-aligned box at the right. The left hand box is occupied by the RDA strapline in the standard background image, so we only use it on the title slide, for the beamer title graphic.

```
186         \makebox[0pt][l]{%
187           \iftoggle{titlepage}{%
188             \usebeamercolor[fg]{titlegraphic}\inserttitlegraphic
189           }{}%
190         }%
191         \hfill
```

We use the centre box (on all slides) for the hashtag, if given. The title slide has a darker background so requires a lighter text colour.

```
192         \parbox{0.5\paperwidth}{\centering
193           \usebeamerfont{footline}%
194           \iftoggle{titlepage}{\usebeamercolor[fg]{date}}{\usebeamercolor[fg]{foot-
              ↪   line}}%
195           \ifdefvoid{\inserthashtag}{}{\inserthashtag}\strut\par
196         }%
197         \hfill
```

On the title slide, we use the right hand box for the licence image.

```
198         \makebox[0pt][r]{%
199           \iftoggle{titlepage}{%
200             \parbox{18mm}{\raisebox{2mm}{%
201               \ifdefvoid{\licenseLogo}{}{%
202                 \ifdefvoid{\licenseUrl}{\licenseLogo}{\href{\licenseUrl}{\licenseLogo}}%
203               }%
204             }}%
205             \hspace*{3mm}%
206             \global\togglefalse{titlepage}%
```

In the standard background image the right hand box is occupied by the RDA logo, but since it is shorter than the strapline on the left, we can balance it with a progress indicator.

```
207           }{%
208             \usebeamertemplate*{progress}%
209             \hspace*{26mm}%
210           }%
```

```
211        }%
212        \par
213        \vfil
214      }%
215    }
```

By default we remove the tell-tale and seldom used beamer navigation symbols.

```
216    \setbeamertemplate{navigation symbols}{}
```

By default beamer uses Roman numerals for split frames. We change this to Arabic numerals.

```
217    \setbeamertemplate{frametitle continuation}{%
218      (\insertcontinuationcount)%
219    }
```

2.9   Theme: Presentation inner theme

Since space is tight on the title slide, we change the default presentation of multiple institutions so they can share a line.

```
220    \mode<presentation>{\def\beamer@andinst{\quad}}
```

The beamer title page template lays out the elements of the title page.

```
221    \providetoggle{isodate}
222    \AtBeginDocument{%
223      \@ifpackageloaded{isodate}{\toggletrue{isodate}}{\togglefalse{isodate}}%
224    }
225    \setbeamertemplate{title page}{%
226      \global\toggletrue{titlepage}%
```

We set the special background image.

```
227      \setkeys{beamerframe}{background=rda-bg-title1}%
```

We insert a spacer at the top that pushes content below the curved green line on the title page graphic.

```
228      \vbox to 24mm{}%
```

We provide the presentation metadata in two parts. The title, author and institute lines go in the middle third of the slide. We use stretchy skips to ensure the elements are evenly spaced.

15

```
229      \begin{minipage}[b][32mm][c]{\textwidth}
230        \vspace*{\stretch{1}}%
231        \begin{beamercolorbox}[sep=0pt,center]{title}
232          \usebeamerfont{title}\inserttitle\par%
233          \ifdefvoid{\insertsubtitle}{}{%
234            \vskip0.25em%
235            {\usebeamerfont{subtitle}\usebeamercolor[fg]{subtitle}\insertsubtitle\par}%
236          }%
237        \end{beamercolorbox}%
238        \vfill
239        \begin{beamercolorbox}[sep=0pt,center]{author}
240          \usebeamerfont{author}\insertauthor
241        \end{beamercolorbox}
242        \vfill
243        \begin{beamercolorbox}[sep=0pt,center]{institute}
244          \usebeamerfont{institute}\insertinstitute
245        \end{beamercolorbox}
246        \vspace*{\stretch{1}}%
247      \end{minipage}
248      \par\vspace*{2mm}
```

The occasion and date squeeze in at the top of the lower third.

```
249      \begin{minipage}[b][10mm][c]{\textwidth}
250        \begin{beamercolorbox}[sep=0pt,center]{date}
251          \usebeamerfont{date}%
252          \ifdefvoid{\insertoccasion}{}{\insertoccasion\\}%
253          \iftoggle{isodate}{\printdate{\insertdate}}{\insertdate}
254        \end{beamercolorbox}
255      \end{minipage}
256      \vspace*{2mm}
257    }
```

2.10   Finishing off

We provide a \finale command for use on the last slide, to parallel \maketitle. It behaves differently depending on the mode.

2.10.1   In the presentation inner theme

In presentation mode, \finale is intended to be used in a frame. It prints a thank you and some key information that the audience can note down during the questions. It looks like the opening slide but uses an alternative background.

```
258    \mode<presentation>{%
259      \newcommand{\finale}[1][\empty]{%
260        \global\toggletrue{titlepage}%
261        \setkeys{beamerframe}{background=rda-bg-title2}%
```

16

We insert a spacer at the top that pushes content below the curved green line on the (alternative) title page graphic.

```
262    \vbox to 24mm{}%
```

The background image again leaves us with the middle third of the slide into which to cram some text. We use stretchy skips to ensure the elements are evenly spaced.

```
263    \begin{minipage}[b][32mm][s]{\textwidth}
264      \vspace*{\stretch{1}}%
```

We start with a thank you.

```
265      \begin{beamercolorbox}[sep=0pt,center]{title}
266        \usebeamerfont{title}Thank you for your attention\par%
267      \end{beamercolorbox}%
```

If the author URL has been provided, we display that.

```
268      \ifdefvoid{\insertauthorurl}{}{%
269        \vfill
270        \begin{beamercolorbox}[sep=0pt,center]{institute}
271          \usebeamerfont{institute}\insertauthor: \url{\insertauthorurl}\par%
272        \end{beamercolorbox}%
273      }%
```

If the RDA group URL has been provided, we display that.

```
274      \ifdefvoid{\rdaGroupUrl}{}{%
275        \vfill
276        \begin{beamercolorbox}[sep=0pt,center]{institute}
277          \usebeamerfont{institute}%
278          \ifdefvoid{\rdaGroupName}{}{\rdaGroupName
279            \ifdefvoid{\rdaGroupType}{}{ \rdaGroupType}:
280          }\url{\rdaGroupUrl}\par%
281        \end{beamercolorbox}%
282      }%
```

Lastly, we display whatever is in the optional argument, if one has been provided.

```
283      \ifx\empty#1
284      \else
285        \vfill
286        \begin{beamercolorbox}[sep=0pt,center]{institute}
287          \usebeamerfont{institute}#1\par%
288        \end{beamercolorbox}%
289      \fi
290      \vspace*{\stretch{1}}%
291    \end{minipage}
292    \vspace*{15mm}
```

```
293        }
294      }
```

2.10.2   In the class, in article mode

In article mode, we will present relevant information laid out in tabular fashion with
tabularx. (We could do it with minipages but this is fractionally easier.)

```
295    \mode<article>{
296      \RequirePackage{tabularx,ifpdf}
```

We begin with a horizontal rule.

```
297      \newcommand{\finale}[1][\empty]{%
298        \vbox{}
299        \begin{small}
300          \rule[1em]{\textwidth}{0.8pt}\par
```

We then draw a table with logos on the left and corresponding text on the right.

```
301          \setlength{\extrarowheight}{1ex}%
302          \renewcommand{\tabularxcolumn}[1]{m{##1}}
303          \begin{tabularx}{\textwidth}{@{}m{22mm}X@{}}
```

If a licence statement has been provided, we add a row displaying it.

```
304          \ifdefvoid{\licenseStatement}{}{%
305            \ifdefvoid{\licenseLogo}{}{\parbox[c]{\hsize}{\licenseLogo}} &
306            \licenseStatement
307            \ifdefvoid{\licenseUrl}{}{: \url{\licenseUrl}} \\
308          }%
```

We then add a row about the RDA. If a group logo has been defined we display it.
Otherwise, we display the RDA logo (RDA_Logotype_CMYK) if the user has it where LaTeX
can find it.

```
309          \ifdefvoid{\rdaGroupLogo}{%
310            \ifpdf
311              \IfFileExists{RDA_Logotype_CMYK.pdf}{%
312                \includegraphics[width=\hsize]{RDA_Logotype_CMYK}%
313              }{}%
314            \else
315              \IfFileExists{RDA_Logotype_CMYK.eps}{%
316                \includegraphics[width=\hsize]{RDA_Logotype_CMYK}%
317              }{}%
318            \fi
319          }{\parbox[c]{\hsize}{\rdaGroupLogo}} &
```

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If group information has not been defined, we explain what the RDA is.

```
320    \ifdefvoid{\rdaGroupName}{%
321      The Research Data Alliance is supported by the
322      European Commission, the US Government and the Australian Government.\par
323      \vspace{1ex}%
324      For more information, please visit \url{https://rd-alliance.org/}%
```

Otherwise we explain about the group.

```
325    }{%
326      The \rdaGroupName\ifdefvoid{\rdaGroupType}{}{ \rdaGroupType}
327      is part of the Research Data Alliance, which is supported by the
328      European Commission, the US Government and the Australian Government.
329      \ifdefvoid{\rdaGroupUrl}{}{%
330        \par\vspace{1ex}%
331        For more information, please visit \url{\rdaGroupUrl}%
332      }%
333    }\\
334    \end{tabularx}
```

Lastly, if the optional argument has been provided, we typeset it below the table.

```
335      \ifx\empty#1\else\par\vskip2pt #1\par\fi
336    \end{small}
337    }
338  }
```

2.11   Class: Loading the beamer theme

For styling the presentation, we use the accompanying beamer theme.

```
339  \usetheme{RDA}
```

2.12   Research Data Alliance colour palette

These settings are separated out into rdacolors.sty.

The RDA colour palette consists of four main colours: Pantone 478 ■, Pantone 369 ■, Pantone 3965 ■, and Pantone Cool Gray 7 ■.

```
340  \RequirePackage{xcolor}
341
342  \xdefinecolor{rdabrown}{RGB}{107,46,32}%      Pantone 478
343  \xdefinecolor{rdagreen}{RGB}{99,168,68}%      Pantone 369
344  \xdefinecolor{rdayellow}{RGB}{235,220,20}%    Pantone 3965
```

```
345    \xdefinecolor{rdagrey}{RGB}{144,149,157}%          Pantone Cool Gray 7
```

As variants of these, the palette also contains the same colours at 50% and 25% saturation.

```
346    \xdefinecolor{rdamidbrown}{RGB}{171,128,115}%      Pantone 478 at 50%
347    \xdefinecolor{rdamidgreen}{RGB}{191,221,149}%      Pantone 369 at 50%
348    \xdefinecolor{rdamidyellow}{RGB}{253,236,133}%     Pantone 3965 at 50%
349    \xdefinecolor{rdamidgrey}{RGB}{192,195,199}%       Pantone Cool Gray 7 at 50%
350
351    \xdefinecolor{rdalightbrown}{RGB}{208,183,173}%   Pantone 478 at 25%
352    \xdefinecolor{rdalightgreen}{RGB}{224,237,201}%   Pantone 369 at 25%
353    \xdefinecolor{rdalightyellow}{RGB}{255,245,194}%  Pantone 3965 at 25%
354    \xdefinecolor{rdalightgrey}{RGB}{219,220,223}%     Pantone Cool Gray 7 at 25%
```

We also provide some handy aliases

```
355    \colorlet{rdagray}{rdagrey}
356    \colorlet{rdamidgray}{rdamidgrey}
357    \colorlet{rdalightgray}{rdalightgrey}
358    \colorlet{warm}{rdalightyellow}
359    \colorlet{cool}{rdalightgrey}
```

2.13   Sample RDA group package: MSCWG

2.13.1   Group logo

For perfect fidelity we draw the logo with tikz rather than use a bitmap. This means we need to ensure it is loaded, along with keyval for option handling, ifthen for implementing the option handling logic, and calc for calculating lengths. Note that the Metadata Standards Catalog Working Group recycles the logo of the Metadata Standards Directory Working Group, hence the macros below use msd instead of msc.

```
360    \RequirePackage{ifthen,calc,keyval}
361    \RequirePackage{tikz}
362    \usetikzlibrary{shapes.geometric,positioning}
```

We load the RDA colour palette, if not already available.

```
363    \usepackage{rdacolors}
```

We provide options for scaling the logo without changing the aspect ratio. Two lengths are needed to scale the logo:

- \msdwgl@unit is the actual scale factor;

- \msdwgl@unit@calc is the scale factor calculated from the options.

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```
364    \newlength{\msdwgl@unit}
365    \newlength{\msdwgl@unit@calc}
```

The height option sets the maximum height for the logo. With \msdwgl@unit set to 1pt, the logo ends up 59.690pt high. So we calculate what \msdwgl@unit would need to be to achieve the target height. We store this in \msdwgl@unit@calc unless \msdwgl@unit@calc is a shorter (but non-zero) length.

```
366    \define@key{msdwgl}{height}{%
367      \setlength{\@tempdima}{#1}%
368      \setlength{\@tempdimb}{\@tempdima / \real{59.690}}%
369      \ifthenelse{%
370        \lengthtest{\msdwgl@unit@calc = 0pt}\OR
371        \lengthtest{\@tempdimb < \msdwgl@unit@calc}%
372      }{%
373        \setlength{\msdwgl@unit@calc}{\@tempdimb}%
374      }{}%
375    }
```

The width option sets the maximum width for the logo. With \msdwgl@unit set to 1pt, the logo ends up 62.091pt wide. So we calculate what \msdwgl@unit would need to be to achieve the target width. We store this in \msdwgl@unit@calc unless \msdwgl@unit@calc is a shorter (but non-zero) length.

```
376    \define@key{msdwgl}{width}{%
377      \setlength{\@tempdima}{#1}%
378      \setlength{\@tempdimb}{\@tempdima / \real{62.091}}%
379      \ifthenelse{%
380        \lengthtest{\msdwgl@unit@calc = 0pt}\OR
381        \lengthtest{\@tempdimb < \msdwgl@unit@calc}%
382      }{%
383        \setlength{\msdwgl@unit@calc}{\@tempdimb}%
384      }{}%
385    }
```

We also provide the option scale for unconditionally setting the scale to a given numeric factor, where 1 means \msdwgl@unit equals 1pt.

```
386    \define@key{msdwgl}{scale}{%
387      \setlength{\@tempdima}{1pt}%
388      \setlength{\msdwgl@unit@calc}{#1\@tempdima}%
389    }
```

In case the logo is put on a coloured background, we provide the option outline for outlining it in a given colour (white by default).

```
390    \newcommand{\msdwgl@line@color}{none}
391    \define@key{msdwgl}{outline}[white]{\renewcommand{\msdwgl@line@color}{#1}}
```

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The logo itself is drawn with the `\MSDWGLogo` command. The keyval options are read from the optional argument. There is no mandatory argument.

```
392    \newcommand{\MSDWGLogo}[1][]{%
393      \bgroup
```

First we reset `\msdwgl@unit@calc` to 0pt, then read in the user keys.

```
394      \setkeys{msdwgl}{scale=0,#1}%
```

If `\msdwgl@unit@calc` has been set, we scale the logo accordingly. Otherwise we use the default scale of `\msdwgl@unit` = 1pt.

```
395      \ifthenelse{\lengthtest{\msdwgl@unit@calc > 0pt}}{%
396        \setlength{\msdwgl@unit}{\msdwgl@unit@calc}%
397      }{%
398        \setlength{\msdwgl@unit}{1pt}%
399      }%
```

Now we come to draw the logo. The `text` node is used to centre the logo vertically with respect to the surrounding text. The graphic itself is achieved as a matrix of cylinders.

```
400      \begin{tikzpicture}
401        [ inner sep = 0pt
402        , outer sep = 0pt
403        , baseline = (text.base)
404        , line width = 0.4pt
405        ]
406      \matrix
407        [ ampersand replacement = \&
408        , nodes =
409          { cylinder
410          , cylinder uses custom fill
411          , cylinder end fill=rdayellow
412          , aspect=1.0
413          , rotate=43
414          , anchor=center
415          , draw=\msdwgl@line@color
416          }
417        , row 1 column 1/.style = {cylinder body fill=rdagreen}
418        , row 1 column 2/.style = {cylinder body fill=rdabrown}
419        , row 2 column 1/.style = {cylinder body fill=rdabrown}
420        , row 2 column 2/.style = {cylinder body fill=rdagreen}
421        , column sep = -3\msdwgl@unit
422        , row sep = -4\msdwgl@unit
423        ]
424        (logo)
425        {
426          \node{\phantom{\rule{4\msdwgl@unit}{20\msdwgl@unit}}}; \&
427          \node{\phantom{\rule{4\msdwgl@unit}{20\msdwgl@unit}}}; \\
428          \node{\phantom{\rule{4\msdwgl@unit}{20\msdwgl@unit}}}; \&
429          \node{\phantom{\rule{4\msdwgl@unit}{20\msdwgl@unit}}}; \\
```

```
430        };
431      \node (text) at (logo.center) {\phantom{RDA}};
432      \end{tikzpicture}%
433      \egroup
434    }
```

2.13.2 Group information

Finally, we define hooks that are recognized by `rdaslides.cls`.

```
435    \def\rdaGroupLogo{\MSDWGLogo[width=\hsize]}
436    \def\rdaGroupName{Metadata Standards Catalog}
437    \def\rdaGroupType{Working Group}
438    \def\rdaGroupUrl{https://rd-alliance.org/groups/metadata-standards-catalog-working-
       ↪    group.html}
```

2.14 Sample RDA group package: MSDWG

The Metadata Standards Directory Working Group has the same properties as the Metadata Standards Catalog Working Group except the name and URL.

```
439    \RequirePackage{rdamscwg}
440    \def\rdaGroupName{Metadata Standards Directory}
441    \def\rdaGroupUrl{https://rd-alliance.org/groups/metadata-standards-directory-working-
       ↪    group.html}
```

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