

Package ‘taipan’

September 27, 2018

Version 0.1.2

Title Tool for Annotating Images in Preparation for Analysis

Description A tool to help create shiny apps for selecting and annotating elements of images. Users must supply images, questions, and answer choices. The user interface is a dynamic shiny app, that displays the images and questions and answer choices. The data generated can be saved to a file that can be used for subsequent analysis. The original purpose was to annotate still images from tennis video for face recognition and emotion detection purposes.

Depends R (>= 3.2.0)

Imports shiny, utils

Suggests testthat, knitr, rmarkdown, tidyverse, ggplot2, purrr, shinydashboard

URL <https://github.com/srkobakian/taipan>

BugReports <https://github.com/srkobakian/taipan/issues>

License GPL-3

Encoding UTF-8

LazyData true

ByteCompile true

RoxygenNote 6.1.0

VignetteBuilder knitr

NeedsCompilation no

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Repository CRAN

Date/Publication 2018-09-27 04:50:03 UTC

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buildTaipan	<i>Build a taipan application</i>
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Description

This function produces all necessary files for a shiny app. It requires a list of questions to ask users, the location of the images to display and the directory for the folder of shiny app files. Changes can be made to the appearance by altering the css in the folder.

Usage

```
buildTaipan(questions, images, appdir, launch = TRUE,
            overwrite = FALSE, skip_check = FALSE, ext_restricted = TRUE)
```

Arguments

questions	a taipanQuestions list of scene and selection questions
images	a vector of image locations, can be local or URLs
appdir	location to export the completed app
launch	launch the app from the new directory after build is completed
overwrite	replace the contents of the supplied location with the completed app
skip_check	if TRUE, the requirement for user input to overwrite an existing app is removed
ext_restricted	if TRUE only JPEG (JPG), PNG, GIF, SVG are acceptable image formats, all other types will be removed

Examples

```
## Not run:
library(taipan)
library(shiny)

questions <- taipanQuestions(
  scene = div(radioButtons("graphic", label = "2D Graphic",
    choices = list("Live image", "2D Graphic")),
    radioButtons("bg", label = "Background",
    choices = list("Crowd",
      "Court", "Logo wall", "Not applicable")),
    radioButtons("person", label = "Detectable Person",
    choices = list("Yes", "No")),
    radioButtons("shotangle", label = "Shot angle",
    choices = list("Level with players",
```

```

        "Birds eye",
        "Upward angle")),
radioButtons("situation", label = "Situation",
             choices = list("Court in play",
                           "Court player close-up",
                           "Court close-up not player",
                           "Crowd",
                           "Off court close up of player",
                           "Transition")),
selection = div(radioButtons("detect", label = "Detect Face",
                             choices = list("Player",
                                             "Other staff on court", "Fan", "None")),
               radioButtons("obscured", label = "Face obscured",
                             choices = list("Yes", "No")),
               radioButtons("lighting", label = "Lighting",
                             choices = list("Direct sunlight", "Shaded", "Partially shaded")),
               radioButtons("headangle", label = "Head angle",
                             choices = list("Front on", "Back of head",
                                             "Profile", "Other")),
               radioButtons("glasses", label = "Glasses",
                             choices = list("Yes", "No")),
               radioButtons("visorhat", label = "Visor/hat",
                             choices = list("Yes", "No")))
)

images =
c("https://raw.githubusercontent.com/srkob1/taipan/master/sample_images/blue_player.png",
  "https://raw.githubusercontent.com/srkob1/taipan/master/sample_images/pink_player.png",
  "https://raw.githubusercontent.com/srkob1/taipan/master/sample_images/red_player.png",
  "https://raw.githubusercontent.com/srkob1/taipan/master/sample_images/yellow_player.png",
  "https://raw.githubusercontent.com/srkob1/taipan/master/sample_images/disgruntled_player.png")

buildTaipan(
  questions = questions,
  images = images,
  appdir = file.path(tempdir(), "taipan")
)

## End(Not run)

```

taipanQuestions

Prepare a set of questions for taipan

Description

Produces a set of scene and selection questions suitable for use in buildTaipan

Usage

```
taipanQuestions(scene, selection)
```

Arguments

scene	a shiny UI object containing shiny inputs and web elements. These questions relate to the entire image.
selection	a shiny UI object containing shiny inputs and web elements. These questions relate to each selected area of an image. There is no limit on how many times these questions will be asked.

Examples

```
## Not run:
```

```
questions <- taipanQuestions(
  scene = div(radioButtons("graphic", label = "2D Graphic",
    choices = list("Live image", "2D Graphic")),
    radioButtons("bg", label = "Background",
    choices = list("Crowd",
      "Court", "Logo wall", "Not applicable")),
    radioButtons("person", label = "Detectable Person",
    choices = list("Yes", "No")),
    radioButtons("shotangle", label = "Shot angle",
    choices = list("Level with players",
      "Birds eye",
      "Upward angle")),
    radioButtons("situation", label = "Situation",
    choices = list("Court in play",
      "Court player close-up",
      "Court close-up not player",
      "Crowd",
      "Off court close up of player",
      "Transition"))),
  selection = div(radioButtons("detect", label = "Detect Face",
    choices = list("Player",
      "Other staff on court", "Fan", "None")),
    radioButtons("obscured", label = "Face obscured",
    choices = list("Yes", "No")),
    radioButtons("lighting", label = "Lighting",
    choices = list("Direct sunlight", "Shaded", "Partially shaded")),
    radioButtons("headangle", label = "Head angle",
    choices = list("Front on", "Back of head",
      "Profile", "Other")),
    radioButtons("glasses", label = "Glasses",
    choices = list("Yes", "No")),
    radioButtons("visorhat", label = "Visor/hat",
    choices = list("Yes", "No")))
)

## End(Not run)
```


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