**R Package: “DOTstyle”**

**Documentation**

**Name of the package:** “DOTstyle”

**Location of the package:** [\\ntdfs\(W)DataStor\PerformanceTechnology\AssetMgmt\ggplot2 themes for DOT\DOTthemes\DOTstyle\DOTstyle.Rproj](file:///\\ntdfs\(W)DataStor\PerformanceTechnology\AssetMgmt\ggplot2%20themes%20for%20DOT\DOTthemes\DOTstyle\DOTstyle.Rproj)

**Description:**

The “DOTstyle” package is designed to incorporate the Primary and Secondary colors used by the Iowa DOT in the charts and graphs. The list of colors available in the DOT color palette is as follows:

**Primary Colors:**

`brown` = "#7C2529",

`light grey` = "#B1B3B3",

`dark grey` = "#53565A",

**Secondary Colors:**

`sea blue` = "#0097A9",

`orange` = "#E87722",

`yellow` = "#FFC72C",

`purple` = "#5E366E",

`green` = "#719949",

`blue` = "#4698CB"

**Installation:**

1. Save the tar file shared in with you in mail/found in shared network location to a local location in the system.
2. Run the following command before using the package:

install.packages("path/to/tar/file", source = TRUE, repos=NULL)

library("DOTstyle")

**List of dependent packages:**

The following are the dependent packages for successful running of the “DOTstyle” custom package:

1. ggplot2
2. ggthemes
3. extrafont

All the above dependent packages for successful running of the “DOTstyle” custom package is pre-installed in the package. In the event of the any errors, kindly run the following lines of code:

if (!require("ggplot2")) install.packages("ggplot2")

library(ggplot2)

if (!require("ggthemes")) install.packages("ggthemes")

library(ggthemes)

if (!require("extrafont")) install.packages("extrafont")

library(extrafont)

The following code is mandatory for using the DOT themed fonts:

windowsFonts(`Eurostar` = windowsFont("Eurostar"))

windowsFonts(`Eurostar Regular` = windowsFont("Eurostar Regular"))

windowsFonts(`PT Sans` = windowsFont("PT Sans"))

windowsFonts(`Arial` = windowsFont("Arial"))

**Functions:**

1. **scale\_color\_dot():**

Function to access the custom color brewers of primary and secondary color palettes of DOT

**Description:**

This function takes two arguments namely "palette" and "reverse". Accesses the custom color palette with the combination of primary and secondary colors of DOT. Used in conjunction with ggplot. Used for plots to color "points" in a chart. Eg. scatterplots, residual plots etc

**Usage:**

scale\_color\_dot(palette = "main", discrete = TRUE, reverse = FALSE)

**Arguments:**

**palette:** Takes the values "primary" or "secondary" to access the combination of primary and secondary colors of DOT respectively

**discrete:** Always set to the default value to be TRUE. Denotes that Discrete values are supplied to discrete scale. If changed to FALSE, errors out with the message "Discrete value supplied to continuous scale"

**reverse:** Default value is False. If set to TRUE, reverses the color palette used

1. **scale\_fill\_dot():**

Function to access the custom fill brewers of primary and secondary color palettes of DOT

**Description:**

This function takes two arguments namely "palette" and "reverse". Accesses the custom color palette with the combination of primary and secondary colors of DOT. Used in conjunction with ggplot. Used for plots to color "bars" in a chart. Eg. Histograms, barcharts etc

**Usage:**

scale\_fill\_dot(palette = "main", discrete = TRUE, reverse = FALSE)

**Arguments:**

**palette:** Takes the values "primary" or "secondary" to access the combination of primary and secondary colors of DOT respectively

**discrete:** Always set to the default value to be TRUE. Denotes that Discrete values are supplied to discrete scale. If changed to FALSE, errors out with the message "Discrete value supplied to continuous scale"

**reverse:** Default value is False. If set to TRUE, reverses the color palette used

1. **theme\_dot():**

Function to use DOT custom theme

**Description:**

Uses the theme\_classic() as the default theme.

The Title font is Eurostar.

The Subtitle font is PT Sans.

The Caption (at the bottom) font is Arial.

**Usage:**

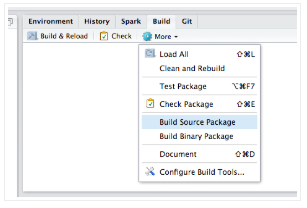
theme\_dot()

**arguments:** No arguments or parameters are required

**Sharing the package:**

In order to share the package with other users, kindly follow the following steps:

1. Open the package from the location: [\\ntdfs\(W)DataStor\PerformanceTechnology\AssetMgmt\ggplot2 themes for DOT\DOTthemes\DOTstyle\DOTstyle.Rproj](file:///\\ntdfs\(W)DataStor\PerformanceTechnology\AssetMgmt\ggplot2%20themes%20for%20DOT\DOTthemes\DOTstyle\DOTstyle.Rproj)
2. Build the package into a source / tar file. This can be done in the IDE as follows:



1. Put the tar file in a shared network location. Users can either download the tar file and then install the package or install the package directly from the compressed folder on the shared drive.
2. Run the following command before using the package:

install.packages("path/to/tar/file", source = TRUE, repos=NULL)

library("DOTstyle")