R2PPT: The R to PowerPoint Package

Shell Global Solutions

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Package Description and Architecture

- R2PPT is an R package to automatically generate Microsoft PowerPoint presentations directly from R.

- R2PPT is essentially a suite of wrapper functions for the 'rcom' package which serves as a COM (Component Object Model) interface to R.

- For more info on rcom see: http://sunsite.univie.ac.at/rcom

- rcom Installation instructions can be found here: http://learnserver.csd.univie.ac.at/rcomwiki/doku.php?id=how_to_install

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Getting Started

```
> library(rcom)
> library(R2PPT); library(help=R2PPT)

> myPres<-PPT.Init() # Initialise the presentation

> myPres<-PPT.AddTitleSlide(myPres,title="Title" , subtitle="Sub Title")

> myPres<-PPT.AddTitleOnlySlide(myPres,title="Title only slide")

> myPres<-PPT.AddTextSlide(myPres,title="This is a Text Slide" ,
  text="Text1 \rText2\rText3") # use \r for carriage return.

> myPres<-PPT.AddBlankSlide(myPres);

> PPT.ApplyTemplate(myPres,file=paste(getwd(),"MyTemplate.ppt",sep="/"))

> PPT.Present(myPres) # View Slideshow
```

Adding Graphics – from a file

```
>jpeg(file="testRplot1.jpeg")
>filled.contour(volcano,color=terrain.colors)
>dev.off()

>myPres<-PPT.Init()
>myPres<-PPT.AddBlankSlide(myPres)
>myPres<-PPT.AddGraphicstoSlide(myPres,
file=paste(getwd(),"testRplot1.jpeg",sep="/"))

# You must specify full file path.

>PPT.Present(myPres)
```

Adding Graphics directly from graphics device

```
> myPres<-PPT.Init()
> myPres<-PPT.AddBlankSlide(myPres)
> hist(rnorm(100))
> myPres<-PPT.AddGraphicstoSlide(myPres,size= c(10, 10, 300, 500))
> hist(runif(100))
> myPres<-PPT.AddGraphicstoSlide(myPres,size= c(350, 10, 300, 500))
> PPT.Present(myPres)
```

Displaying a R data frame

```
> example(lm)
> my.df<-data.frame(weight=weight,group=group)

> myPres<-PPT.Init()
> myPres<-PPT.AddBlankSlide(myPres)
> myPres<-PPT.AddGraphicstoSlide(myPres,size= c(200, 10, 500, 500))
> myPres<-PPT.AddDataFrame(myPres, df=my.df, row.names=FALSE,
    size=c(30,100,100,300))
> myPres<-PPT.Present(myPres)

#  This works by saving the data frame to a temporary CSV file
#  and inputting to PowerPoint using 'AddOLEObject' method.
```

Other Functionality

- PPT.SaveAs – Save PowerPoint Presentation to file.

- PPT.Open – Open a PowerPoint Presentation and continue adding to it via R.

- PPT.Close – Close a Power Point Presentation.

R2PPT Summary

- R2PPT is an additional method of automatic report generation using R (Sweave, R2HTML etc.)

- Will prove invaluable for (Windows) users who generate statistical reports on a frequent basis.

- Can easily be incorporated into an R based application.

- Work is already underway by Christian Ritter (christian.ritter@ridaco.be) to create the R2Word package!

- RExcel has already been done by Prof Erich Neuwirth. (http://sunsite.univie.ac.at/rcom/)