

Leveraging R and Shiny for Point and Click ADaM Analysis

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CDISC Tools

- Lots of tools for some standards
 - CDASH (EDC systems, standard CRFs, etc.)
 - ODM (in/out from different data collection systems)
 - SDTM (transformation tools, validation, data visualization tools)

But...

ADaM



Brainstorming Requirements

- Ability to read in ADaM submission transport files
- Ability to produce standard summaries
- Point and click interface – no programming required
- No install needed
- FREE!

Rapid Development Options

- ~~SAS?~~
 - Need a license
 - No quick/easy point and click without other tools
- ~~Java?~~
 - Lot of coding
 - Steep skill set
- R...hmm...let's give it a try

Cool R Stuff

- Free software environment for statistical computing and graphics
- Lots and lots of packages
- Great user community
- Shiny – web application framework for R

On your mark, get set, go...

3 weeks later...

Prototyping complete

Fully functional prototype

- Ability to read in ADaM submission transport files ✓
- Ability to produce standard types of summaries ✓
- Point and click interface ✓
- No install needed ✓

Demonstration

Why? Who cares?

- Ability for non-technical people to look at analyses
- Ad-hoc confirmation of current analyses
- Easily extendable
- Low/No cost

Summary

- R provides tools and packages for quick and powerful application development
- ???
- ???

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