



Single Day Event

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ANIMATING STATIC OUTPUT WITH THE SAME BASE CODE

Mark Penniston
Maya Gans



TALK OVERVIEW

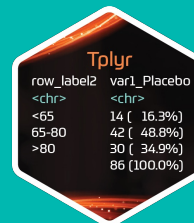
**Traditional
Process**

00

{\pharmaRTF;}

**Submission
Replication**

01

The Tplyr logo, featuring the word "Tplyr" in orange text above a hexagonal graphic with a white border and a dark background with orange and yellow light effects.

row_label2	var1_Placebo
<chr>	<chr>
<65	14 (16.3%)
65-80	42 (48.8%)
>80	30 (34.9%)
	86 (100.0%)

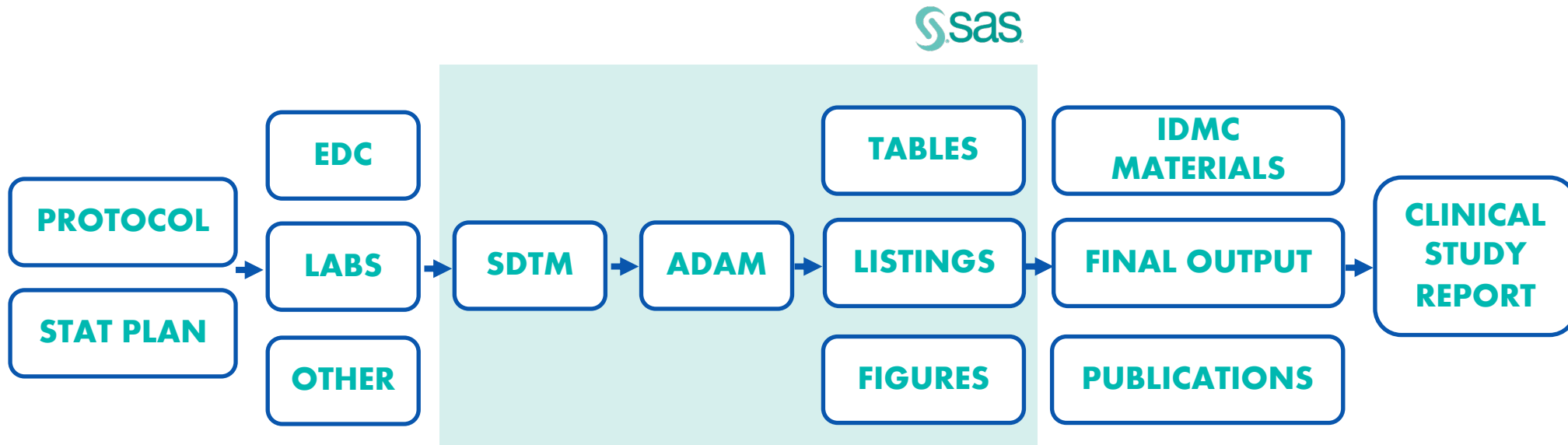
**Reusable
Safety
Package**

02

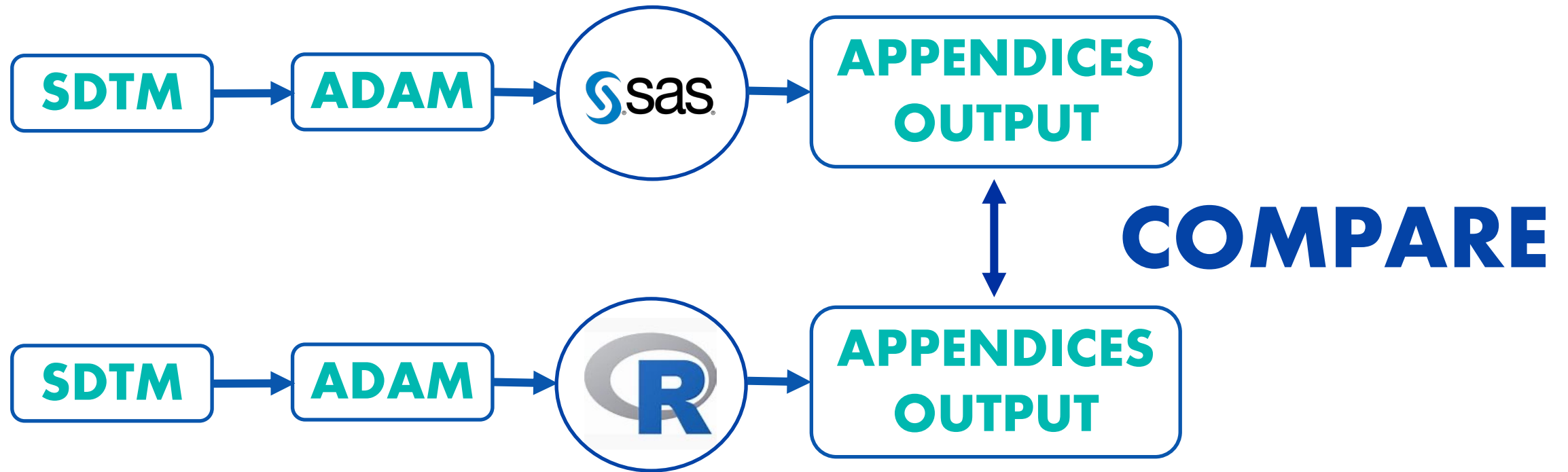


**Interactive
Solutions**

03



The Statistical Programming Environment uses SAS® and other proprietary tools to generate static and interactive outputs



The Iris Dataset

Species of Flower	Sepal		Petal	
	Length	Width	Length	Width
setosa	5.1	3.5	1.4	0.2
setosa	4.9	3	1.4	0.2
setosa	4.7	3.2	1.3	0.2
setosa	4.6	3.1	1.5	0.2
setosa	5	3.6	1.4	0.2
setosa	5.4	3.9	1.7	0.4
setosa	4.6	3.4	1.4	0.3
setosa	5	3.4	1.5	0.2

Species of Flower	Sepal		Petal	
	Length	Width	Length	Width
setosa	5.4	3.4	1.7	0.2

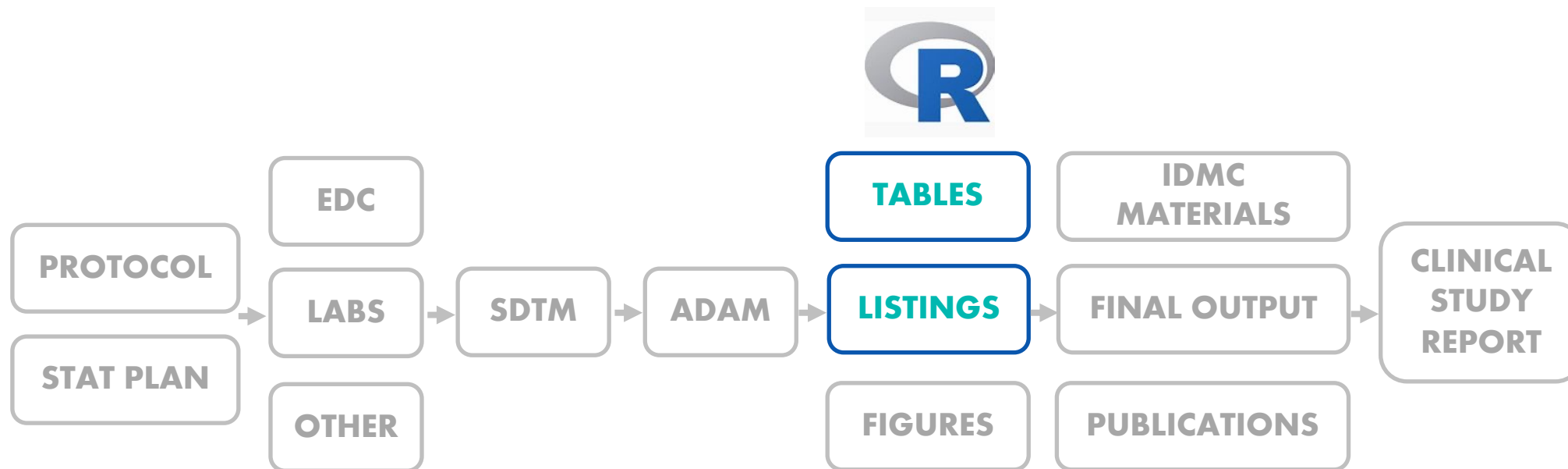
CUSTOM HEADERS AND FOOTERS

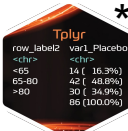
MULTIPLE COLUMN ROWS

SET DOCUMENT PAGE AND FONT SIZE

REPEAT COLUMN HEADERS ACROSS PAGES





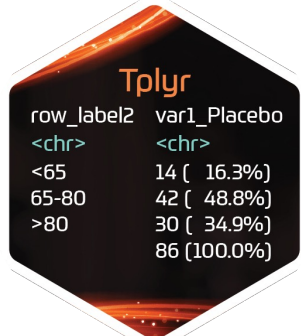
Using the CDISC Pilot Project, recreate **tables** made in SAS[®] using * and * in R

* All Open Source
Over 13,000 downloads from CRAN

TITLE		Demographic Summary: Intent-to-Treat Population		
HEADER		Demographic Parameter	Placebo (N=XXX)	Active (N=XXX)
LAYER	Sex n (%)	n	xx	xx
		Female	xx (xx.x)	xx (xx.x)
		Male	xx (xx.x)	xx (xx.x)
		Missing	xx	xx
LAYER	Age (years)	n	xx	xx
		Mean	xx.x	xx.x
		SD	xx.x	xx.x
		Missing	xx	xx

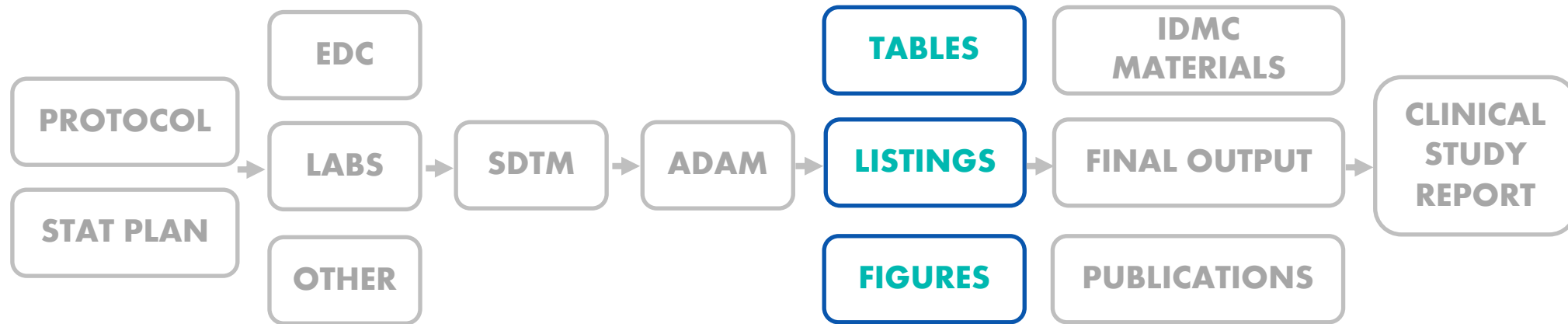
**SMART STRING
FORMATTING**

**FLEXIBLE LAYER
PARAMETERS**

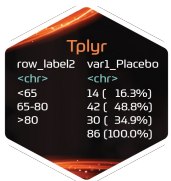


Tplyr

row_label2	var1_Placebo
<chr>	<chr>
<65	14 [16.3%]
65-80	42 [48.8%]
>80	30 [34.9%]
	86 (100.0%)



Use



and



to generate interactive outputs using





Shiny is an R package that makes it easy to build interactive web applications straight from R. These websites can be deployed with the click of a button using RStudio Connect

OPTIMIZE SHINY

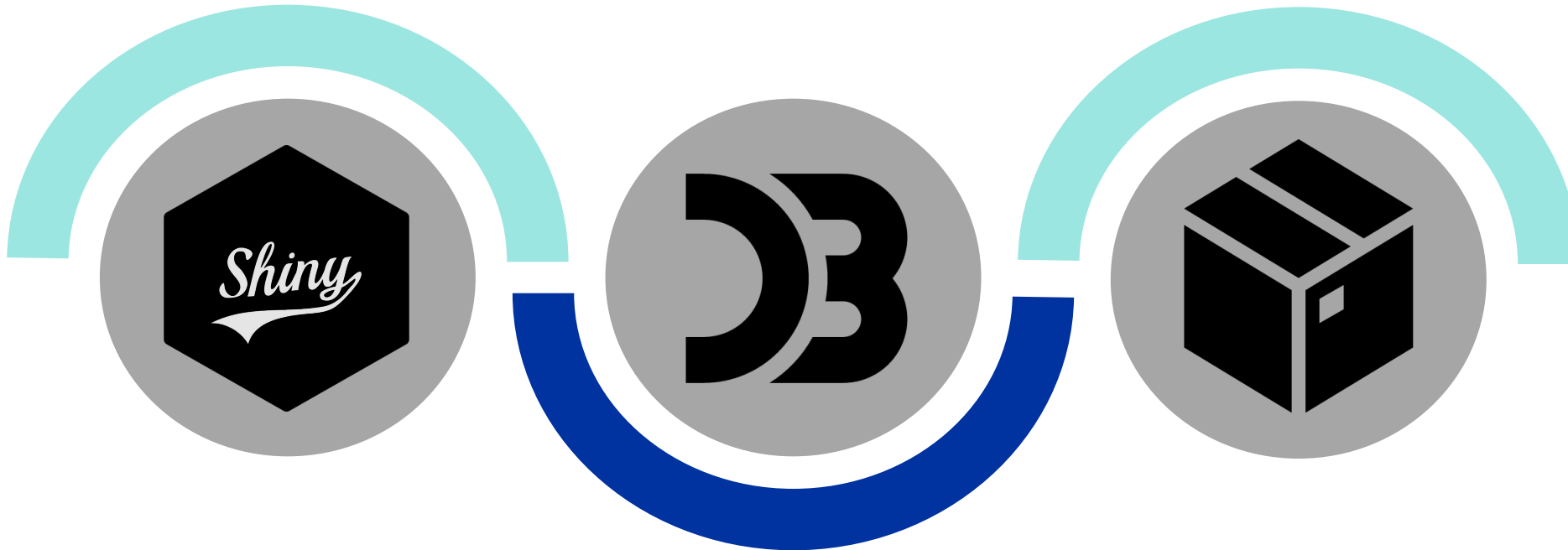
- Modularization for efficient and reusable code
- Leverage existing packages
- Testing architecture

80%

CUSTOMIZE SHINY

Enhance Shiny code for specific needs using HTML, CSS and JavaScript.

20%



Use Existing Shiny
Tools to Create
Application

Create Custom
Visualizations using
d3.js

Wrap custom
functionality into
reusable R functions



Example: Adverse Experience Visualization

- **Shiny Application using RStudio Connect**
- **Dynamic Data Feed mirroring TLF information**
- **Highest Incidence in Center for instantaneous identification**
 - **Hover feature to see incidence**
- **AE's of interest/high concern can be color coded**
- **Deploy and update without IT involvement**

DEMONSTRATION

THANK YOU

QUESTIONS?



**The Global Healthcare
Data Science Community**

Contact Channels

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🌐 phuse.global

Social Media

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📘 [/phusebook](https://facebook.com/phusebook)
▶️ [/phusetube](https://youtube.com/phusetube)
🌐 [/company/phuse](https://linkedin.com/company/phuse)