



Metadata Framework for Script Repository and Development

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Abstract:

The PhUSE-scripts repository contains contributed SAS and R scripts for the summarization and visualization of electronic submission data (SDTM, ADAM, SEND, etc.). In order to facilitate the understanding and use of these scripts, a metadata standard is being developed. The script metadata, in the form of a computer and human readable YAML file, allows for 1) documentation of the scripts, 2) description of all inputs in one configurable location, 3) execution of the script without making any change to the script, 4) making the scripts more accessible and more reusable, and 5) automation of their selection and use. The deliverables of this PhUSE project include a white paper describing the process and a working example of a software package for indexing, configuration and execution of the scripts.

Problem Statement:

The difficulties facing the users of contributed scripts are:

- Not easy to find scripts due to
 - a) script metadata not consistent
 - b) the index page cannot be automatically created
- Not easy to navigate in the repository due to
 - a) scripts are not well organized;
 - b) the folders are deep and complicated;
- Not easy to use the scripts due to
 - a) complicated to download the scripts;
 - b) often necessary to modify the scripts to work in your own environment.

Recommendation:

A standardization of contributed script metadata (YML) which allows description of inputs, outputs, folders and selection parameters.

```
Script:
name : WPCT-F.07.02.v02.R
title : Boxplot of analysis timepoint observations by visit and treatment
desc : >
  Box plot - Change from Baseline by Analysis Timepoint,
  Visit and Planned Treatment
  Figure 7.2 Box plot - Change from Baseline by Analysis Timepoint, Visit and Treatment
version: 1.1.0
#
source : White paper
topic : Measures of Central Tendency Figure 7.2
type : figure
subtype: boxplot
target : http://www.phusewiki.org/wiki/images/4/48/CSS_WhitePaper_CentralTendency_v1.0.pdf
GCR : r137
SRV : v1.10
Language:
name : R
version: 3.1.3
```

PhUSE
Script
Repository
TeamSite:



Metadata can then be automatically read

varname	level	seq	type	value
Keywords	1.00	1.00	character	Central Tendencies, Boxplot, labs, vital signs, ECGs
Script	1.00	2.00	list	
name	2.00	1.00	character	WPCT-F.07.02.v02.R
title	2.00	2.00	character	Boxplot of analysis timepoint observations by visit and treatment
desc	2.00	3.00	character	Box plot - Change from Baseline by Analysis Timepoint, Visit and Planned Treatment Figure 7.2 Box plot - Change from Baseline by Analysis Timepoint, Visit and Treatment
version	2.00	4.00	character	1.1.0
source	2.00	5.00	character	White paper
topic	2.00	6.00	character	Measures of Central Tendency Figure 7.2
type	2.00	7.00	character	figure

Access to the Input files verified

subdir	tag	filename	status	uripath	
1	whitepapers/WPCT	script_name	WPCT-F.07.02.v02.R	OK	https://github.com/phuse-org/phuse-scripts/raw/master/whitepapers/WPCT/WPCT-F.07.02.v02.R
2	whitepapers/WPCT	yml_name	WPCT-F.07.02.v02.R.yml	OK	https://github.com/phuse-org/phuse-scripts/raw/master/whitepapers/WPCT/WPCT-F.07.02.v02.R.yml
3	data/adam/cdisc	dataset_1	advs.xpt	OK	https://github.com/phuse-org/phuse-scripts/raw/master/data/adam/cdisc/advs.xpt
4	development/R/lib	lib_file_1	Func_comm.R	OK	https://github.com/phuse-org/phuse-scripts/raw/master/development/R/lib/Func_comm.R

And the script executed based upon presented selections

Change in Diastolic Blood Pressure File saved as: C:/temp/plot1.PNG

BP (mmHG)

Visit Number

Placebo X-High X-low

Change in Diastolic Blood Pressure File saved as: C:/temp/plot2.PNG

BP (mmHG)

Visit Number

Placebo X-High X-low