



AD01: Shiny-tize your PROC COMPARE's: An interactive Shiny application for data review and comparisons

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Agenda

1

- ▶ Project Scope
- ▶ Functionalities of the App
 - ▶ Data Review
 - ▶ Data Comparisons
 - ▶ Overall Summaries of all Datasets across 2 directories
 - ▶ Export Options
- ▶ Documentation
- ▶ Future/Ongoing Enhancements
- ▶ Questions (pjenkin2@its.jnj.com)

Project Scope

2

- ▶ Create a **Shiny application** that allows a customized **review of data** and can **compare 2 data sources**.
- ▶ Includes a **SAS PROC COMPARE-like visual** (familiar for those who may have used PROC COMPARE in SAS for many years)
- ▶ Has the ability to give an **overall comparison status** of datasets across 2 directories
- ▶ Is able to **compare SAS datasets and/or R data frames** (can compare different data types) to accommodate the rise in use of R within the pharmaceutical industry.
- ▶ Adds value to **all functions**. (e.g data management, Clinical Programming Statistical Programming, Clinicians).
- ▶ Has **fit-for-purpose performance** comparable to that currently observed within SAS and R environments

Data Review

3

Select Individual SAS/R Dataset
(suitable only for datasets
<100MB)

Browse...

No file selected

Select Individual SAS/R Dataset
(suitable only for datasets
<100MB)

Browse...

adv.sas7bdat

Upload complete

Variables to include

USUBJID, ADT, ADTM, ADY, A ▼

Variables to include

USUBJID, ADT, ADTM, ADY, A ▼

Compare with

Select All

Deselect All

USUBJID label: Unique Subject Identifier ✓

ADT label: Analysis Date ✓

ADTM label: Analysis Datetime ✓

ADY label: Analysis Relative Day ✓

AVISIT label: Analysis Visit ✓

AVISITN label: Analysis Visit (N) ✓

TRT01A label: Actual Treatment for Period 01 ✓

PARAMCD label: Parameter Code ✓

PARAM label: Parameter ✓

AVAL label: Analysis Value ✓

BASE label: Baseline Value ✓

CHG label: Change from Baseline ✓

SEX label: Sex ✓

COUNTRY label: Country ✓

Data Review

4

Select patient

Nothing selected ▾

< Prev

Next >

(Only applicable for single patient selection)

 Create/Refresh Table

Select patient

PHUSE10001 ▾

Select All

Deselect All

PHUSE10001 ✓

PHUSE10002

Data Review

5

| Overview |

Export to excel

Show 10 entries

Search:

Unique Subject Identifier	Analysis Date	Analysis Datetime	Analysis Relative Day	Analysis Visit	Analysis Visit (N)	Actual Treatment for Period 01	Parameter Code	Parameter	
All	All	All	All	All	All	All	All	All	
PHUSE10001	2020-12-18	2020-12-18 10:30:00	1	Baseline	100001	Treatment 1	BMI	Body Mass Index (kg/m2)	2
PHUSE10001	2020-12-18	2020-12-18 10:30:00	1	Baseline	100001	Treatment 1	DIABP	Diastolic Blood Pressure (mmHg)	7
PHUSE10001	2020-12-18	2020-12-18 10:30:00	1	Baseline	100001	Treatment 1	HEIGHT	Height (cm)	1
PHUSE10001	2020-12-18	2020-12-18 10:30:00	1	Baseline	100001	Treatment 1	PULSE	Pulse Rate (BEATS/MIN)	7
PHUSE10001	2020-12-18	2020-12-18 10:30:00	1	Baseline	100001	Treatment 1	RESP	Respiratory Rate (BREATHS/MIN)	1
PHUSE10001	2020-12-18	2020-12-18 10:30:00	1	Baseline	100001	Treatment 1	SYSBP	Systolic Blood Pressure (mmHg)	1
PHUSE10001	2020-12-18	2020-12-18 10:30:00	1	Baseline	100001	Treatment 1	TEMP	Temperature (C)	3
PHUSE10001	2020-12-18	2020-12-18 10:30:00	1	Baseline	100001	Treatment 1	WEIGHT	Weight (kg)	8
PHUSE10001	2021-01-12	2021-01-12 09:52:00	26	Day 29	200029	Treatment 1	TEMP	Temperature (C)	3
PHUSE10001	2021-02-12	2021-02-12 13:05:00	57	Day 57	300057	Treatment 1	TEMP	Temperature (C)	3

Showing 1 to 10 of 11 entries

Previous

1

2

Next

Data Review

Unique Subject Identifier	Analysis Date	Analysis Datetime	Analysis Relative Day	Analysis Visit
All	All	All	All	
PHUSE10001	2020-12-18	2020-12-18 10:30:00	1	Baseline
PHUSE10001	2020-12-18	2020-12-18 10:30:00	1	Day 29
PHUSE10001	2020-12-18	2020-12-18 10:30:00	1	Day 57
PHUSE10001	2020-12-18	2020-12-18 10:30:00	1	Day 71
PHUSE10001	2020-12-18	2020-12-18 10:30:00	1	Baseline

Show 10 entries

Search:

Unique Subject Identifier	Analysis Date	Analysis Datetime	Analysis Relative Day	Analysis Visit	Analysis Visit (N)	Actual Treatment for Period 01	Parameter Code	Parameter
All	All	All	All	["Day":	All	All	All	All
PHUSE10001	2021-01-12	2021-01-12 09:52:00	26	Day 29	200029	Treatment 1	TEMP	Temperature (C)

Data Comparisons

7

- ▶ The next step was to look at how we can compare two datasets and give the users some good visual options.

Considerations for this functionality

- ▶ In order to compare data we ideally need to allow users to identify some unique key variables.
- ▶ What happens if one dataset contains variables that another one doesn't, how can we handle this?
- ▶ What happens if there are no changes to the data at all?
- ▶ What happens if chosen key variables are not unique?

8

Select corresponding SAS/R Dataset for comparison (suitable only for datasets <100MB).

Browse... No file selected

Unique Key Variable 1 (USUBJID already included)

PARAMCD

Unique Key Variable 2

ADT

Unique Key Variable 4

Nothing selected

Unique Key Variable 5

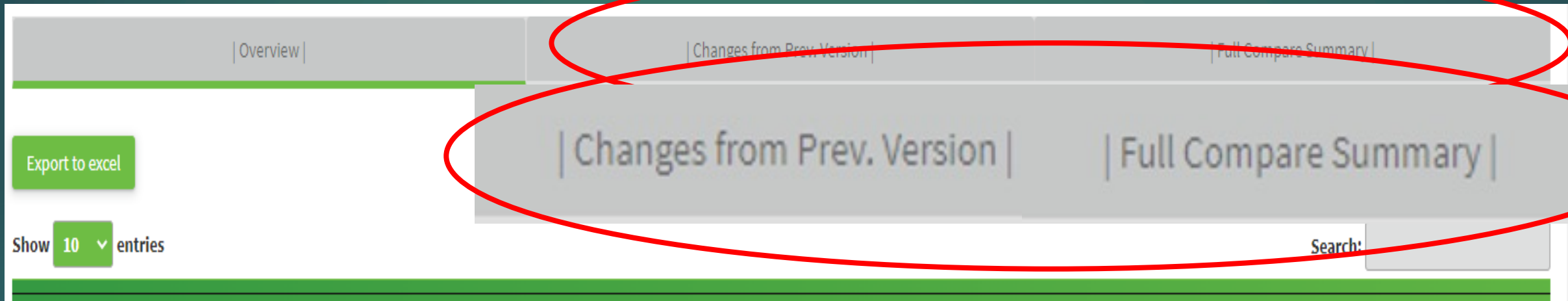
Nothing selected

Need More Key Variables

not yet x
ata and
ifferences
can be shown until these become
Search: unique. Once they are unique the
"Changes from Prev. Version" tab will
become available (providing there are
differences in your selected subject).
PHARMACEUTICAL COMPANY
Janssen Johnson & Johnson

Data Comparisons

9



2 new tabs appear once comparison data is loaded and unique keys are selected (and create a unique record), and there are some differences found

Data Comparisons – Changes from Prev. Version tab

10

| Overview |

| Changes from Prev. Version |

☐ Only Show Changes

Export to excel

Summary of Changes

Number of records updated: 2

Number of records added: 1

Number of records deleted: 1

Data Comparisons – Changes from Prev.

Version tab

11

Type of Change ▾	Unique Subject Identifier ▾	Analysis Date ▾	Analysis Datetime ▾	Analysis Relative Day ▾	Analysis Visit ▾	Analysis Visit (N) ▾	Parameter Code ▾	Analysis Value ▾	Baseline Value ▾	Change from
All	All	All	All	All	All	All	All	All	All	All
no change	PHUSE10001	2020-12-18	2020-12-18 10:30:00	1	Baseline	100001	BMI	26.4	26.4	
no change	PHUSE10001	2020-12-18	2020-12-18 10:30:00	1	Baseline	100001	DIABP	76.0	76.0	
no change	PHUSE10001	2020-12-18	2020-12-18 10:30:00	1	Baseline	100001	HEIGHT	174.5	174.5	
updated	PHUSE10001	2020-12-18	2020-12-18 10:30:00	1	Baseline	100001	PULSE	79.0	79.0	
previous	PHUSE10001	2020-12-18	2020-12-18 10:30:00	1	Baseline	100001	PULSE	75.0	75.0	
no change	PHUSE10001	2020-12-18	2020-12-18 10:30:00	1	Baseline	100001	RESP	12.0	12.0	
updated	PHUSE10001	2020-12-18	2020-12-18 10:30:00	1	Baseline	100001	SYSBP	125.0	125.0	
previous	PHUSE10001	2020-12-18	2020-12-18 10:30:00	1	Baseline	100001	SYSBP	225.0	225.0	
no change	PHUSE10001	2020-12-18	2020-12-18 10:30:00	1	Baseline	100001	TEMP	36.5	36.5	
no change	PHUSE10001	2021-01-12	2021-01-12 09:52:00	26	Day 29	200029	TEMP	36.6	36.5	0.1

Data Comparisons - Changes from Prev.

12

Version tab

☒ Only Show Changes

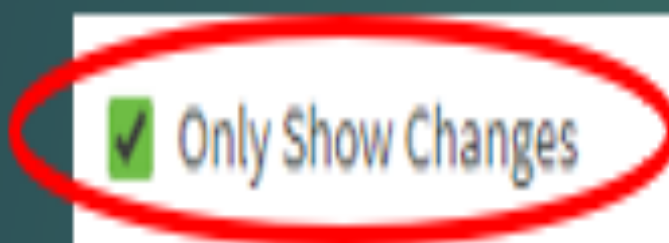
Export to excel

Summary of Changes

Number of records updated: 2

Number of records added: 1

Number of records deleted: 1



Show 10 entries

Search:

Type of Change	Unique Subject Identifier	Analysis Date	Analysis Datetime	Analysis Relative Day	Analysis Visit	Analysis Visit (N)	Parameter Code	Analysis Value	Baseline Value	Change from
All	All	All	All	All	All	All	All	All	All	All
updated	PHUSE10001	2020-12-18	2020-12-18 10:30:00	1	Baseline	100001	PULSE	79.0	79.0	
previous	PHUSE10001	2020-12-18	2020-12-18 10:30:00	1	Baseline	100001	PULSE	75.0	75.0	
updated	PHUSE10001	2020-12-18	2020-12-18 10:30:00	1	Baseline	100001	SYSBP	125.0	125.0	
previous	PHUSE10001	2020-12-18	2020-12-18 10:30:00	1	Baseline	100001	SYSBP	225.0	225.0	
deleted	PHUSE10001	2021-01-13	2021-01-13 09:52:00	27	Day 29	200029	TEMP	36.6	36.5	0.1
added	PHUSE10001	2021-02-26	2021-02-26 13:51:00	71	Day 71	300071	TEMP	36.4	36.5	-0.1

Data Comparisons — Full Compare Summary

13

| Overview |

| Changes from Prev. Version |

| Full Compare Summary |

Summary of Observation Counts

Number of observations in current data source: 11

Number of observations in compare data source: 11

Summary of Observation Counts

Number of observations in current data source: 11

Number of observations in compare data source: 11

Data Comparisons - Full Compare Summary

14

Extra rows in main data not in compare data

Show 10 entries

Type of Change	Unique Subject Identifier
All	All
added	PHUSE10001

Extra rows in main data not in compare data

Search:

(N)	Actual Treatment for Period 01	Parameter Code	Parameter	Analysis Value	Baseline Value
All	All	All	All	All	All
Treatment 1	TEMP	Temperature (C)	36.4	36.5	

Extra rows in compare data not in main data

Show 10 entries

Type of Change	Unique Subject Identifier
All	All
deleted	PHUSE10001

Extra rows in compare data not in main data

Search:

(N)	Actual Treatment for Period 01	Parameter Code	Parameter	Analysis Value	Baseline Value
All	All	All	All	All	All
Treatment 1	TEMP	Temperature (C)	36.6	36.5	

Data Comparisons - Full Compare Summary

15

Variables with unequal values

Variable	Number_of_Differences
AVAL	2
BASE	2

Differences for each Variable

Show 10 entries

Variable				
All				
1	AVAL			
2	AVAL	PHUSE10001	SYSBP	2020-12-18
3	BASE	PHUSE10001	PULSE	2020-12-18
4	BASE	PHUSE10001	SYSBP	2020-12-18

Showing 1 to 4 of 4 entries

End of File

Differences for each Variable

Main_Value	Compare_Value
All	All
79.0	75.0
125.0	225.0
79.0	75.0
125.0	225.0

Previous

1

Next

Data Comparisons

16

- What if there are no differences?

There are no changes in the datasets for this subject(s) selection.

- What if extra variables exist?

Extra variable(s) in current data: COUNTRY . Variable(s) will need to be removed from the variable selection in order for a comparison of data to be performed

Extra variable(s) in comparison data: _EXTRA

Challenges with File Upload Browser

17

- ▶ What if datasets are >100MB. File upload tends to be very slow for any datasets over 20MB?
- ▶ Could we get around the file upload step for when datasets are particularly large by giving users the option to enter the directory where they are stored and read in directly from here. This means all data can be read in much quicker.
- ▶ This overcomes this size limitation whilst also yielding the functionality where we can obtain an overall summary first of the differences between 2 directories.
- ▶ Users don't have to use this extra functionality if their datasets are small and they are only interested in 1 specific dataset – in this case they can still use the file browsers to upload.

Overall Dataset Compare Status

18

Location of Main Directory

Location of Compare Directory

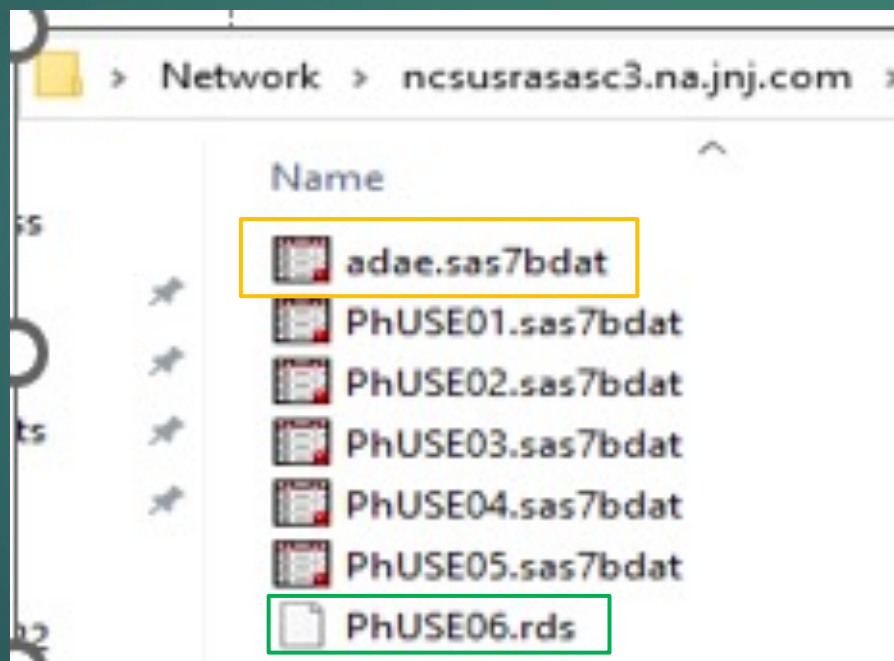
Compare All

Datasets with no
differences

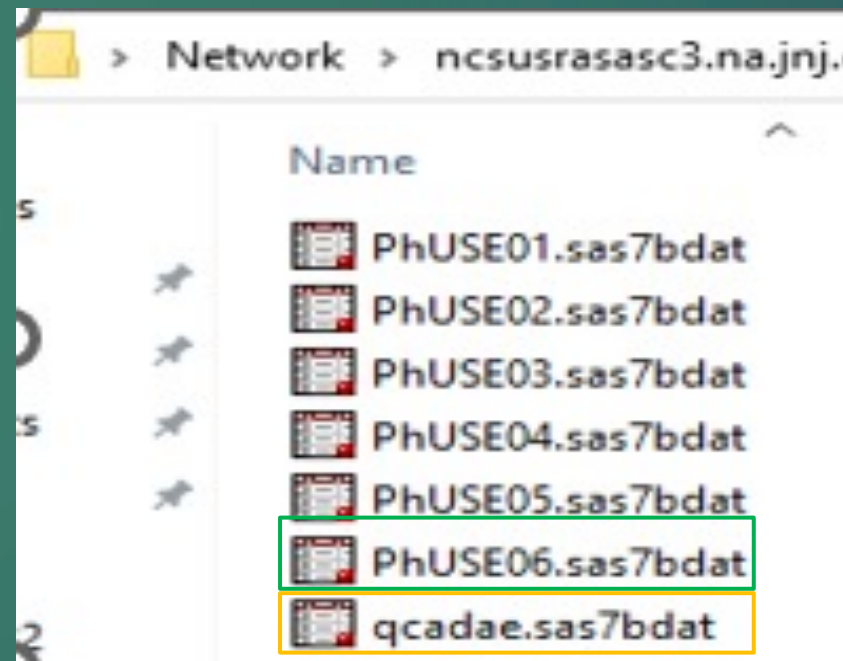
Datasets with some
differences

Compare will only occur once two valid directories are entered

Path 1:



Path 2:



Overall Dataset Compare Status

19

Location of Main Directory

\\ncsusrasasc3.na.jnj.com\B&Pshare\methodo

Location of Compare Directory

\\ncsusrasasc3.na.jnj.com\B&Pshare\methodo

Compare All

Datasets with no
differences

Datasets with some
differences

Compare should now be OK to perform. Please click "Compare All" Button

Location of Main Directory

\\ncsusrasasc3.na.jnj.com\B&Pshare\methodo

Location of Compare Directory

\\ncsusrasasc3.na.jnj.com\B&Pshare\methodo

Compare All

Datasets with no
differences

PhUSE02.sas7bdat

PhUSE03.sas7bdat

PhUSE04.sas7bdat

PhUSE05.sas7bdat

Datasets with some
differences

adae.sas7bdat

PhUSE01.sas7bdat

PhUSE06.rds

☐ Allow use of datasets above to be used for
dataset inputs

Overall Dataset Compare Status

20

Location of Main Directory

\\ncsusrasasc3.na.jnj.com\B&Pshare\methodo

Location of Compare Directory

\\ncsusrasasc3.na.jnj.com\B&Pshare\methodo

Compare All

Datasets with no
differences

PhUSE02.sas7bdat

PhUSE03.sas7bdat

PhUSE04.sas7bdat

PhUSE05.sas7bdat

Datasets with some
differences

adae.sas7bdat

PhUSE01.sas7bdat

PhUSE06.rds

☒ Allow use of datasets above to be used for
dataset inputs

☒ Allow use of datasets above to be used for
dataset inputs

Overall Dataset Compare Status

21

Choose Main Data from pre-uploaded list

Nothing selected ▼

Choose Main Data from pre-uploaded list

adae.sas7bdat ▼

Variables to include

STUDYID, USUBJID, AESTDT ▼

Choose comparison version of the Data from pre-uploaded list

adae ▼

Unique Key Variable 1 (USUBJID already included)

AETERM ▼

Unique Key Variable 2

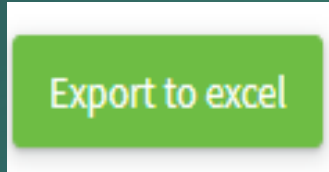
ASTDT ▼

From here onwards the process for comparing works exactly as we have seen previously

Data Export

22

- ▶ The user has an option at any stage to export their data selections.

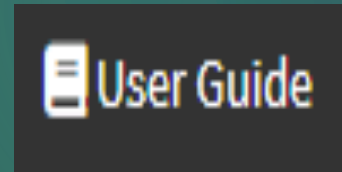


- ▶ Only patients/variables they have selected will be exported
- ▶ It's also possible to export from the 'changes from Prev. version' tab as well
- ▶ Allows users to have another way outside of the tool to review specific data or present to the team

Documentation – Built in User Guide

23

- ▶ Documentation and support mechanisms are of key importance when developing and releasing any new tool/application
- ▶ From within the Application we provide a link to our user guide
- ▶ This also provides an email support group for people to raise any bugs and/or suggest future enhancements



Documentation – Built in User Guide

24

Dataset Review and Compare Tool - User Guide

Introduction

Input Data Structure

Section 1 of the App

Dataset Browsers

Variables to include

Key Variables

Section 2 of the App

Patient Selector

Overview Tab

Comparing Current Data to an old version

Changes from Prev. Version

Full Compare Summary

Export / Download to Excel

Help and Support

Paul Jenkins

06 May, 2022

Section 1 of the App

Section 1 of the app can be used to compare the entire set of SAS/R datasets from one directory with another directory. The app will remove any prefix 'qc' from the compare directory in order to help match up with the equivalent main datasets.

The user can specify the B&P share directory where the main and compare datasets are stored. A compare will only be allowed if both directories contain at least one dataset. All datasets contained in the main directory will be compared.

Location of Main Directory

Location of Compare Directory

Compare will only occur once two valid directories are entered

When pressing the 'compare' button, the application will allow the overall comparisons to run if both directories contain a dataset.

Location of Main Directory

Location of Compare Directory

Compare All

Compare should now be OK to perform. Please click "Compare All" Button

If a dataset exists in the main directory and not the compare directory the dataset will be identified as having a difference. (i.e. it treats it as though there are 0 observations). If a dataset exists in the compare directory and not the main directory it will not perform a comparison at all. (i.e it will use the main dataset list as its list of datasets to compare)

A full summary of datasets that do compare and those that dont compare will be displayed.

Datasets with no differences

advstest.sas7bdat

Datasets with some differences

adv.sas7bdat

Next Steps/Future Enhancements

25

- ▶ Some users may not be fully aware of what makes records unique – we could also get the app to predict/pre-populate these based on variables it finds within the dataset (eg USUBJID, PARAMCD, ADT, ADTM etc). Could also link to SDTM/ADaM metadata files if available.
- ▶ We need to consider an option to override the requirement for a unique key as maybe in early days of your data cleaning/development you might have duplicate data
- ▶ Allow users to choose the level of precision they wish to use when comparing their data (for numeric variables – e.g 0.00001)
- ▶ Can we validate the tool so we can use this as a formal QC validation tool and produce a full report once all datasets are comparing as an audit trail/proof of validation. Tricky with open source packages being used.

Deployed App – Dataset Comparison Overview tab

26



Dataset Review And Compare Tool



User Guide

Select Individual SAS/R Dataset
(suitable only for datasets
<100MB)

Browse... No file selected

This application can be used during the development of datasets and for exploratory purposes, but should not be used for formal validation of datasets.

Dataset Comparison Overview

Compare All Datasets across 2 Directories

Dataset Review and Comparison Summaries

Compare All Datasets across 2 Directories

This section of the application allows you to compare all datasets in one directory with all datasets in another directory for a quick overview of datasets that do/do not fully compare. Once identified the loading of single datasets to look deeper into these differences can be performed by using either the dataset browser in the left hand panel or with the option of loading directly from the list of datasets that you have just run the multi-compare summary on. The latter is recommended if any of your datasets are large (>50MB). You can skip this section if you are only interested on reviewing and comparing a single dataset in the first instance that is <100MB in size. In this case you can just locate the dataset using the dataset browser on the left had side panel.

For this section datasets in the main directory should ideally be available in the compare directory (although the application will automatically strip any prefix qc from the QC dataset and will also still run if this is not the case). If a dataset exists in one directory and not the other (aside from any prefixed qc versions which are accounted for) then it will appear as a dataset not compared. These comparisons also accommodate comparing a SAS dataset (.sas7bdat) with an R dataset (.rds or .rda).

Dataset Review and Comparison Summaries

Once data is loaded/chosen this section will allow you to review and also compare 2 data sources.

Deployed App – Compare All Datasets across 2 Directories tab

27



Dataset Review And Compare Tool



 User Guide

Choose Main Data from pre-uploaded list

Nothing selected

This application can be used during the development of datasets and for exploratory purposes, but should not be used for formal validation of datasets.

Dataset Comparison Overview

Compare All Datasets across 2 Directories

Dataset Review and Comparison Summaries

SECTION 1

Paste the folder path, which **must** be within //ncsusrasasc3.na.jnj.com/B&Pshare/ **methodology_and_innovation/dataset_compare_tool/PRD/**

Location of Main Directory	Location of Compare Directory	Datasets with no differences	Datasets with some differences	Datasets not compared
pjenkin2\Path1	pjenkin2\Path2	Phuse02.sas7bdat Phuse03.sas7bdat Phuse04.sas7bdat Phuse05.sas7bdat	advs.sas7bdat Phuse01.sas7bdat Phuse06.sas7bdat Phuse07.sas7bdat Phuse08.sas7bdat Phuse09.sas7bdat Phuse10.sas7bdat	Phuse11

Compare All

☒ Allow use of datasets above to be used for dataset inputs

Deployed App – Dataset Review and Comparison Summaries tab – Overview sub-tab

28

User Guide

Choose Main Data from pre-uploaded list

adv.sas7bdat

Variables to include

USUBJID, ADT, ADTM, ADY, A

Choose comparison version of the Data from pre-uploaded list

adv

☐ Allow Comparison with Duplicates (not recommended)

Unique Key Variable 1 (USUBJID already included)

ADT

Unique Key Variable 2

ADTM

Unique Key Variable 3

PARAMCD

Unique Key Variable 4

Nothing selected

Unique Key Variable 5

Nothing selected

☐ Need More Key Variables

Dataset Review And Compare Tool

janssen

This application can be used during the development of datasets and for exploratory purposes, but should not be used for formal validation of datasets.

Dataset Comparison Overview

Compare All Datasets across 2 Directories

Dataset Review and Comparison Summaries

SECTION 2

Patient selection should be refreshed once changed (unless using the next and prev buttons) to ensure the most-up to date selection is applied. Compare information will only be available once a compare dataset is loaded/chosen and all key variables selected produce a unique data row.

Select patient

PHUSE10001

< Prev

Next >

(Only applicable for single patient selection)

Create/Refresh Table

☒ Check for additional subjects in Compare dataset

No additional subjects in compare dataset

Extra variable(s) in current data: COUNTRY . Variable(s) will need to be removed from the variable selection in order for a comparison of data to be performed

Extra variable(s) in comparison data: _EXTRA

| Overview |

| Changes in Data |

| Full Compare Summary |

Export to excel

Show 10 entries

Search:

Unique Subject Identifier	Analysis Date	Analysis Datetime	Analysis Relative Day	Analysis Visit	Analysis Visit (N)	Actual Treatment for Period 01	Parameter Code	Parameter	Analysis Value	Baseline Value	Change from Baseline	Sex
All	All	All	All	All	All	All	All	All	All	All	All	All
PHUSE10001	2020-12-18	2020-12-18 10:30:00	1	Baseline	100001	Treatment 1	BMI	Body Mass Index (kg/m2)	26.4	26.4		F
PHUSE10001	2020-12-18	2020-12-18 10:30:00	1	Baseline	100001	Treatment 1	DIABP	Diastolic Blood Pressure (mmHg)	76	76		F
PHUSE10001	2020-12-18	2020-12-18 10:30:00	1	Baseline	100001	Treatment 1	HEIGHT	Height (cm)	174.5	174.5		F
PHUSE10001	2020-12-18	2020-12-18 10:30:00	1	Baseline	100001	Treatment 1	PULSE	Pulse Rate (BEATS/MIN)	79	79		F
PHUSE10001	2020-12-18	2020-12-18 10:30:00	1	Baseline	100001	Treatment 1	RESP	Respiratory Rate (BREATHS/MIN)	12	12		F
PHUSE10001	2020-12-18	2020-12-18 10:30:00	1	Baseline	100001	Treatment 1	SYSBP	Systolic Blood Pressure (mmHg)	125	125		F
PHUSE10001	2020-12-18	2020-12-18 10:30:00	1	Baseline	100001	Treatment 1	TEMP	Temperature (C)	36.5	36.5		F
PHUSE10001	2020-12-18	2020-12-18 10:30:00	1	Baseline	100001	Treatment 1	WEIGHT	Weight (kg)	80.3	80.3		F
PHUSE10001	2021-01-12	2021-01-12 09:52:00	26	Day 29	200029	Treatment 1	TEMP	Temperature (C)	36.6	36.5	0.100000000000001	F

Deployed App – Dataset Review and Comparison

Summaries tab – Changes in Data sub-tab

29

User Guide

Choose Main Data from pre-uploaded list

adv.sas7bd

Variables to include

USUBJID, ADT, ADTM, ADY, A

Choose comparison version of the Data from pre-uploaded list

adv

Allow Comparison with Duplicates (not recommended)

Unique Key Variable 1 (USUBJID already included)

ADT

Unique Key Variable 2

ADTM

Unique Key Variable 3

PARAMCD

Unique Key Variable 4

Nothing selected

Unique Key Variable 5

Nothing selected

Need More Key Variables

Dataset Comparison Overview

Compare All Datasets across 2 Directories

Dataset Review and Comparison Summaries

SECTION 2

Patient selection should be refreshed once changed (unless using the next and prev buttons) to ensure the most-up to date selection is applied. Compare information will only be available once a compare dataset is loaded/chosen and all key variables selected produce a unique data row.

Select patient

PHUSE10001

< Prev

Next >

(Only applicable for single patient selection)

Create/Refresh Table

☒ Check for additional subjects in Compare dataset

No additional subjects in compare dataset

Extra variable(s) in current data: COUNTRY . Variable(s) will need to be removed from the variable selection in order for a comparison of data to be performed

Extra variable(s) in comparison data: _EXTRA

Overview

Changes in Data

Full Compare Summary

☒ Only Show Changes

Export to excel

Summary of Changes

Number of records updated: 3

Number of records added: 1

Number of records deleted: 1

Show 10 entries

Search:

Type of Change	Unique Subject Identifier	Analysis Date	Analysis Datetime	Analysis Relative Day	Analysis Visit	Analysis Visit (N)	Actual Treatment for Period 01	Parameter Code	Parameter	Analysis Value	Baseline Value	Change from Baseline	Sex
All	All	All	All	All	All	All	All	All	All	All	All	All	All
updated	PHUSE10001	2020-12-18	2020-12-18 10:30:00	1	Baseline	100001	Treatment 1	PULSE	Pulse Rate (BEATS/MIN)	79	79		F
previous	PHUSE10001	2020-12-18	2020-12-18 10:30:00	1	Baseline	100001	Treatment 1	PULSE	Pulse Rate (BEATS/MIN)	75	75		F
updated	PHUSE10001	2020-12-18	2020-12-18 10:30:00	1	Baseline	100001	Treatment 1	SYSBP	Systolic Blood Pressure (mmHg)	125	125		F
previous	PHUSE10001	2020-12-18	2020-12-18 10:30:00	1	Baseline	100001	Treatment 1	SYSBP	Systolic Blood Pressure (mmHg)	225	225		F

Deployed App – Dataset Review and Comparison

Summaries tab – Full Compare Summary sub-tab

30

User Guide

Choose Main Data from pre-uploaded list

advs.sas7bdar

Variables to include

USUBJID, ADT, ADTM, ADY, A

Choose comparison version of the Data from pre-uploaded list

advs

Allow Comparison with Duplicates (not recommended)

Unique Key Variable 1 (USUBJID already included)

ADT

Unique Key Variable 2

ADTM

Unique Key Variable 3

PARAMCD

Unique Key Variable 4

Nothing selected

Unique Key Variable 5

Nothing selected

Need More Key Variables

for formal validation of datasets.

Dataset Comparison Overview

Compare All Datasets across 2 Directories

Dataset Review and Comparison Summaries

SECTION 2

Patient selection should be refreshed once changed (unless using the next and prev buttons) to ensure the most-up to date selection is applied. Compare information will only be available once a compare dataset is loaded/chosen and all key variables selected produce a unique data row.

Select patient

PHUSE10001

< Prev

Next >

(Only applicable for single patient selection)

Create/Refresh Table

☒ Check for additional subjects in Compare dataset

No additional subjects in compare dataset

Extra variable(s) in current data: COUNTRY . Variable(s) will need to be removed from the variable selection in order for a comparison of data to be performed

Extra variable(s) in comparison data: _EXTRA

| Overview |

| Changes in Data |

| Full Compare Summary |

Summary of Observation Counts

Number of observations in current data source: 11

Number of observations in compare data source: 11

Summary of duplicate rows

Extra rows in main data not in compare data

Show 10 entries

Search:

Type of Change	Unique Subject Identifier	Analysis Date	Analysis Datetime	Analysis Relative Day	Analysis Visit	Analysis Visit (N)	Actual Treatment for Period 01	Parameter Code	Parameter	Analysis Value	Baseline Value	Change from Baseline	Sex
added	PHUSE10001	2021-02-26	2021-02-26 13:51:00	71	Day 71	300071	Treatment 1	TEMP	Temperature (C)	36.4	36.5	-0.100000000000001	F

Deployed App – Dataset Review and Comparison

Summaries tab – Full Compare Summary sub-tab

31

Extra rows in compare data not in main data

Show 10 entries

Search:

Type of Change	Unique Subject Identifier	Analysis Date	Analysis Datetime	Analysis Relative Day	Analysis Visit	Analysis Visit (N)	Actual Treatment for Period 01	Parameter Code	Parameter	Analysis Value	Baseline Value	Change from Baseline	Sex
All	All	All	All	All	All	All	All	All	All	All	All	All	All
deleted	PHUSE10001	2021-01-13	2021-01-13 09:52:00	27	Day 29	200029	Treatment 1	TEMP	Temperature (C)	36.6	36.5	0.1	F

Variables with unequal values

Variable	Number_of_Differences	Maximum_Differences
AVAL	2	100
BASE	2	100
CHG	1	9.99200722162641e-16

Differences for each Variable

Show 10 entries

Search:

Variable	USUBJID	ADT	ADTM	PARAMCD	Main_Value	Compare_Value
All	All	All	All	All	All	All
1 AVAL	PHUSE10001	2020-12-18	2020-12-18 10:30:00	PULSE	79	75
2 AVAL	PHUSE10001	2020-12-18	2020-12-18 10:30:00	SYSBP	125	225
3 BASE	PHUSE10001	2020-12-18	2020-12-18 10:30:00	PULSE	79	75
4 BASE	PHUSE10001	2020-12-18	2020-12-18 10:30:00	SYSBP	125	225
5 CHG	PHUSE10001	2021-01-12	2021-01-12 09:52:00	TEMP	0.10000000000000001	0.1

Showing 1 to 5 of 5 entries

Previous

1

Next

End of File

Acknowledgments

32

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Questions

33

