



Single Day Event

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R Shiny Application for Datetime Stamp Check

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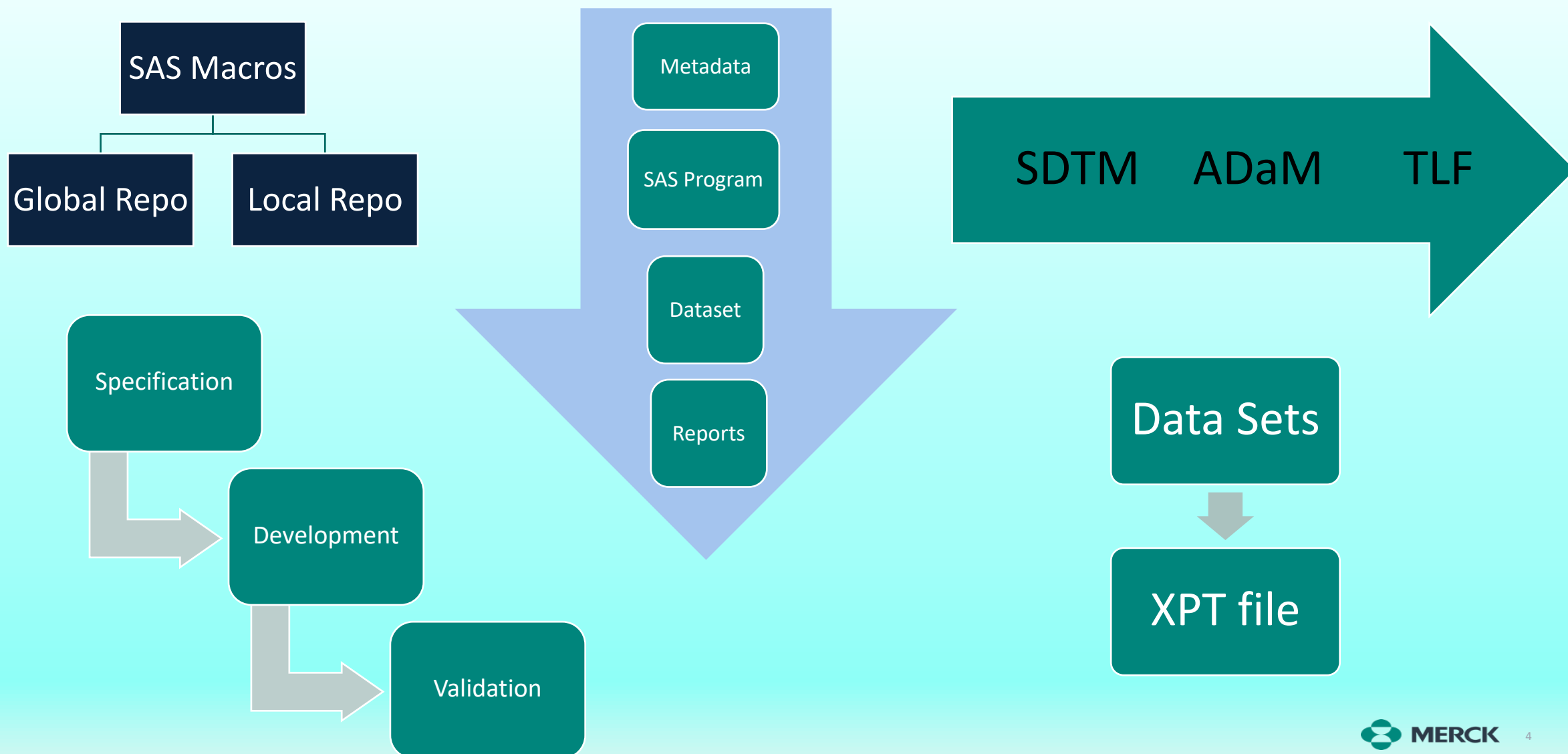
PHUSE Americas Autumn SDE

October 14, 2021

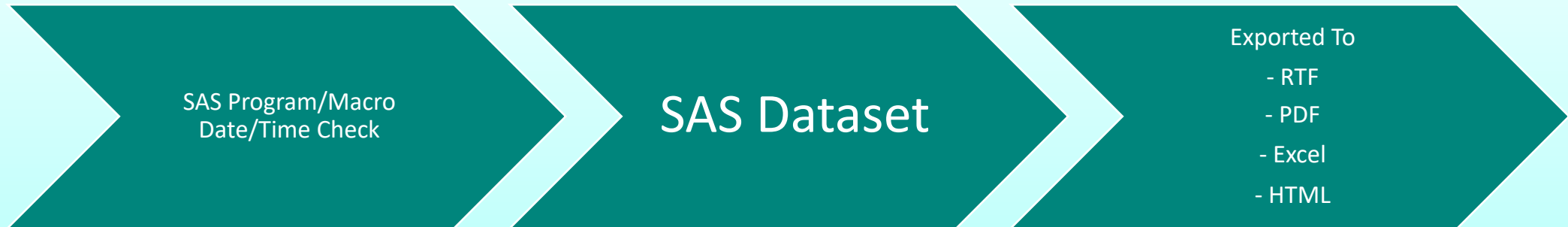
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Time Sensitive Dependencies In Clinical Environment



SAS Basic Flow



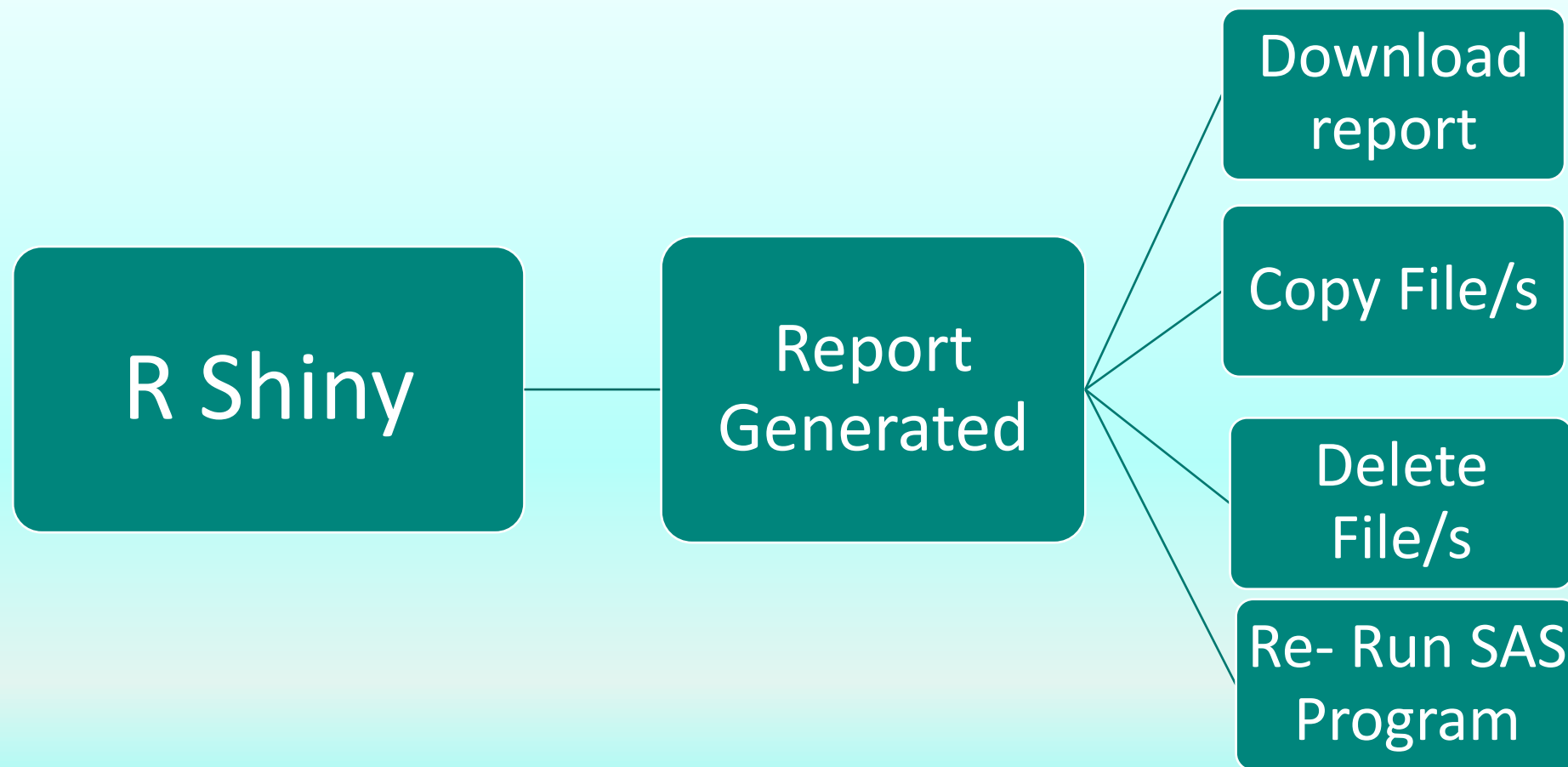
Manual Process

Managing Files will be daunting process.

Macro Program
Management

Redistribution needed upon newer versions.

Motivation: Leveraging Individual Strengths



Few Scenarios to Compare

Same File Type

- Global Vs Local SAS Repo
- Development Vs Validation programs

Different File type

- SAS program versus the Log file.
- SAS Dataset versus the XPT file

One to Many Comparison

- Documentation was ready before programming started.

Comparing Different Files

- Define.xml versus Datasets, specification, program files.
- PDF vs Docx files.

Advantages of Using R Shiny Application

Feasibility

Human Review Reduced.

Diversity

Communicate Results Via Chart, Text or Tables.

Ease of Maintenance

App Centrally Located. Access Control. Upgrade shard easily.

Ease of Use

Instruction can be part of App.

Versatile

Tailored to Fit Need of Time.

Learning Curve

Training

Process
Development

Example of Shiny App: Only the Input Part

Input Type 1 Shiny App for Datetime Check

Base Location

Compare Location

Choose File type

Input Type 2 Shiny App for Datetime Check

Base Location

Compare Location

Choose File type

Choose File type

Example of Shiny App: Only the Output Part1

Comparision of Files under Base and Compare Folders

☒ File_Name	Base_time	Compare_time	Message
☒ File1	2020-09-08T12:03:06	2018-02-05T11:02:15	Newer Version of File Available
☒ File2	2020-09-09T10:56:30	2016-10-18T12:10:35	Newer Version of File Available
☒ File3	2020-09-10T16:14:38	2016-01-14T15:08:38	Newer Version of File Available
☒ File4	2021-03-15T11:00:11		New File Available
☒ File5		2013-07-29T12:04:40	File Redundant
☒ File6		2013-07-29T12:06:45	File Redundant

Download Report!

Copy Files!

Delete Files!

Example of Shiny App: Only the Output Part2

Comparision of Files under Base and Compare Folders

☐ File_Name	Base_time	Compare_time	Message
☒ File1	2020-09-08T12:03:06	2018-02-05T11:02:15	Newer Version of File Available
☒ File2	2020-09-09T10:56:30	2016-10-18T12:10:35	Newer Version of File Available
☒ File3	2020-09-10T16:14:38	2016-01-14T15:08:38	Newer Version of File Available
☒ File4	2021-03-15T11:00:11		New File Available
☐ File5		2013-07-29T12:04:40	File Redundant
☐ File6		2013-07-29T12:06:45	File Redundant

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Delete Files!

Select Files then Choose **Copy**
or **Delete** Files!

Comparision of Files under Base and Compare Folders

☐ File_Name	Base_time	Compare_time	Message
☐ File1	2020-09-08T12:03:06	2018-02-05T11:02:15	Newer Version of File Available
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☐ File4	2021-03-15T11:00:11		New File Available
☒ File5		2013-07-29T12:04:40	File Redundant
☒ File6		2013-07-29T12:06:45	File Redundant

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Copy Files!

Delete Files!

Example of Shiny App: Only the Output Part3

Comparision of Files SAS Program files and respective Log Files

☒	SAS_file_name	SAS_file_time	Log_file_name	Log_file_time	Message
☒	adbase.sas	2021-06-23T09:32:37	adbase.log	2021-09-14T13:49:45	Everything is Fine!
☒	adsl.sas	2021-06-07T12:54:17	adsl.log	2021-09-13T21:26:06	Everything is Fine!
☒	adv.sas	2021-04-23T08:03:42	adv.s.log	2021-09-14T13:50:15	Everything is Fine!
☒	adlb.sas	2021-09-14T13:51:58	adlb.log	2021-05-13T17:11:35	Re-Run adlb.sas Program!

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Re-Run Sas Program!

Download Report for Documentation Purpose!

Re-Run SAS program for selected files!

Comparision of Files SAS Program files and respective Log Files

☐	SAS_file_name	SAS_file_time	Log_file_name	Log_file_time	Message
☐	adbase.sas	2021-06-23T09:32:37	adbase.log	2021-09-14T13:49:45	Everything is Fine!
☐	adsl.sas	2021-06-07T12:54:17	adsl.log	2021-09-13T21:26:06	Everything is Fine!
☐	adv.sas	2021-04-23T08:03:42	adv.s.log	2021-09-14T13:50:15	Everything is Fine!
☒	adlb.sas	2021-09-14T13:51:58	adlb.log	2021-05-13T17:11:35	Re-Run adlb.sas Program!

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Re-Run Sas Program!

Conclusion

Conclusion:

- R Shiny can be a powerful and beneficial tool in Clinical Environment.
- Much more applications possible.

Future Work:

- Continue Exploration of R in clinical environment.

Awesome Team!



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Thank you



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