

Moving to SAS Drug Development 4

Magnus Mengelbier
Director

Topics

- Introduction
- SAS Drug Development
- Process
- Repository and Workspace
- The SAS Program
- Summary

SAS Drug Development 4

- Hosted solution
- New generation
- Essentially a rewrite of SDD 3.x
- SDD 4.x first released March 2012 (4.1)
- Current version SDD 4.5 released June 2014
 - Web – Adobe Flash interface (Flash version 11.5 or later)
 - SDD Java API (requires Java version 1.6 or later)
 - SDD macro library (requires SAS 9.3 or later)
 - Based on SAS 9.4
- Development cycle
 - One version every 6 months
 - Hot-fix between version – if necessary

SAS Drug Development 4.4 Dashboard

SAS[®] Drug Development

View

Tools

Administration

Help

Log Off

Dashboard

Repository

Workspace

Welcome

Welcome!

- The dashboard shows you what's going on with the tasks, issues, and messages across your projects. You can set up your dashboard to show only the information that you care about.

Schedules

Show: My Schedules

Show: Schedules

Status	Name	Job

SAS Sessions

My Messages

Text to filter

Priority	From	Subject	Date Received

Tasks

Text to filter

Status	Name	Work Item	C

Work Items

Show: My Work Items

Text to filter

Status	Name	Context

Recent Files

create_and_return_empty_folder.sas

create_and_return_empty_folder.log

create_and_return_empty_folder.job(0.1)

transient_workspace.job

transient_workspace.log(1.0)

transient_workspace.sas

basic_put_all.log(1.0)

program-2.sas

program-1.sas

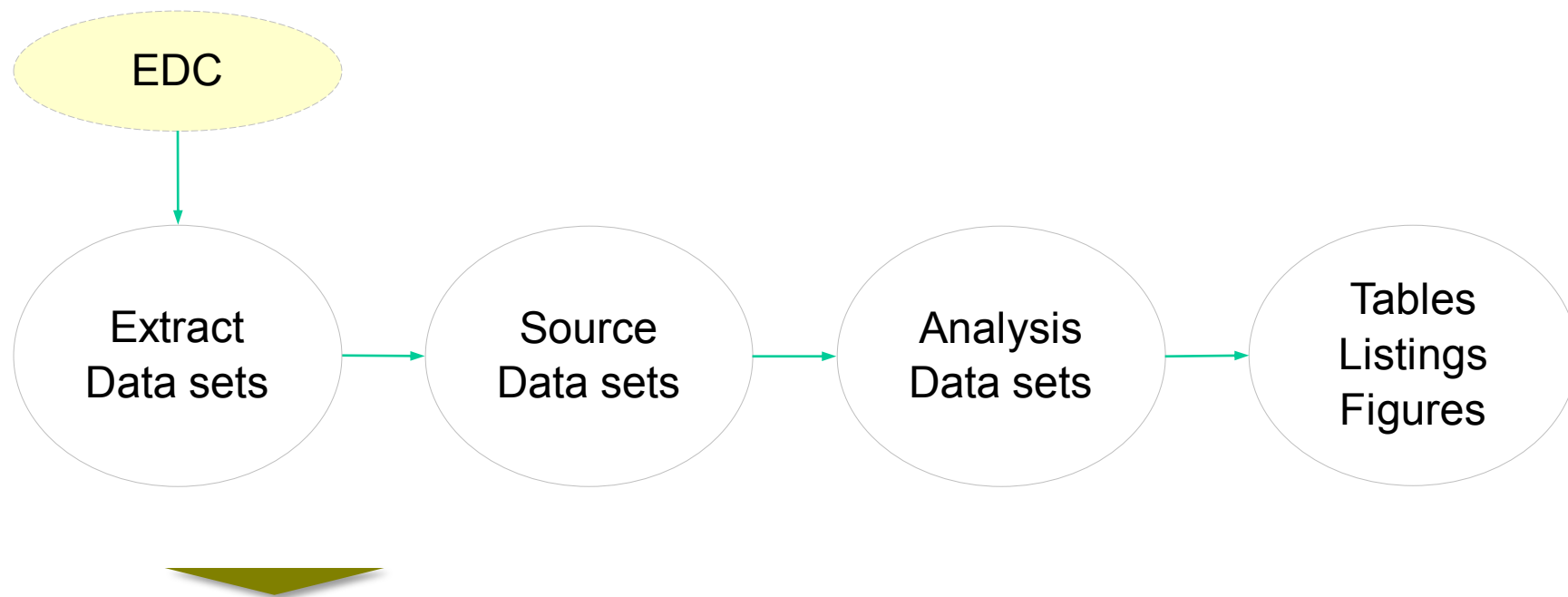
Moving In

- Large complex process – 6 to 18 months
- Small process – 3 to 9 months
- New process – 3 to 6 months

or

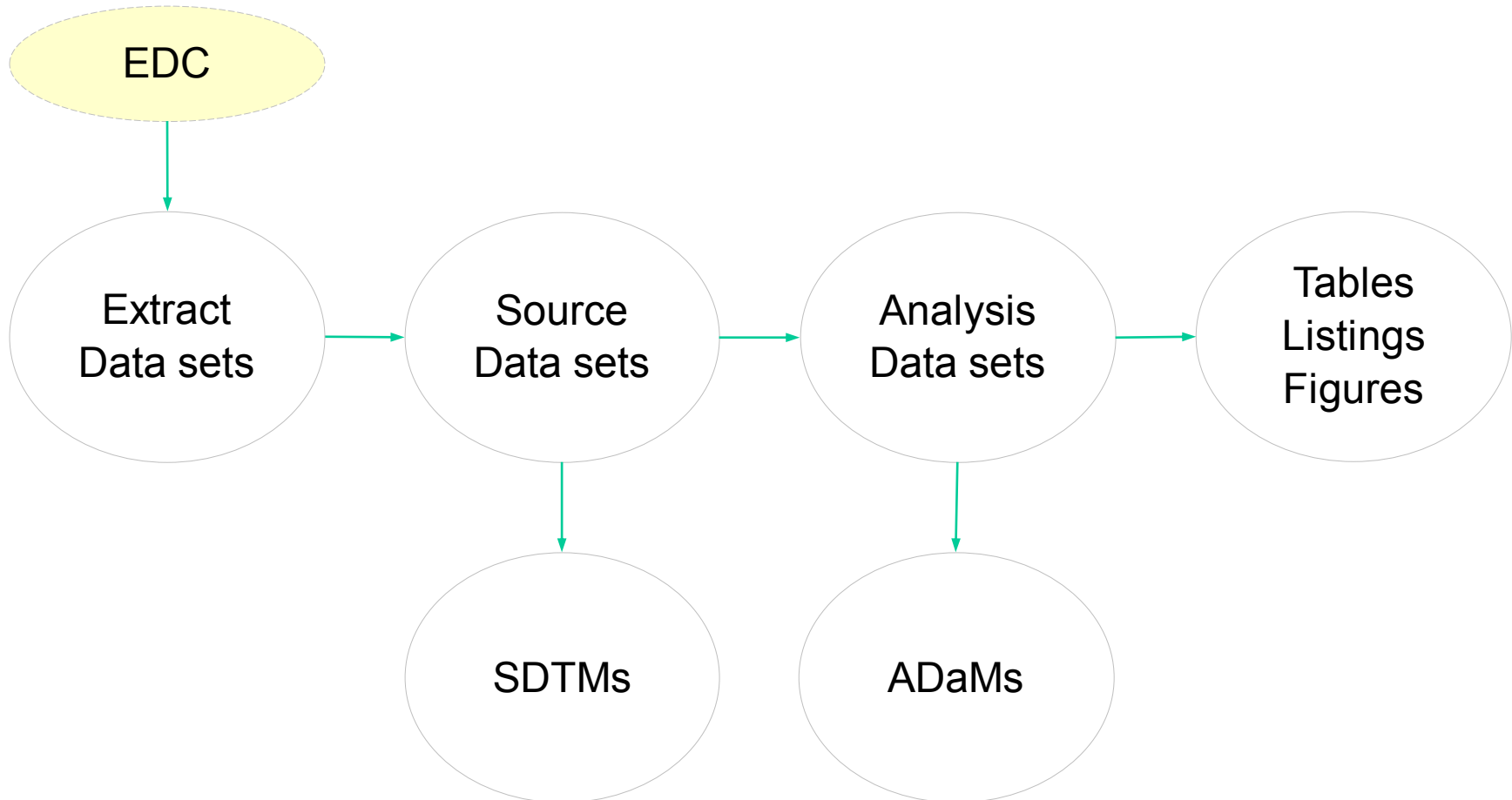
You can cheat ...

A General Process



- Generic process
- Not dependent on specific CDISC standards

A General Process



Repository and Workspace

SAS® Drug Development sas

View Tools Administration Help [Log Off](#)

Dashboard * Repository * Workspace *

Welcome

Welcome!

- The dashboard shows you what's going on with the tasks, issues, and messages across your projects. You can set up your dashboard to show only the information that you care about.

My Messages

Text to filter

Priority	From	Subject	Date Received

Tasks

Text to filter

Status	Name	Work Item	C

Schedules

Show: My Schedules Show: Schedules

Status	Name	Job

Work Items

Show: My Work Items Text to filter

Status	Name	Context

Recent Files

- create_and_return_empty_folder.sas
- create_and_return_empty_folder.log
- create_and_return_empty_folder.job(0.1)
- transient_workspace.job
- transient_workspace.log(1.0)
- transient_workspace.sas
- basic_put_all.log(1.0)
- program-2.sas
- program-1.sas

SAS Sessions

The Two Halves

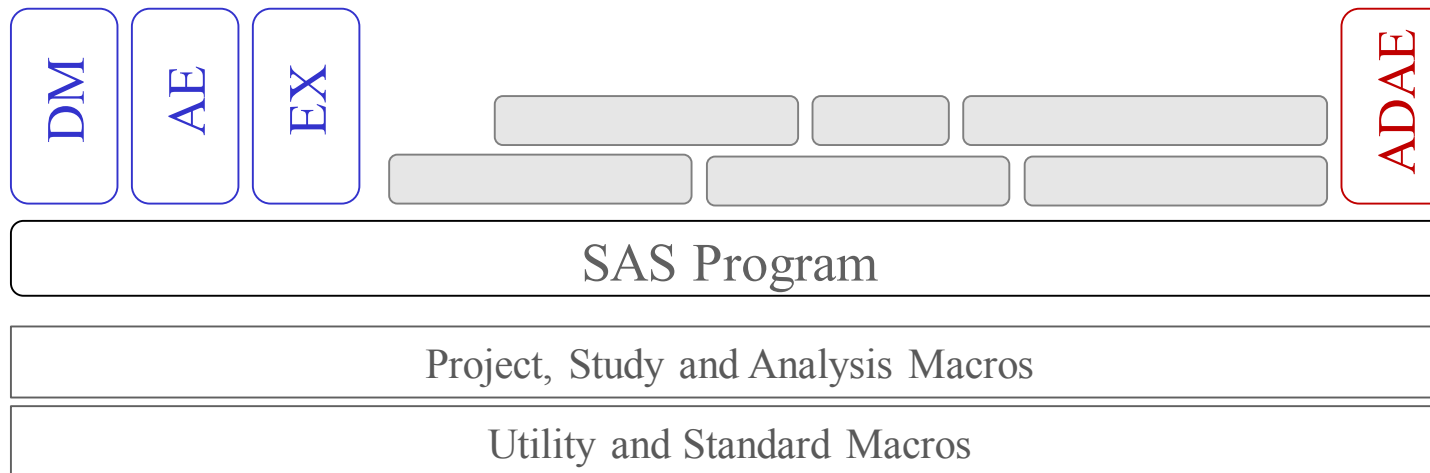
Central Repository

- Repository
 - File system
 - Folders and files
 - Version control
 - Permissions
 - Signatures
 - Audit history, aka trail
 - Recycle Bin

Working Copy

- Workspace
 - Simple file system
 - User specific
 - Persistent
 - No permission control
 - No audit history
 - No recycle bin

A SAS Program



SAS in SAS Drug Development

- SAS 9.4 Red Hat Linux (64-bit)
- Background service
- Performs all SAS related processing
- SAS Sessions
 - Shares the same inputs, outputs and WORK library
 - Executes with user privileges

Data Set Viewer

☒ Columns

☒ 123 CONT
☒ 123 ID
☒ 123 ISO
☒ A NAME
☒ A ISONAME
☒ A region
☒ 123 pop
☒ 123 popAGR
☒ 123 popUrban
☒ 123 totalFR
☒ 123 AdolescentFPpc
☒ 123 AdolescentFPye

Attribute	Value
Name	CONT
Label	Numeric R...
Length	8
Type	num
Format	

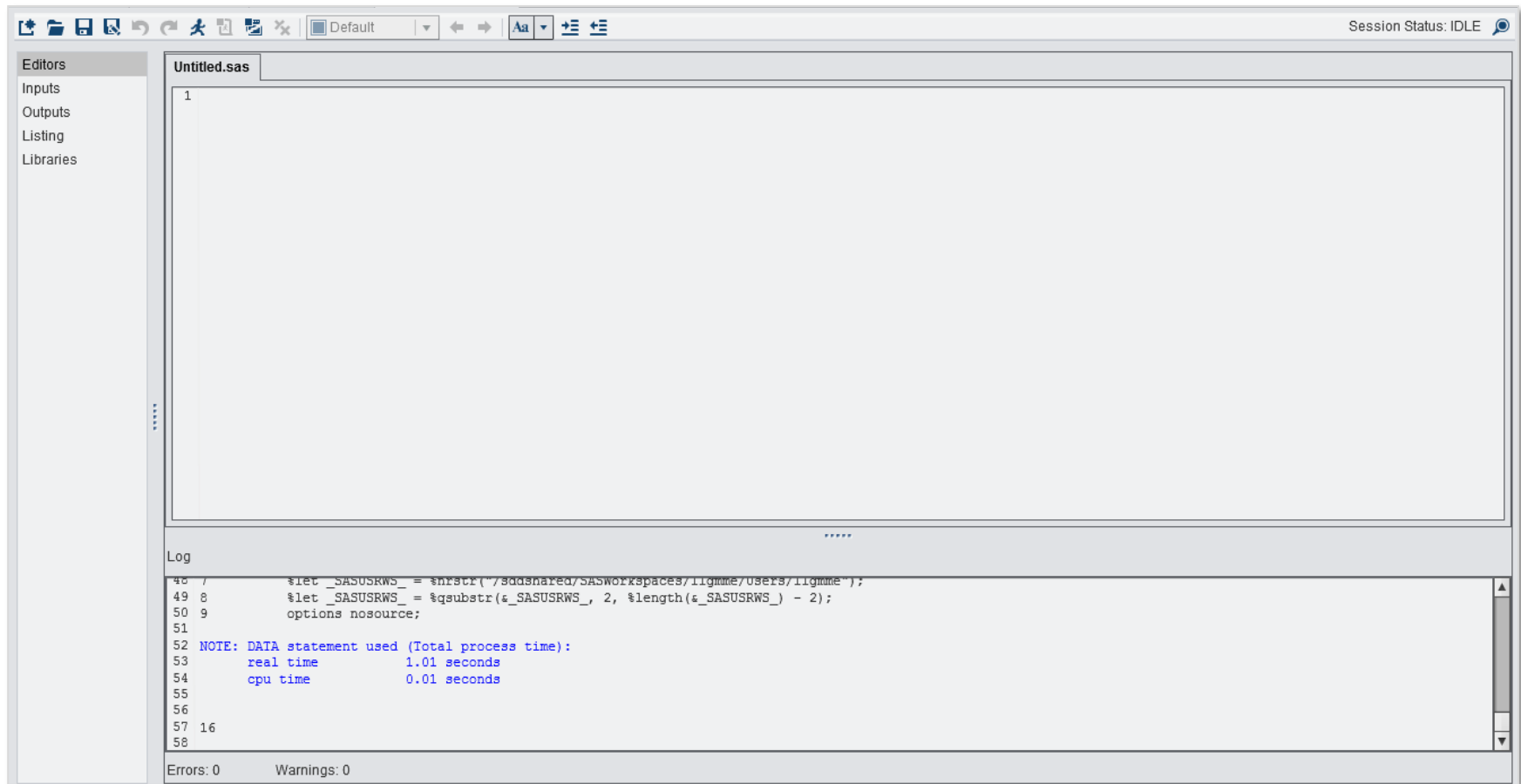
Filter: None

Obs	CONT	ID	ISO	NAME	ISONAME	region	pop	popAGR
1		91	180	044	BAHAMAS	AMR	323,063	
2		91	227	084	BELIZE	AMR	269,736	
3		91	260	124	CANADA	AMR	32,268,243	
4		91	295	188	COSTA RICA	AMR	4,327,228	
5		91	300	192	CUBA	AMR	11,269,400	
6		91	320	214	DOMINICAN R...	AMR	8,894,907	
7		91	330	222	EL SALVADOR	AMR	6,880,951	
8		91	415	320	GUATEMALA	AMR	12,599,059	
9		91	420	332	HAITI	AMR	8,527,777	
10		91	430	340	HONDURAS	AMR	7,204,723	
11		91	487	388	JAMAICA	AMR	2,650,713	
12		91	595	484	MEXICO	AMR	107,029,360	
13		91	665	558	NICARAGUA	AMR	5,486,685	
14		91	710	591	PANAMA	AMR	3,231,502	
15		91	763	659	SAINT KITTS/N...	AMR	42,696	
16		91	926	840	UNITED STATES	AMR	298,212,895	
17		91	140	000	ANTIGUA AND	AMR	91,495	

Rows: 197 Filtered rows: 197 Columns: 18 Selected row: 0

Session: 3

Integrated SAS Editor



SAS in Personal Workspace

- Predefines 3 macros variables
 - `_SASWS_`
 - `_SASUSRWS_`
 - `_SDDUSR_` ... may not be the same as SYSUSERID

```

54          %put &_SDDUSR_ ;
someuser

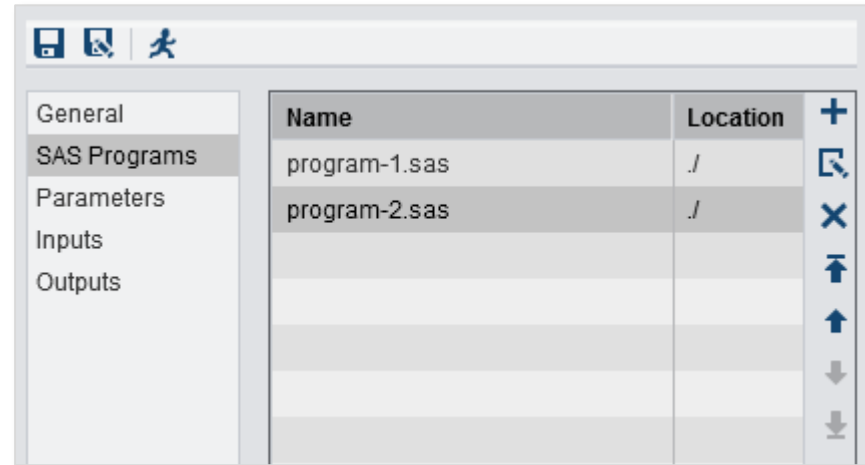
55          %put &_sasws_ ;
/sddshared/SASWorkspaces/someuser

56          %put &_sasusrws_ ;
/sddshared/SASWorkspaces/someuser/Users/someuser

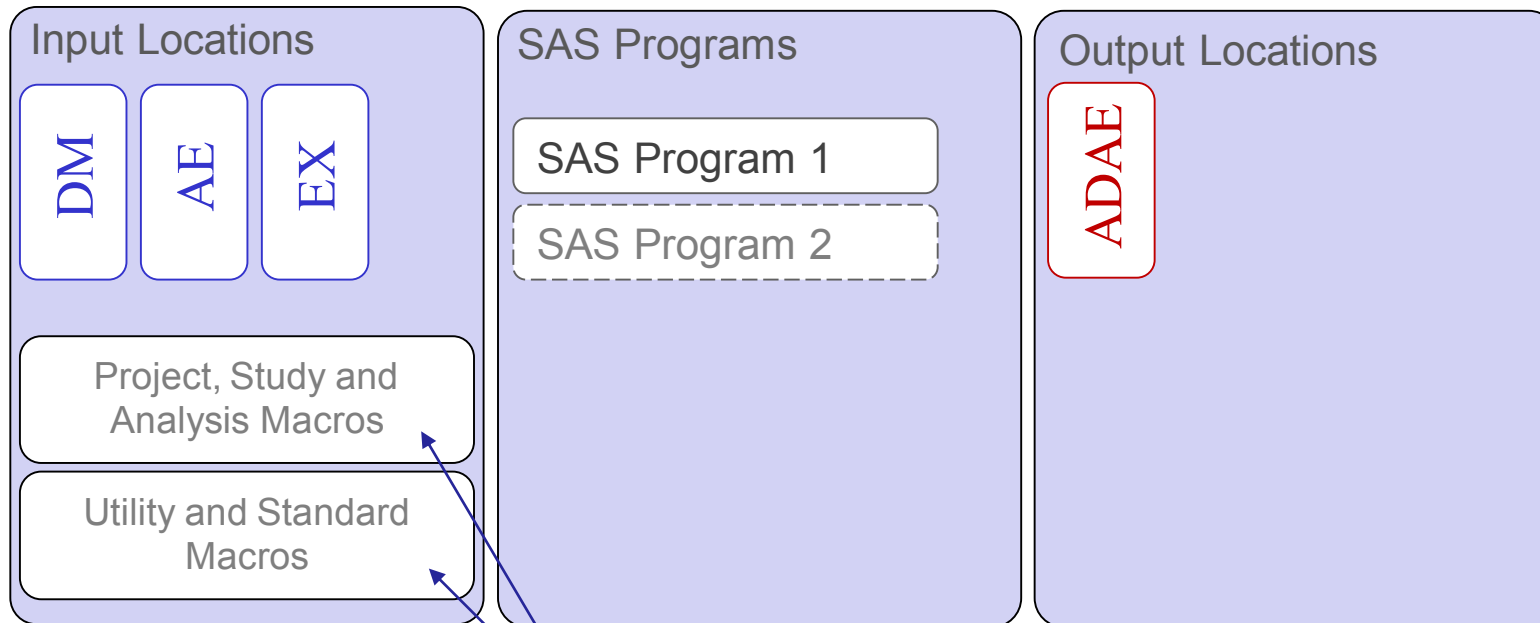
```

A Job

- Executes SAS programs as a background process
- Represents a single SAS session
- Shared WORK library
- Resembles sequence of %INCLUDE statements

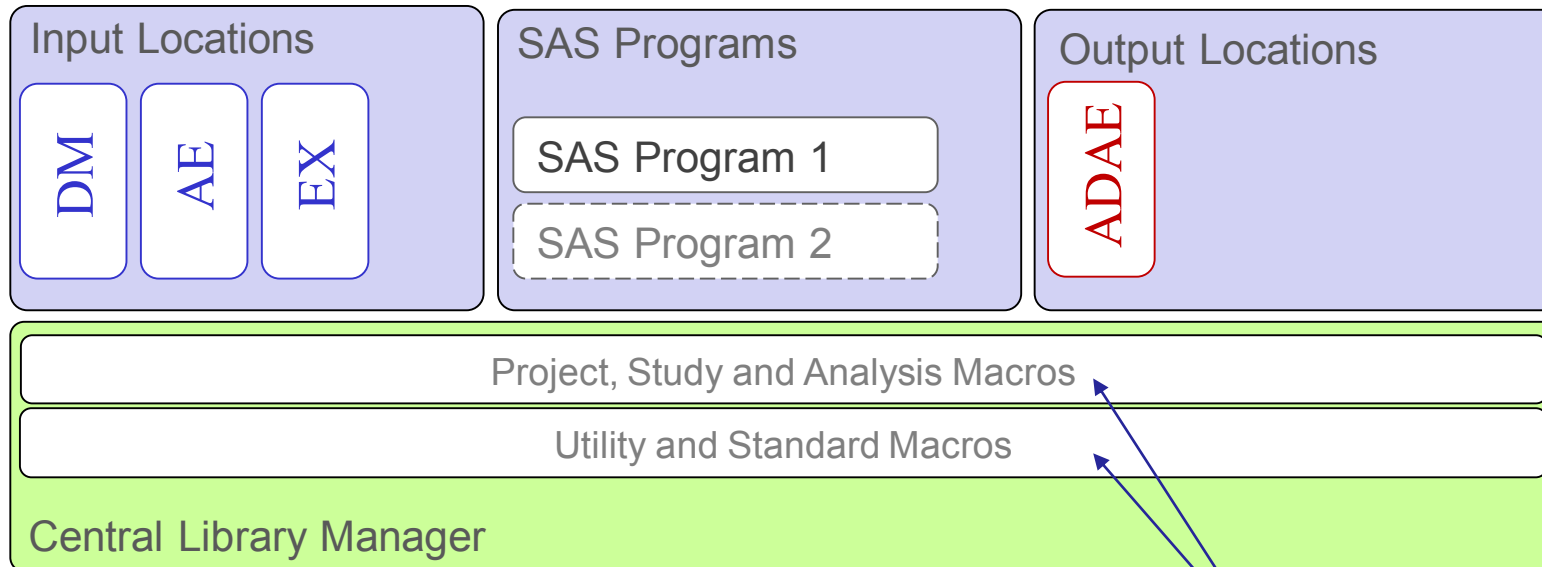


SAS Process and the Job



By default, users are expected to manage this for each Job

Job with the Central Library Manager



Manage with Autocall facility and SASAUTOS option when using the concept of Central Library Manager.

Final Thoughts and Conclusions

- Focus on the SAS program
- Make SDD Job pivotal to your process
- Treat SDD as a SAS server with many features
- Use smart versioning and check-out, check-in, lock and unlock
- Recycle Bin matters
- Clean Desk Policy ... clean your Workspace

Questions & Comments

- Introduction
- Process
- SAS Drug Development
- Repository and Workspace
- The SAS Program
- Summary

Magnus Mengelbier

Managing Director
Limelogic

mmr@limelogic.com

+46 708 110 876

+46 40 685 1481

Paper : www.limelogic.com/papers/moving-to-sas-drug-development-4-pharmasug-2014/