

# A “data pipeline” for BIOS-SCOPE

Krista Longnecker, updated 13 February 2026

Pipe line is based on code from Shuting Liu and Ruth Curry

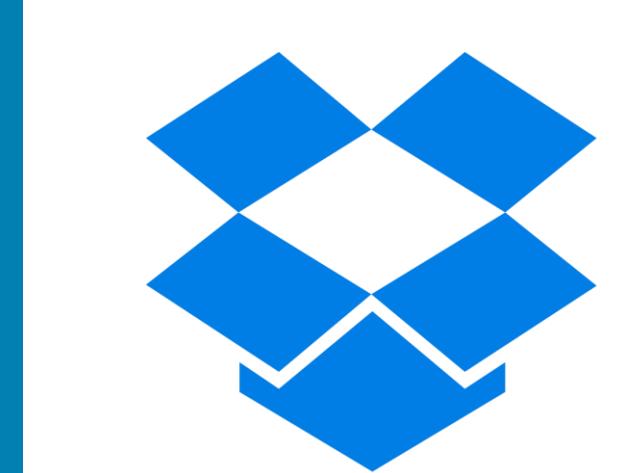
With thanks to Elisa Halewood and Rachel Parsons



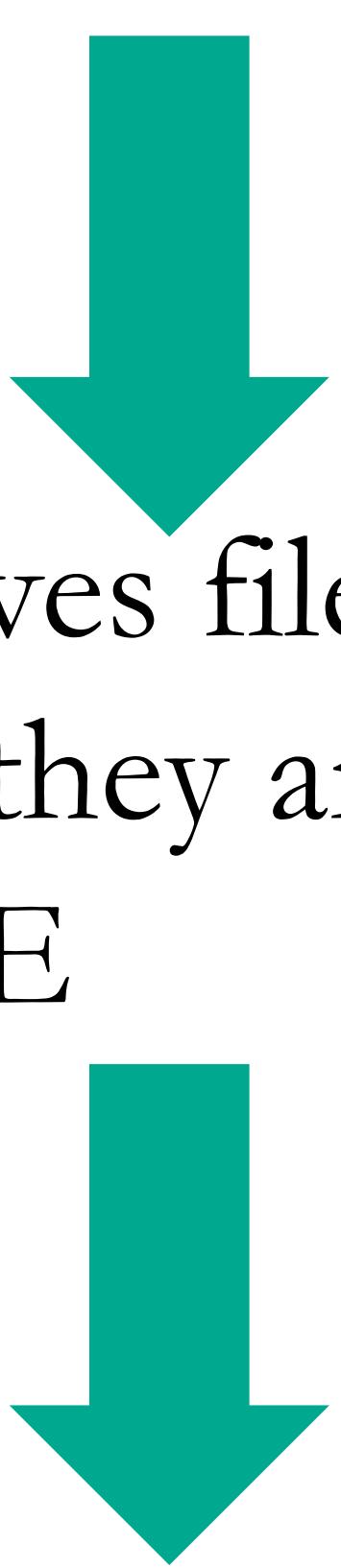
## What is the goal?

We want a single file that combines CTD data, variables calculated from CTD data, and data from discrete samples.

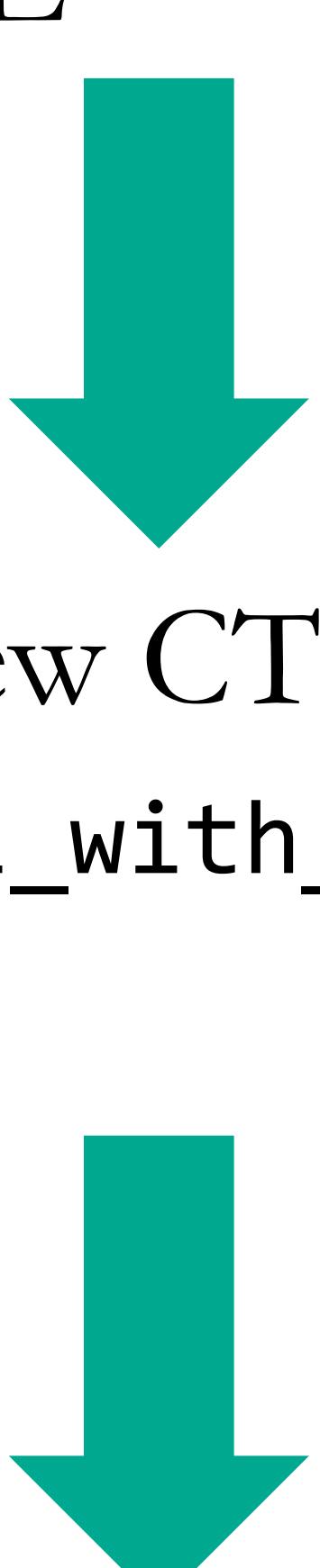
## Step-by-step:



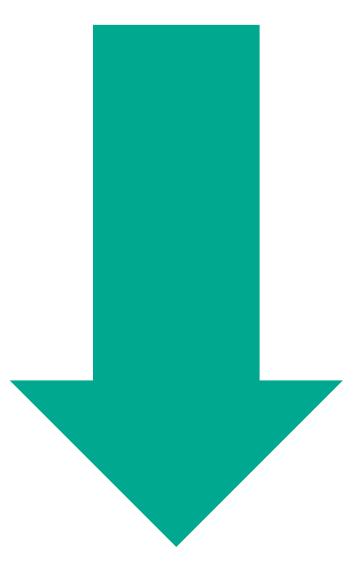
**BATS team:** Processes CTD data and uploads to DropBox



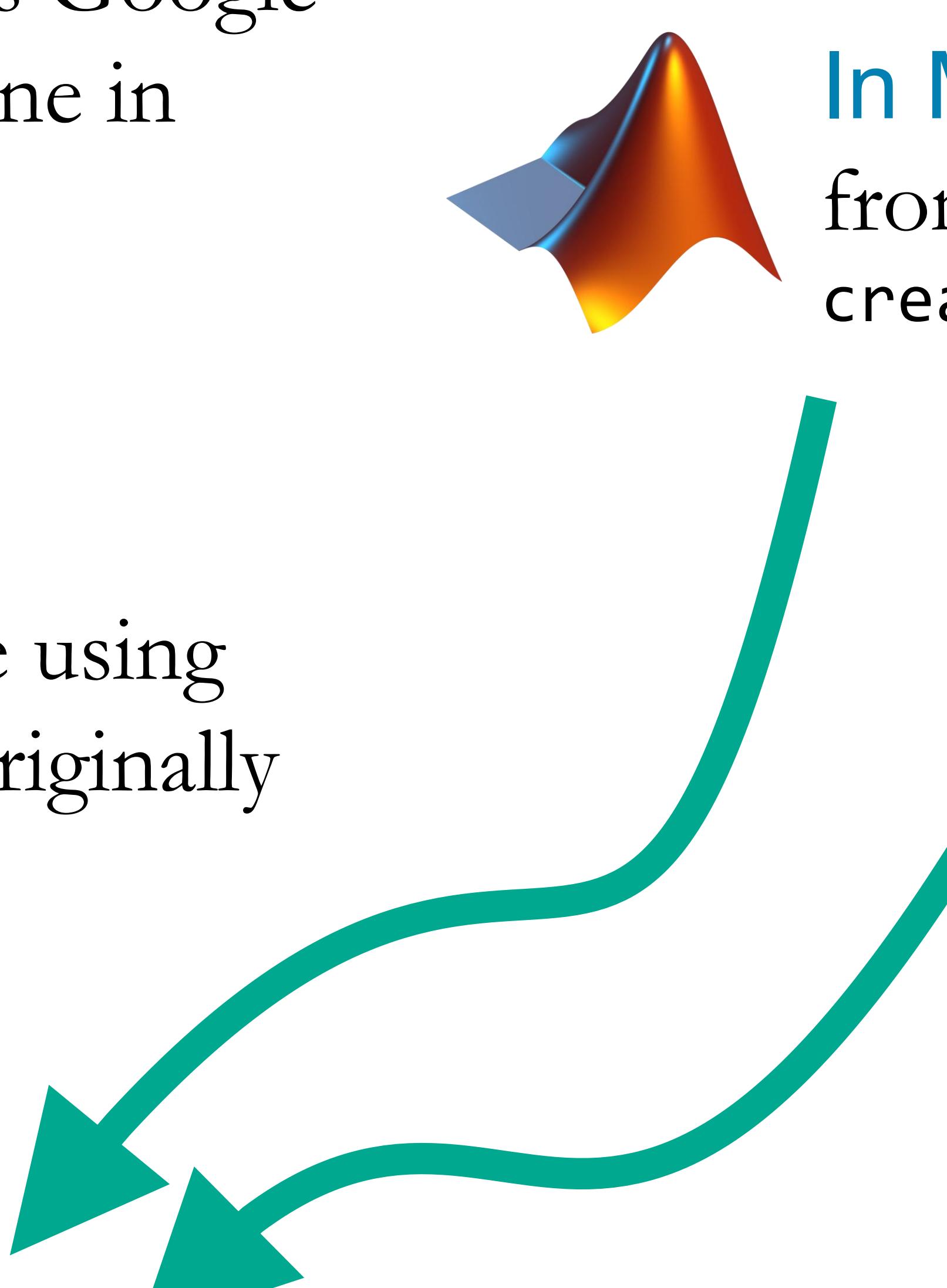
**Rachel:** Moves files to BIOS-SCOPE’s Google Drive where they are accessible to anyone in BIOS-SCOPE



**In R:** Add new CTD data to master file using `Join_BATS_All_with_master_v3.R`, code originally from Shuting



**In R:** Add discrete data to master file (including the derived variables calculated in MATLAB) with `Join_discreteData_v3.R`



**End result:** Excel file

`BATS_BS_COMBINED_MASTER_latest.xlsx` available to anyone in BIOS-SCOPE (link in Google Drive at: [1.0 DATA / 1.0 CURRENT BOTTLE FILE/](#))

`BATS_BS_COMBINED_MASTER_{date}.xlsx`

BATS_BS_COMBINED_MASTER_2024_01_26.xlsx																
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	ID	New_ID	Program	Cruise_ID	Cast	Niskin	yyyymmdd	decy	time(UTC)	latN	lonW	Depth	Nominal_Depth	Temp	D_SBE35T(deconductivitySI)	
2	1032100301	1032100301	BATS	AE1602	3	1	20160308	2016.1851	1817	31.679	64.18	4.4	1	21.124	.999	.999
3	1032100302	1032100302	BATS	AE1602	3	2	20160308	2016.1851	1817	31.679	64.18	11.1	10	21.136	.999	.999
4	1032100303	1032100303	RATS	AE1602	3	3	20160308	2016.1851	1817	31.679	64.18	20.8	20	21.147	.999	.999
5	1032100305	1032100305	BATS	AE1602	3	5	20160308	2016.1851	1817	31.679	64.18	60.2	60	21.131	.999	.999
6	1032100306	1032100306	BATS	AE1602	3	6	20160308	2016.1851	1817	31.679	64.18	81.7	80	21.124	.999	.999
7	1032100307	1032100307	BATS	AE1602	3	7	20160308	2016.1851	1817	31.679	64.18	101.4	100	21.124	.999	.999
8	1032100308	1032100308	BATS	AE1602	3	8	20160308	2016.1851	1817	31.679	64.18	121.8	120	21.124	.999	.999
9	1032100309	1032100309	BATS	AE1602	3	9	20160308	2016.1851	1817	31.679	64.18	141.4	140	21.124	.999	.999
10	1032100310	1032100310	BATS	AE1602	3	10	20160308	2016.1851	1817	31.679	64.18	161.0	160	21.124	.999	.999
11	1032100311	1032100311	BATS	AE1602	3	11	20160308	2016.1851	1817	31.679	64.18	180.6	180	21.124	.999	.999
12	1032100312	1032100312	BATS	AE1602	3	12	20160308	2016.1851	1817	31.679	64.18	200.2	200	21.124	.999	.999
13	1032100313	1032100313	BATS	AE1602	3	13	20160308	2016.1851	1817	31.679	64.18	219.8	219	21.124	.999	.999
14	1032100314	1032100314	BATS	AE1602	3	14	20160308	2016.1851	1817	31.679	64.18	239.4	239	21.124	.999	.999
15	1032100315	1032100315	BATS	AE1602	3	15	20160308	2016.1851	1817	31.679	64.18	259.0	259	21.124	.999	.999
16	1032100316	1032100316	BATS	AE1602	3	16	20160308	2016.1851	1817	31.679	64.18	278.6	278	21.124	.999	.999
17	1032100317	1032100317	BATS	AE1602	3	17	20160308	2016.1851	1817	31.679	64.18	298.2	298	21.124	.999	.999
18	1032100318	1032100318	BATS	AE1602	3	18	20160308	2016.1851	1817	31.679	64.18	317.8	317	21.124	.999	.999
19	1032100319	1032100319	BATS	AE1602	3	19	20160308	2016.1851	1817	31.679	64.18	337.4	337	21.124	.999	.999
20	1032100320	1032100320	BATS	AE1602	3	20	20160308	2016.1851	1817	31.679	64.18	357.0	357	21.124	.999	.999
21	1032100321	1032100321	BATS	AE1602	3	21	20160308	2016.1851	1817	31.679	64.18	376.6	376	21.124	.999	.999
22	1032100322	1032100322	BATS	AE1602	3	23	20160308	2016.1851	1817	31.679	64.18	396.2	396	21.124	.999	.999
23	1032100323	1032100323	BATS	AE1602	3	24	20160308	2016.1851	1817	31.679	64.18	415.8	415	21.124	.999	.999
24	1032100324	1032100324	BATS	AE1602	3	25	20160308	2016.1851	1817	31.679	64.18	435.4	435	21.124	.999	.999
25	1032100325	1032100325	BATS	AE1602	3	26	20160308	2016.1851	1817	31.679	64.18	455.0	455	21.124	.999	.999
26	1032100326	1032100326	BATS	AE1602	3	27	20160308	2016.1851	1817	31.679	64.18	474.6	474	21.124	.999	.999
27	1032100327	1032100327	BATS	AE1602	3	28	20160308	2016.1851	1817	31.679	64.18	494.2	494	21.124	.999	.999
28	1032100328	1032100328	BATS	AE1602	3	29	20160308	2016.1851	1817	31.679	64.18	513.8	513	21.124	.999	.999
29	1032100329	1032100329	BATS	AE1602	3	30	20160308	2016.1851	1817	31.679	64.18	533.4	533	21.124	.999	.999
30	1032100330	1032100330	BATS	AE1602	3	31	20160308	2016.1851	1817	31.679	64.18	553.0	553	21.124	.999	.999
31	1032100331	1032100331	BATS	AE1602	3	32	20160308	2016.1851	1817	31.679	64.18	572.6	572	21.124	.999	.999
32	1032100332	1032100332	BATS	AE1602	3	33	20160308	2016.1851	1817	31.679	64.18	592.2	592	21.124	.999	.999
33	1032100333	1032100333	BATS	AE1602	3	34	20160308	2016.1851	1817	31.679	64.18	611.8	611	21.124	.999	.999
34	1032100334	1032100334	BATS	AE1602	3	35	20160308	2016.1851	1817	31.679	64.18	631.4	631	21.124	.999	.999
35	1032100335	1032100335	BATS	AE1602	3	36	20160308	2016.1851	1817	31.679	64.18	651.0	651	21.124	.999	.999
36	1032100336	1032100336	BATS	AE1602	3	37	20160308	2016.1851	1817	31.679</						