Managing Forest Data

measurement, computation, and communication

Zack Parisa

***Who reluctantly moved to San Francisco two years ago**

President, SilviaTerra

Timber Measurements Society -
April 2017

OUR PRODUCTS

CruiseBoost

Save up to 50% of your cruising cost.

Plot Hound

The timber cruising app. Easy. Fast. Free.

Inventory Planner

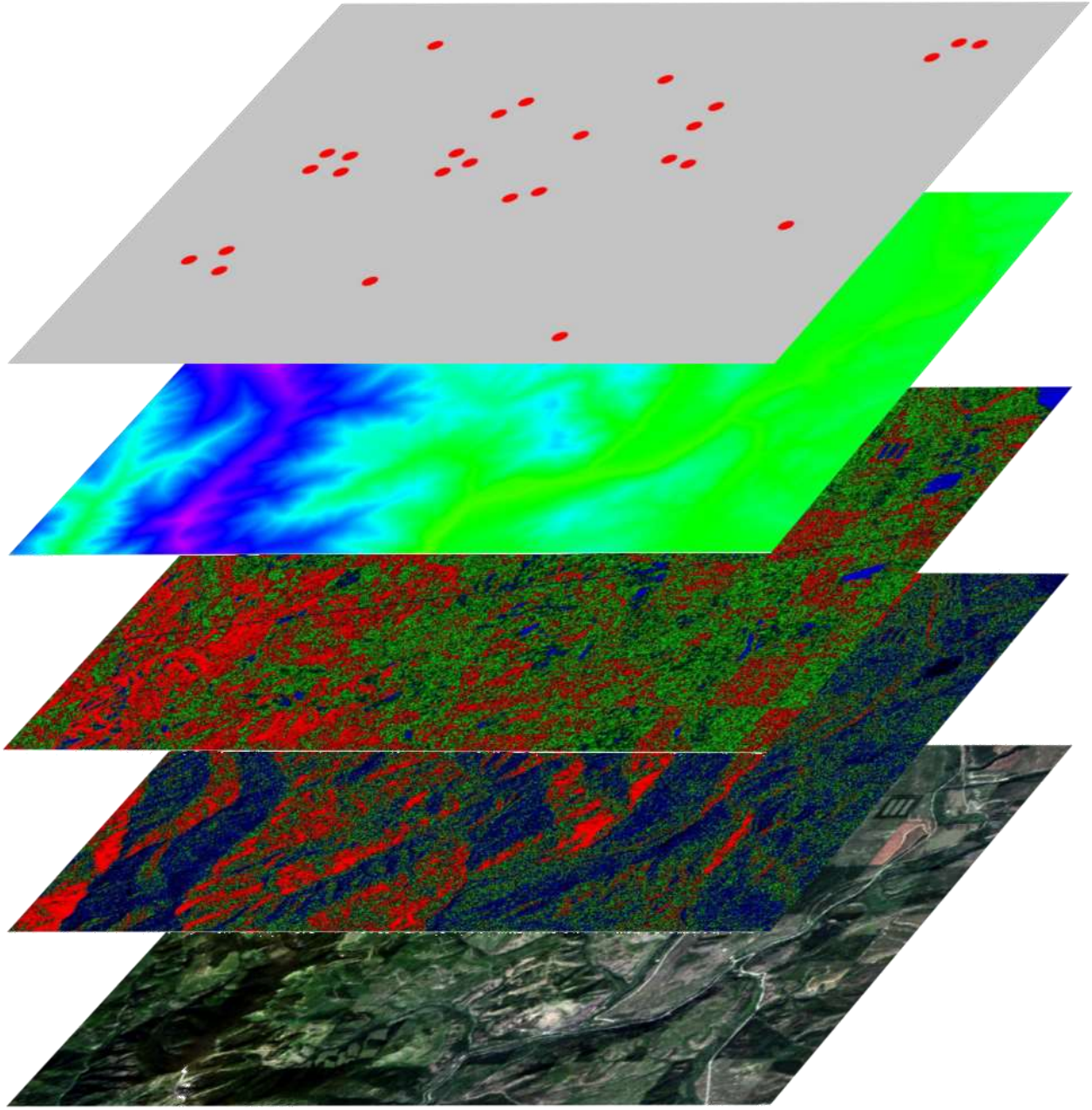
Coming soon!

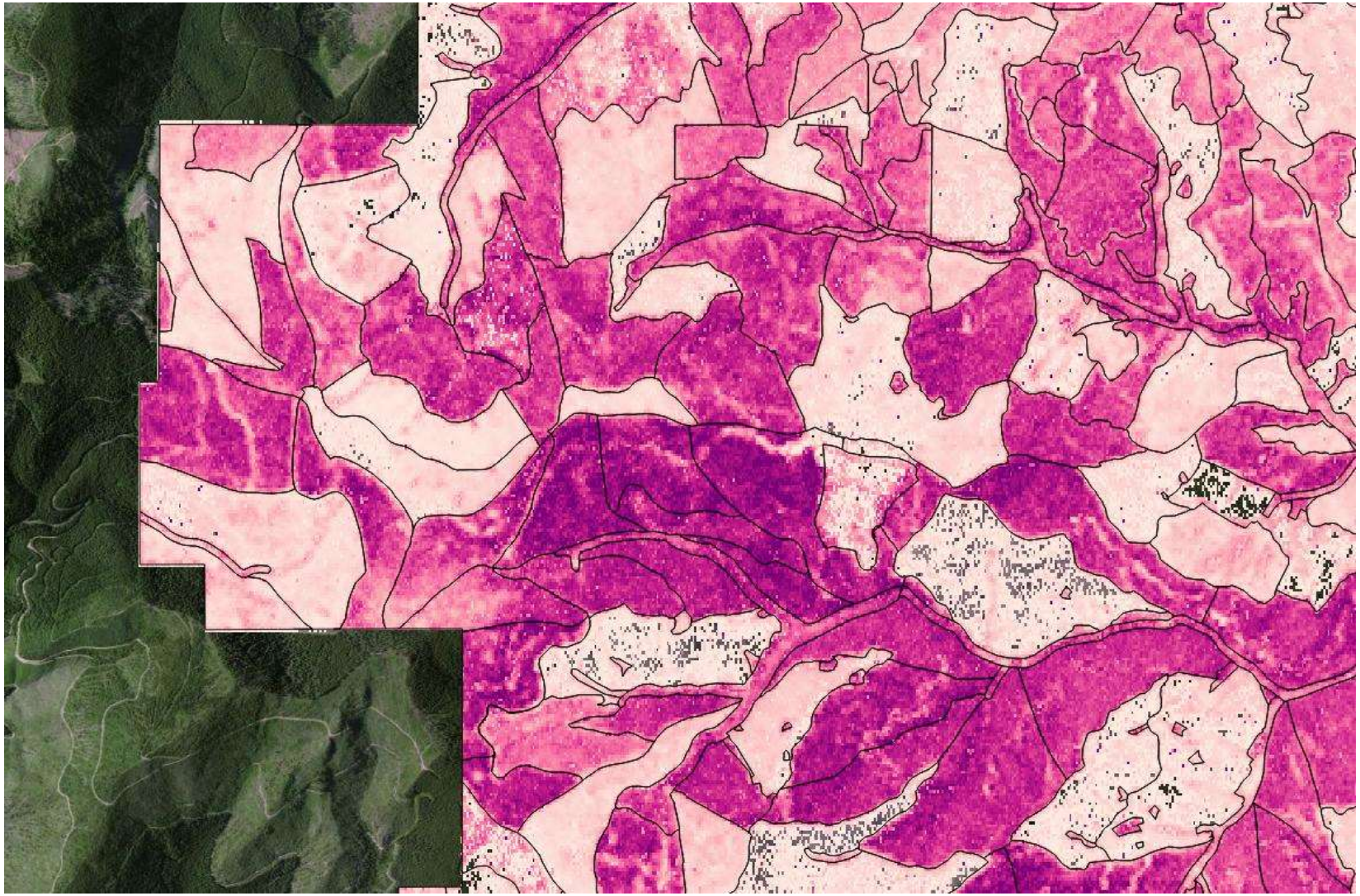
Canopy

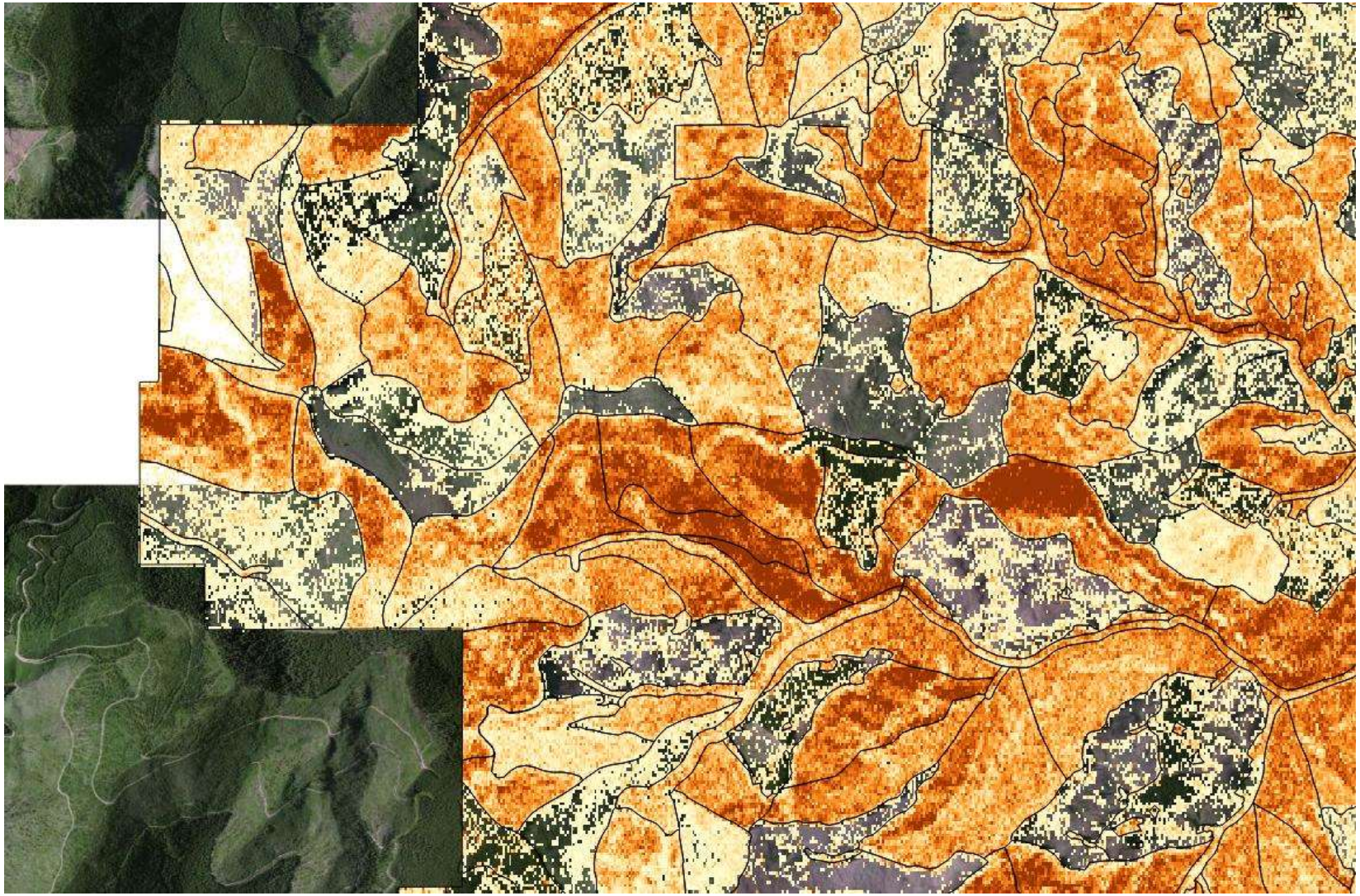
The best way to manage the cruising process for individuals or teams.

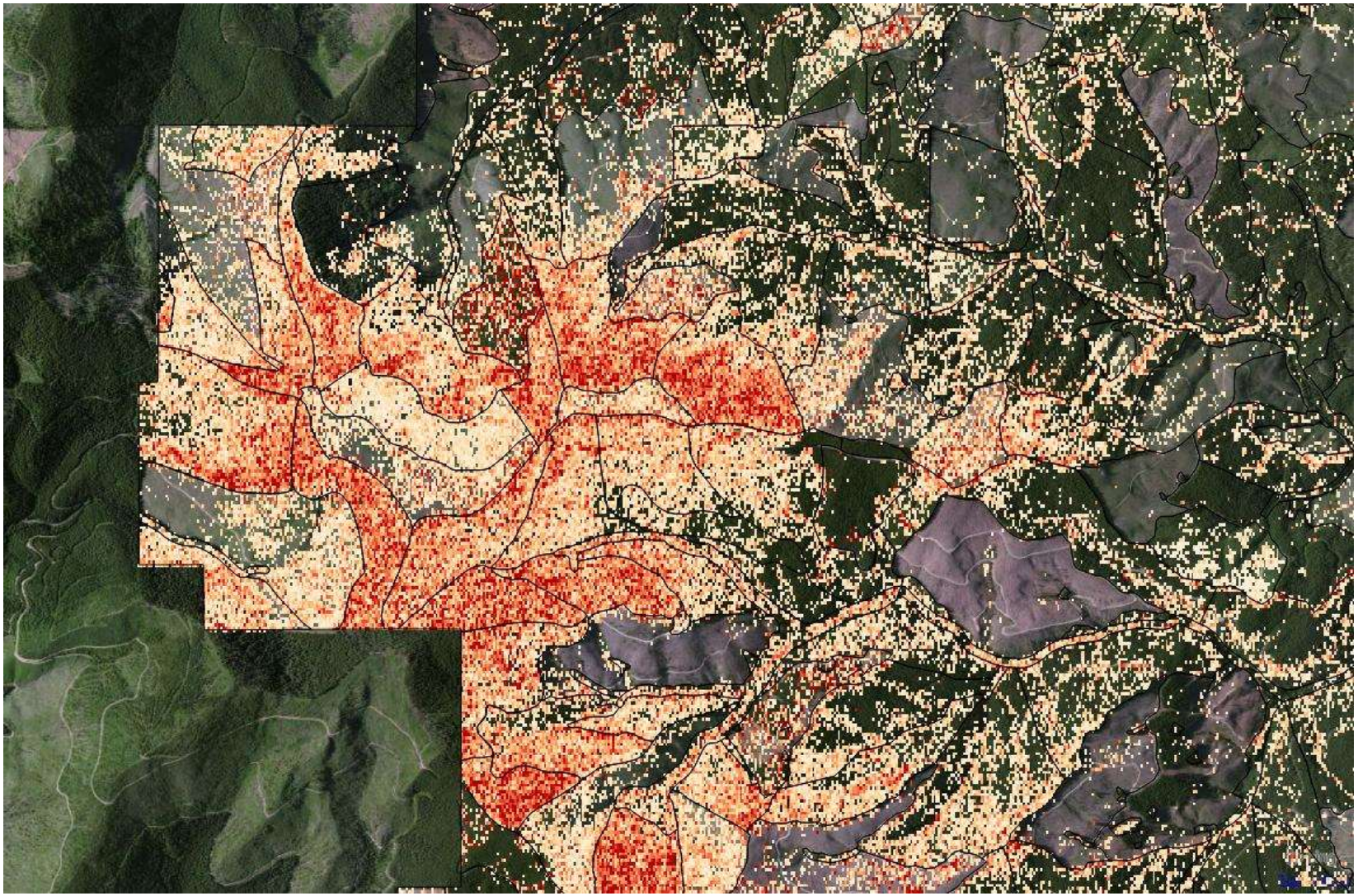
CruiseBoost

Save up to 50% of your cruising cost









Plot Hound

The timber cruising app.
Easy. Fast. Free.

Back

Cruise details

12 plots

Biltmore Estate Tract 001

(Transylvania, NC)

266 acres 12 plots 0% complete

Plot #1

3,231 ft.

Biltmore Estate Tract 001

(Transylvania, NC)

Assigned to **Paul Bunyan** No trees recorded

Plot #2

3,231 ft.

Biltmore Estate Tract 001

(Transylvania, NC)

Assigned to **Paul Bunyan** No trees recorded

Plot #3

3,231 ft.

Biltmore Estate Tract 001

(Transylvania, NC)

Assigned to **Paul Bunyan** No trees recorded

Plot #4

3,231 ft.

Biltmore Estate Tract 001

(Transylvania, NC)

Assigned to **Paul Bunyan** No trees recorded

Plot #5

3,231 ft.

Back

Plot #1

Biltmore Estate Tract 001 cruise name

Add trees

Navigation

Plot #1

Biltmore Estate Tract 001

Limiting Distance Calculator

Sampling method	Plot notes
BAF 10	

	Species	Diameter (DBH)	Total height	Merch. height	Grade	Flag	
1	black oak	11 inches				☐	more
2	black oak	12 inches	44 feet	16 feet	saw	☐	more
3	chestnut oak	7 inches				☑	less
	Age: 20 years	Crown ratio: 30%	Defects: 1 defect	Tree notes:			
4						☐	more

Edit trees

Complete plot

Drop plot

Canopy

The best way to manage the cruising process for individuals or teams.

Demo Stand

created on Aug. 22, 2014
by Paul Bunyan

19 acres

Create Cruise

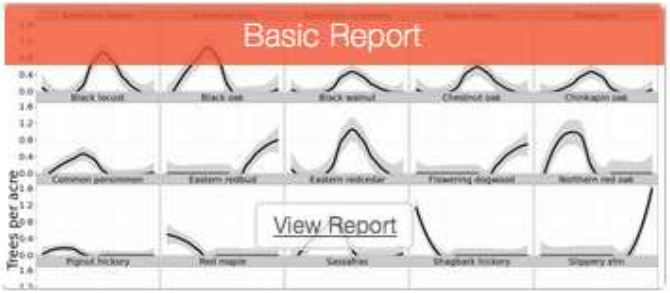
Download stand KML
Download stand SHP
Delete Stand

+ add tag

Cruises

Demo Stand Bullitt, KY	Started	Finished	Cruised by	Acres	Plots	TPA	BA	QMD
	8/22/14	8/22/14	Paul...	19	34	42	28	10.8

Create check cruise Delete Cruise

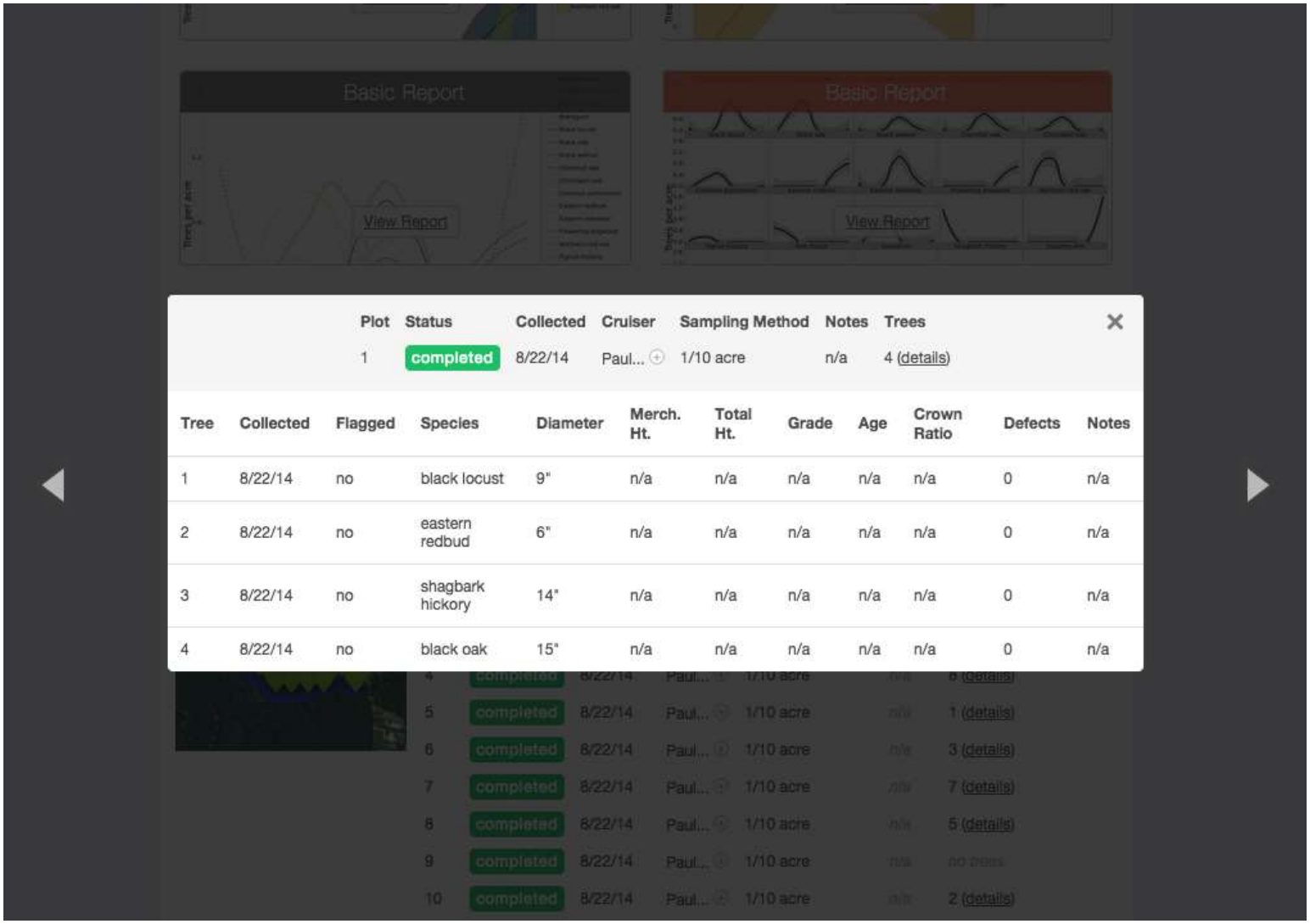


Click to download:

Basic Report Cruise Report

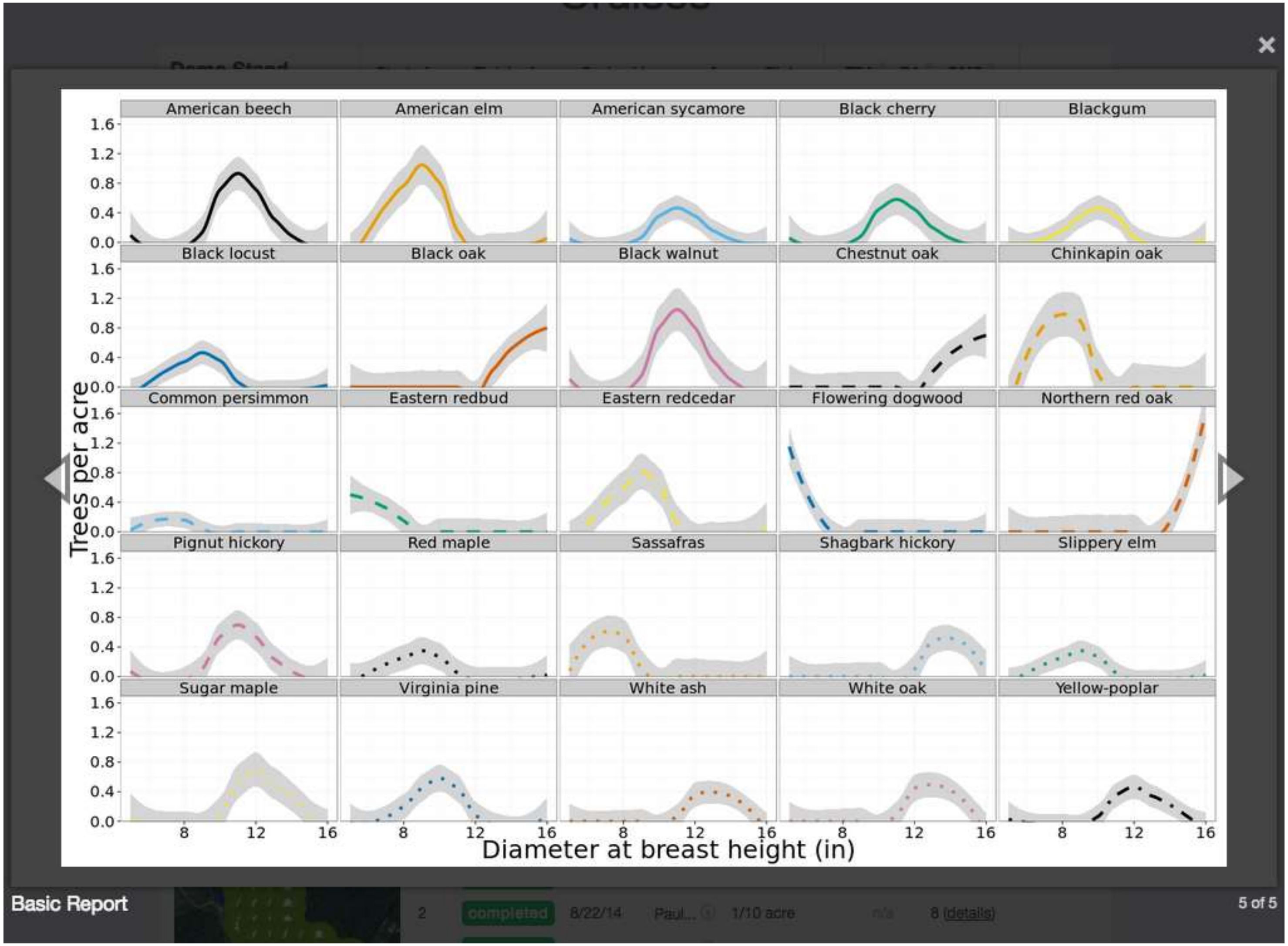
Cruise KML Cruise SHP Cruise GPX

Plot	Status	Collected	Cruiser	Sampling Method	Notes	Trees
1	completed	8/22/14	Paul...	1/10 acre	*n/a*	4 (details)
2	completed	8/22/14	Paul...	1/10 acre	*n/a*	8 (details)
3	completed	8/22/14	Paul...	1/10 acre	*n/a*	8 (details)
4	completed	8/22/14	Paul...	1/10 acre	*n/a*	8 (details)
5	completed	8/22/14	Paul...	1/10 acre	*n/a*	1 (details)
6	completed	8/22/14	Paul...	1/10 acre	*n/a*	3 (details)
7	completed	8/22/14	Paul...	1/10 acre	*n/a*	7 (details)
8	completed	8/22/14	Paul...	1/10 acre	*n/a*	5 (details)
9	completed	8/22/14	Paul...	1/10 acre	*n/a*	*no trees*



Plot	Status	Collected	Cruiser	Sampling Method	Notes	Trees
1	completed	8/22/14	Paul...	1/10 acre	n/a	4 (details)

Tree	Collected	Flagged	Species	Diameter	Merch. Ht.	Total Ht.	Grade	Age	Crown Ratio	Defects	Notes
1	8/22/14	no	black locust	9"	n/a	n/a	n/a	n/a	n/a	0	n/a
2	8/22/14	no	eastern redbud	6"	n/a	n/a	n/a	n/a	n/a	0	n/a
3	8/22/14	no	shagbark hickory	14"	n/a	n/a	n/a	n/a	n/a	0	n/a
4	8/22/14	no	black oak	15"	n/a	n/a	n/a	n/a	n/a	0	n/a



American beech
American elm
American sycamore
Black cherry
Blackgum
Black locust
Black oak
Black walnut
Chestnut oak
Chinkapin oak
Common persimmon
Eastern redbud
Eastern redcedar
Flowering dogwood
Northern red oak
Pignut hickory
Red maple
Sassafras
Shagbark hickory
Slippery elm
Sugar maple
Virginia pine
White ash
White oak
Yellow-poplar
Trees per acre
0.0 0.4 0.8 1.2 1.6
8 12 16
Diameter at breast height (in)
Basic Report
5 of 5

This wasn’t the plan.

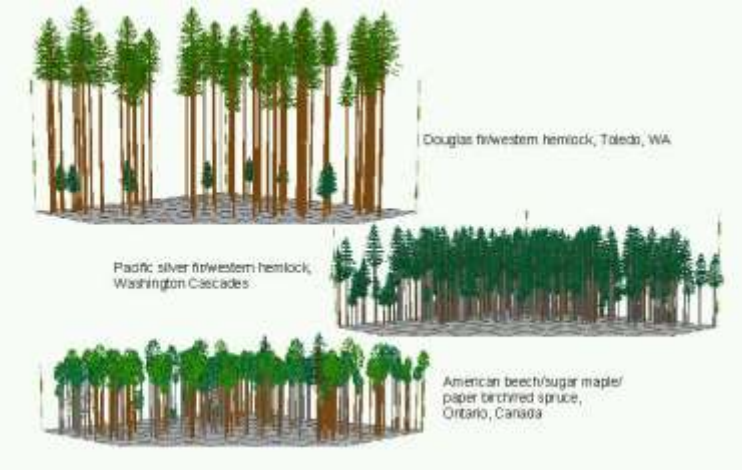
I got into this by trying to solve my own problem(s).

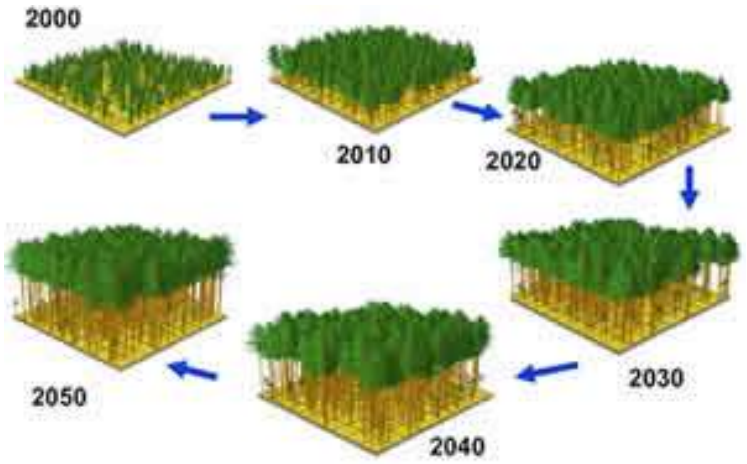
And ended up focusing on building the things I wished existed.

Because these are real problems

rising costs,
landowner changes,
increased competition,
environmental awareness and un-awareness,
market shifts in forest-derived products

A challenge as foresters is to make forest management **legible** to those who “own” the forest.





minimize the time to understand a forest - maximize your ability to communicate that information

Two questions to ask of technology

1. Does it work? Is it cost-effective?

1. What factors have changed within the total chain? (and what does that mean for how we practice)

Does it work? Is it cost-effective?

1)Does it save me time?
(where time=money)

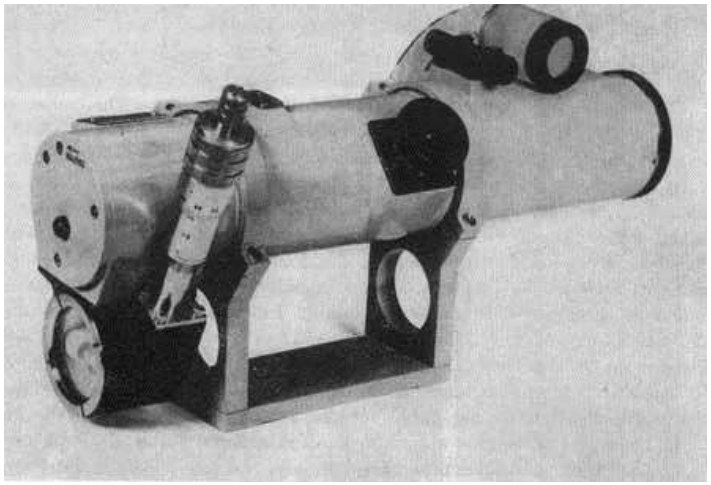
1)Does it increase the
quality of my product?

Does it work?

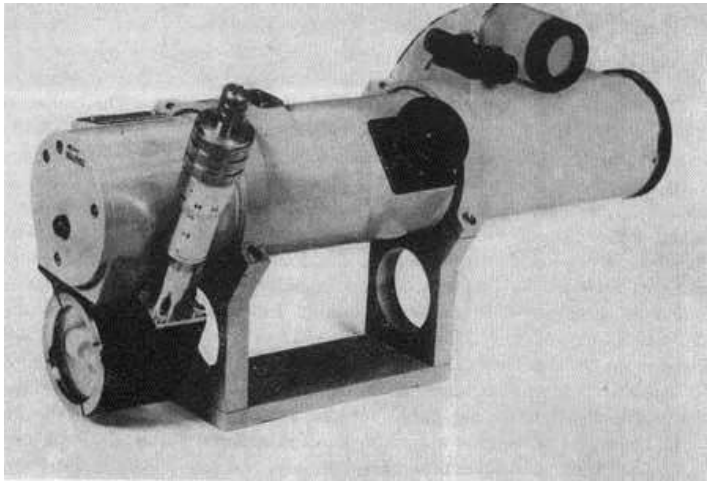
Real cost

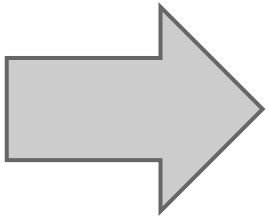
what do you pay?
what skills do you have to learn?
what frustrations do you have to endure?
vs. your next best alternative
avoiding thinking about sunk costs..

A tale of two technologies



but given a bit of time…





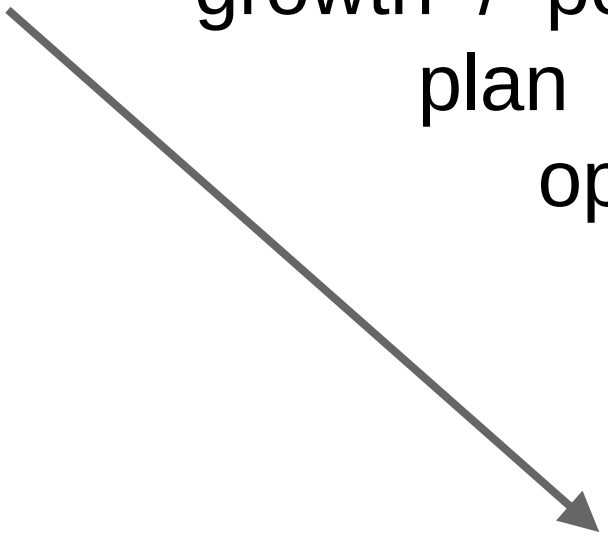
What factors have changed within the total chain?

inventory / state

growth / potential

plan / decision

operate / result



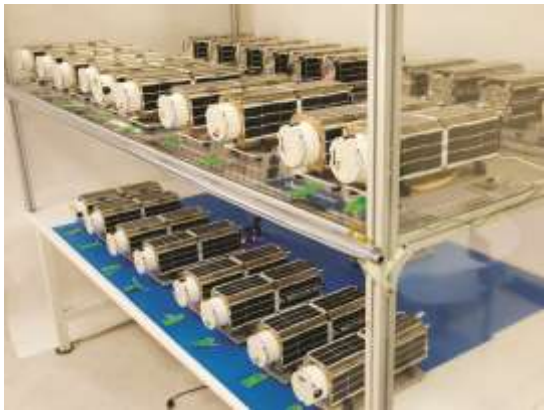
Factors have not changed, the context has.

The real trends

measurements cost less

computation is cheaper and better

communication is getting … better?



The real trends

measurements cost less

computation is cheaper and better

communication is getting … better?

No picture necessary

The real trends

measurements cost less
computation is cheaper and better
communication is getting … better?

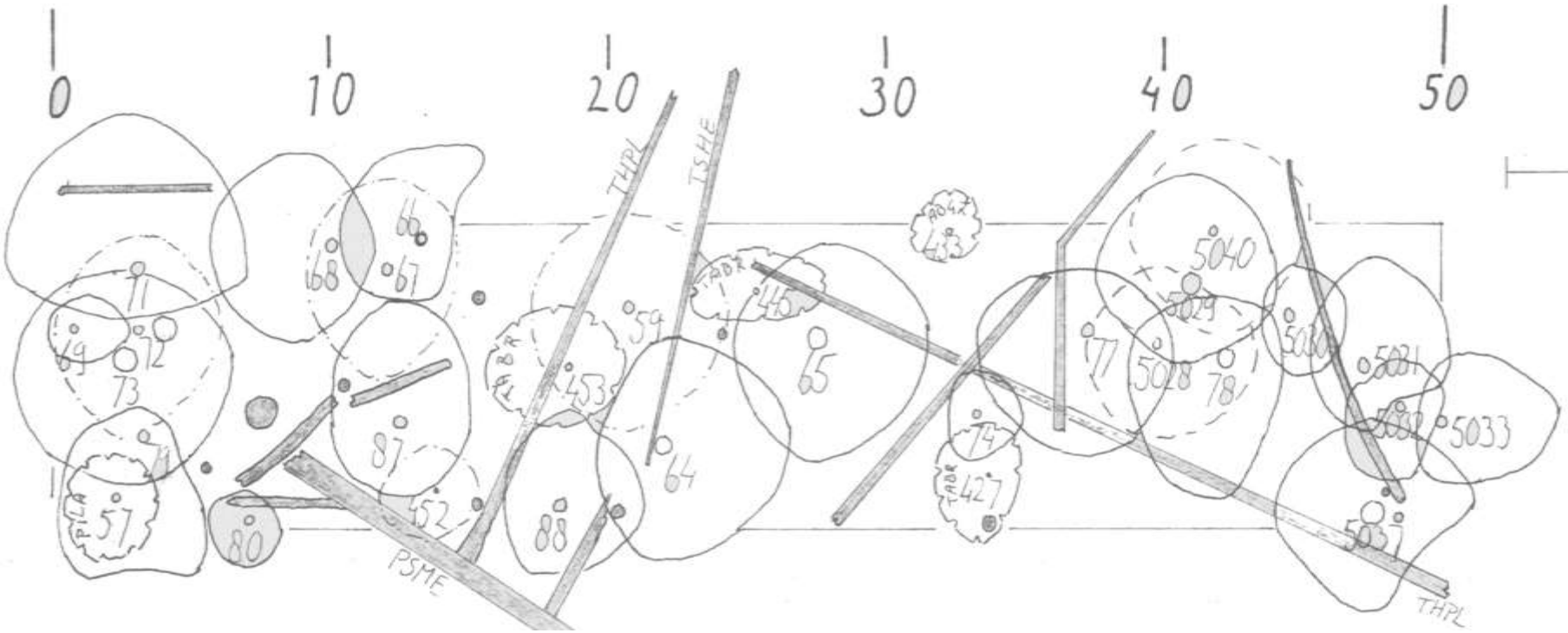
because having data and making insights from data are different things.

For us, in practice this means

1) Simplify cruising = Plot Hound
2) Extend the use of plot data = CuiseBoost
3) Fluid communication tools = information available anywhere.

And listening.

Questions?



If you think of any later, feel free to email me:
zack@silviaterra.com