

Integrated Solutions in Forest Inventory

F4 Tech

Michigan SAF

April 9, 2015



Overview

- About F4 Tech
- Innovations in forest inventory tools today
- Private company case study
- Public agency case study
- Real-time reporting and analytics
- Summary and conclusions
- Questions



About F4 Tech

- Began in 1998
- We are Foresters Leading Innovation
- Producing products and services focused on improving forest inventory technology
- Own four patents for forest technology applications
- We work to help make forestry more viable



Our Clients

- Consulting Foresters
- Procurement Foresters
- Government Agencies/Universities
 - Forestry
 - Wildlife
 - Environmental
- Industrial Timber Companies
- TIMOS and REITS
- Land Managers
- Environmental Consultants
- Wildlife and Fisheries



Innovations in forest inventory tools today

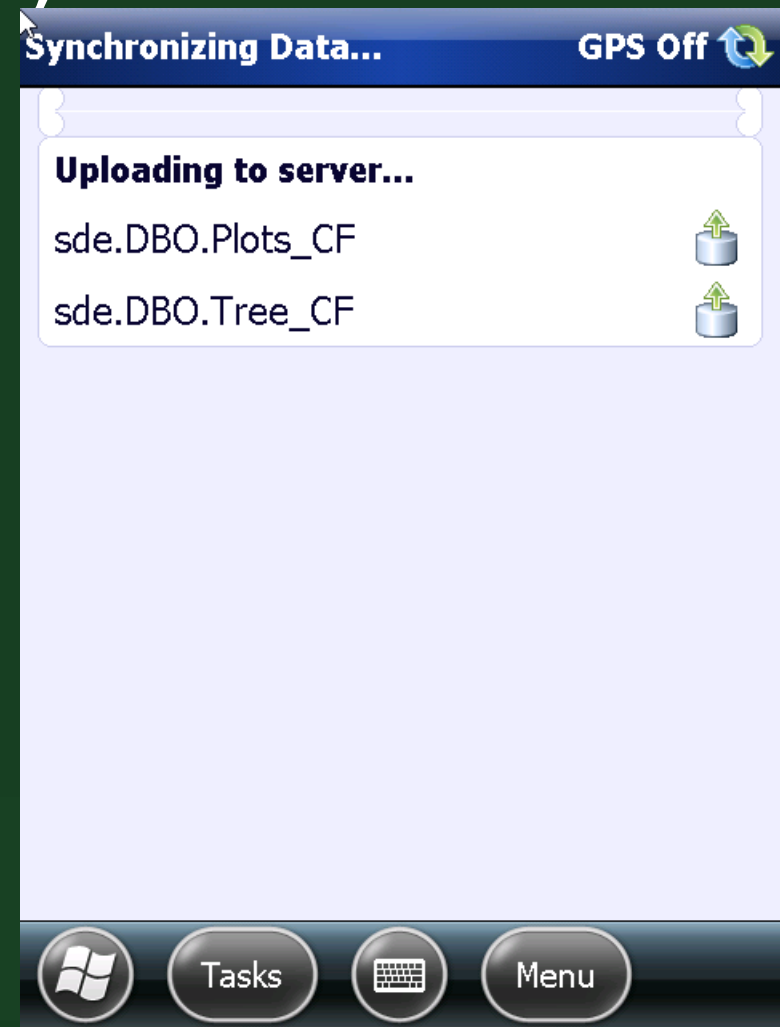
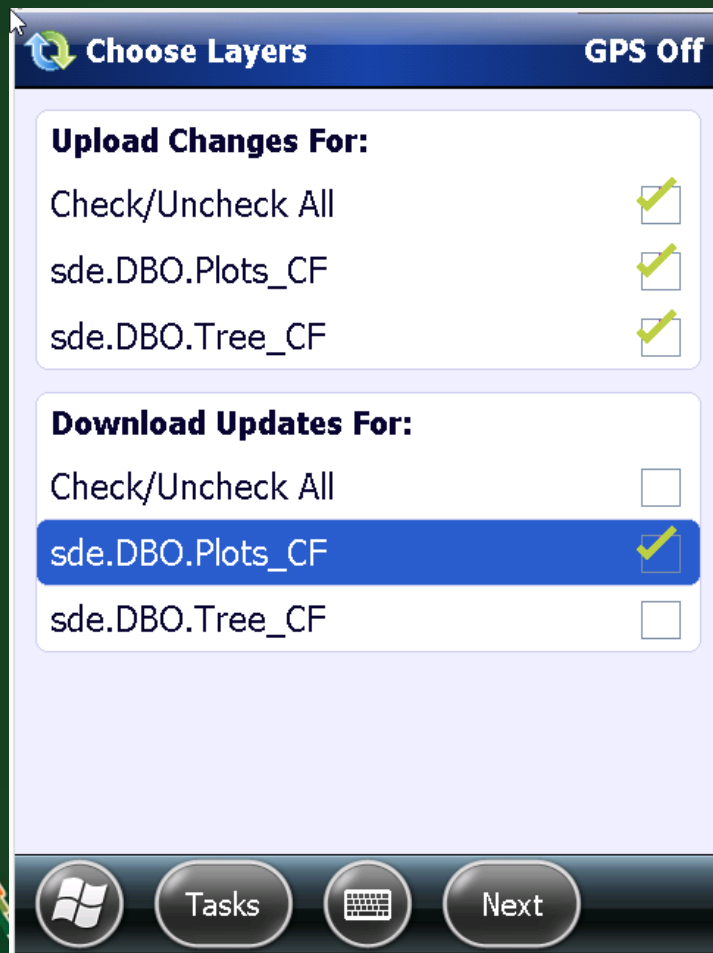
- Cloud
 - Trend is away from the desktop
 - Cheaper and better to lease rather than own applications
- Handhelds
 - More options with several platforms
 - Can now sync data directly to/from the Cloud



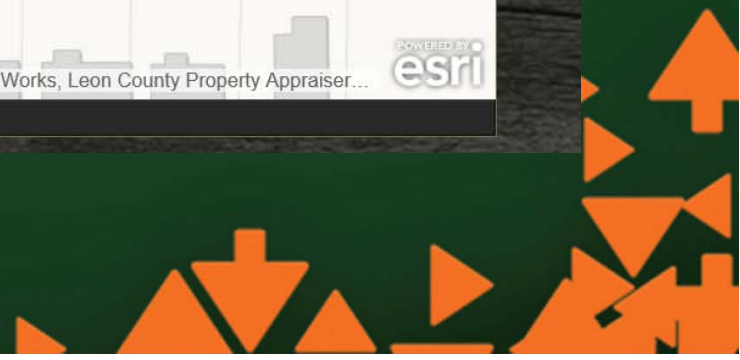
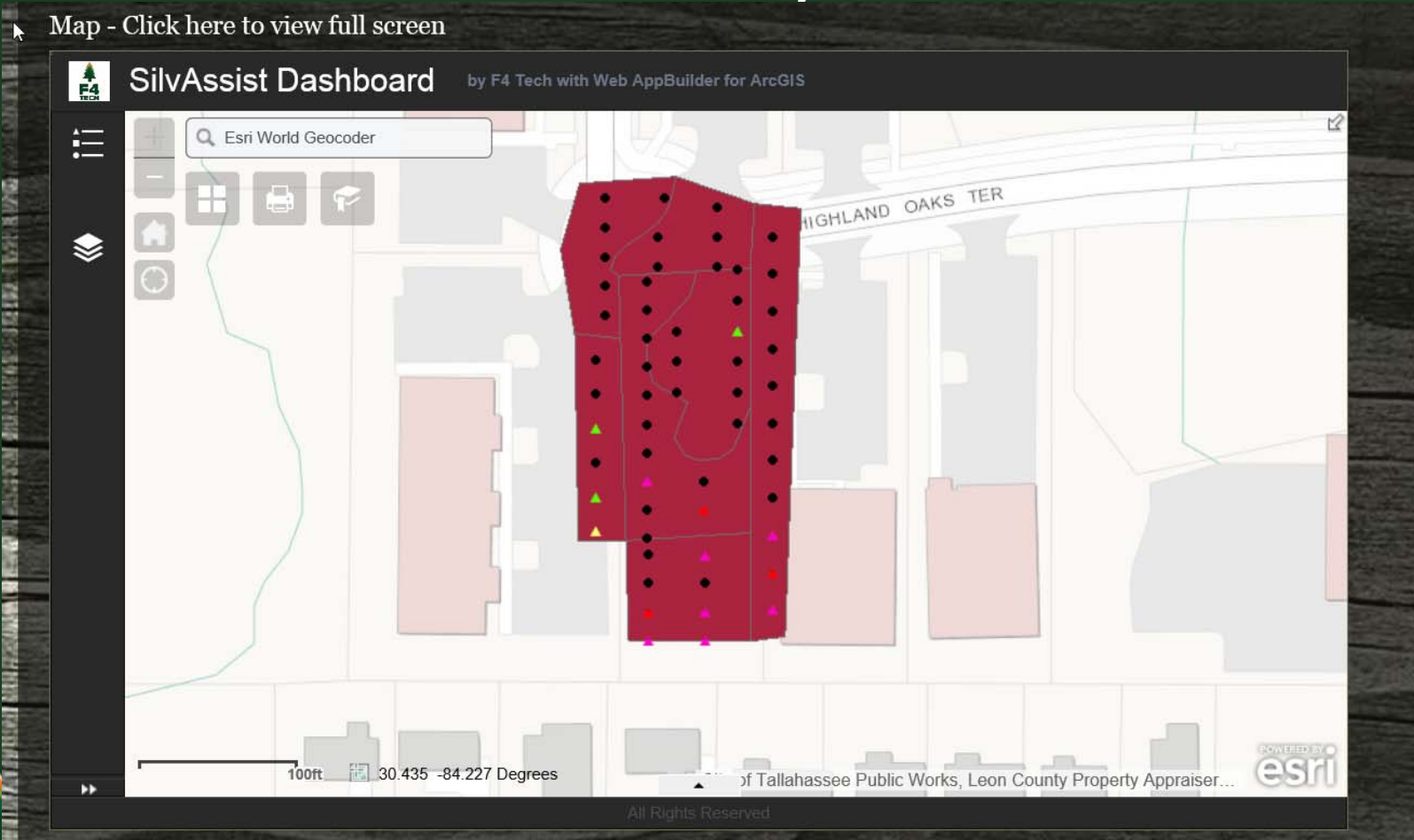
Innovations in forest inventory tools today



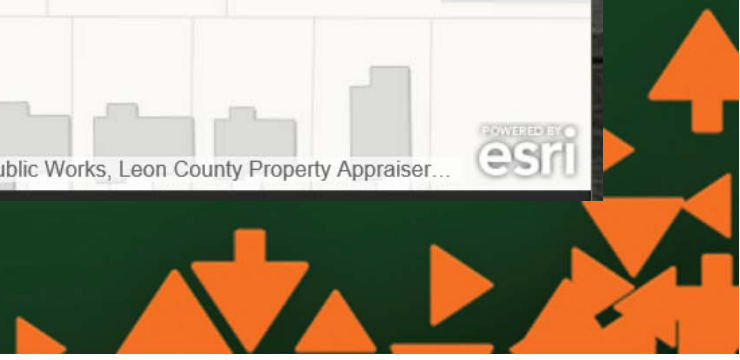
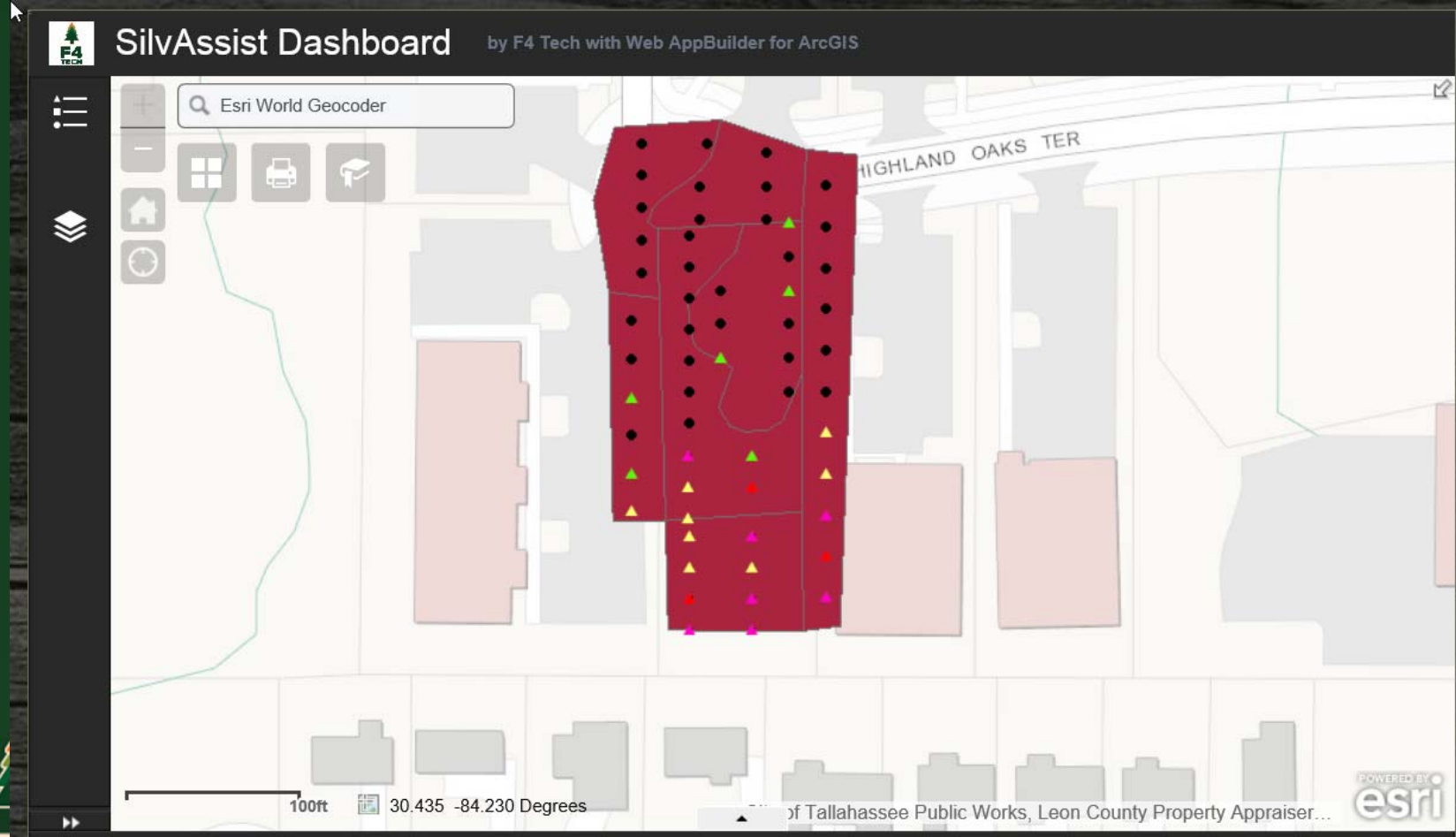
Innovations in forest inventory tools today



Innovations in forest inventory tools today



Innovations in forest inventory tools today



Private company case study

St. Joe

- Up to 2013, owned about 600,000 acres
- Now owns 180,000 acres
- Looking for HBU opportunities ^{MM1} on remaining lands
- Management goals include:
 - Maximize ROI (or NPV)
 - Minimize costs
 - Streamline processes



Private company case study

St. Joe

- Have resulted in a conservative savings of **AT LEAST HALF** of the admin overhead costs per plot
- Greater transparency of the process
- More real-time data and analyses at client's disposal
- Errors are now caught sooner, with most being in the field



Public agency case study

North Carolina Wildlife Resources Commission



NCWRC Phase 2 - Inventory 2015

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Home



Project Status

Open in Excel | Data | Find | Comments | ...

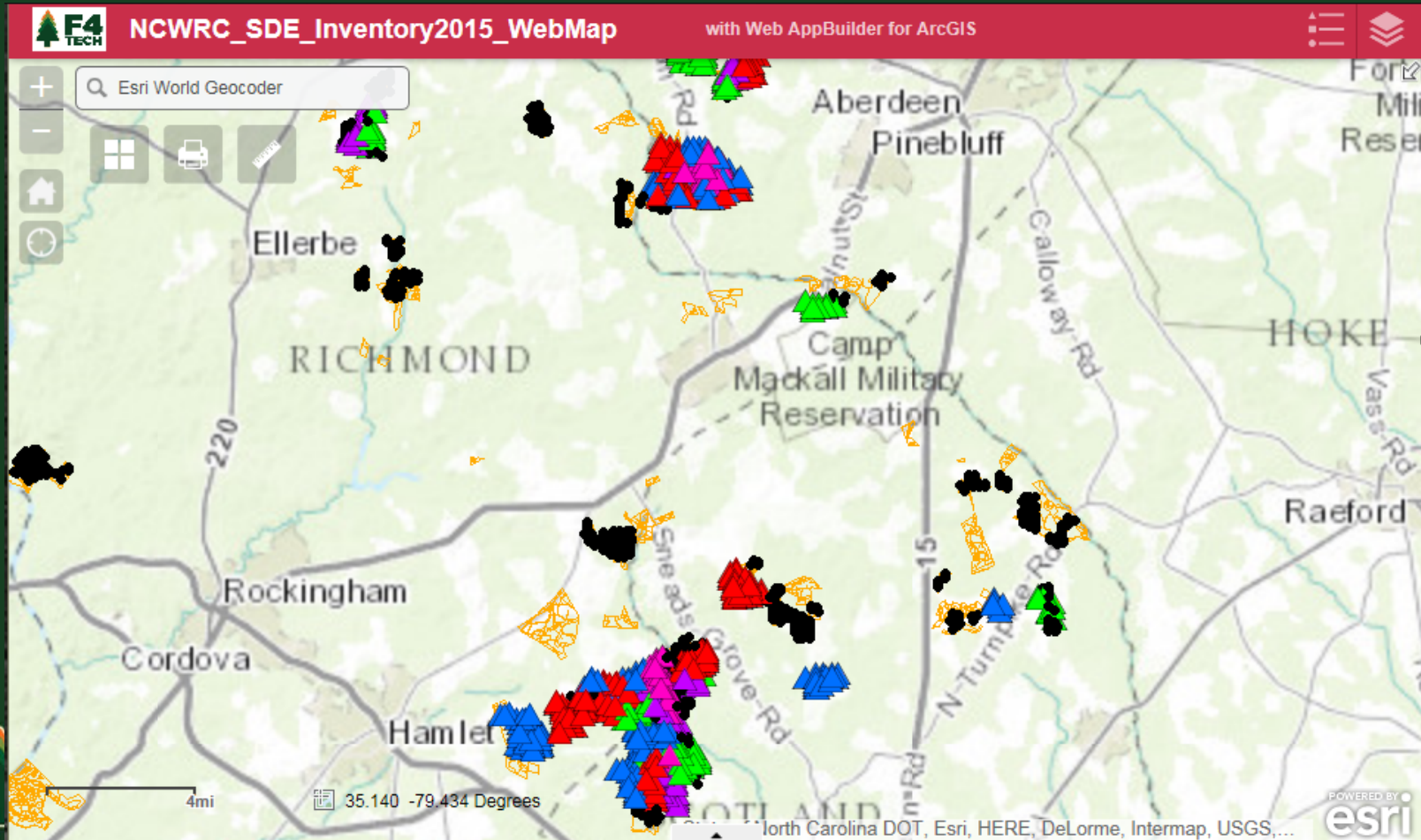
Total Plots	Visited Plots	Remaining Plots	% Complete	Audited Plots	% Audited
1,335	860	475	64.4 %	31	3.6 %

Navigation: < | << | >> | > | Status | HELP IMPROVE OFFICE



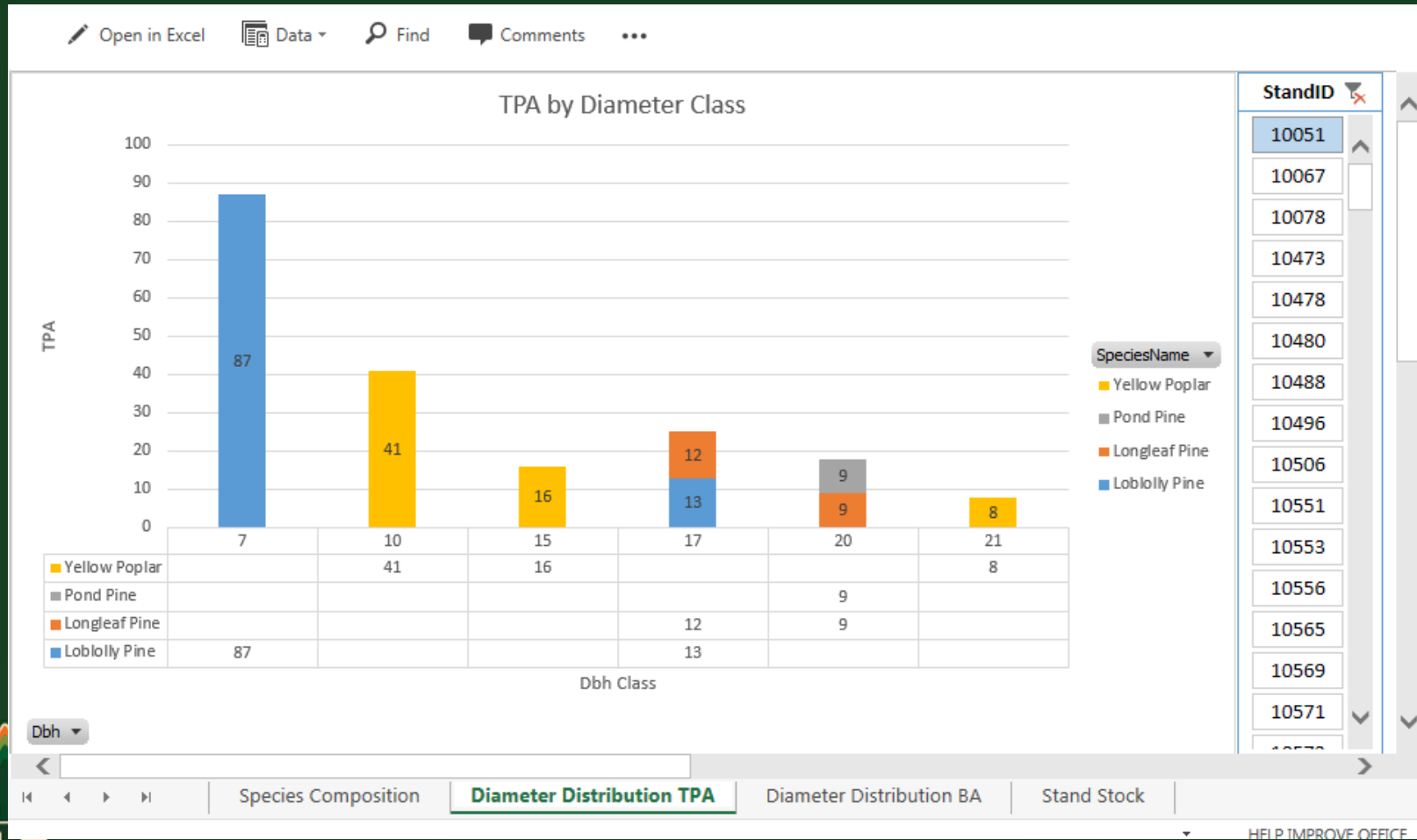
Public agency case study

North Carolina Wildlife Resources Commission



Public agency case study

North Carolina Wildlife Resources Commission



Public agency case study

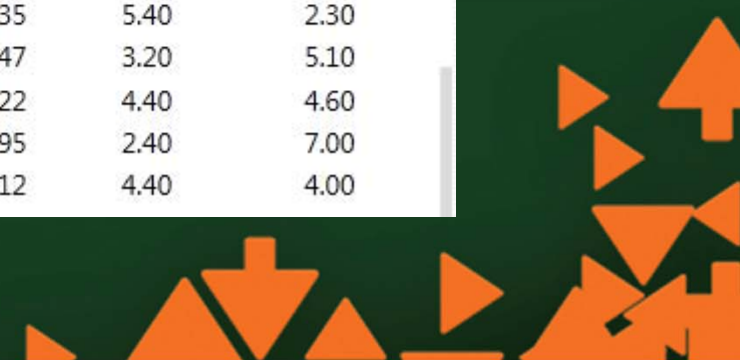
North Carolina Wildlife Resources Commission

Cruiser Summary

Row Labels	Number Plots	Number Days	Avg Hours/Day	Avg Plots/Hour	Avg Trees/Plot
IRG	107	7	5.7	2.6	6.1
JAS	86	3	5.8	4.0	4.6
JRK					
MPD					
WTL					
Grand Total					

Daily Cruiser Production

Date_	Cruiser	NumPlots	StartTime	StopTime	TimeInField	PlotsHour	AveTreesPlot
4/2/2015	JAS	48	8:21 AM	4:47 PM	8.93	5.40	3.80
4/2/2015	JRK	44	8:10 AM	4:40 PM	9.00	4.90	3.30
4/2/2015	MPD	49	9:47 AM	5:35 PM	8.30	5.90	4.40
4/2/2015	WTL	42	8:20 AM	3:22 PM	7.53	5.60	2.50
4/3/2015	IRG	28	8:58 AM	4:17 PM	7.82	3.60	6.20
4/3/2015	JRK	45	8:04 AM	3:55 PM	8.35	5.40	2.30
4/3/2015	MPD	8	9:55 AM	11:53 AM	2.47	3.20	5.10
4/3/2015	WTL	36	9:12 AM	4:55 PM	8.22	4.40	4.60
4/4/2015	IRG	7	12:53 PM	3:20 PM	2.95	2.40	7.00
4/4/2015	JRK	31	8:02 AM	2:39 PM	7.12	4.40	4.00

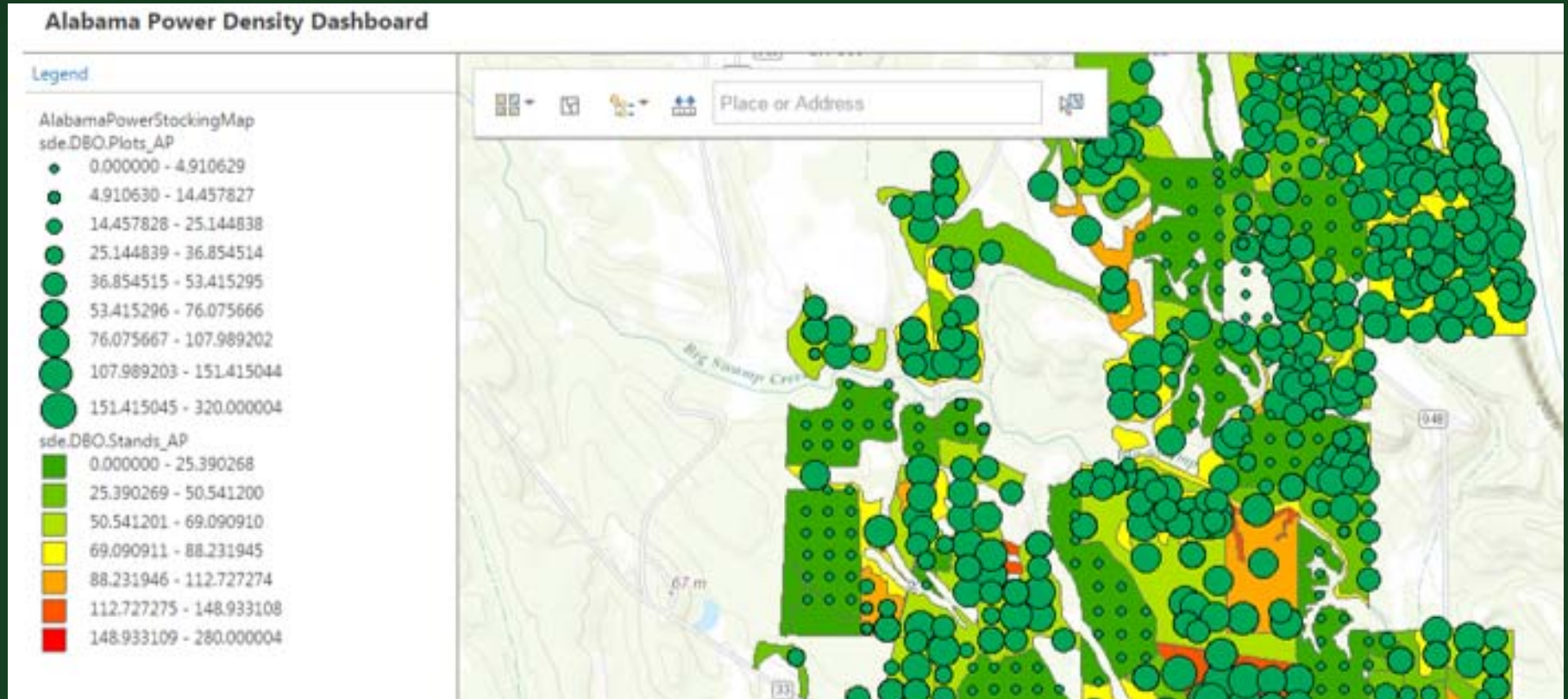


Real-time reporting and analytics

Data ▾ Find Comments ...

Acres	SpeciesName	ProductName	Per Acre			Stand Total	
			Trees/Acre	BA/Acre	Tons/Acre	Trees Total	Tons Total
21.26236549	Slash Pine	Sawtimber	7.3	10.0	9.4	154.2	200.4
21.26236549	Slash Pine	Topwood	0.0	0.0	0.5	0.0	10.5
21.26236549	Slash Pine Total		7.3	10.0	9.9	154.2	210.9
21.26236549	Soft Hardwood	Cull	184.2	60.0	0.0	3,915.9	0.0
21.26236549	Soft Hardwood Total		184.2	60.0	0.0	3,915.9	0.0
			191.4	70.0	9.9	4,070.1	210.9
11.64380051	Slash Pine	CNS	170.1	90.0	64.7	1,980.2	752.8
11.64380051	Slash Pine	Pulpwood	53.3	20.0	20.7	620.4	240.7
11.64380051	Slash Pine	Sawtimber	10.4	10.0	8.9	120.7	104.1
11.64380051	Slash Pine	Topwood	0.0	0.0	7.0	0.0	81.9
11.64380051	Slash Pine Total		233.7	120.0	101.3	2,721.2	1,179.6
			233.7	120.0	101.3	2,721.2	1,179.6
6.55497261	Slash Pine	Sawtimber	33.0	30.0	28.2	216.1	185.1
6.55497261	Slash Pine	Topwood	0.0	0.0	3.3	0.0	21.5
6.55497261	Slash Pine Total		33.0	30.0	31.5	216.1	206.6
6.55497261	Soft Hardwood	Cull	175.2	80.0	0.0	1,148.5	0.0
6.55497261	Soft Hardwood Total		175.2	80.0	0.0	1,148.5	0.0
			208.2	110.0	31.5	1,364.5	206.6

Real-time reporting and analytics



Summary and conclusions

- Add location to your inventory
- Increases the lifespan on the investment
- Leverages your GIS for greater analyses
- Reduces the likelihood of error due to incorrect data
- Near real-time data collection to executive decision making
- Move beyond reports with full array of analytics tools



Thank you for your time!

Questions?





F4 TECH

foresters leading innovation

