It's Your Data. Optimize it!

Part 2 of 2

The Power of Seamless Integrations & Open Data Standards

PVA 2019 Summer Conference

Owensboro, KY

Open Data Standards and leading technology can easily position any PVA office to implement a range of applications independent of proprietary data formats and in the process, save substantial amounts of time and money.

Multiple technology providers **working together, with the PVA's best interests in mind, can deliver the best overall solution for any office**. However, when technology providers take your data from CAMA, GIS, sketch, etc. and "lock it up" without an easy way to integrate with other solutions providers, your office will undoubtedly experience increased costs and stress associated with future project demands.

This session demonstrates the power of "open data standards" (across multiple vendors) while highlighting pitfalls of "proprietary data formats" that lock-up your once readable data.

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Agenda

- **Geo-referenced Sketch Validation** (change detection)
  - Find data issues that imagery comparisons cannot detect.
  - Do more in-house, for less.

- **DeskTop Review** (remote verification)
  - 100% configurable Workflow for **any** office, project, or challenge.
  - Pre-canvas areas prior to site visits and optimize resource allocation.

- **Data Visualization, Comp Props & Equity Reports + MRA**
  - Impact Analysis, Outlier Detection, Uniformity Reports (sold & unsold)
  - Class/Grade Calculator
  - qPublic, Web Services, Automated GIS views, etc.

- **Live Demonstrations**
  - Oohh… Aahh…!

- **Questions?**

Integrated Tools

… all working with your own CAMA/property data and other applications you've already invested in or plan to purchase!

It's your data. Don't let anyone hold it hostage.

Sketch Validation: Parcel View

Rotate, scale, and anchor sketch over aerial images.

Check for issues in sketched *AND* unsketched CAMA data.

Sketch could have been incorrect for years, and comparing 1 aerial to the next would not find an issue.

Sketch Validation: Neighborhood Overview

Configurable flag colors for reasons like:
Field Visit
Data Entry
Further Review
Completed
...

Sketch Validation: Reports

Field Visit reports for MobileAssessor Priority Lists.

More Reports:
Productivity
Flagged Parcels
Completed
Neighborhood
User History
… …

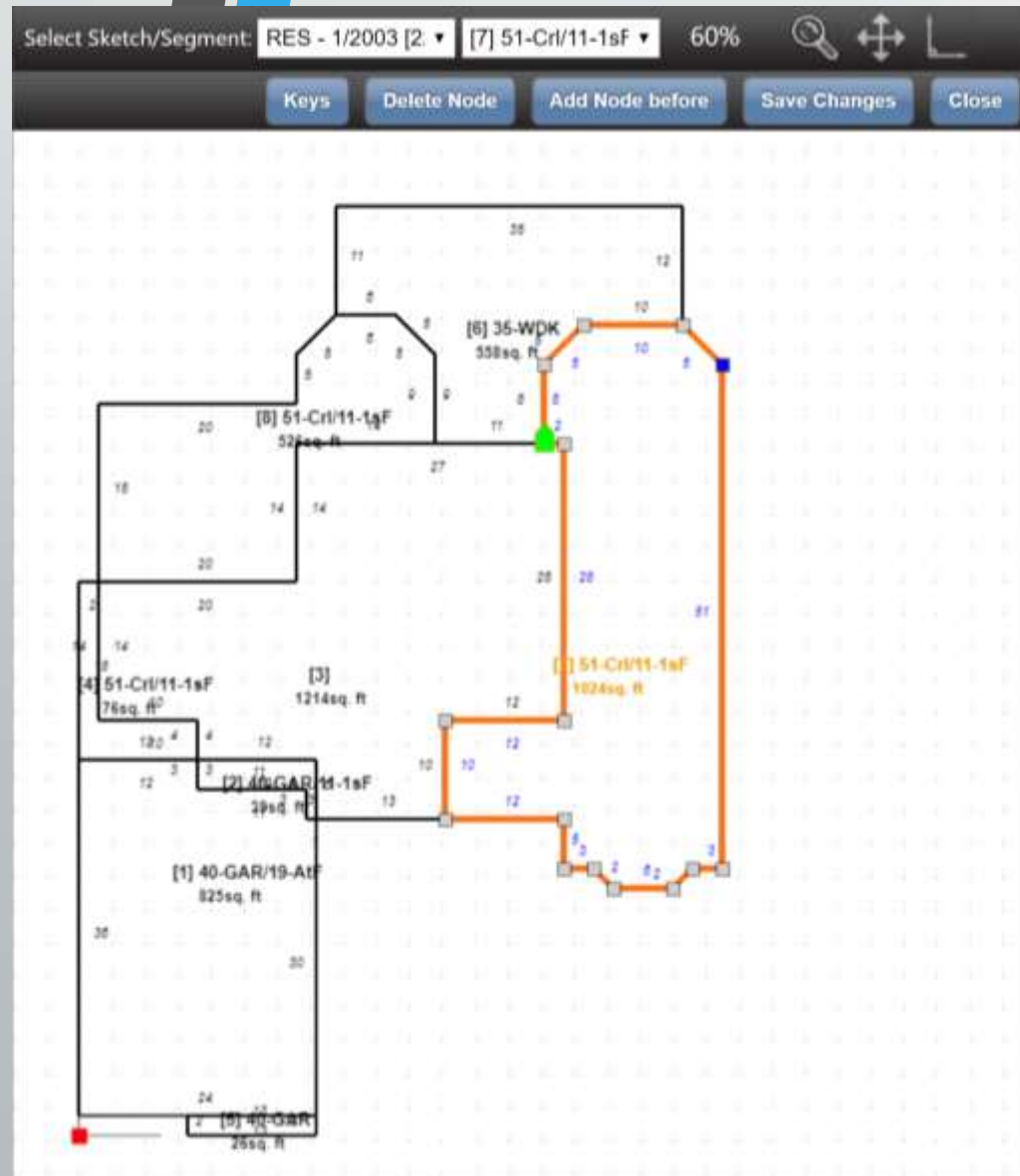# DeskTop Review: Seamless Remote Verification

Seamlessly integrated with CAMA, Mobile, QC, and 3rd parties like:
Pictometry
NearMap
Sanborn
CycloMedia

With 100% configurable Workflow to meet you needs!

Review all desired data across multiple monitors and windows.

DeskTop Review: Seamless Remote Verification

Seamlessly integrated with CAMA, Mobile, QC, and 3rd parties like:

Pictometry
NearMap
Sanborn
CycloMedia

Easily compare sketches to aerial and street-level images.

Find major issues BEFORE going to the field.

Don't upset your cadence!

DeskTop Review: Eagleview (Pictometry)

Seamlessly integrated with CAMA, Mobile, QC, and 3rd parties like:
Pictometry
NearMap
Sanborn
CycloMedia

Your subject parcel is automatically loaded within your imagery services and the various CAMA Cloud modules; along with the sketch and other property data.
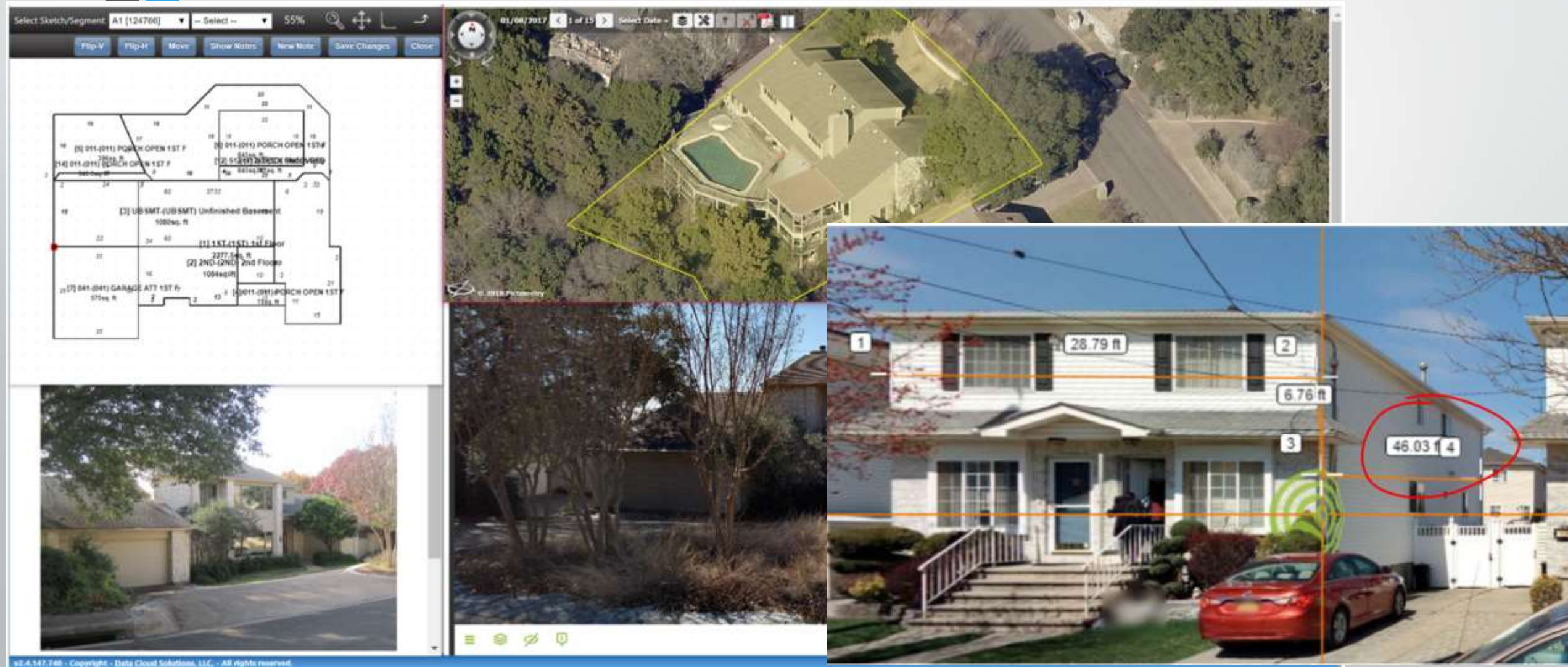
DeskTop Review: CycloMedia + Flood Analysis

Visualize 1 foot of flooding vs …

4-5 feet of flooding, or anything in between or more.

DeskTop Review: Pictometry & CycloMedia + LiDAR

Measure heights & the sides of buildings (even if access would have been blocked!)

DeskTop Review: Remote Change Detection Made Easy

Outsource less. Do more in-house: quicker, more accurately, and more economically. Open data standards won't force you into paying additional professional services fees to your software vendor... if you don't want to!

Seamless Integrations: MobileAssessor + 3rd Party Tools

You've made the investment into other leading tools, open data standards should allow for you to link them together via vendors best in their class (or otherwise your choosing) in order to receive Unmatched Experience, Stability, and Proven Workflow configurations to resolve your unique challenges.
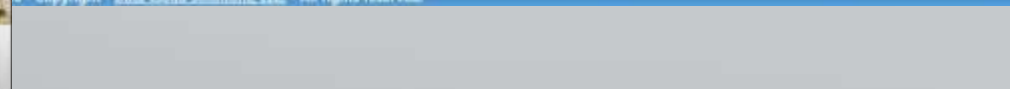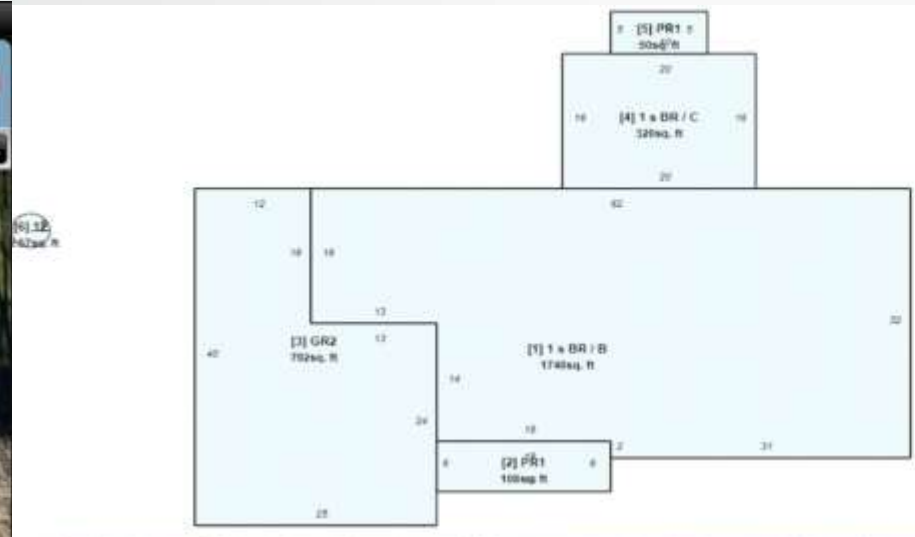
DeskTop Review: Countless Workflow Options...
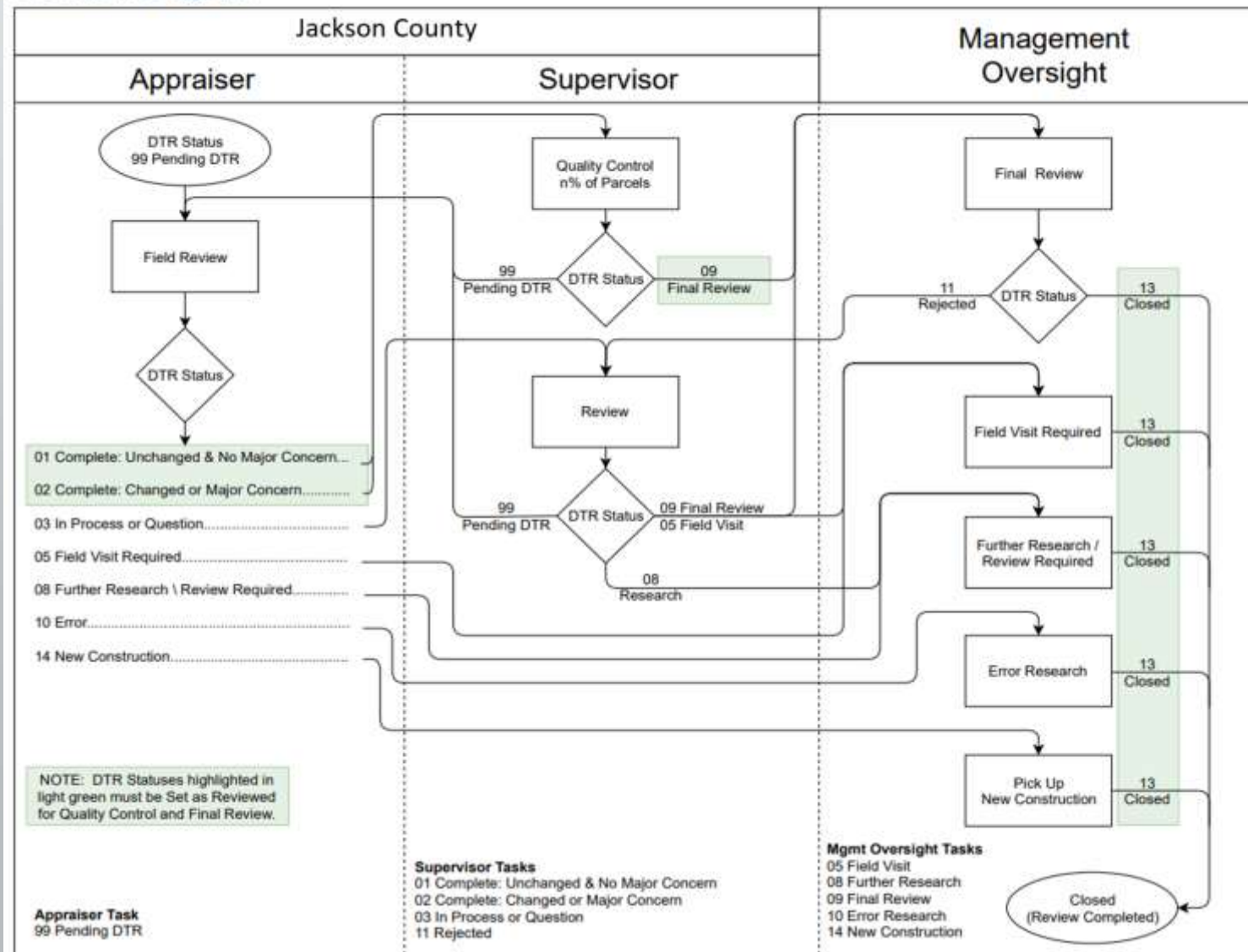
Complete Remote Verification work via DTR entirely in-house, or...

In this example Appraisers' work automatically goes back into CAMA, gets assigned to MobileAssessor, transfers to a Supervisor or other Oversight/Review Appraisers... as needed and as dictated by you. *Not as forced by locked-up data / closed-software services.*

DeskTop Review: Countless Workflow Options…

or … field appraisers remotely canvas/review their areas of assignment prior to field visits. This boosts productivity by not "upsetting your cadence!" Fix certain issues from the office first and don't be distracted while onsite.
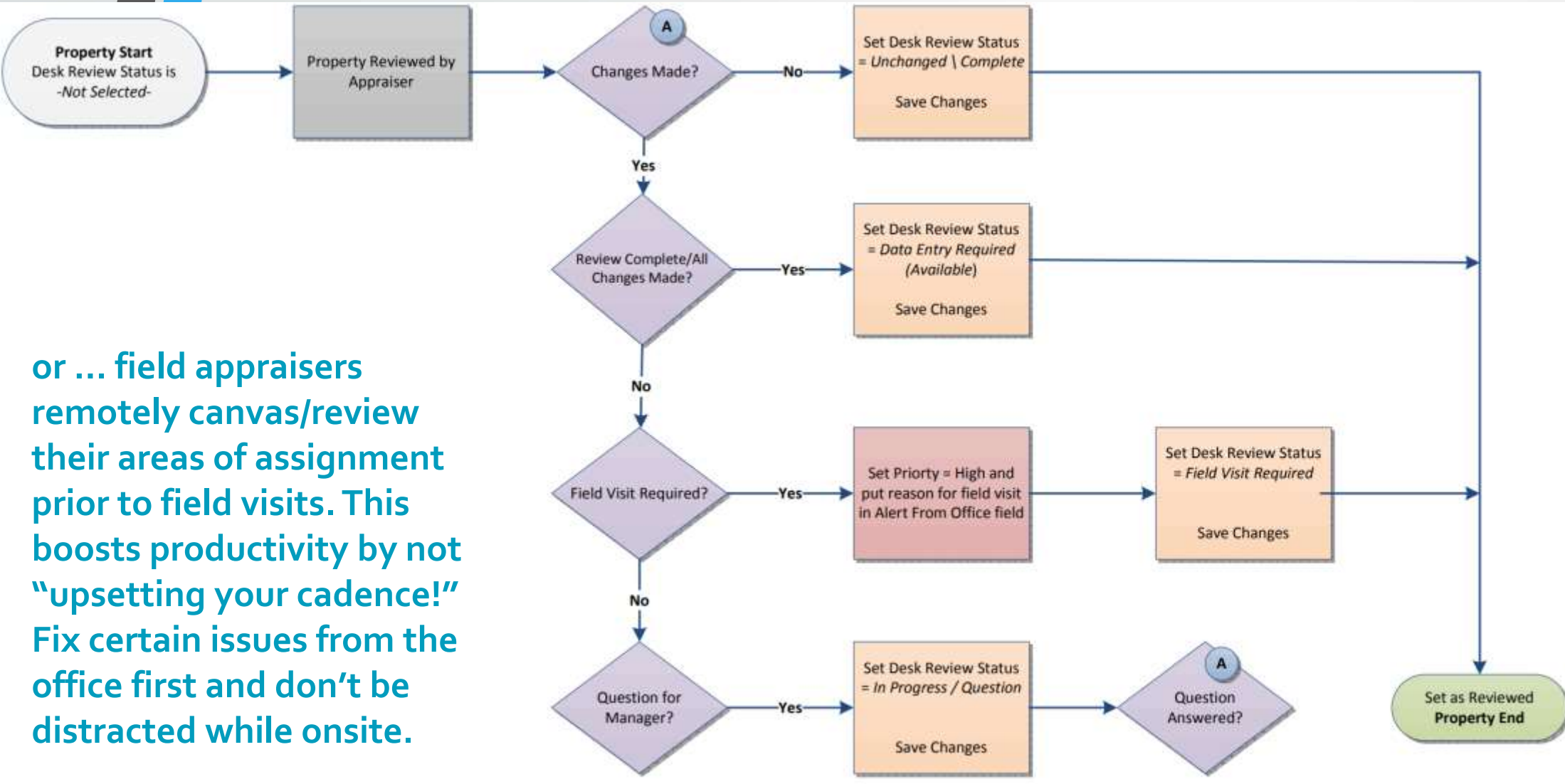
DeskTop Review: Countless Workflow Options...
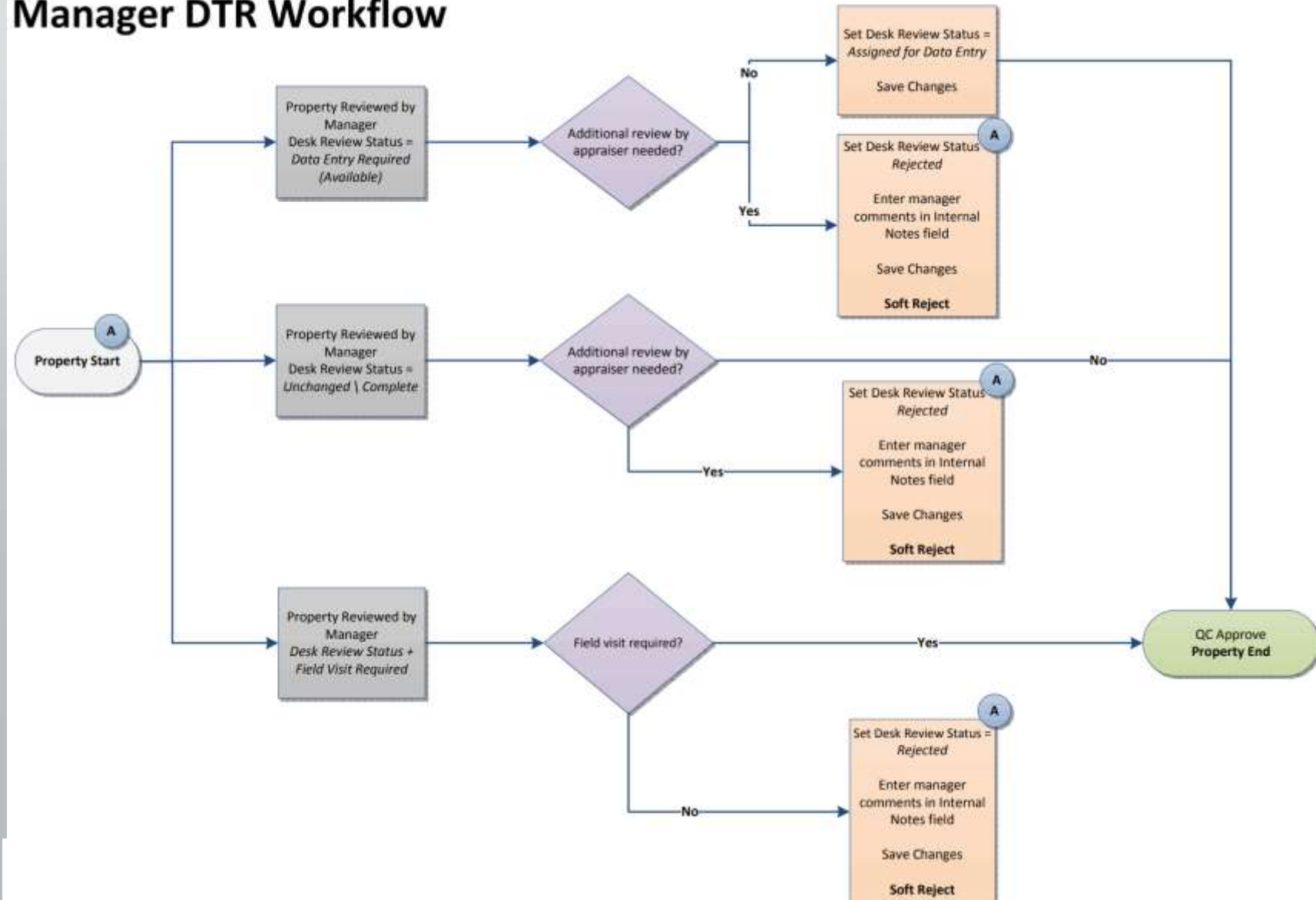
or ... have tiered Quality Control assignments. Supervisors can focus on "problem areas" or major items first, while less severe issues are assigned to different users or queues.

MRA: Appraiser-Assisted, Not Machine Driven!

Data Cloud SOLUTIONS, LLC
...achieving the impossible

Appraiser-Assisted MRA
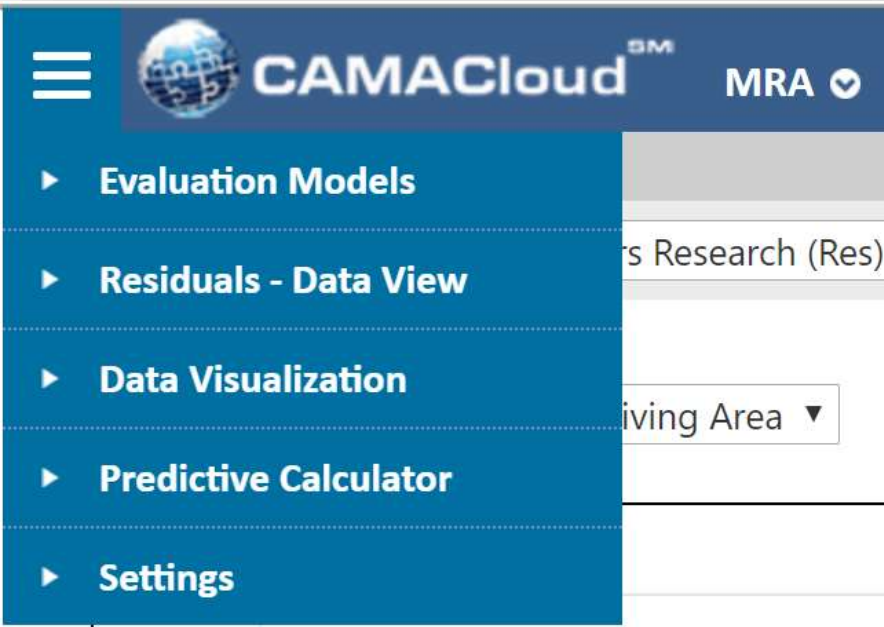Find & Correct Equitability Issues

The MRA Module is designed to easily allow appraisal-analysts to conduct empirically based trial-and-error tests on data that's known to be pertinent to local market areas – in a logical, explainable, and controlled fashion (i.e., not allowing an automated statistical package or step-wise program to introduce variables just for the sake of arriving at the highest r², regardless of explainability).

Understanding how a value was derived by a statistician's formula may not make sense, like what MRA Guy is feeling. While his overall temperature is 98.6°, his right foot will cook and his left foot will freeze. Regardless of the final value reached, the formula and method used to reach that number should be logical and explainable to anyone – especially the property owner. Reduce complaints up front.

Put the appraiser in charge! Let them determine which data variables to introduce (and sensible adjustments) so that the model and calculations can be explained to, and understood by property owners. **In the end, this approach is what typically holds true during an Appeal or Protest.**

With open data standards, and on-demand access by other industry experts and vendors, PVAs and their deputies can decide which data components they want to be analyzed, how they want them analyzed via logical constraints and filters, etc... so that any produced "valuation model" is explainable – without a machine chasing the highest r-squared while ignoring common sense; or without depending on any rigidness within your own tax-roll system.

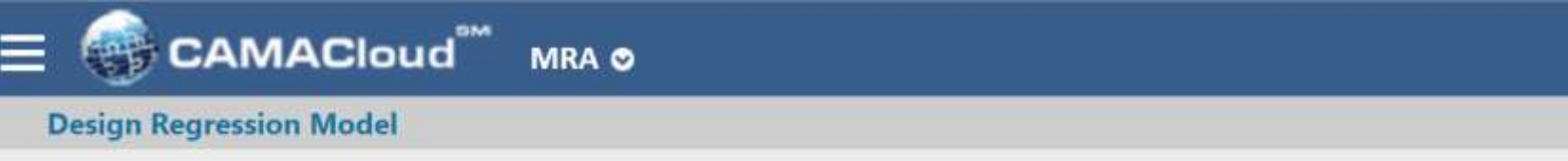**Test Models, See Analytics, Charts, Outliers, and more!**

MRA: Test Models & Find Outliers

Easily deploy common sense knowledge and experience to select the market areas, property types, and other characteristics to filter on for further analysis. **You don't have to be a statistician!**
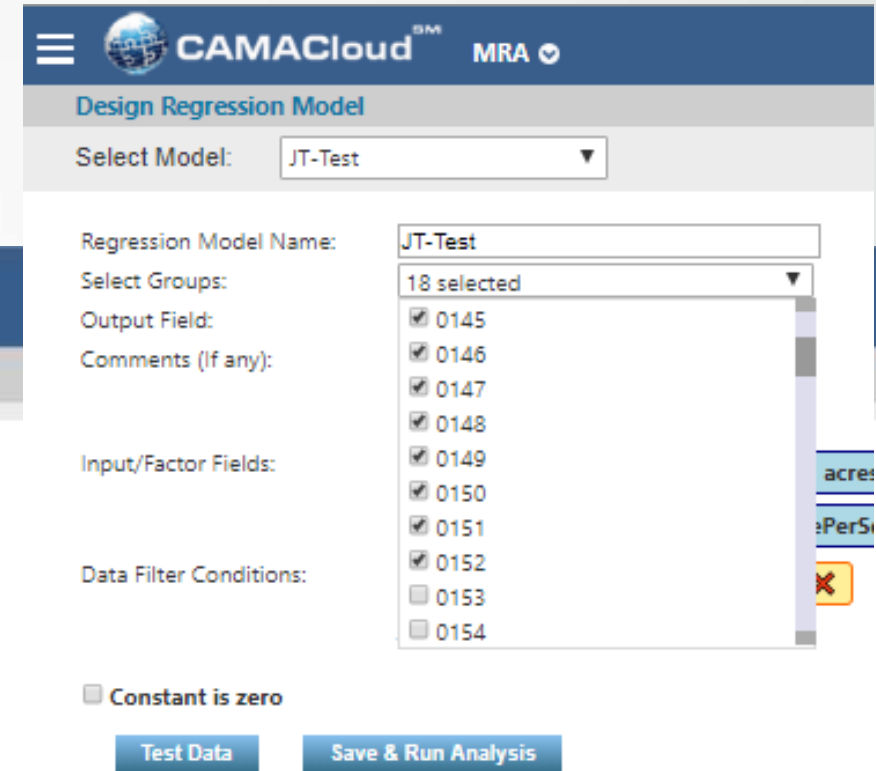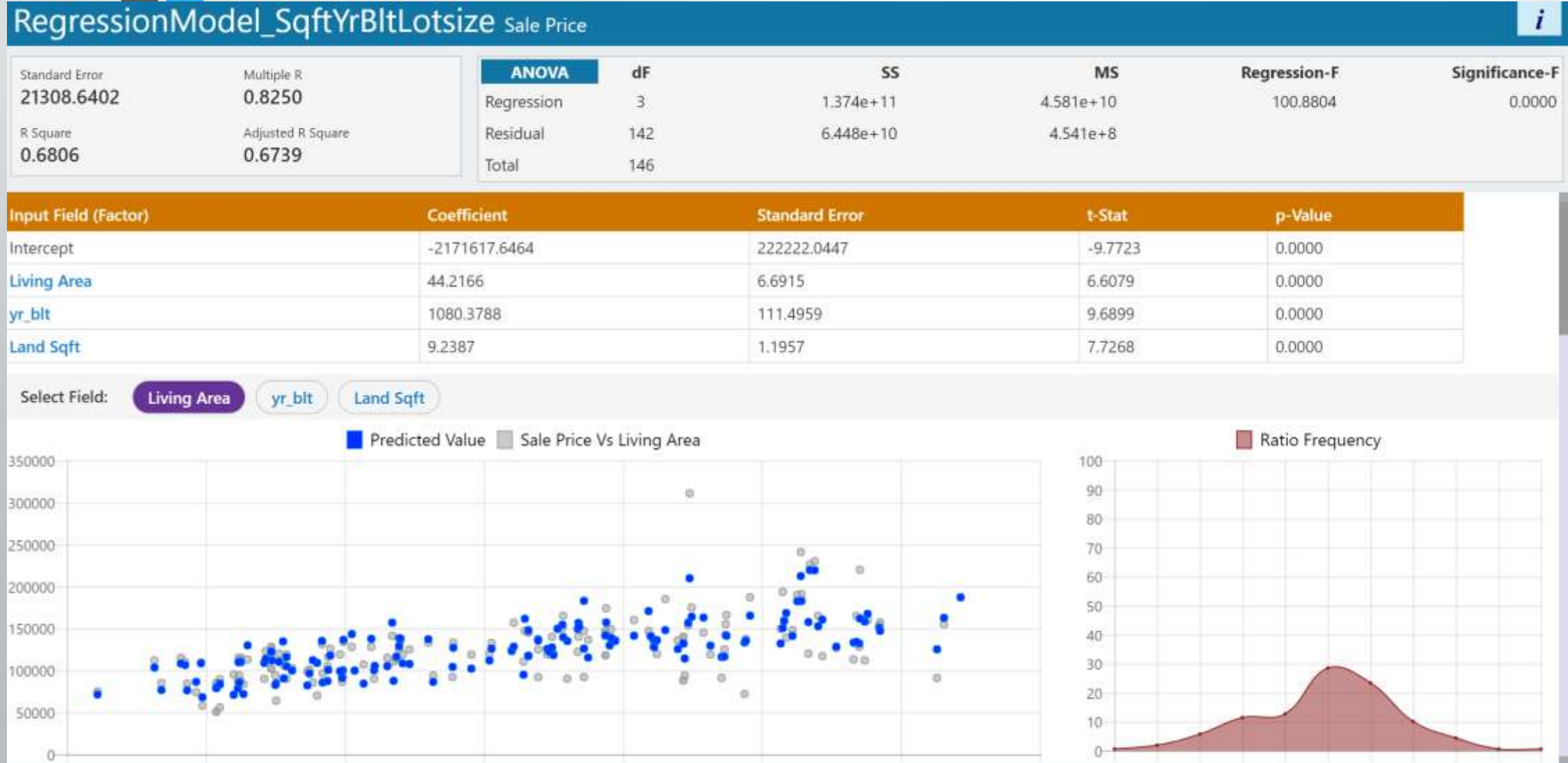
MRA: Data Visualization

+ instant access to other systems for further research

MRA: Data Visualization & Outlier Review
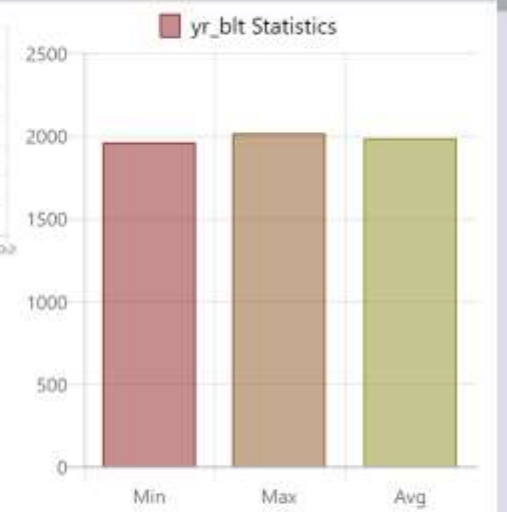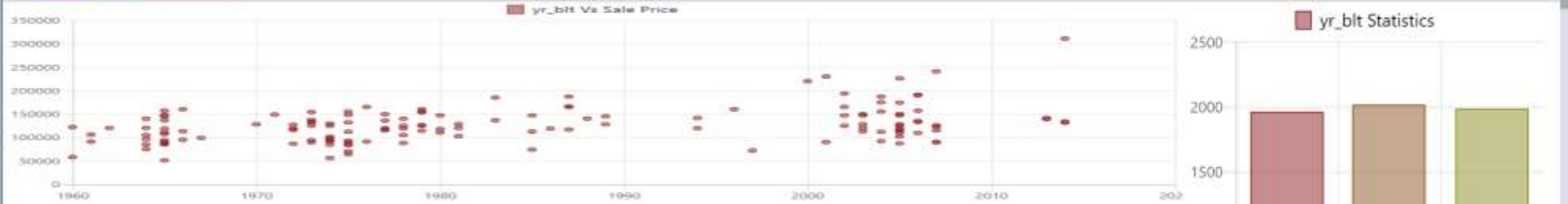
MRA: Easy Data Exports to Excel

Data View Extract

Obsv	Asmnt. Grp	Parcel	Actual Value	Estimated Value (Output)	Residual	Ratio7
1	4104	21632023	194,000	160,500	-33,500	0.827
2	4106	21220075	382,000	316,200	-65,800	0.828
3	99445	21110338	400,000	331,700	-68,300	0.829
4	4108	21409107	499,000	413,600	-85,400	0.829
5	99111	21118333	104,750	87,100	-17,650	0.832
6	4157	21415014	244,000	203,000	-41,000	0.832
7	99463	21630411	230,500	191,800	-38,700	0.832
8	4112	21311056	199,000	166,100	-32,900	0.835
9	4104	21632054	240,000	200,400	-39,600	0.835
10	99402	21418869C	110,000	92,000	-18,000	0.836
11	99116	21418378	60,000	50,300	-9,700	0.838
12	99311	21127821C	79,000	66,300	-12,700	0.839
13	99316	21418481	145,000	121,600	-23,400	0.839
14	99412	21507991C	158,500	133,000	-25,500	0.839
15	4132	21707032	342,000	342,000	0	1.000
16	4132	21712021	386,500	386,500	0	1.000
17	4132	21713010	461,000	461,000	0	1.000
18	99563	21714336	299,000	299,000	0	1.000
19	4157	21716023	162,500	162,500	0	1.000

Easily export all parcels that were part of your analysis and create Priority Lists, perform further research in your other favorite statistical packages, update data in a test environment, keep for archival purposes, and more…

Comparable Properties: Equity & Uniformity Reports

This CAMAcloud^SM module returns comparable properties* for a subject parcel and notifies you whether the subject's current valuation is fair and equitable or not. A uniformity indication of value is also returned to let you know what the value should be in order for the subject property to be treated in a uniform manner. An optional Estimated Sale Price (fair market value) can also be reconciled if you desire. *Unsold comps too!*

Address: 2400 SW MORNINGSIDE DR

parcel_id: 4212011150000000   link_id: 6832135

Neighborhood: 7220   Group: SBS

☐ Search Only for Absolute Comparables   ☐ Search within Group

☐ List comparables with at least one sale   ☐ Estimate Subject's Sale Price

Search Comparables

Find Comparability, Uniformity, and Equity issues (or confirm a subject doesn't have an issue) across not only sold parcels, but unsold too! Utilize the Uniformity Indicated Value, or the Estimated Sale Price as further supporting evidence in any claimed opinion of value.

Quickly Find Comparable Properties + QC Interaction

Evaluated 50 comparable properties in 3.7751287 seconds   Show In Map

		Group	Nbhd	parcel_id	link_id	Street Address	Comp%
☐			7220	42120074300000000	6831805	1204 SW 24TH ST	95%+
☐				2300000000	6832160	2500 SW MORNINGSIDE DR	95%+
☐				4400000000	6831808	1200 SW 24TH ST	95%+
☐				4500000000	6831811	1120 SW 24TH ST CT	95%+
☐			7220	42120074900000000	6831822	1104 SW 24TH ST CT	95%+
☐			7220	42120113500000000	6832196	2607 SW MORNINGSIDE DR	95%+
☐			7220	42120112700000000	6832172	2608 SW MORNINGSIDE DR	95%+
☐			7220	42120113600000000	6832199	2603 SW MORNINGSIDE DR	95%+
☐			7220	42120110200000000	6832096	1304 SW 24TH ST	95%+

42-120-07-43-00-0-00-000 07/14/2005

Find truly comparable properties (sold or unsold) within seconds, then generate comparison reports from a comparability index list view, or from a map view.

All parcels can also be opened within the Quality Control module for further review, or assignment to MobileAssessor as needed!
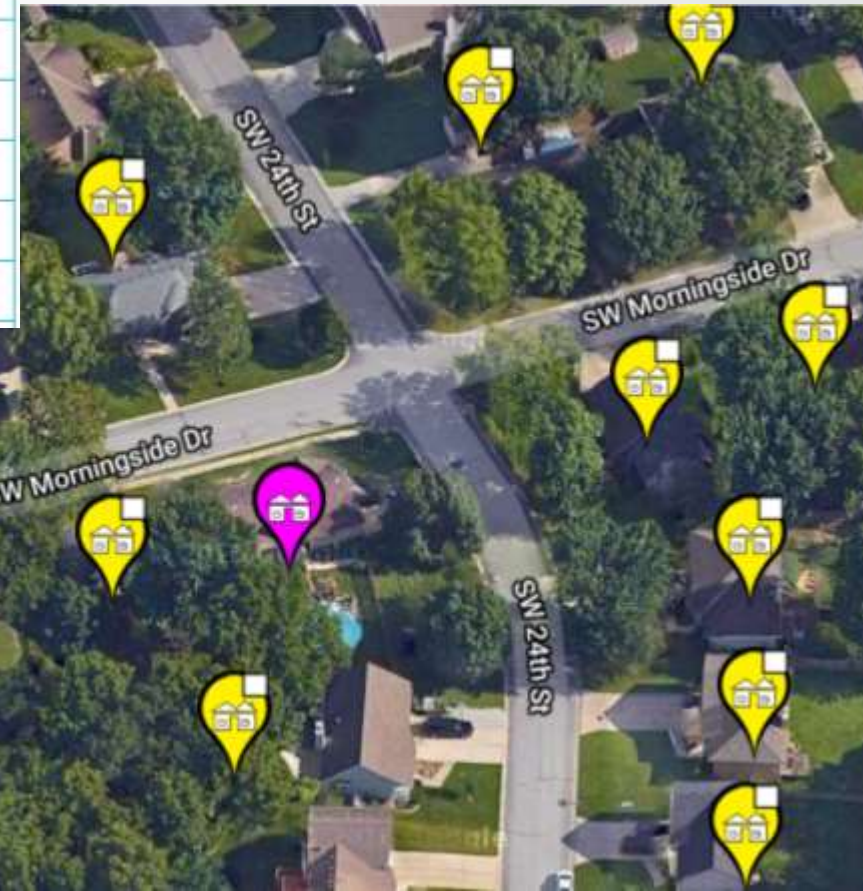
Comparable Properties' Estimated Sale Report

UNIFORM			Subject	Comparable #1	Comparable #2	Comparable #3	Comparable #4	Comparable #5
			42-120-11-15-00-0-00-000 07/15/2005	42-120-07-43-00-0-00-000 07/14/2005	42-120-11-23-00-0-00-000 07/15/2005	42-120-07-44-00-0-00-000 07/14/2005	42-120-07-45-00-0-00-000 07/14/2005	42-120-07-49-00-0-00-000 07/14/2005
Situs		Parcel ID	4212011150000000	4212007430000000	4212011230000000	4212007440000000	4212007450000000	4212007490000000
		Address Line 1	2400 SW MORNINGSIDE DR	1204 SW 24TH ST	2500 SW MORNINGSIDE DR	1200 SW 24TH ST	1120 SW 24TH ST CT	1104 SW 24TH ST CT
		Use Code	1110 - SF RESIDENCE	1110 - SF RESIDENCE	1110 - SF RESIDENCE	1110 - SF RESIDENCE	1110 - SF RESIDENCE	1110 - SF RESIDENCE
Appraised Value			129,100	125,500	126,800	125,800	130,200	126,700
Comparability Index				95%+	95%+	95%+	95%+	95%+
Uniformity Indication			$130,800					

Useful for Sold and Unsold parcels!

		Comp #1	Comp #2	Comp #3	Comp #4	Comp #5
Median Sale for Comps		$152,000	$116,000	$145,000	$142,000	$170,000
Total Adjustments		$-7,500	$3,900	$5,600	$2,700	$-13,700
Sale Adjusted to Subject		$144,500	$119,900	$150,600	$144,700	$156,300

Estimated Sale Price for Subject **$144,700**

Overview: Integrated Tools
(high-level demonstration)

The possibilities with open data standards!

Questions?

Thank you!