a sevensoftTM company

CARJINI™

Auction Inventory Viewer Guide

Goals

The **Auction Inventory Viewer** explores alternative approaches for interaction with auction data. The fundamental difference is in viewing all auction data as part of a dynamic set or collection—and interacting with these in a unified and immediate interface. The visualizations are based on the **pivot viewer** technology pioneered by the Microsoft Advanced Research team, and the Deep Zoom technologies that are similar to those leveraged by the major online mapping services. This required overcoming the barriers that have traditionally prevented this technology from being used on active and changing backend data sets.

Buyers, dealers, consignors and auction staff are all potential consumers of this type of experience—using desktop, laptop and tablet devices to identify traits in collaboration with interface—and not in-spite of the interface. For example, a buyer would use this tool to better plan for or participate in an auction. And in many cases identifying desirable units that would otherwise be missed or incorrectly valued.

Explore & Inspire

- Following Curiosity
- Finding Hidden or Nuanced Relationships
- New Insights on familiar Data

Navigate & Act

- Needle in the Haystack
- Comparing a few "needles" with each other
- Making a decision and taking action

Many Markets, Many Channels

- Demonstrate versatility.
- Solving the 80% common for many segments.
- Bidding, Closing, Financial, Planning, Projecting, ...
- Enabling new Scenarios for Consignors, Dealers, Buyers, and Auction Staff, ...

Gone are the isolated and difficult to compare infinity lists. Gone are the disconnected queries. Gone are the paginated views of data. Gone are the responsiveness delays between executions of loading of more data across infinity lists.

Solving the DATA Problem

There have been many past demonstrations of similar visualization technologies. Several done by our team at the behest of Microsoft. These demos are typically against either small to moderate vehicle collections or against static, non-production and stale data sets allowing pregeneration of all assets. Most commonly, demos have had all of these limitations.

Incubating these early ideas into a practical, production-solution, against massive and ever-changing sets of data is the problem we set out to solve.

That work has been done. Those ingress and data issues have been addressed. And, while less-visible, these solutions are the most important set of technologies created for Carjini.

The current site tracks 60-200 daily auctions each with collections of few hundred up to 60,000 vehicles. Those current web and mobile APIs and services have surpassed all the initial project goals.

Performance

Carjini's focus on interaction and visualization of all inventory establishes a dependency on the presentation capability of a client device. While the platform view with 40,000 vehicles can be displayed on most modern smart phones, the experience will always be less than ideal due to screen size. This isn't as significant an interface issue for mid-sized tablets. With laptops or desktops—the experience shines.

Non-Goals

Carjini is **not** meant to be all things to all devices. That often requires solving for the highest common denominator of capability that can be delivered in a box defined by the lowest common denominator of acceptable capability. The result can still be impressive but often the most truly innovative ideas get watered down to support a greater set of devices.

The decision to focus was to focus on the back-end services and technical challenges, and to target a very best front-end experience for a very specific audience. To enable something completely new on a set of very capable devices.

Carjini in its current realization is not a replacement for traditional inventory views. While there is certainly room for similar innovation in the perunit detail view of information—tires, damage, factors impacting grades—we leave these problems and opportunities to the future.

Using the Inventory Viewer

Auction & Platform Collections

The Carjini platform provides two primary inventory views of data—the **auction-view** and **platform-view**.

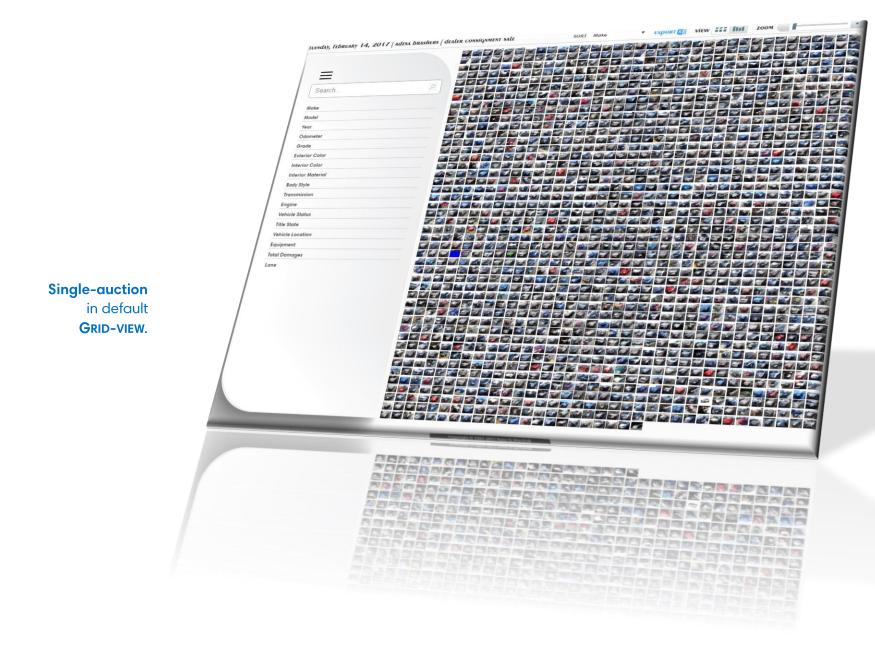
An **auction view** may contain anywhere between a few vehicles to several thousand. To pull up an auction-level inventory view, navigate to the desired auction and event using the **Auction Tracker** map (see below). Select the desired event to open the corresponding inventory view.

The Carjini **platform view** contains all inventory, across all auctions available within the next 7-days. It may contain between 20-60,000 vehicles depending on the day of the week or year. All public views reflect the most current information from the auction and platform. Historic and post-sale data is available to registered dealers and their representatives.

Custom **Consignor** and **Auction Group** views are not currently available to the public. Both of these can easily be simulated by adding the appropriate filters to the Carjini platform view.

"...pivoting makes it easier to interact with massive amounts of data in ways that are powerful, informative, and fun..."

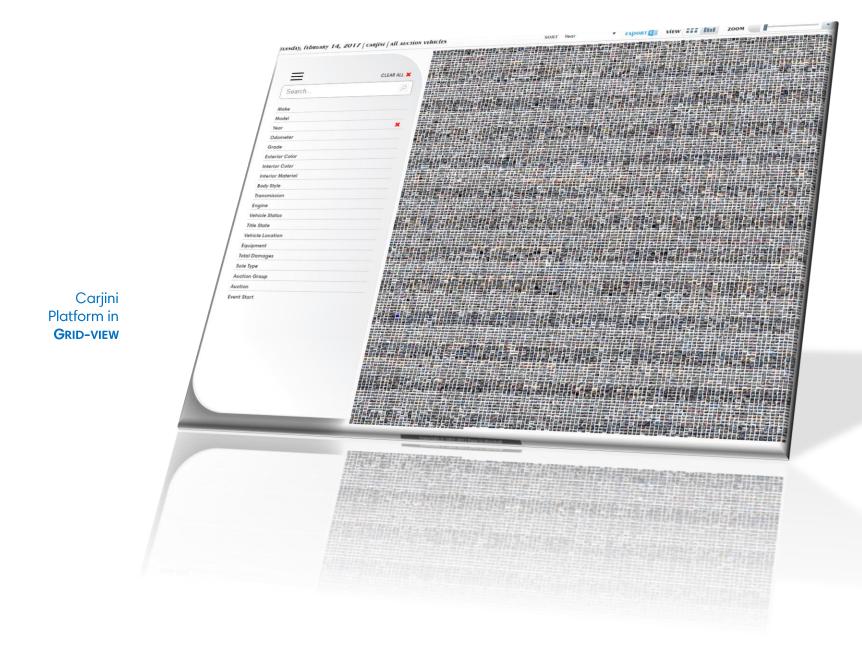
- S. Somasegar
CORPORATE VICE PRESIDENT
DEVELOPER DIVISION
MICROSOFT CORPORATION

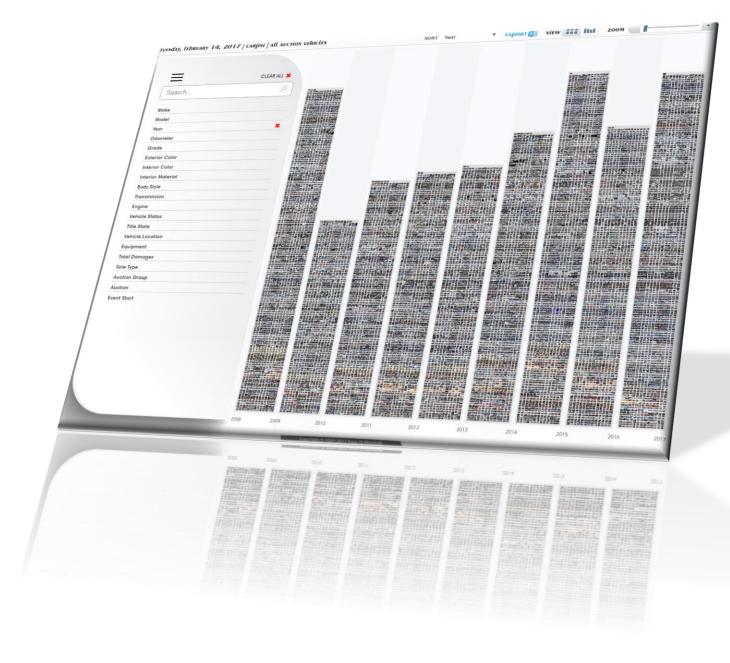


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Single auction event in HISTOGRAM-VIEW with default grouping and sorting (by make).





Carjini
Platform in
HISTOGRAMVIEW with
grouping and
sorting by Year
and filtered to
2008+

Navigating to the Inventory Views

FROM THE HOME PAGE

• Open the Auction TRACKER map.

Navigate to the Auction Tracker directly:

carjini.com/map

Open the Carjini
PLATFORM INVENTORY
VIEW.

Navigate to the Platform inventory view directly:

carjini.com/vehicles

Carjini.com



From the Auction Tracker

On the **AUCTION TRACKER** map:

- 1 Open an Auction DETAIL window by:
 - **a.** Selecting the auction from the drop down list.

OR

- **b.** Selecting the auction-indicator icon from the map.
- 2 Select the auction event from auction detail window (c).

NOTE: Not all auctions will have current events (d).

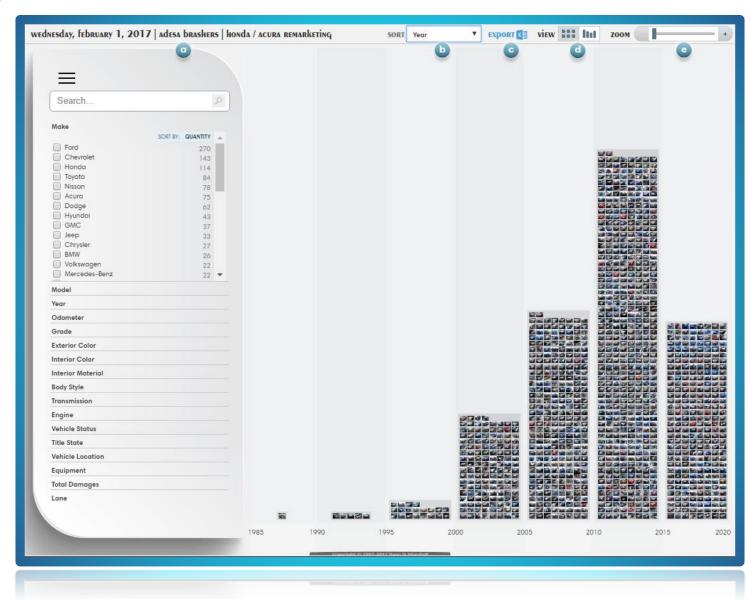
Auction Tracker carjini.com/map



Auction Inventory Viewer

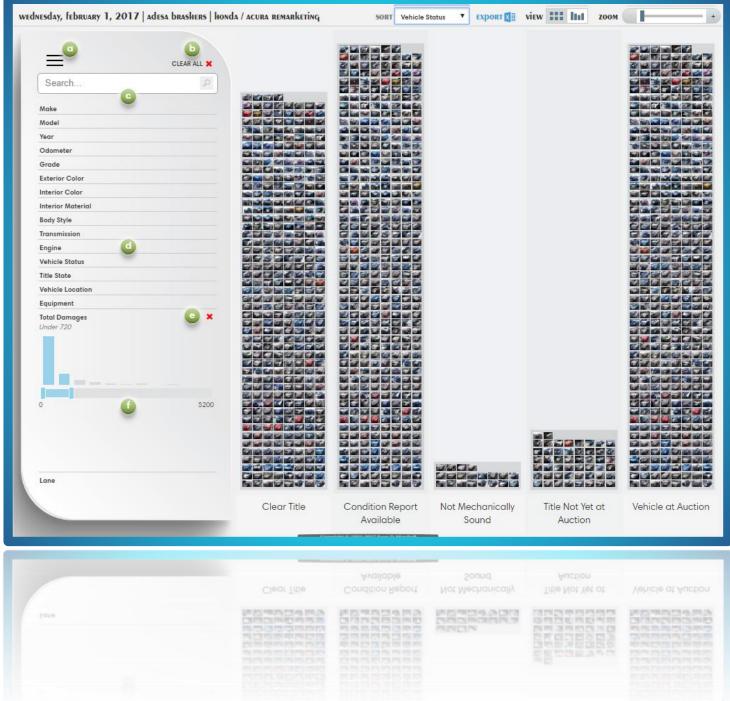
Toolbar Controls

- Auction Name, Event Name & Event Date
- Sorting & Grouping
 Sorting is ascending
 starting from the topright to the bottom-left
 of the results in a
 column or grid.
 In HISTOGRAM VIEW this
 setting reflects the
 column groupings.
- Export to Microsoft Excel
- HISTOGRAM VIEW / GRID VIEW Toggle
- Zoom Slider Auto-zoom in and out of detail view by clicking any of the inventory items or columns.



Filter Panel Controls

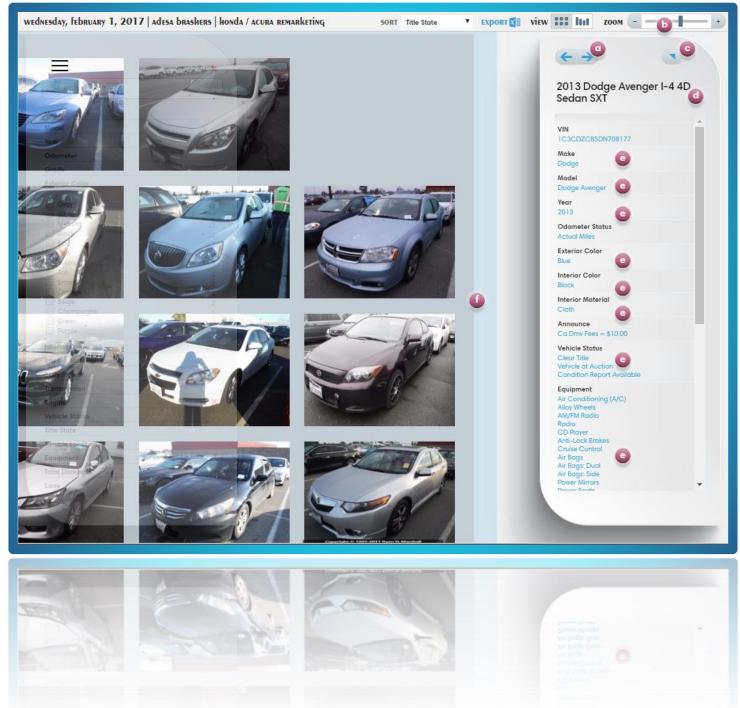
- Application Menu
- Clear All Filters
- Search Inventory
- d Filter Groupings
- **Clear Specific Filter**
- Numeric Filter Type



Unit DETAIL PANEL

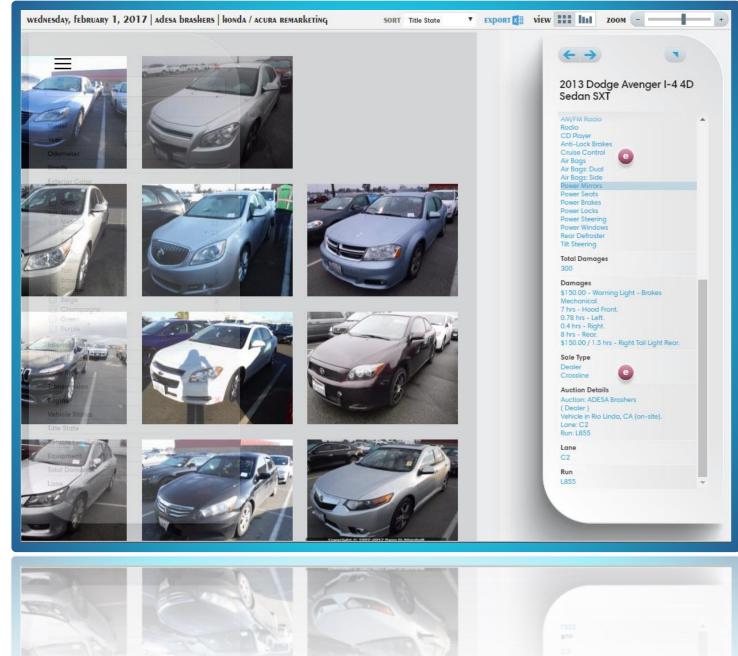
Next or Previous Unit

- Dunit Zoom Level
 Auto-zoom between
 unit detail views and
 complete collection
 views by clicking on any
 unit.
- Collapse Detail Panel
- **d** Unit Name
- © Unit Characteristics
 Selecting a generic characteristic will automatically apply that as the new view filter an switch the displayed inventory accordingly. This is a convenient way to flow from the details of one unit, to all those units sharing that trait.
- F Inventory Collection
 Reflects the current
 filters and sort settings.
 In histogram view, the
 collection is grouped
 into column-buckets
 according to the sort
 setting.



Unit Detail Panel (cont.)

© Unit Characteristics





Filtering

This section is an overview of the available discrete filter characteristics in auction and platform collections. The screen captures are taken from an auction on a somewhat random day in early 2017. The actual values will always reflect the current inventory makes, models, etc, and the accumulated quantities in the current event tracked by our platform.

Multiple filters within category are cumulative (Boolean OR) and across different categories as conditional (AND). It is useful to note that with-in a filter category, click on the check-box to include matching inventory in the current view.



Click on the filter category title (1) to open the filter settings. For a discrete-value filter, click on the **check-box** (3) area of the filter to select multiple concurrent attributes within a category. Click on the **name** (2) portion of the same filter check-box line to set it as the only filter in the category.

Common Collection Filters

Make Quantity Sort from Platform Collection



Model Quantity Sort from Platform Collection



YEAR from Auction



Odometer from Auction

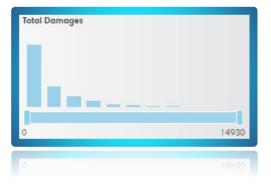


Total Damages from Auction



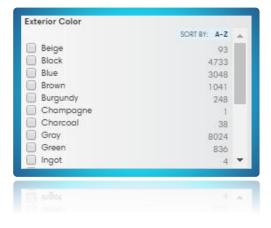
TOTAL DAMAGES

from Platform Collection



Exterior Color

A-Z Sort from Platform Collection



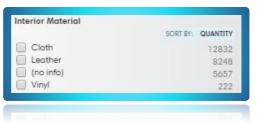
Interior Color

A-Z Sort from Platform Collection

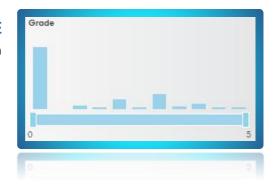


INTERIOR MATERIAL

Quantity Sort from Platform Collection



GRADE from Auction



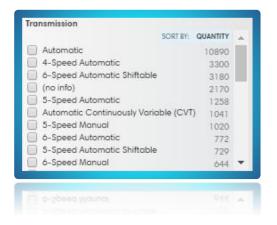
Vehicle Location

Quantity Sort from Platform Collection



Transmission

Quantity Sort from Platform Collection



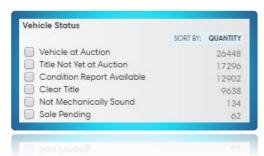
Body Style

Quantity Sort from Platform Collection



Vehicle Status

Quantity Sort from Platform Collection



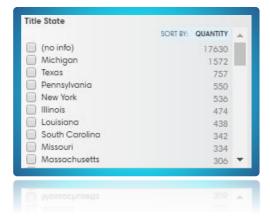
Engine

Quantity Sort from Platform Collection



Tirle STATE

Quantity Sort from Platform Collection



EQUIPMENT

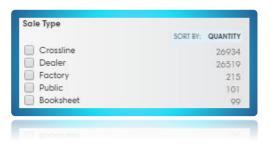
A-Z Sort from Platform Collection



Platform-Only Collection Filters

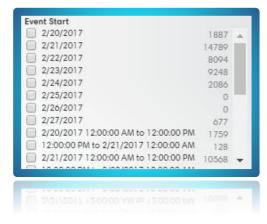
Auction Sale Type

Quantity SortPlatform Collections Only



Auction Event Start

Platform Collections Only



Auction Group

A-Z Sort Platform Collections Only



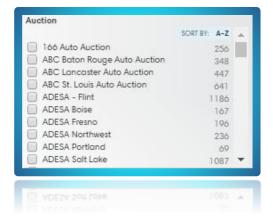
Auction Group

Quantity SortPlatform Collections Only



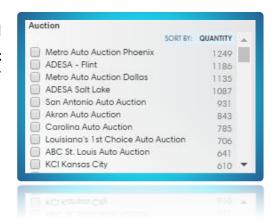
Auction

A-Z Sort Platform Collections Only



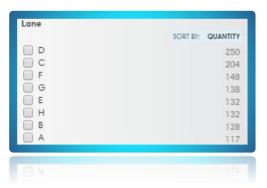
Auction

Quantity SortPlatform Collections Only



Auction-Only Collection Filters

Quantity Sort
Auction Collections Only

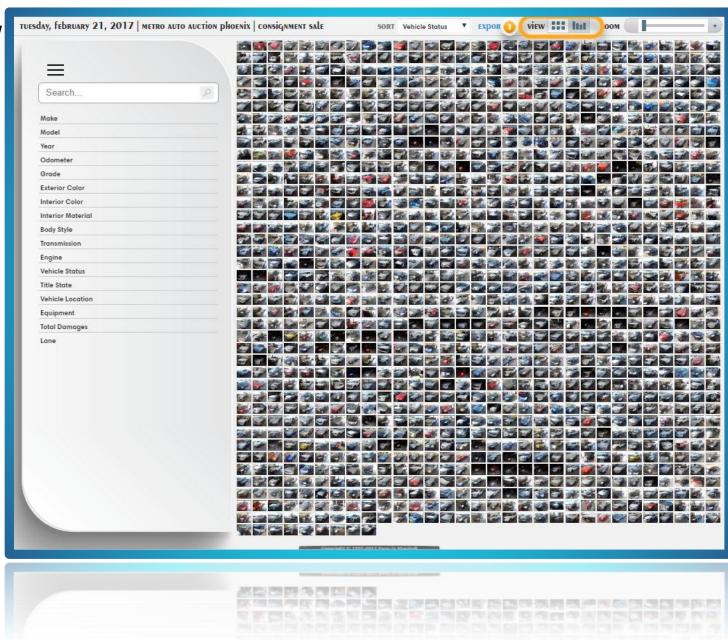




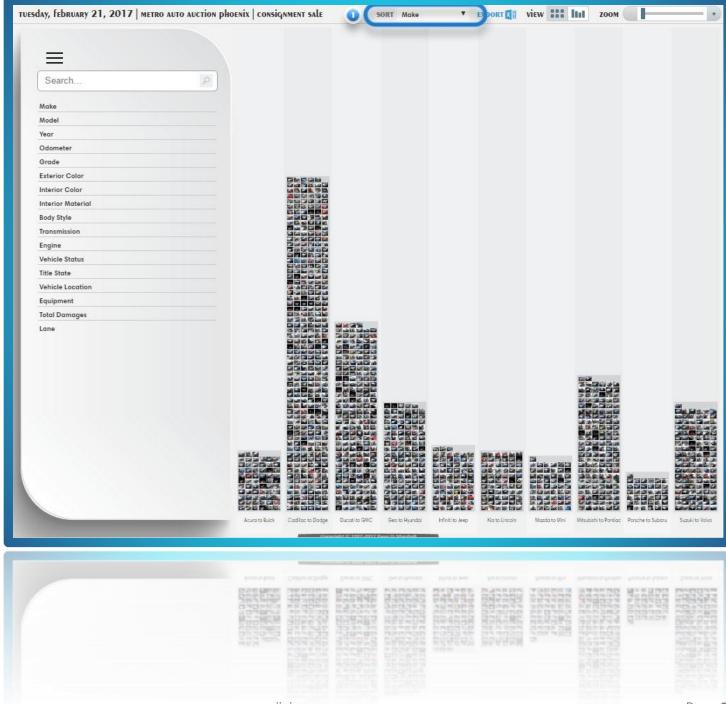
Basic exploration of less-obvious filtering and navigation of inventory views.

Walkthrough: General Views, Filtering and Sorting

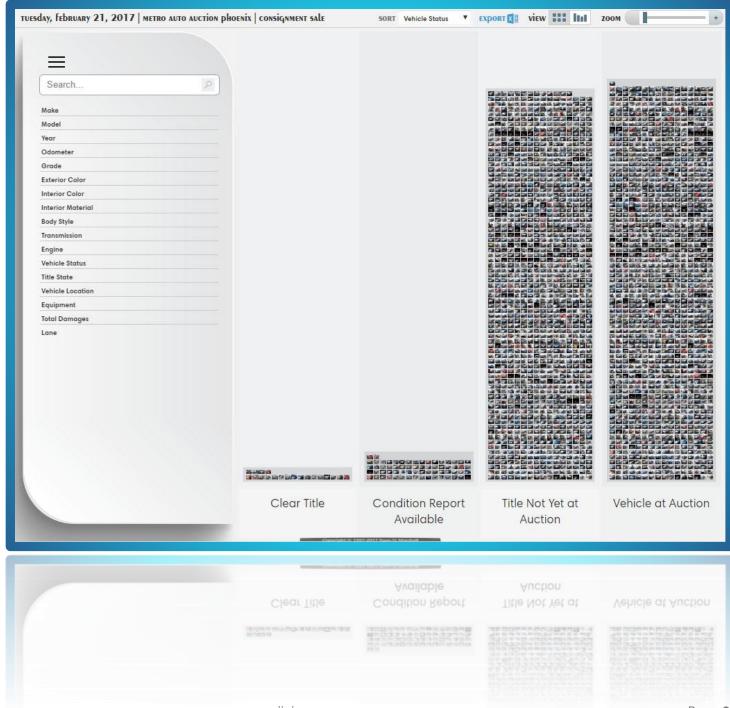
Switch from the **Grid-View** to the **Histogram-View** using the toolbar icon.



1 Switch the sorting and grouping to Vehicle Status.



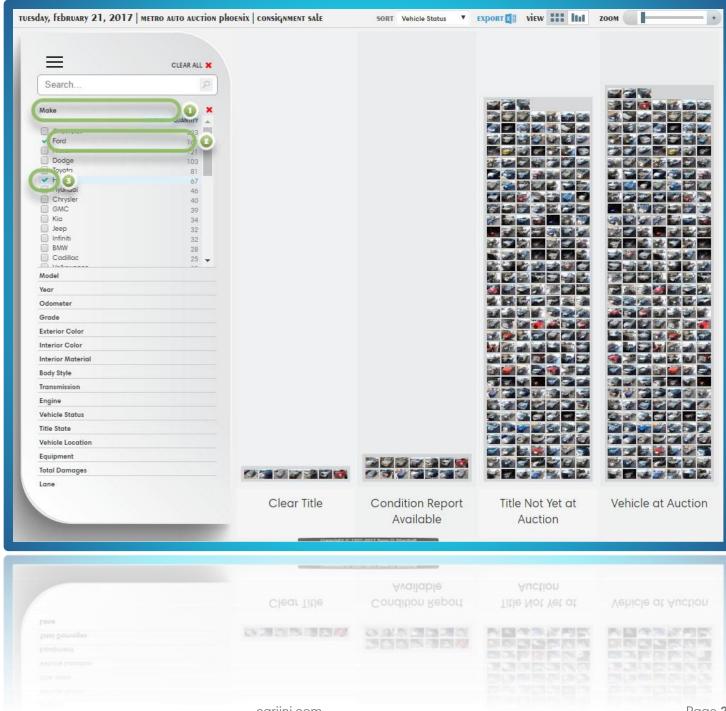
Histogram-View is now **grouped** and **sorted** on **Vehicle Status**.



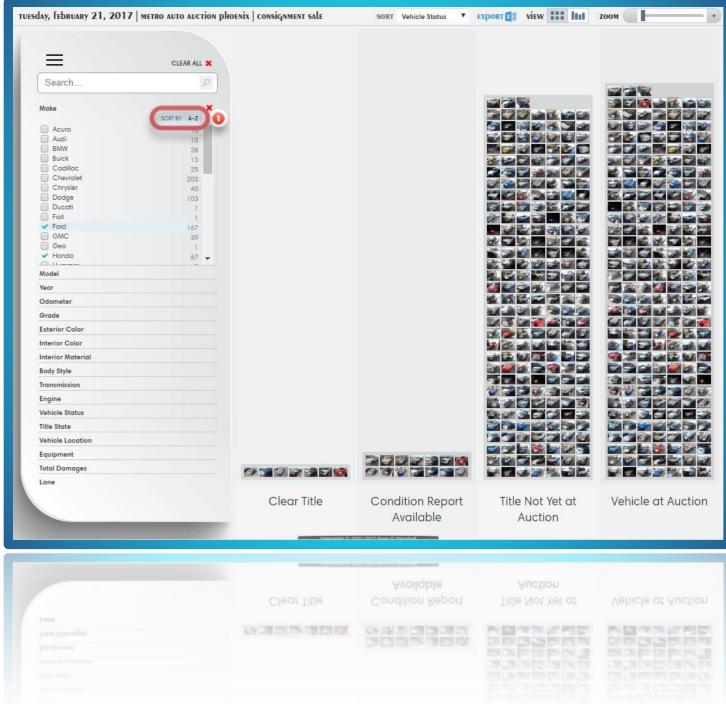
- Select the Make filter grouping.
- 2 Select any make from the list, clicking anywhere on the name or checkbox.
- 3 Select an additional make to include by **clicking on the checkbox**.

Clicking on the name portion will clear other selected items within the same filter.

Clicking on the checkbox portion to allow for multiple inclusions.



Switch the sort order for a filter list. Sorting of filter options may be in alphanumeric or quantity order. Sorting is always ascending.



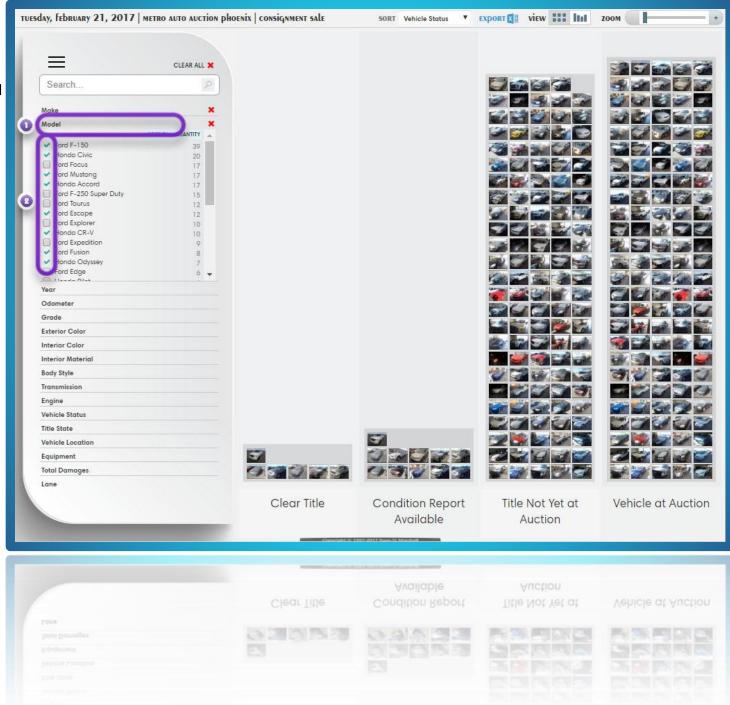
1 Switch to the **Model** filter by clicking on the title.

Notice that the available options reflect the applied model filters.

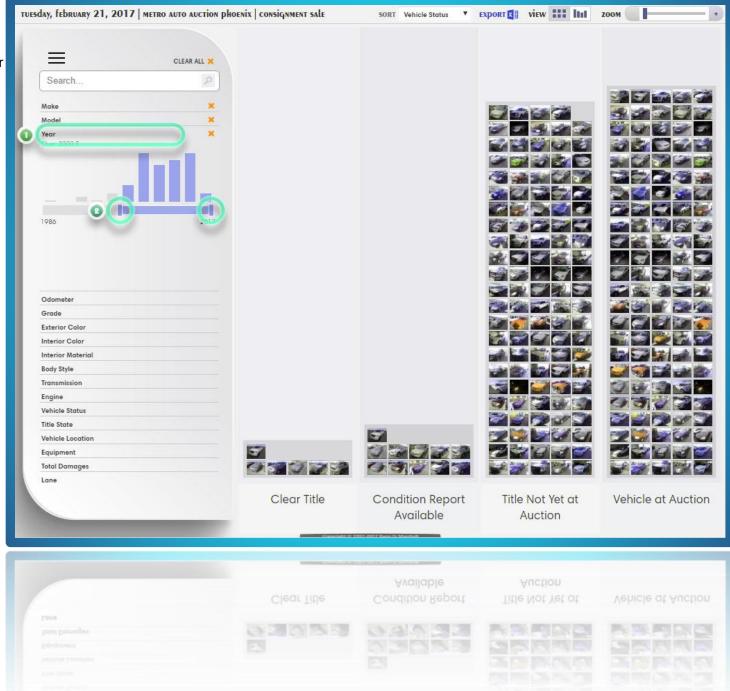
Within a filter selecting multiple options add those values to the inclusion set.

Across filters the options selected **limit** (AND) the inclusion sets.

Select models to include models as desired.



- Switch to the **Year** filter.
- Adjust the sliders to further limit results.

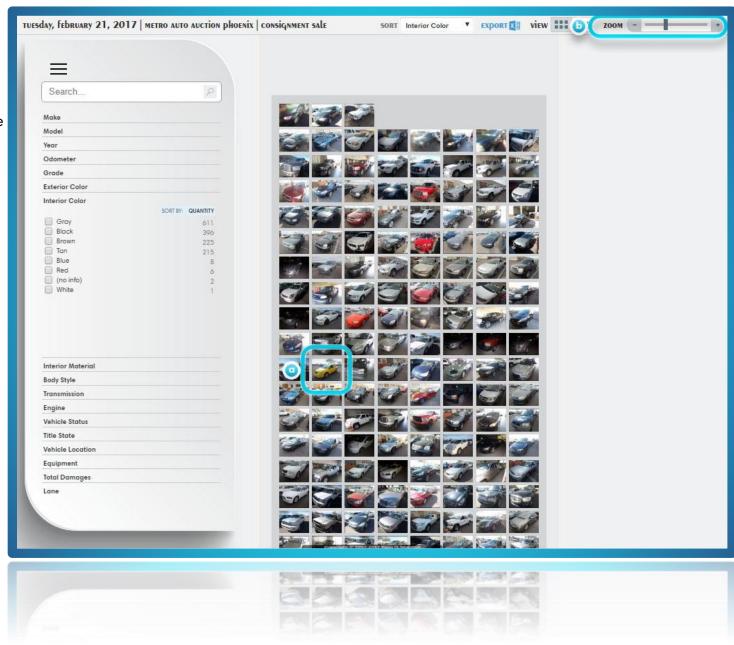


Walkthrough: Navigating the Detail View

Navigate to the detail view by **zooming** in until an inventory item is the primary focus of the screen.

Zoom using the mouse spreading your fingers on the mobile display.

- Tap or Click on any inventory unit to autozoom into the default view.
- **Zoom Slider** is available to manually set a zoom level.

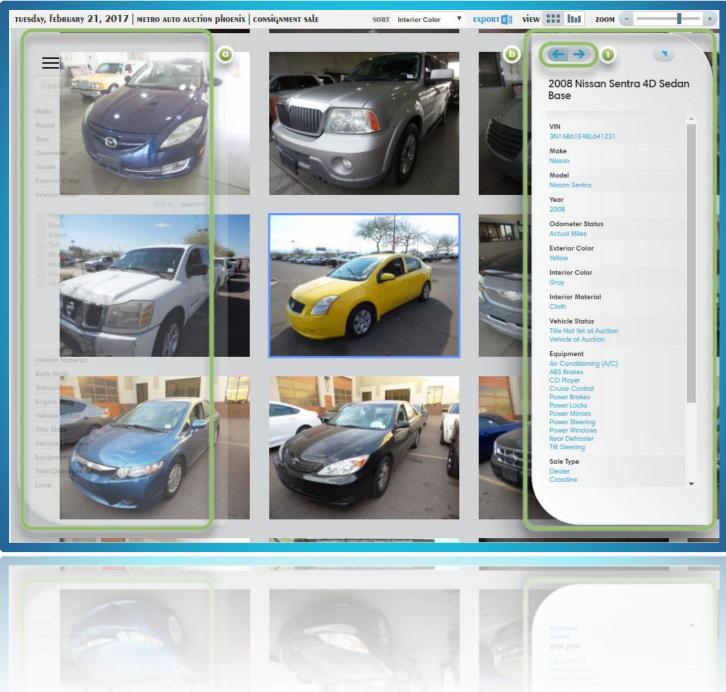


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The **detail view** (b) window will appear and disappear based on the zoom level.

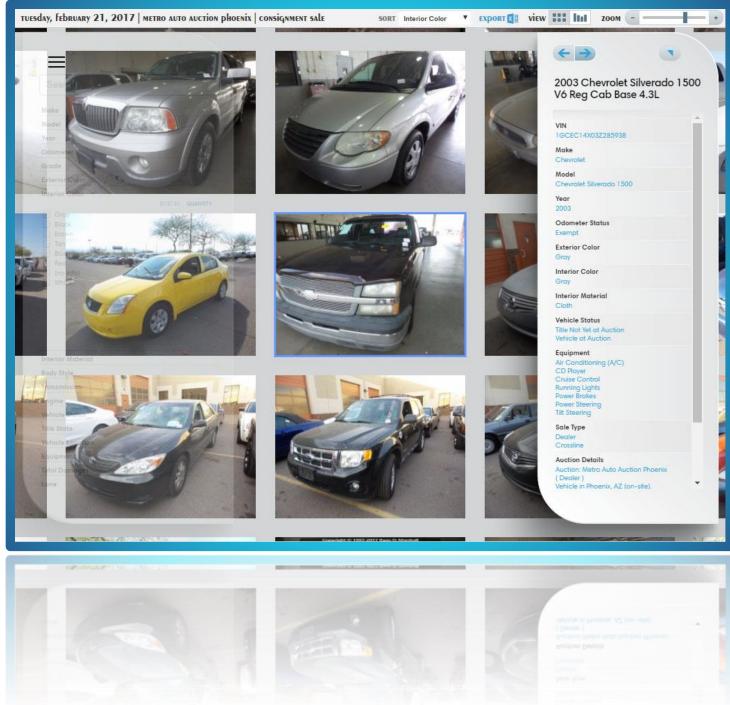
The **filter view** (a) will also become translucent in the detail view. Hover over the window, or zoom back out to make this window opaqe.

Navigate to the next inventory item using the mouse, or the navigation arrows (1).





Carjini Inventory Viewer Guide carjini.com Page 30 of 37 This shows the result of a **next** navigation from the previous screen.



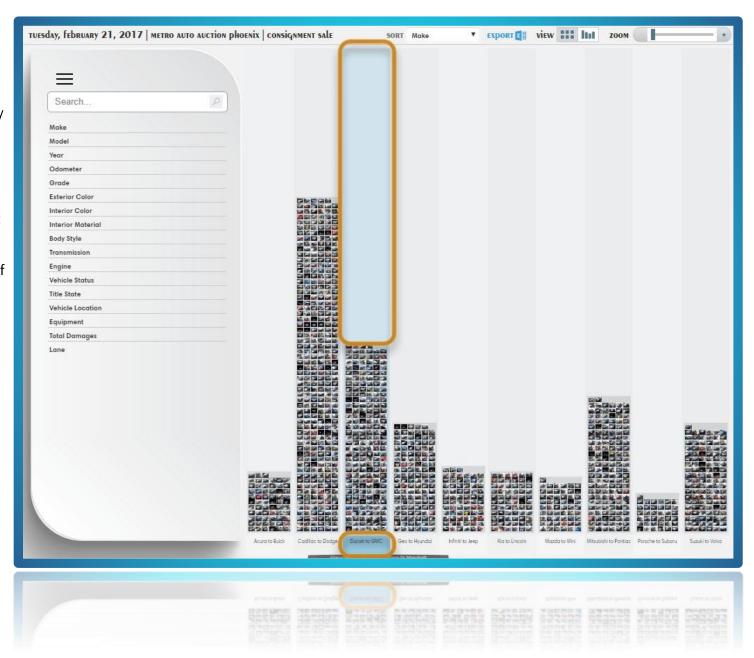
Walkthrough: Setting Filter by selecting column

A filter can be added by selecting the background (but not an item) from a histogram grouping.

Grouping are established by the sort selection in the toolbar.

In this screenshot the groupings are by Make and the columns each represent a range of make values.

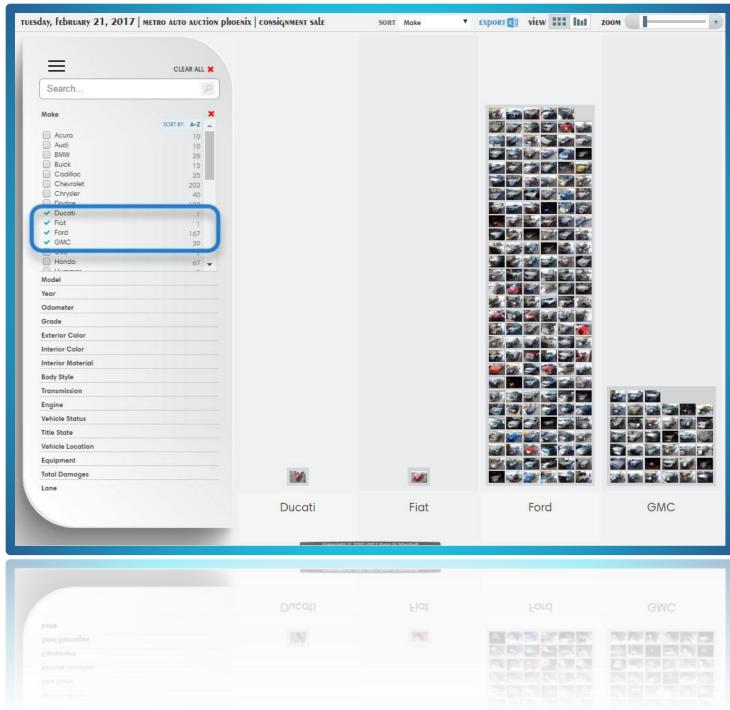
Selecting the background of the 3rd column....



...view is filtered based on the values of the column.

Notice that there were four makes, and the appropriate filters are not selected.

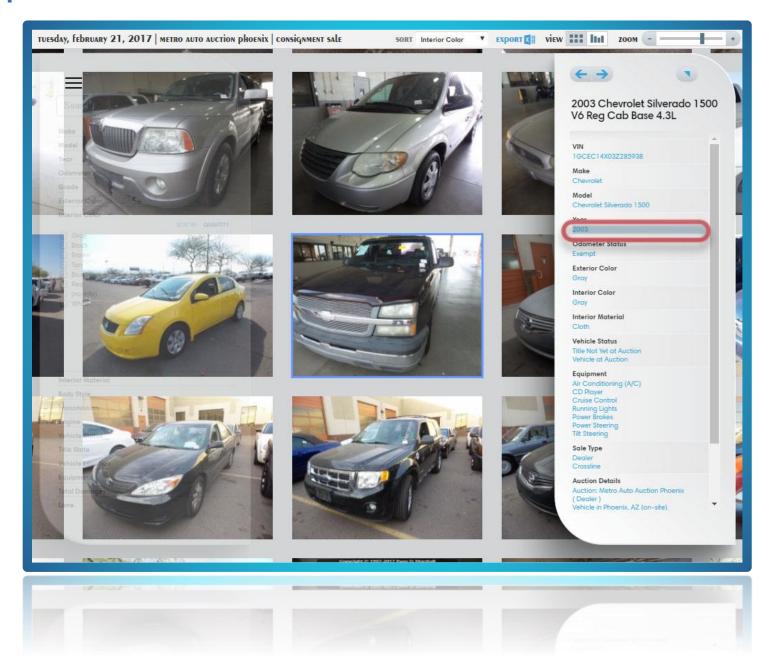
The histogram now shows those each as a column grouping.



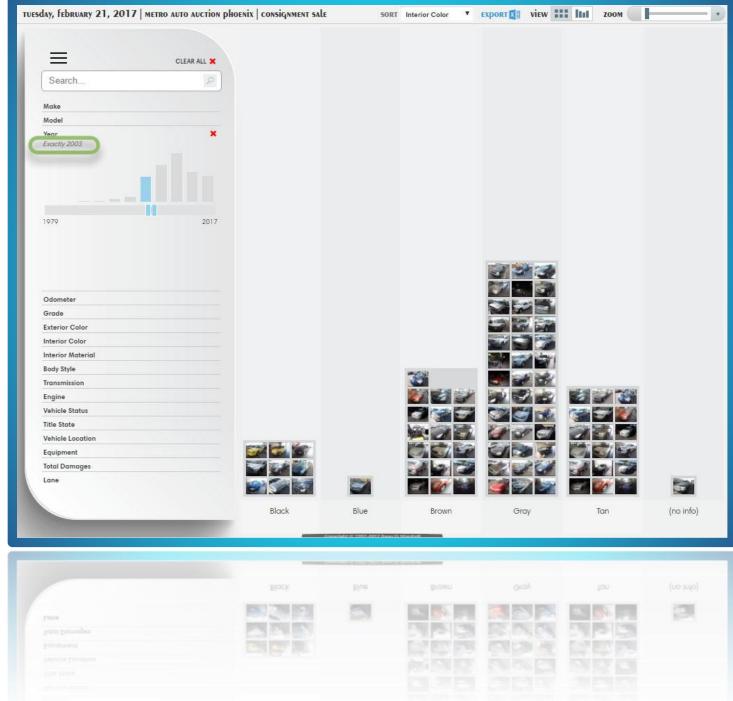
Walkthrough: Setting Filters from Detail

Click on any detail ilterable detail level attribute to set the entire view to filter the collection on that value.

In this example, selecting the year...



View is moved back to the collection level with a filter Set to 2003.



CONTACT US

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