# BLD353156: How to Manage a Large Portfolio of Buildings in BIM 360 Ops

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Global BIM 360 Ops Coordinator



### Get Started Now!

- Scan the barcode OR
- Visit <a href="https://ops.bim360ops.com">https://ops.bim360ops.com</a>

(or download BIM 360 Ops from the App Store)

- Enter your email address and join the portfolio AU2019.
- Confirm your email address and enter a phone #
- You are now an occupant of this portfolio
- Add tickets with questions, comments, feedback etc.!
- Create your own portfolio and start managing your own building.





# How to Manage a Large Portfolio of Buildings in BIM 360 Ops

This class will share strategies for managing a large portfolio of buildings in BIM 360 Ops software. Owners, project managers, and facilities managers will gain tips to simplify and manage buildings globally and then locally. Attendees will learn which standards matter, how to best administrate scheduled tasks for a diverse global team, and how to report for effective management.





### About Me!

### I'm Jess

And I'm the Global BIM 360 Ops Coordinator for Autodesk based out of Boston, MA. While my role is multifaceted, my primary responsibility is providing technical support to Autodeskers using BIM 360 Ops and maintaining the Autodesk BIM 360 Ops portfolio.

## What is Autodesk BIM 360 Ops?

- Easy to use, mobile-first maintenance management solution with web and mobile clients
- For maintenance managers, technicians, and building occupants
- Connects **BIM** asset data to the people who need it most, when they need it, where they need it
- Creates actionable tickets from building sensors
- Provides indoor maps to locate tickets and assets, do wayfinding for technicians, and enable more effective ticket triaging and analysis



## What Are the Benefits of BIM 360 Ops?

- Enables owners to begin operations on day one with a turnkey maintenance and asset management solution
- Helps owners realize the operating potential of their buildings and reduce expenses from unmaintained equipment
- Offers a simple and elegant mobile and responsive web interface that meets the needs of the mobile maintenance workforce
- Improves the facility team efficiency by delivering indoor maps that make ticket and asset data immediately actionable and contextually relevant

## BIM 360 Ops Classes at AU 2019

Session ID	Title	Day and Time
BLD322234	Getting Started with BIM 360 Ops	Tuesday 1:30
BLD322245	Indoor Mapping for Facility Operations	Tuesday 2:45
BLD322176	Revit to BIM 360 Ops—Exporting Asset and Location Data for Facilities Management	Tuesday 4:30
BLD323807	Autodesk Facilities and BIM 360 Ops: How We Integrated Our Systems and Why	Wednesday 8:00
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CS323783	Getting Real with BIM 360: A Case Study of Autodesk's Boston Office	Thursday 10:30
CS322863	Enhanced Workflows to Successfully Implement BIM 360 Ops	Thursday 1:30
BLD322830	How to Write an Awesome Facilities Management Data Specification	Thursday 2:45

### Facilities Transitions to Ops

- At the time CREFTS (now WP&T) was using Service Now, we couldn't utilize it properly
- Don't need the weight that competitors offer → simplicity
- March 2017 Started with 25 Buildings; end of 2017 All buildings
- Went to the teams and asked them to manually collect the asset information based on the standard provided
- Engaged EH&S on Scheduled Tasks

# Where to Start with Ops

# Where to begin and what to consider

- What are the needs of your users?
  - What type of access will various users have: Co-Owner
     (Admin role), Manger, Technician, Vendor, or Occupant
  - What type of equipment do they need to track?
  - What info/data are you looking to gather
- Who will be the admin
  - They manage user access
  - Performs audits/reviews of what is in the portfolio
  - One point of contact for questions
  - Make any necessary changes to Scheduled Tasks
- Create a Portfolio and add a building(s)!



### Portfolio Settings

- Summarizes you portfolio information
- Tells who is in charge of the portfolio; your owners and co-owners







Portfolio Statistics

### AU2019

portfolio web link

https://au2019.ops.bim360ops.com

portfolio owner

Mark Mergenschroer >

co-owners
Katie Murff >

Adrian Koren

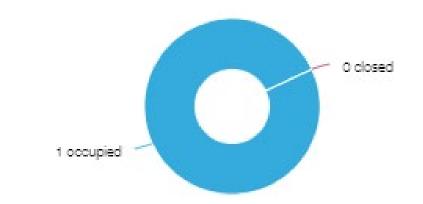
And 1 more Y

buildings in this portfolio

1 occupied, 0 closed

contacts

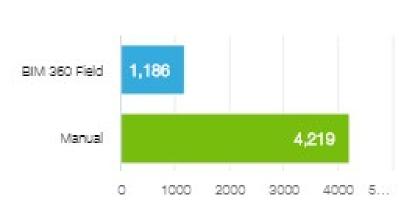
4 contacts, 2 occupants





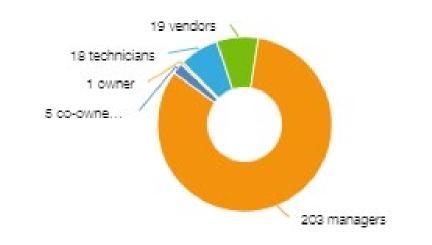
### assets

5405 assets in 88 buildings



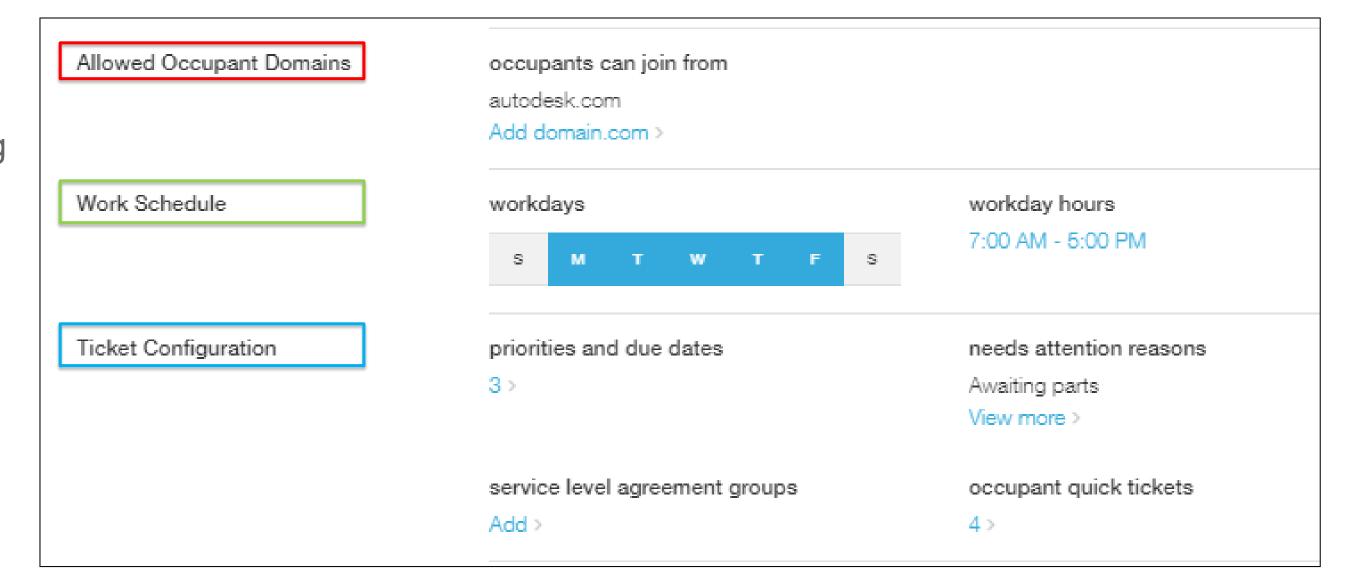
### contacts

246 contacts, 9181 occupants



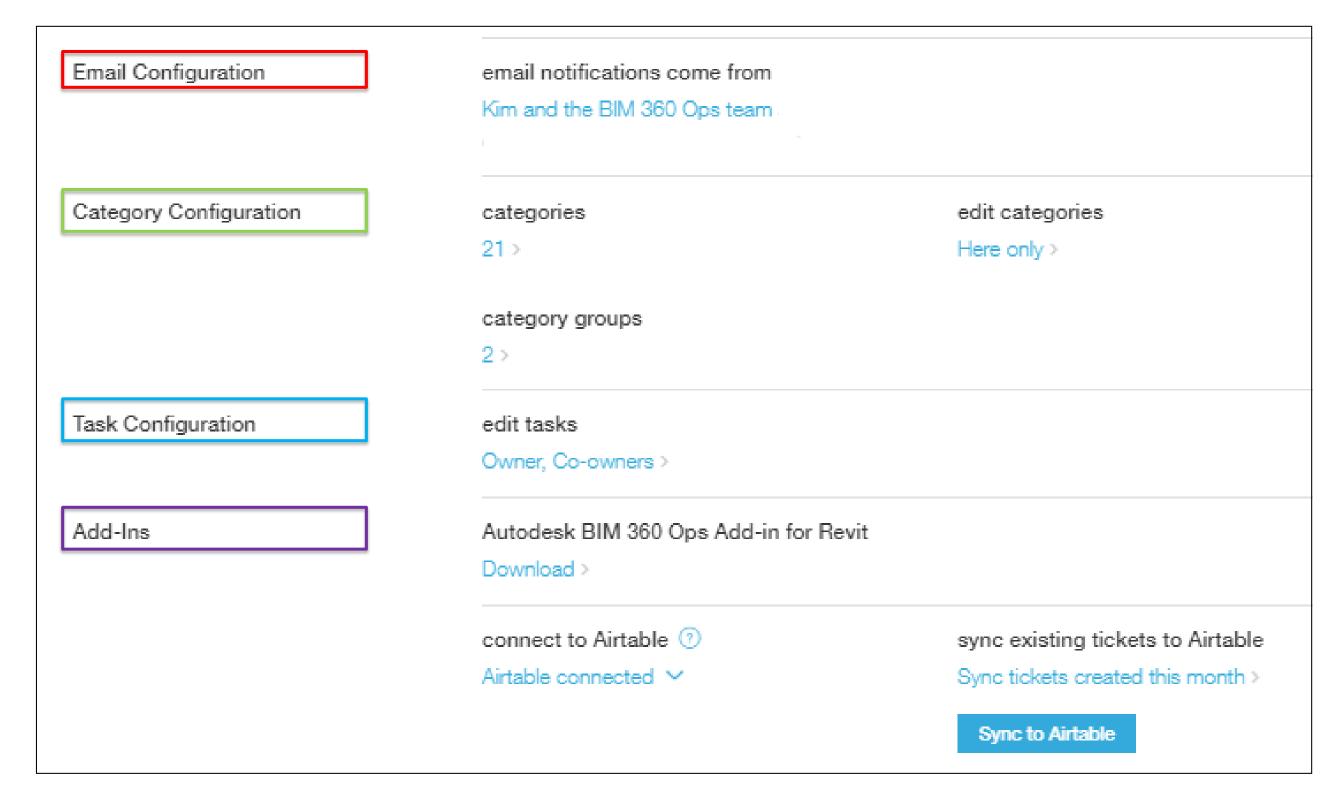
### Portfolio Settings (continued)

- Allowed Occupant Domains: can any one submit a ticket or do you want just your company to submit tickets?
- Work Schedule
  - Workdays: what days of the week do you operate?
  - Workday hours: when are you open or when are tickets being worked on?
- Ticket Configuration
  - Priorities and Due Dates: Set number of days a ticket is due based on the priority
  - Needs attention:
    - You can customize these
    - Why is the ticket not completed? Ex: Requires Vendor,
       Could not Access Space, Awaiting Parts
  - SLAs: check out the blog https://bim360ops.autodesk.com/blog/getting-started-with-slas
  - Occupant Quick Tickets:
    - You can customize these
    - What are your most common submitted tickets by occupants? Ex: I'm too hot, I'm too cold, I lost my badge



### Portfolio Settings (continued)

- Email Configurations: when occupants reply to an email from BIM 360 Ops, it goes to Kim
- Category Configurations
  - Categories: List of all the categories for your portfolio
  - Edit categories:
    - Here Only: Only Admins can makes changes to categories and only allows your designated list to be added to a ticket
    - Anywhere: free for all! anyone, anywhere can add any category they want to tickets or Scheduled Tasks
  - Category groups
- Task Configuration: who can edit tasks?
  - If you have legal or compliance requirements for PMs or any inspections, it is recommended only admins (Owner and Co-Owners) can edit Tasks
- Add-Ins Airtable!



# Categories

### Determine Categories

- What are the most commonly submitted tickets?
- What do the buildings need?
- Does a department need it's own category?
  - Security
  - o EH&S
- When in doubt use other
- Categories Blog Post:

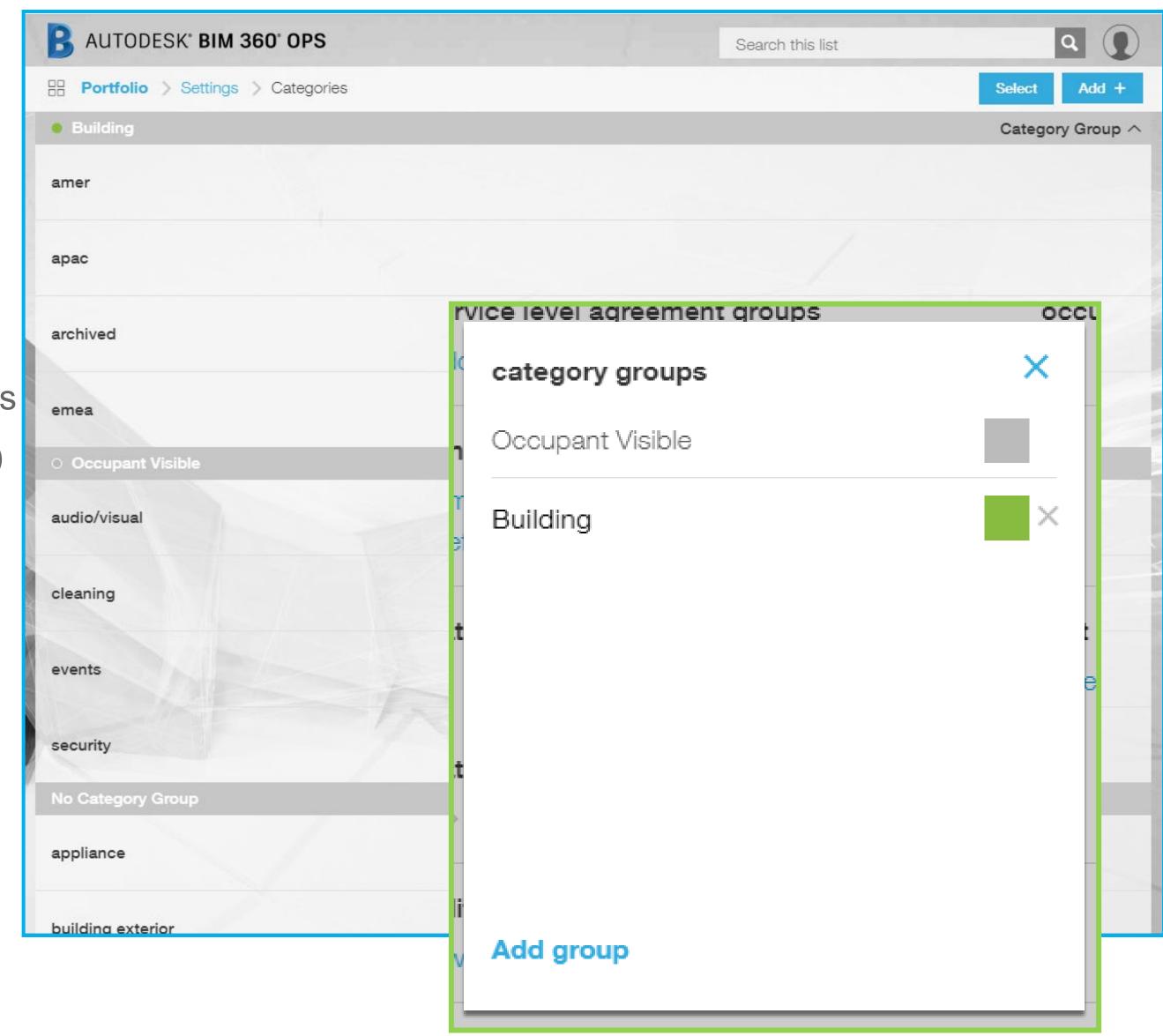
https://bim360ops.autodesk.com/blog/using-action-categories

### Autodesk's Categories

- Mechanical
- Electrical
- Plumbing
- Building Interior
- Building Exterior
- Appliance
- Audio/Visual
- Copy/Print
- Cleaning
- Events
- Furniture
- Move/Add/Change
- Security
- Shipping
- o EH&S
- Signage
- Other

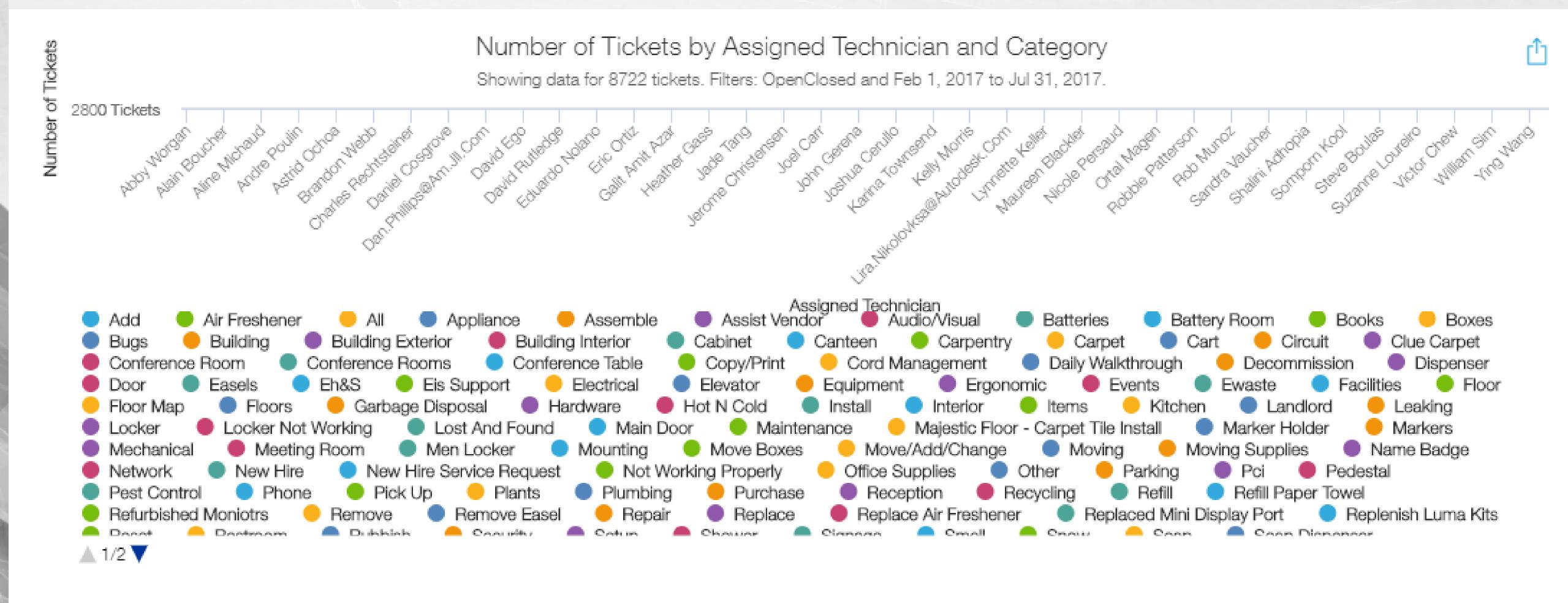
### Categories

- You add these based on what you have determined is needed
- What tickets and Scheduled Tasks are categorized as
- Category Groups
  - Occupant Visible Categories: Categories Occupants
    have the option to select when submitting a (reactive)
    ticket
  - Building Categories: what types of buildings do you have? How are your buildings grouped?
- Lock them down!!!
  - This will only benefit you
  - Is what will bring value to reporting
  - Can work against you if you don't.....



Show me number of tickets vover Feb 1, 2017 to Jul 31, 2017 v compared to none v

Break down graph by Category~



Saved Views

Photo credit goes here

Number of Tickets by

### Category Explosion

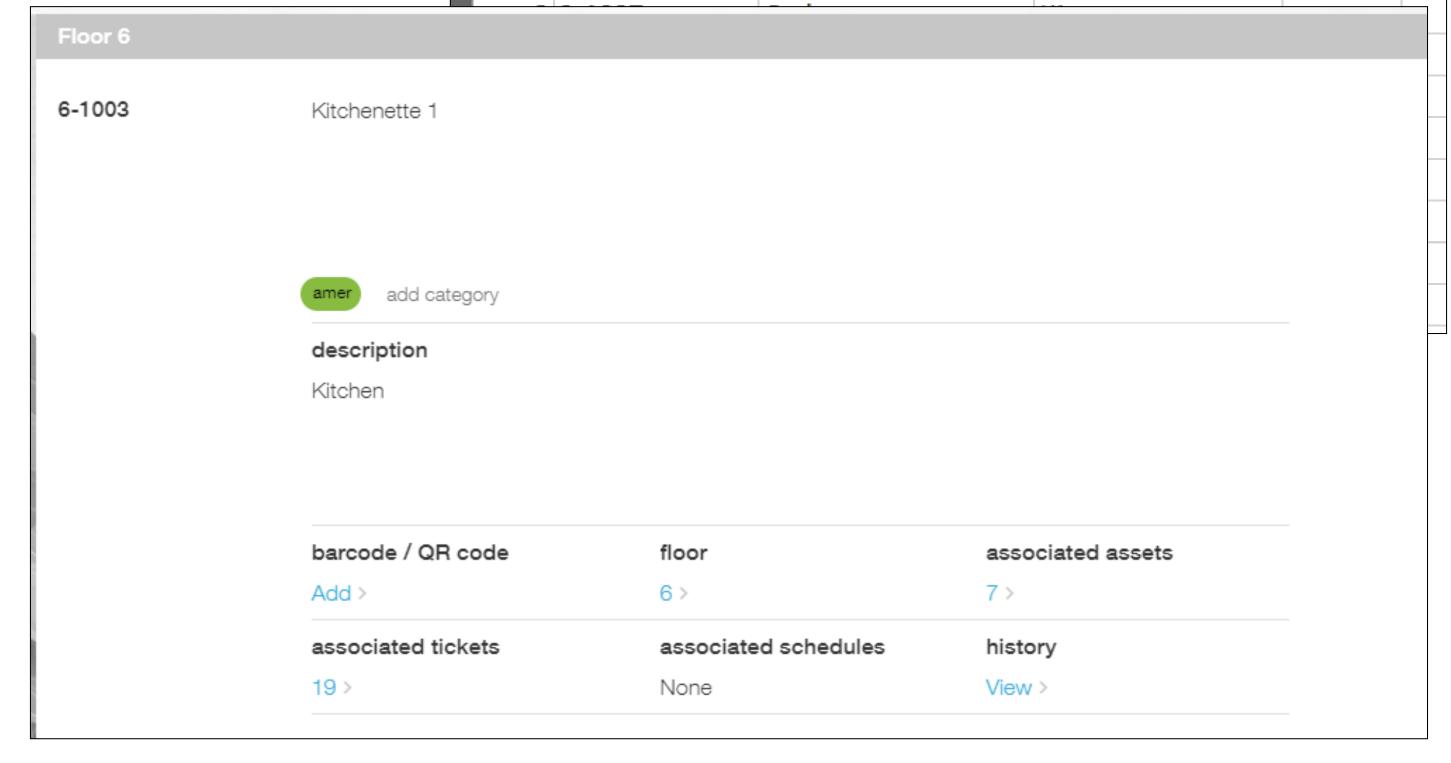
- You really want to avoid this...
- The graph doesn't generate any viable or useful information
- You can merge them BUT
  - You can't edit categories on closed tickets
  - Some ticket may end up with categories that don't apply to the ticket
  - Will effect your reporting. Ex: hours worked by category will not be accurate
- You export to .csv and edit categories, cannot be reuploaded to Ops to correct categories

# Locations

### Locations

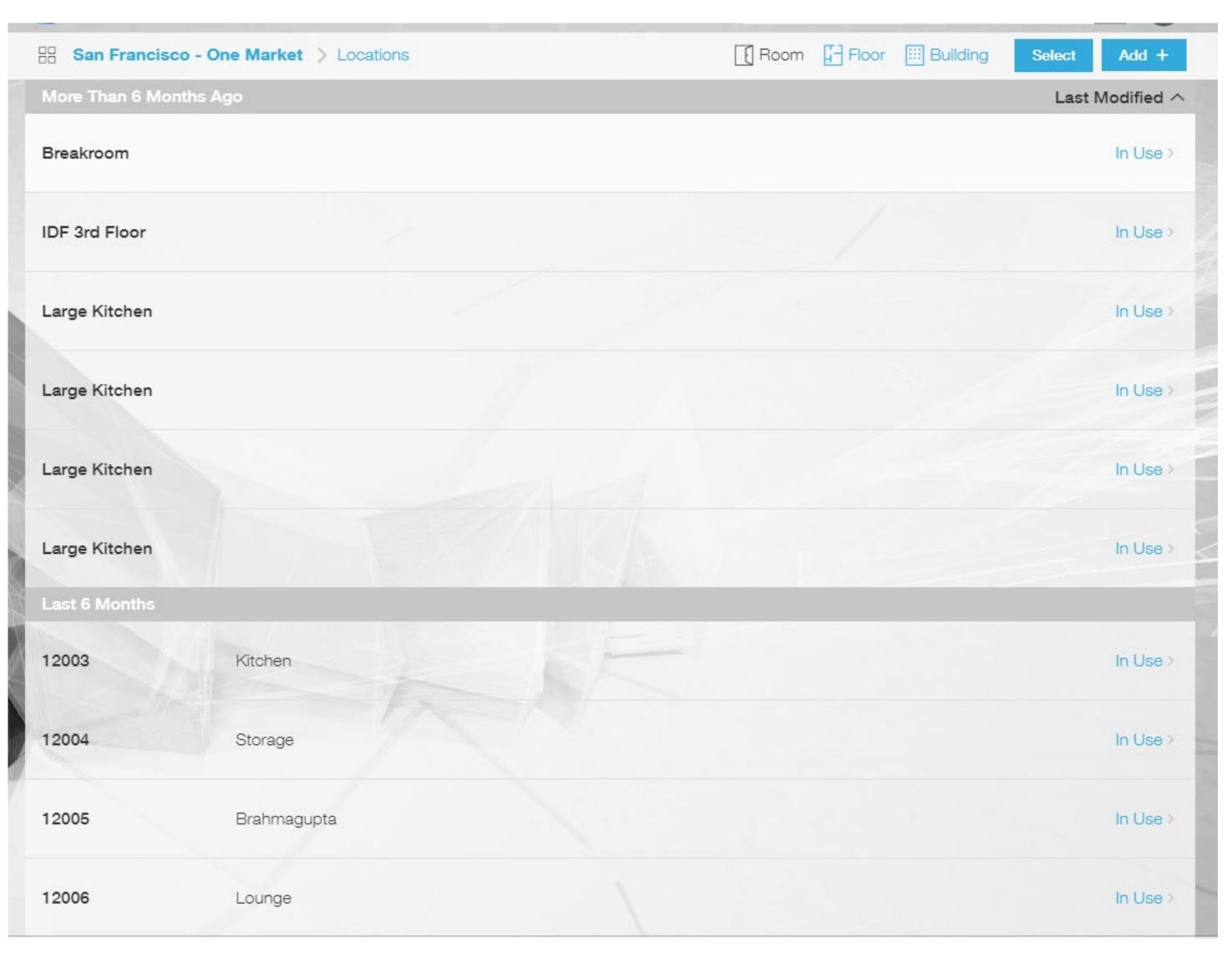
- Upload/setup first
- When uploading from csv, Revit, or BIM 360 Field list the room number only
- Tells you how many associated tickets, associated assets, and associated schedules are connected to the space
- Currently have a project underway which will integrate with FM: Systems with the Ops API
  - Locations that are in FMS will be listed in the locations for Ops

	М	ט			
Fle	oor	Room Number	Name	Description	Barcode
	3	3-1001	Exhibition Lounge		
	3	3-1002	Entrance		
	3	3-1003	Thinking Studio	All Hands	
	3	3-1004	Timber A	Training Room	
	3	3-1005	Ashlar	Conference Room	
	3	3-1006	Gravel	Conference Room	



### Locations

- The list of locations will not be easy to understand
- You'll likely end up with duplicate spaces and not realize it
- Can't delete spaces until there are no assets or Scheduled Tasks associated
- Read more about using Locations:
   https://bim360ops.autodesk.com/blog/aut
   odesk-crefts-how-we-use-locations

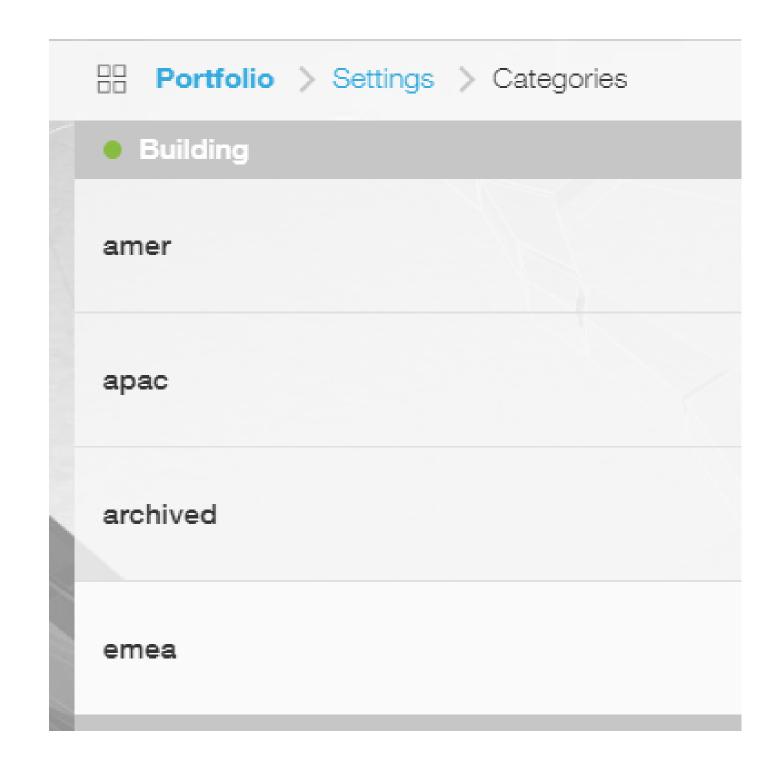


# Minimize your view: Only see what you want to see



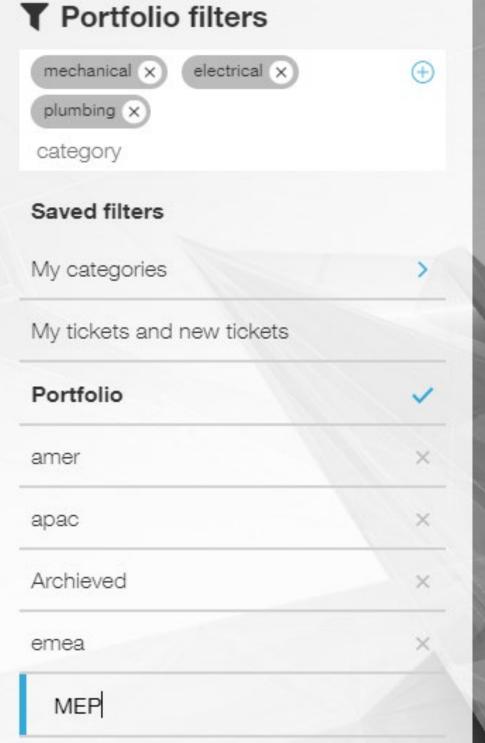
### Utilize Building Categories and Statuses

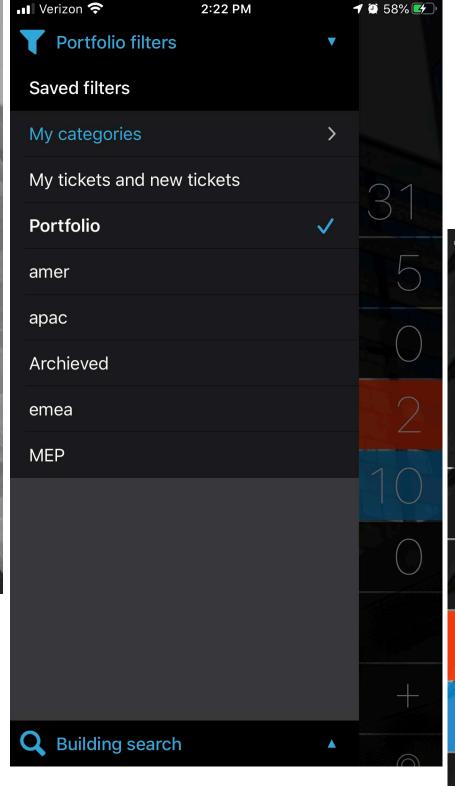
- Categorize your buildings
  - Autodesk categorizes building by GEO
  - Building Type
    - ex: Manufacturing, seating, dorms, lab
- Archived is no longer needed with Building Statuses now available
  - Can mark a building as Occupied or Closed
    - \*Only Owners can view buildings marked as Closed\*
- These will automatically be added to Reactive and Preventative (Scheduled) tickets
  - → Bring more value to reporting



### Utilize Portfolio Filters

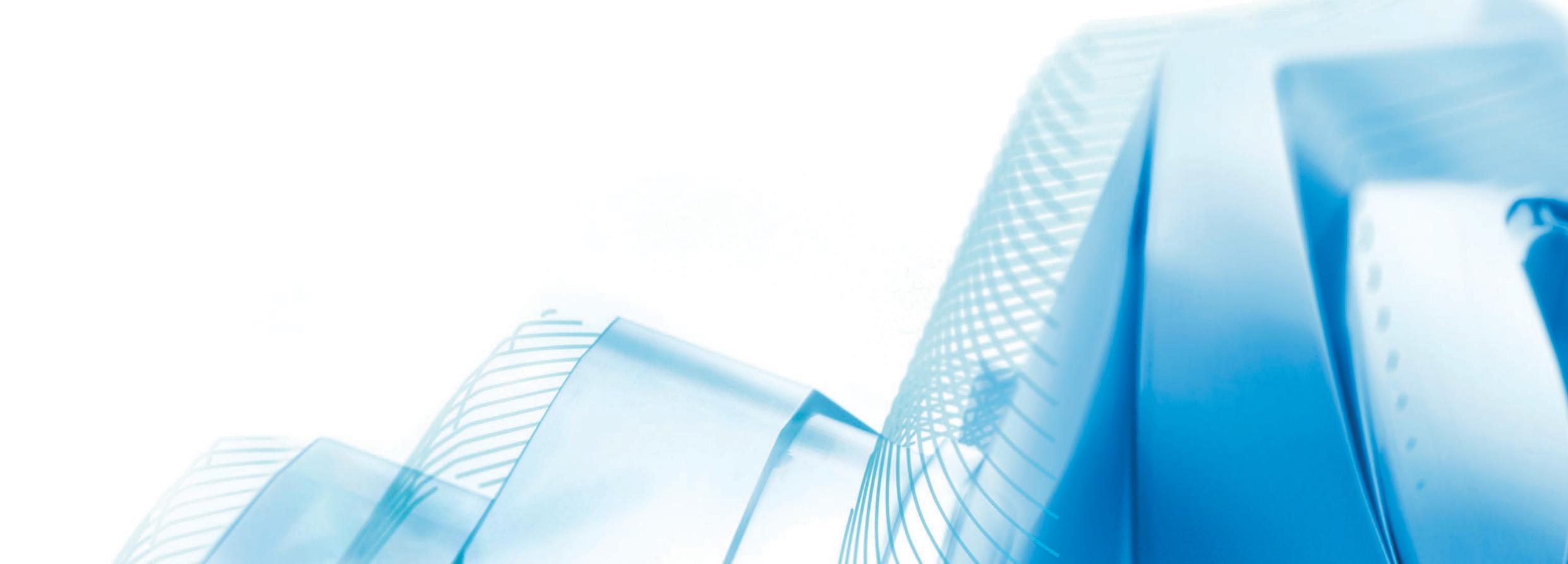
- Tickets/buildings have to be properly categorized
- Can Customize and save your own Portfolio filters
  - Can add more then one category to a portfolio filter
- Can filter by ticket or building category
- Reduces how much you see to only what you need
- Managers have a "my buildings" portfolio filter
- my categories: Have a technician that only works on HVAC? Mark their contact info with the category for the filter to work





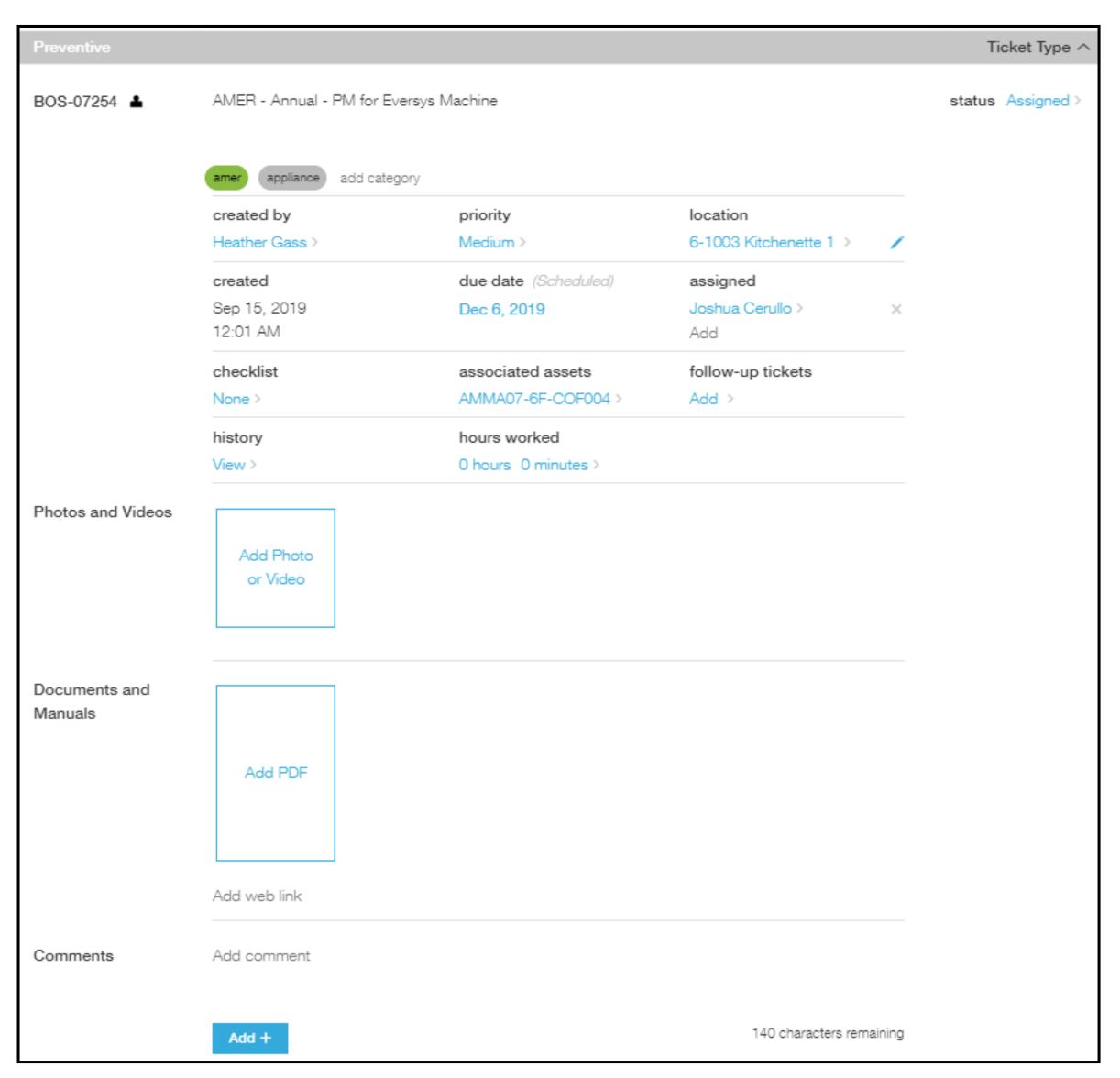


## How to make PMs work for you



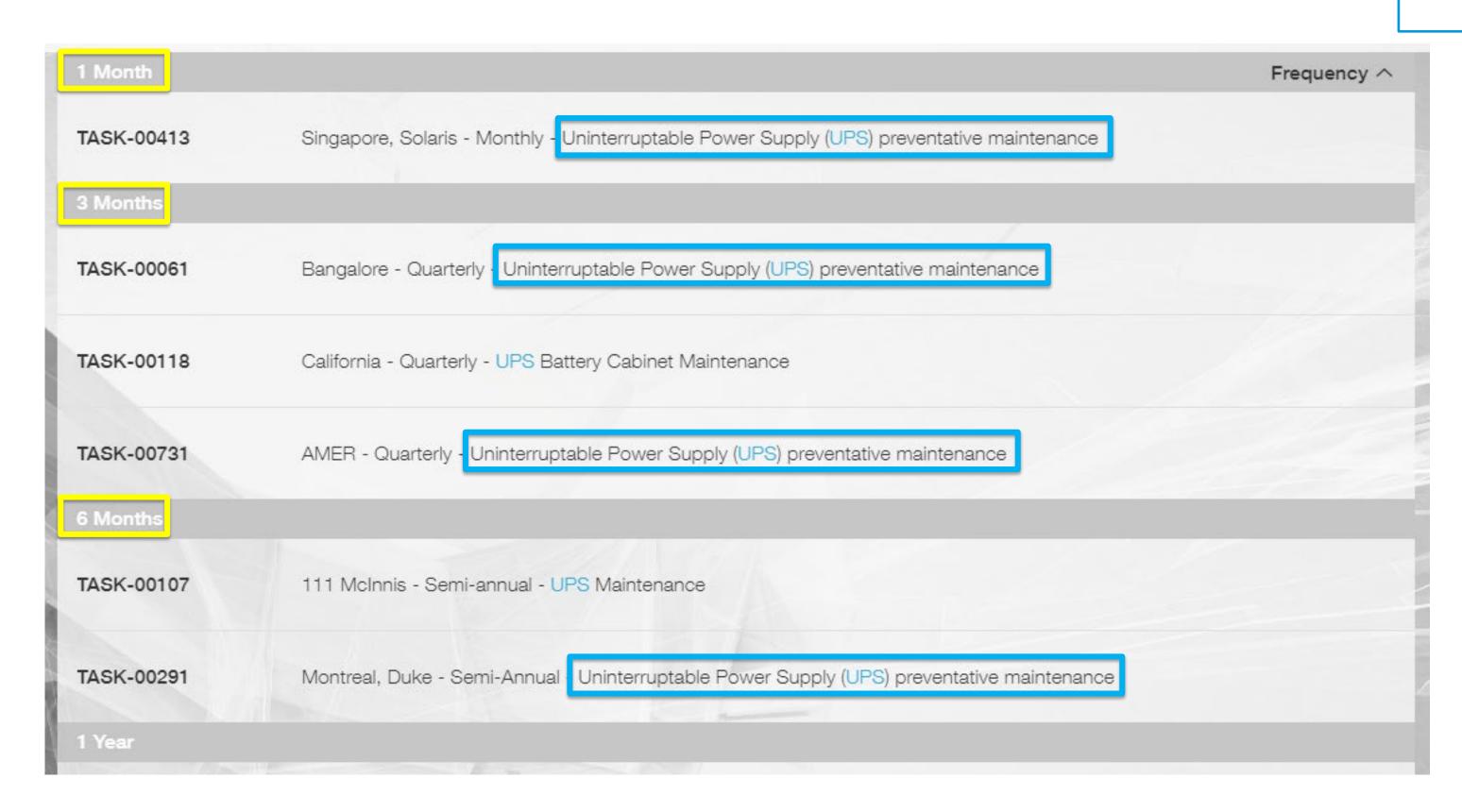
### How can Scheduled Tasks do the work?

- They will generate and include all the info the user(s) need
  - Category already associated
  - Assigned to a technician
  - Assets/locations already indicated → Technician doesn't need to chase down equipment, TIME
     SAVER
- Clicking on the associated asset/location pulls up more detailed info on what/where the work is
- See previous work history on the asset/space
- Naming Standard Believe it or not, this has really benefitted Facilities and EH&S
- → These steps ultimately saves everyone time and allows technicians to be more self sufficient



### Naming Standard

- Same Task but different frequency's?
  - For each Frequency, there is one task
  - The Task Description part of the naming is the same (makes searching efficient)



### **Autodesk's Naming Standard**

Global – Frequency – Task

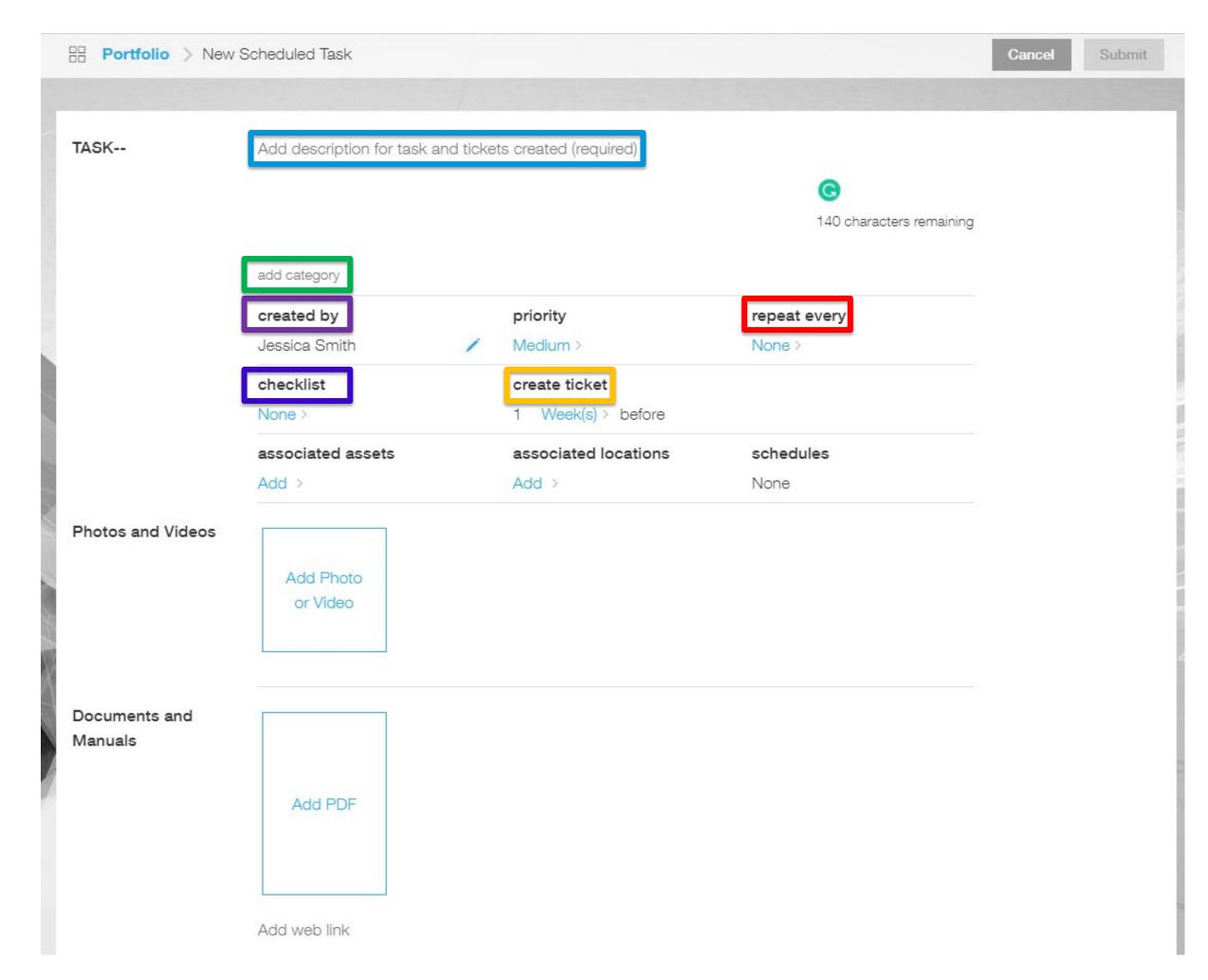
GEO – Frequency – Task

Country – Frequency – Task

Building Name – Frequency – Task

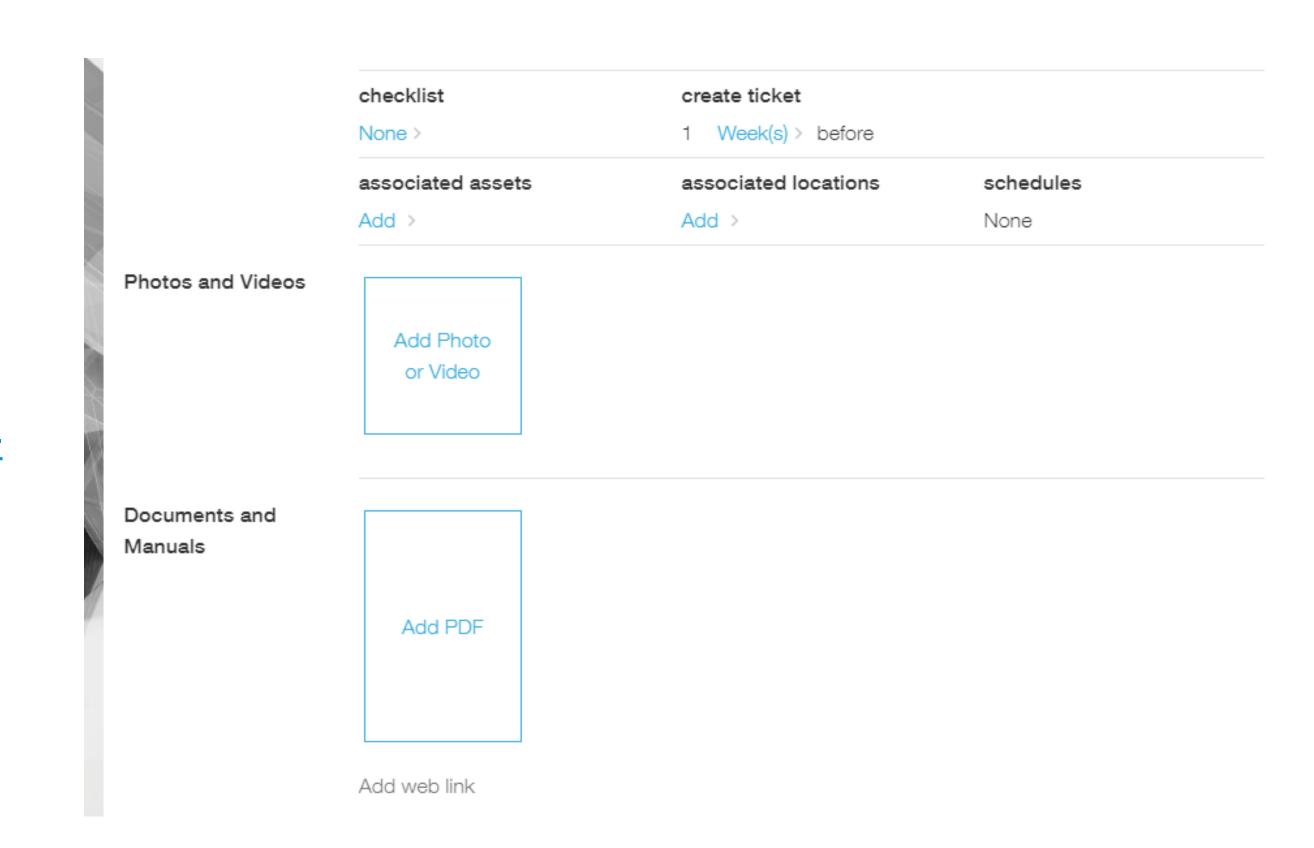
### When Setting up a Scheduled Task

- Description: Must be filled in, if you have a standard make sure you are using it
- Category: If your Task falls under a category
  be sure to add it. When tickets generate, it will
  include this category on the ticket for you
- Created by: Click the blue pencil to the right and change the created by field.
- \*Repeat Every: This is the frequency at which tickets will be generated.
- Checklist: does this task require a checklist,
- Create Ticket: this determines how many days or weeks in advance the ticket is create before the due date



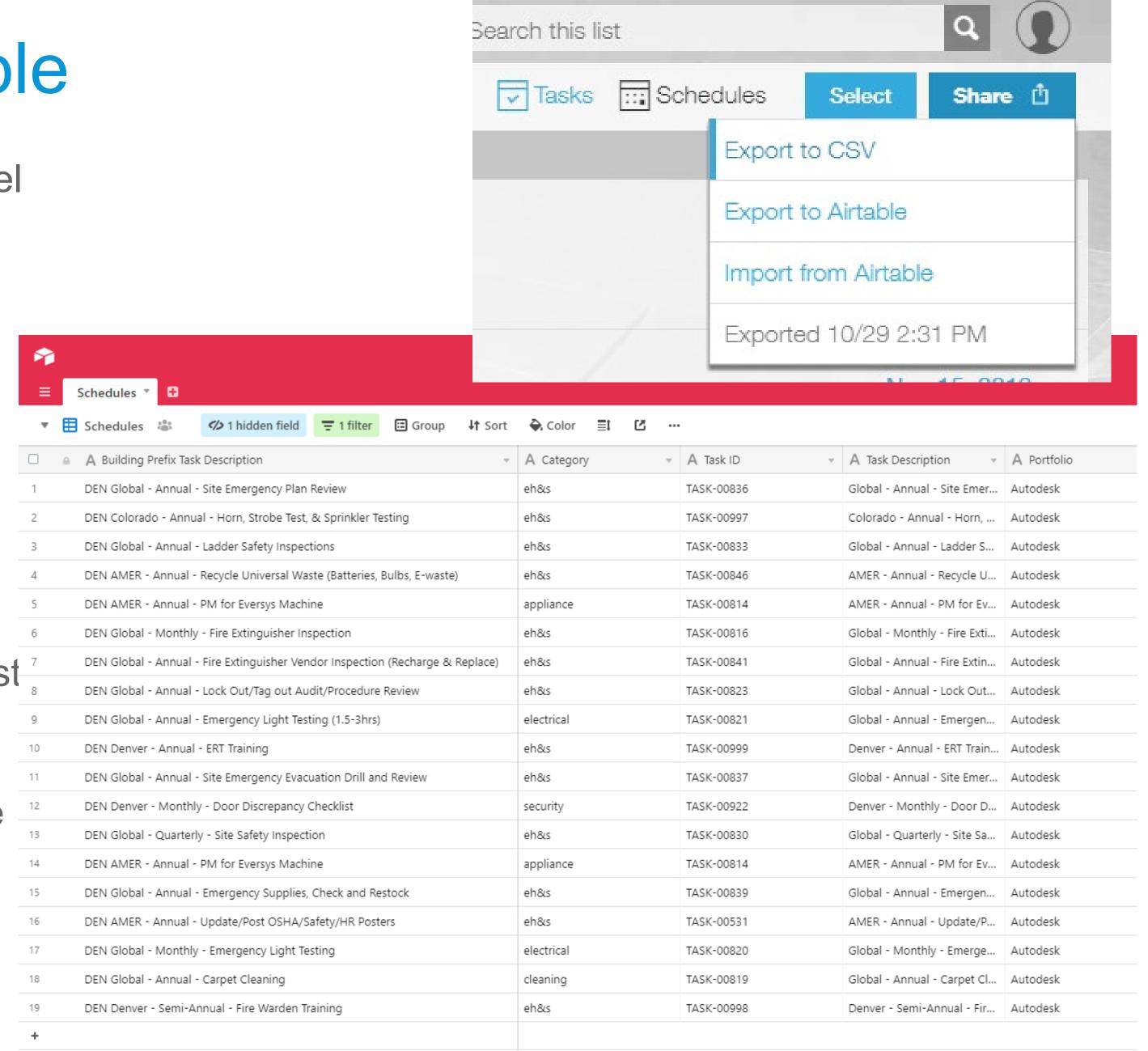
### Setting up a Scheduled Task

- Can only associate either assets, buildings, floors, or rooms.
- Will show total associated assets OR Associated locations
- For more on Scheduled Tasks
  - Blog: <a href="https://bim360ops.autodesk.com/blog/autodesk-crefts-how-to-schedule-maintenance">https://bim360ops.autodesk.com/blog/autodesk-crefts-how-to-schedule-maintenance</a>
  - AU 2018 Presentation:
     <a href="https://www.autodesk.com/autodesk-">https://www.autodesk.com/autodesk-</a>
     university/class/Scheduled-Asset-and-Building Maintenance-Easily-Implement-Successful-Program 2018

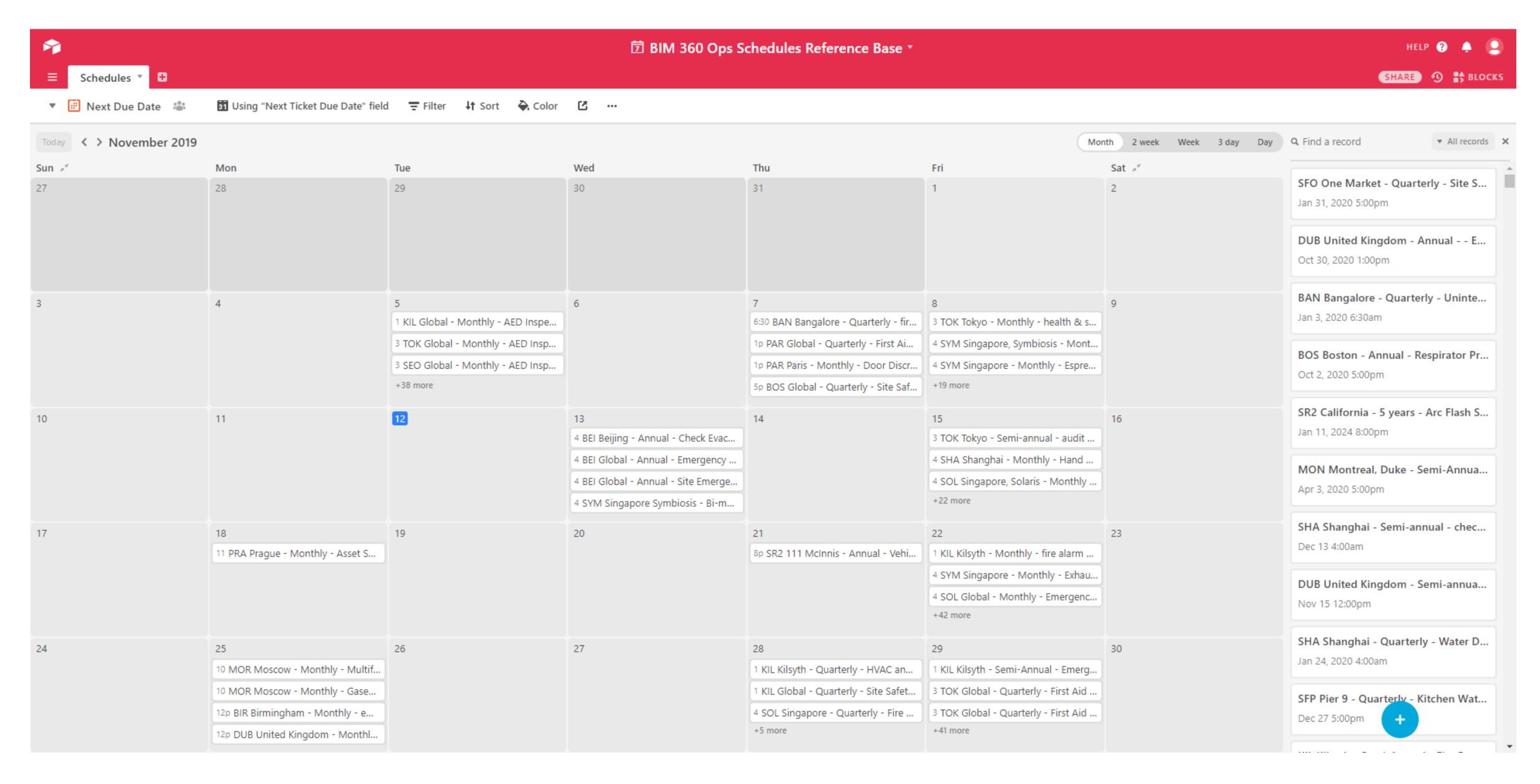


### Scheduled Tasks - Airtable

- Interface is user friendly for those not excel savvy
- Has many different views for users to choose from
- Easy filter capabilities
- Schedules
  - Have to tell BIM 360 Ops to export to
     Airtable from the Portfolio Schedules List
  - Have in import from Airtable before you can export again, avoids undoing all the work done in Airtable
  - Same interface as for tickets

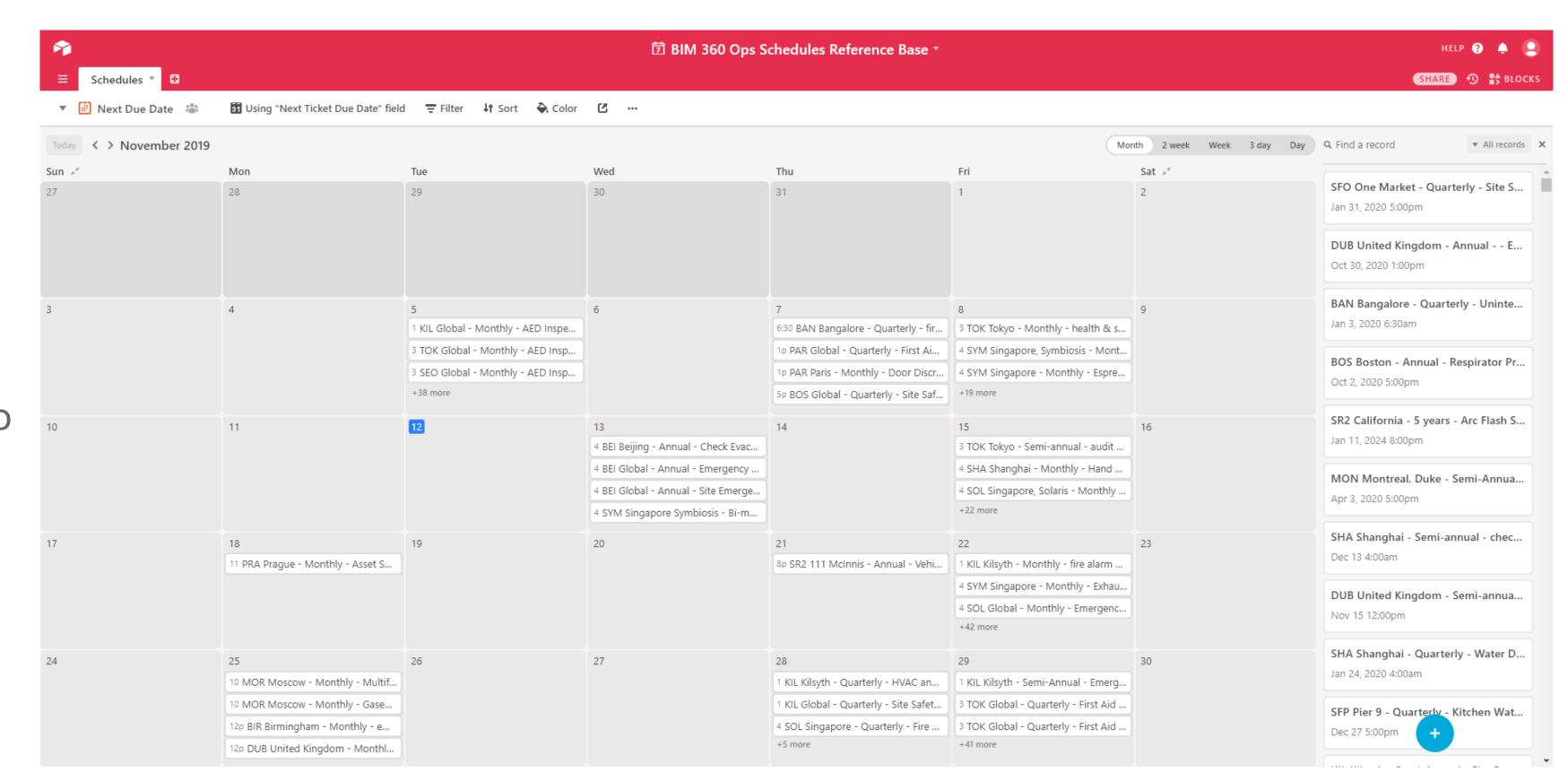


### Scheduled Tasks - Airtable



### Scheduled Tasks - Airtable

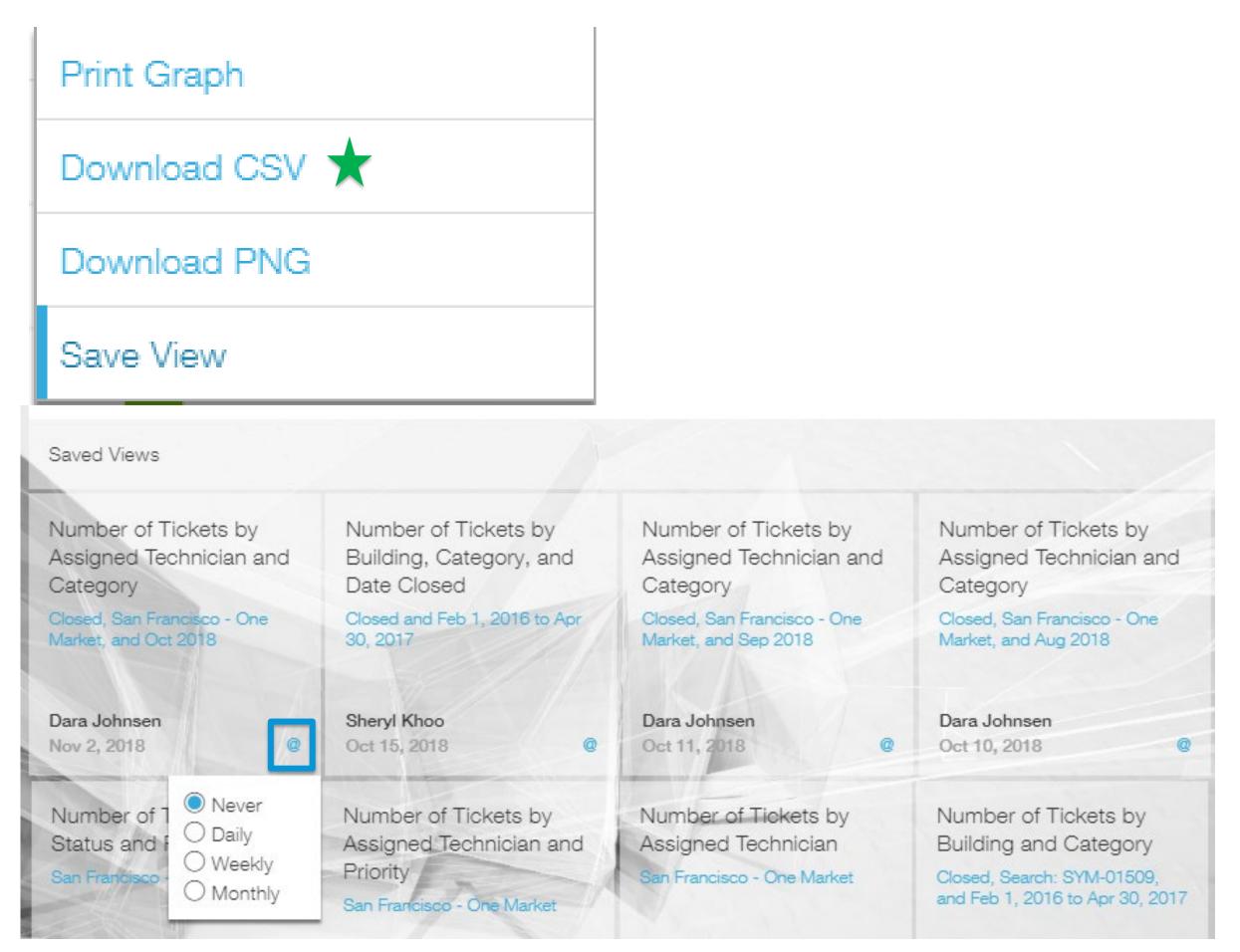
- Schedules
  - Can click and drag Schedule to a different day, changes the due date
  - \*\*Be sure to "import from Airtable"
     in Ops once changes are made so
     both applications are up-to-date
  - Easily switch between list and calendar view
- Blog Post:
   https://bim360ops.autodesk.com/blog/export-schedules-to-airtable



# Reporting

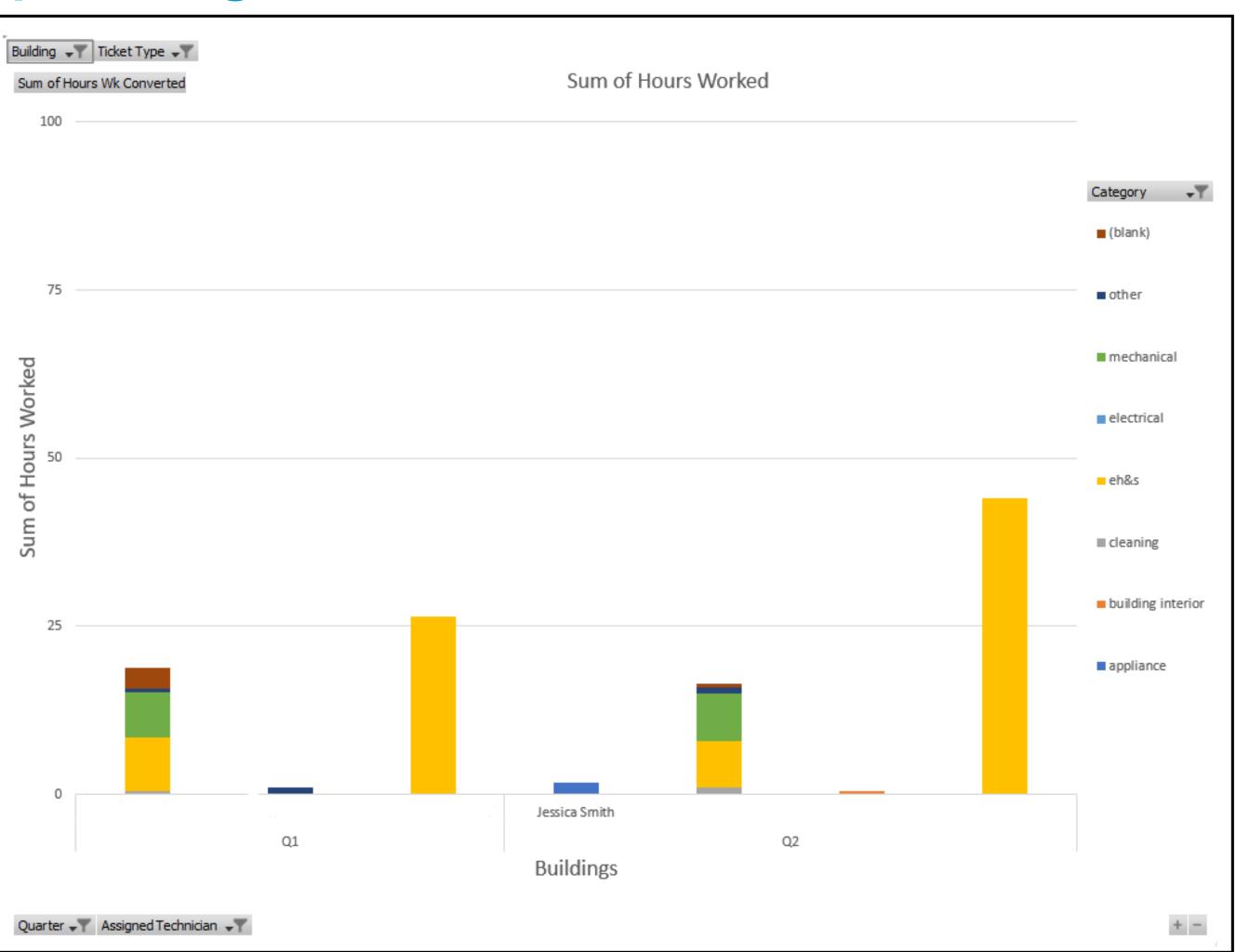
### Reporting

- Print Graph and Download PNG, exports of picture of the graph
- Save View
  - Like the graph you see, save it to view at a later date
  - Be mindful of the time frame you have selected
  - Date you save the view, determines the start date if you want to have a recurring report.
- Download CSV



### Reporting

- In excel using .csv export you can create more customized graphs
- Where having tickets categorized correctly really counts

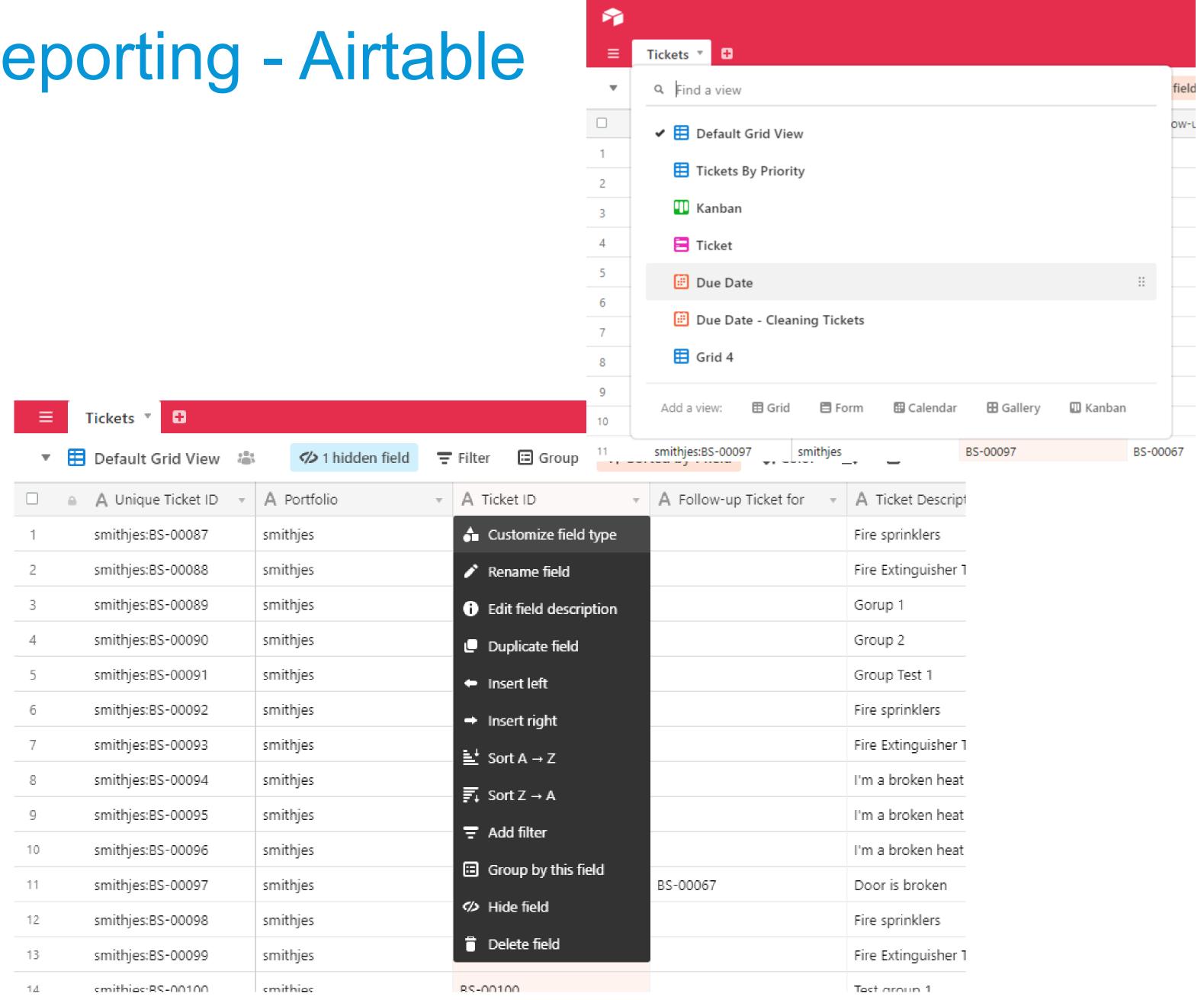


### Reporting - Airtable

P										HELP ? 🜲 👤
≡	Tickets ▼ 🛨									SHARE 19 14 BLOCKS
•	■ Default Grid View	1 hidden field	〒 Filter □ Group ↓↑ So	rted by 1 field 🔷 Color	≣1 亿 …					Q
	A Unique Ticket ID	A Portfolio	A Ticket ID	A Follow-up Ticket for ▼	A Ticket Description	A Category  ▼	A Ticket Type 🔻	A Status -	A Priority •	A Checklist Percent Complete
1	smithjes:BS-00087	smithjes	BS-00087		Fire sprinklers	eh&s	preventive	Open	Medium	
2	smithjes:BS-00088	smithjes	BS-00088		Fire Extinguisher Trianing	eh&s	preventive	Open	Medium	
3	smithjes:BS-00089	smithjes	BS-00089		Gorup 1	other	reactive	Closed	Medium	
4	smithjes:BS-00090	smithjes	BS-00090		Group 2	other	reactive	Closed	Medium	
5	smithjes:BS-00091	smithjes	BS-00091		Group Test 1	other	reactive	Closed	Medium	
6	smithjes:BS-00092	smithjes	BS-00092		Fire sprinklers	eh&s	preventive	Open	Medium	0%
7	smithjes:BS-00093	smithjes	BS-00093		Fire Extinguisher Trianing	eh&s	preventive	Open	Medium	
8	smithjes:BS-00094	smithjes	BS-00094		I'm a broken heat pump		reactive	Assigned	Medium	
9	smithjes:BS-00095	smithjes	BS-00095		I'm a broken heat pump		reactive	Assigned	Medium	
10	smithjes:BS-00096	smithjes	BS-00096		I'm a broken heat pump		reactive	Assigned	Medium	
11	smithjes:BS-00097	smithjes	BS-00097	BS-00067	Door is broken Created from "Civic Center		reactive	Closed	Medium	
12	smithjes:BS-00098	smithjes	BS-00098		Fire sprinklers	eh&s	preventive	Open	Medium	0%
13	smithjes:BS-00099	smithjes	BS-00099		Fire Extinguisher Trianing	eh&s	preventive	Open	Medium	
14	smithjes:BS-00100	smithjes	BS-00100		Test group 1		reactive	Open	Medium	
15	smithjes:BS-00101	smithjes	BS-00101		Test group 2		reactive	Open	Medium	
16	smithjes:BS-00102	smithjes	BS-00102		Jess, this is Katie's text tic		reactive	Closed	Medium	
17	smithjes:BS-00103	smithjes	BS-00103		Fire sprinklers	eh&s	preventive	Open	Medium	0%
18	smithjes:BS-00104	smithjes	BS-00104		Fire Extinguisher Trianing	eh&s	preventive	Open	Medium	
19	smithjes:BS-00105	smithjes	BS-00105		Fire sprinklers	eh&s	preventive	Open	Medium	0%
20	smithjes:BS-00106	smithjes	BS-00106		Fire Extinguisher Trianing	eh&s	preventive	Open	Medium	
21	smithjes:BS-00107	smithjes	BS-00107		Fire sprinklers	eh&s	preventive	Open	Medium	0%
22	smithjes:BS-00108	smithjes	BS-00108		Fire Extinguisher Trianing	eh&s	preventive	Open	Medium	
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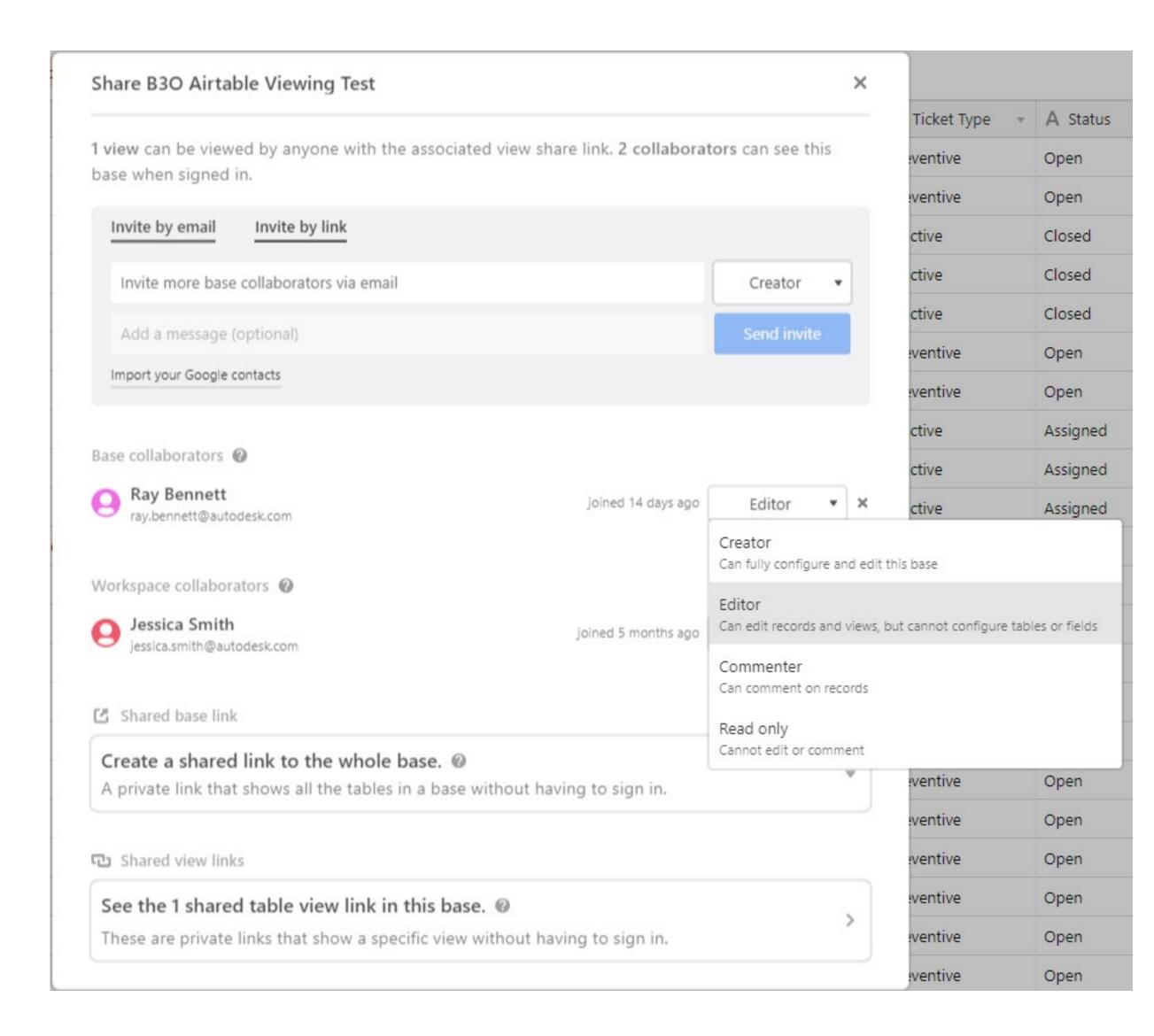
### Reporting - Airtable

- We like Airtable
- Only available to user roles Owners and Co-Owners
- Does export more information then .CSV
- Same interface benefits as with Scheduled Tasks
- Blog Post: https://bim360ops.autodesk.com/blog/ export-tickets-to-airtable

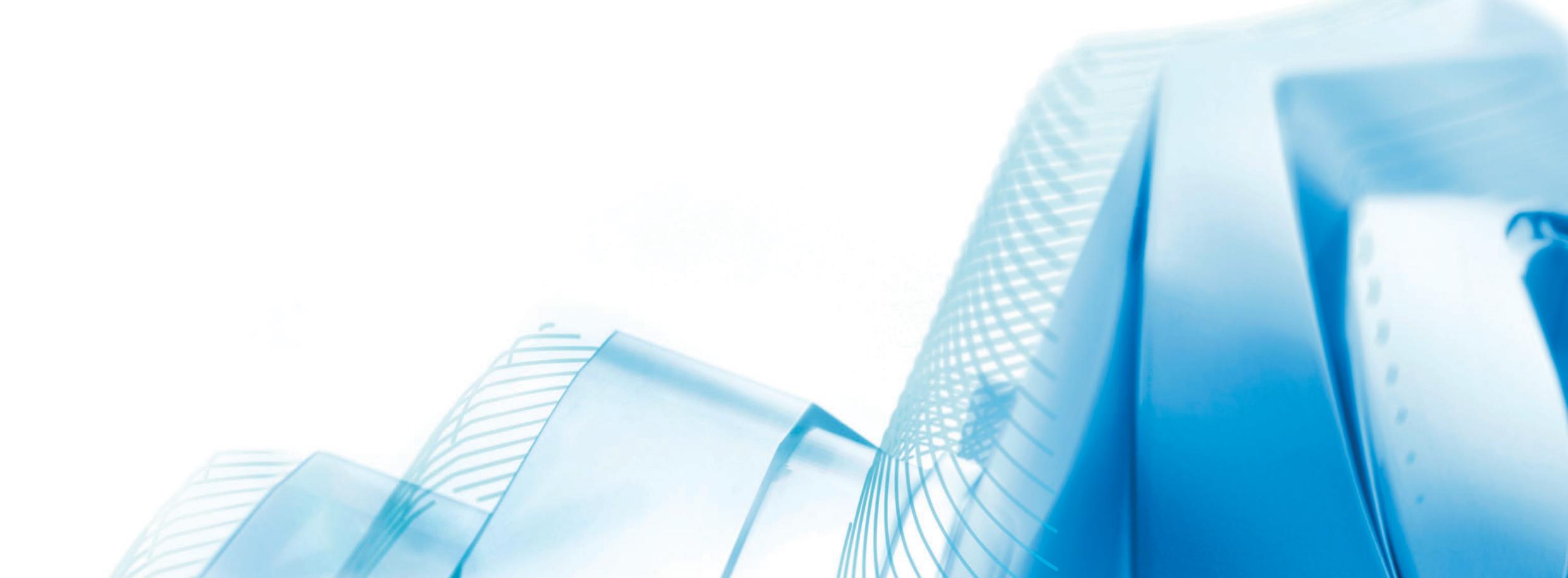


### Reporting - Airtable

- Shared View
  - Can limit what users see and do when working with Personal Identifiable information
  - Can share one spreadsheet for multiple people rather then creating multiple excel files
  - When adding collaborators, each one can have their own specified access
- Airtable Resource: <a href="https://support.airtable.com/hc/en-us/articles/205752117-Creating-a-base-share-link-or-a-view-share-link">https://support.airtable.com/hc/en-us/articles/205752117-Creating-a-base-share-link-or-a-view-share-link</a>



# Importance of [AII] Users



### iOS Devices & Day Porters

- Who walks around the most in Boston? Our Day Porters!
  - Individuals in these roles are often forgotten about but can (and do in Boston) contribute to the locations for mobile assets
  - They have a constant view of the space
- How are they able to help?
  - Provided them with iPods
  - They can submit tickets to Ops
- Ops does translate to Spanish and Portuguese

### We Love our Users

- The more people that use Ops, the more we stay on top of what is occurring in the space
- Usually more occupants then facilities in a space, first to report the problem
- Vendors
  - They are the ones working in the space and usually in areas not frequently accessed
- More opportunity for perspectives; what might not seem like an issue to one person, is an issue to someone else
  - → Promoting user adoption across all roles will allow teams to be more aware and facilities to be more efficient. All around this helps everyone

### Some Lessons Learned

### MAKE SURE LOCATIONS ARE FORMATTED CORRECTLY

Have these correct the first time could have saved me countless hours of moving assets from a duplicate location to the original due to imports/exports.

### LOCK DOWN CATEGORIES

Not doing this will create a project of catastrophic proportions that you just don't want

### DETERMINE GATE KEEPER

Have designated admin(s) will help keep the chaos to a minimum. Keep you Scheduled Tasks from becoming to long and repetitive

### DETERMINE NEEDS SOONER RATHER THEN LATER

Don't want to realize later that something should have been done (like categories) and have to make massive edits i.e. Asset ID naming standard

# Questions?

## BIM 360 Ops Classes at AU 2019

Session ID	Title	Day and Time
BLD322234	Getting Started with BIM 360 Ops	Tuesday 1:30
BLD322245	Indoor Mapping for Facility Operations	Tuesday 2:45
BLD322176	Revit to BIM 360 Ops—Exporting Asset and Location Data for Facilities Management	Tuesday 4:30
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CS323783	Getting Real with BIM 360: A Case Study of Autodesk's Boston Office	Thursday 10:30
CS322863	Enhanced Workflows to Successfully Implement BIM 360 Ops	Thursday 1:30
BLD322830	How to Write an Awesome Facilities Management Data Specification	Thursday 2:45

### BIM 360 Ops Resources

\*\*\*Email us! Ops.at.au@autodesk.com\*\*\*\*

- Blogs: <a href="https://bim360ops.autodesk.com/blog">https://bim360ops.autodesk.com/blog</a>
- Product Site: <a href="https://bim360ops.autodesk.com/">https://bim360ops.autodesk.com/</a>
- App Store (Mobile App): <a href="https://itunes.apple.com/us/app/bim-360-ops/id941471006?mt=8">https://itunes.apple.com/us/app/bim-360-ops/id941471006?mt=8</a>
- Web App: <a href="http://ops.bim360ops.com/">http://ops.bim360ops.com/</a>



### **Get Started Now!**

- Scan the barcode OR Visit <a href="https://ops.bim360ops.com">https://ops.bim360ops.com</a>
   (or download BIM 360 Ops from the App Store)
- Enter your email address and join the portfolio AU2019.
- Confirm your email address and enter a phone #
- You are now an occupant of this portfolio
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