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THE STANDARD FOR LIGHTING MANAGEMENT QUALITY SINCE 1953

# SPRING SEMINAR

Richard Hormuth – Acuity Brands

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# Agenda

1. Intro to lighting controls.
2. What trends are driving changes for lighting controls.
3. New and Better Solutions Using Modern Technology.

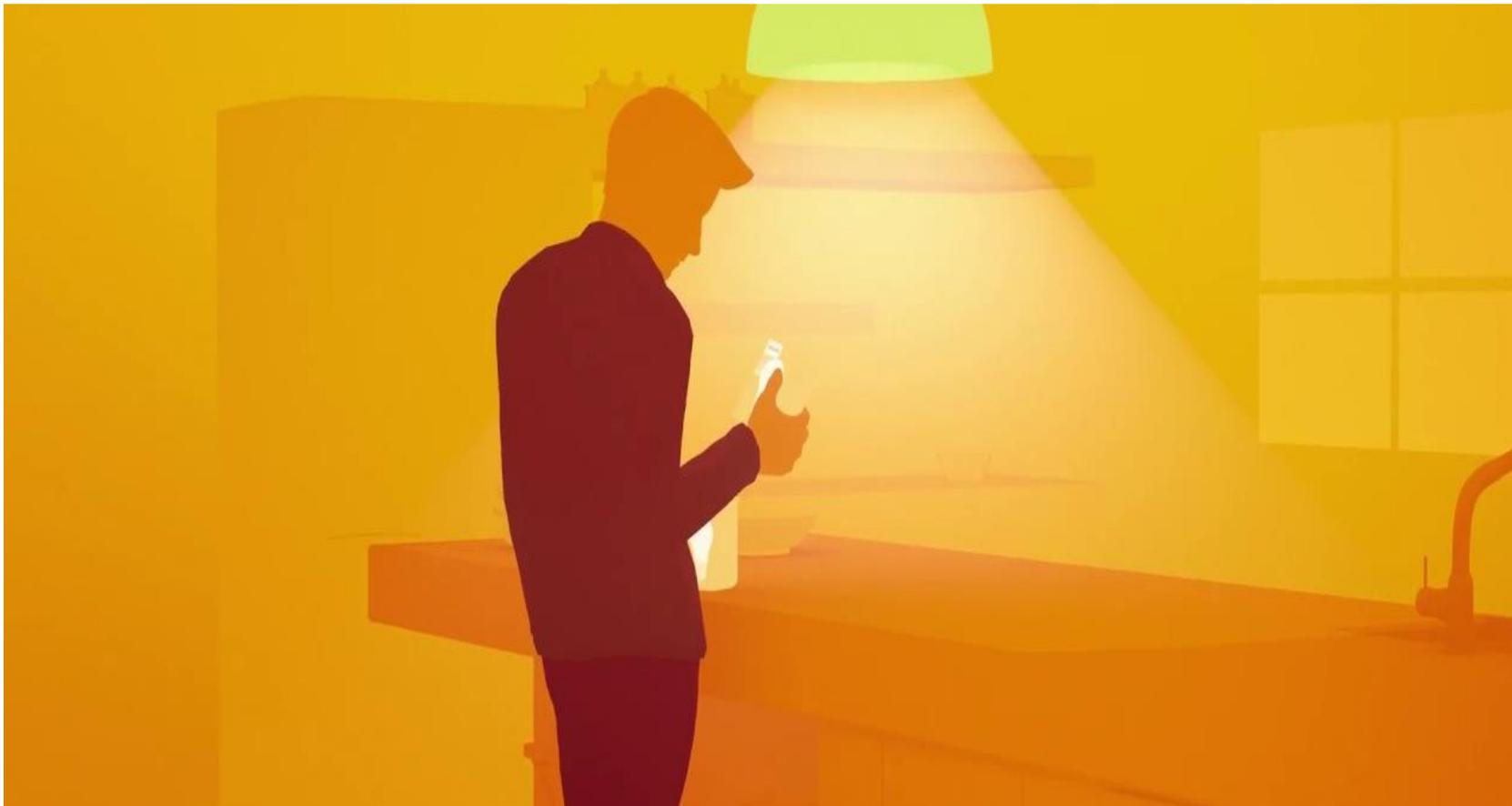


# In the Beginning



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# What Is Lighting Control



- Right amount of Light-Dimming
- When you need it
- Where you need it
- Flexible
- Easy to install
- Easy to commission



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Trends: LED, IECC, ASHRAE 90.1, LEAD, WELL, Net ZERO



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# Trends That Are Driving Change With Lighting Controls

According to the Department of Energy (DOE),  
“By 2035, just under a third of installed luminaires in commercial buildings are expected to have network connectivity (2019).”

Data is the new oil



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## Trends That Are Driving Change With Lighting Controls

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- “President Biden has set an ambitious U.S. goal of achieving a carbon pollution-free power sector by 2035 and a net zero emissions economy by no later than 2050.”
  - ~White House Fact Sheet, Major Economies Forum on Energy & Climate, 4/20/23

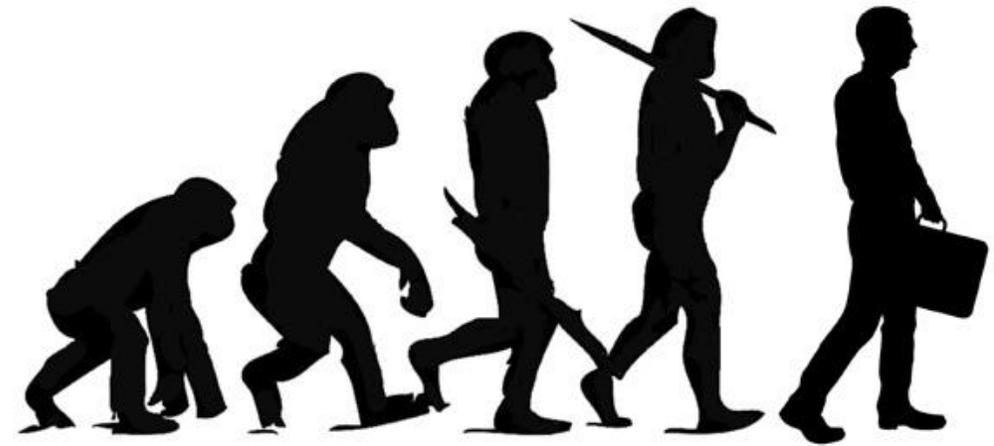


# Trends That Are Driving Change With Lighting Controls



- The urgency to decarbonize the built environment is crystal clear. And while it's tempting to focus on innovating in construction, **improving the energy efficiency of existing buildings is key.** Given the typical 30-130 years lifetime of a building, 80% of predicted building stocks for 2050 has already been built. So, there is a huge need – and opportunity – to retrofit existing assets”
- ~ Mcinsey & Company, Decarbonization Study, 7/14/21

# Trends That Are Driving Change With Lighting Controls

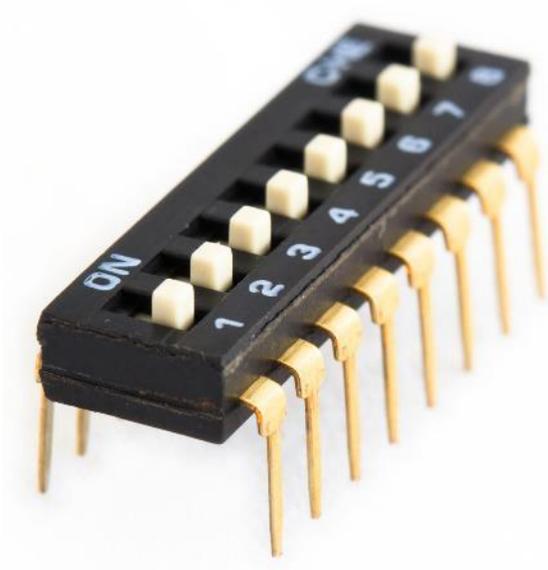


# Considerations When Selecting A Controls Solution

- Having a single solution that can accommodate any type of vertical application indoor and outdoor
- Solution that can meet current codes and has the ability to change and be upgraded with firmware as code changes
- People coming back to the workspace.
- Networking BMS
- Look for the most versatile solution and not just energy saving, what data is available and what can your customer do with data



# Simple Evolution



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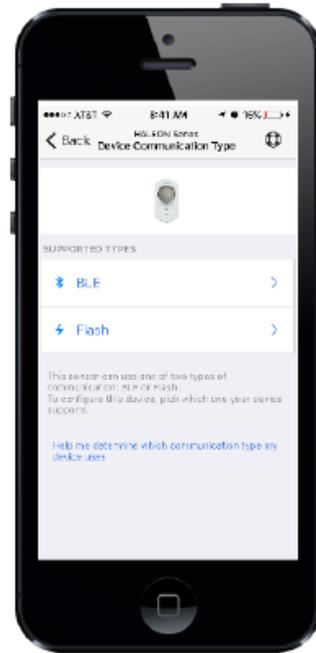
# Simple Evolution



# Simplified Commissioning Thru Applications



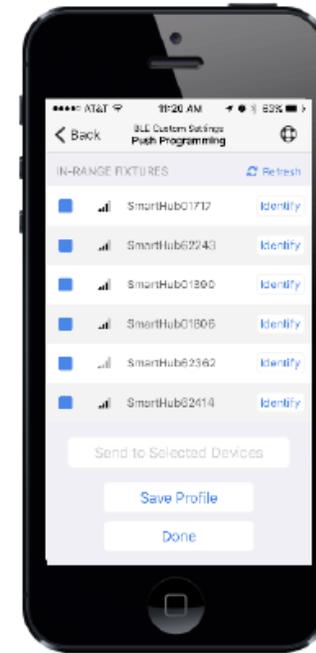
1. Select the appropriate Sensor



2. Select BLE for maximum range programming



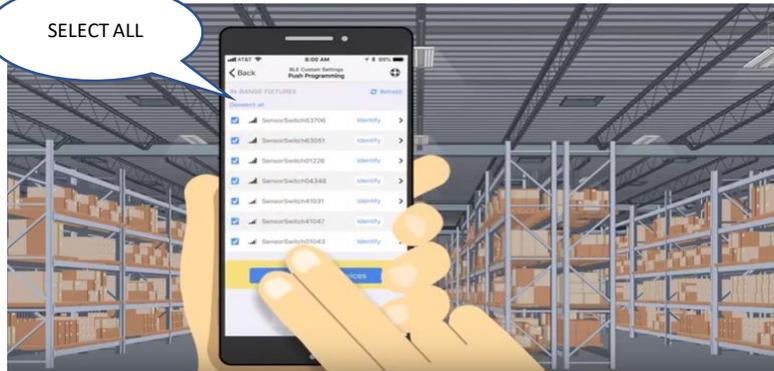
3. Set configuration options



4. Select multiple BLE enabled fixtures to batch process configuration changes



# Blue Tooth Programming with Flashlight Wake-up Feature



## Bluetooth® Wireless Programming

Program multiple enabled sensors at the same time from the ground.

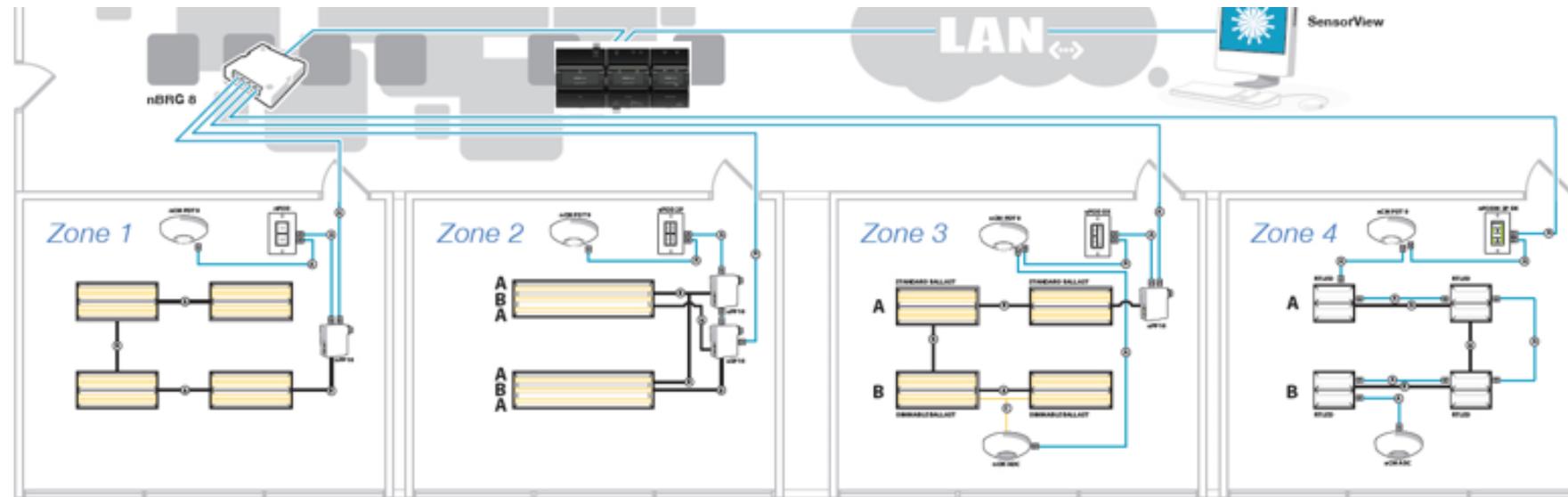
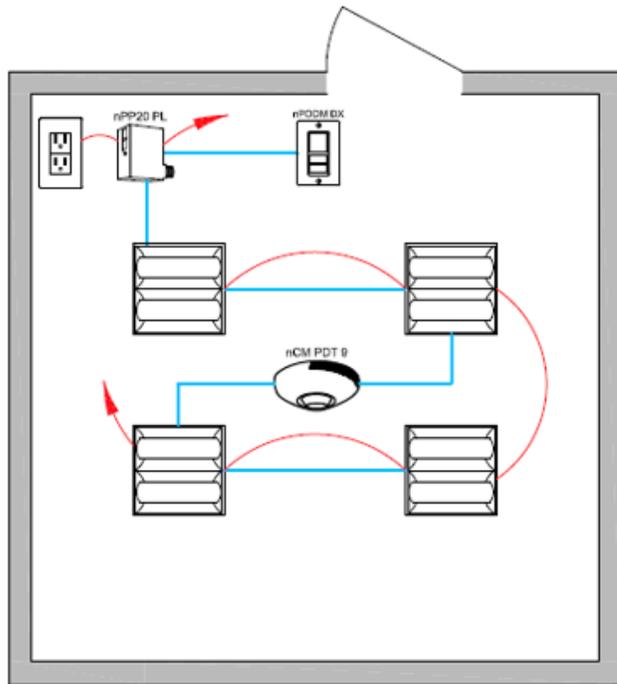
**BLE-Based Remote Programming –**

**Proposed Workflow**

1. Install fixtures, sensors function per out-of-box default programming
2. Download free app through Apple App Store or Google Play Store
3. Create app log-in (first time only)
4. Select sensor type (Haleon >> BLE)
5. Batch program fixtures allowed upon power up or power cycle from breaker (45-min)
6. Shine flashlight on fixture(s) to identify in-app – 5 seconds on, 5 seconds off, 5 seconds on. Refresh will sort by BLE strength first, flashlight identification second. Filter by “flashlight” will only show those that have been identified with a flashlight. Select fixture or group of fixtures (batch)
7. Insert factory default pin of 1-1-1-1-1-1 (first time only) and settings using intuitive UI
8. to program, send programming
9. Successful upload – fixture will flash
10. Failed upload – BLE interruption - retry



# Evolution of Control Commissioning Wired or Wireless



Stand alone zones and networking with cat 5 cables

# App driven network programming

- Network
- Groups
- Behaviors
- Time based control
- Daylighting
- Outside control integration bacnet
- Atrius IOT asset tracking indoor positioning

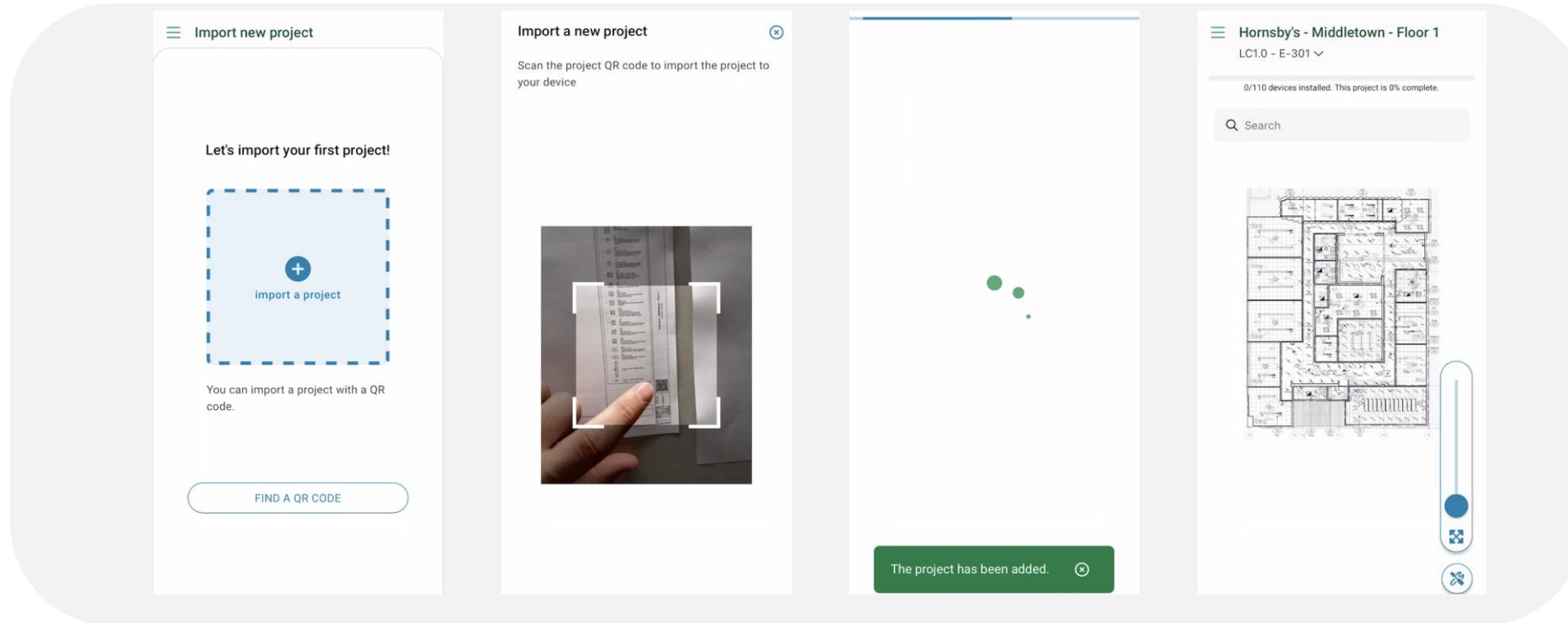


What if you could use Design  
Software to Commission your  
Lighting Controls Solution?

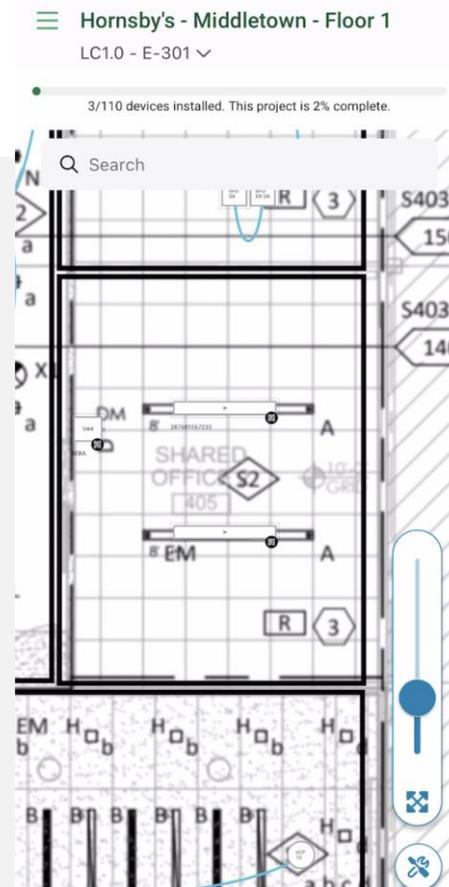
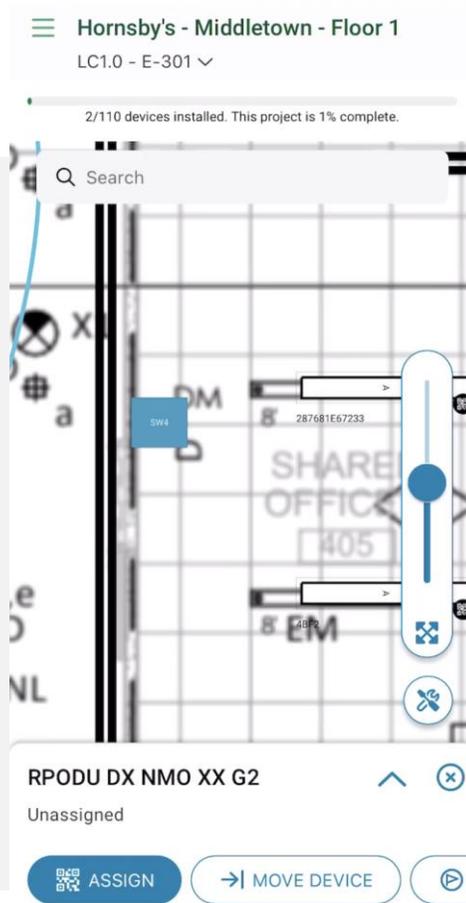


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# Design Software That Can Be Used to Commission a Controls Solution



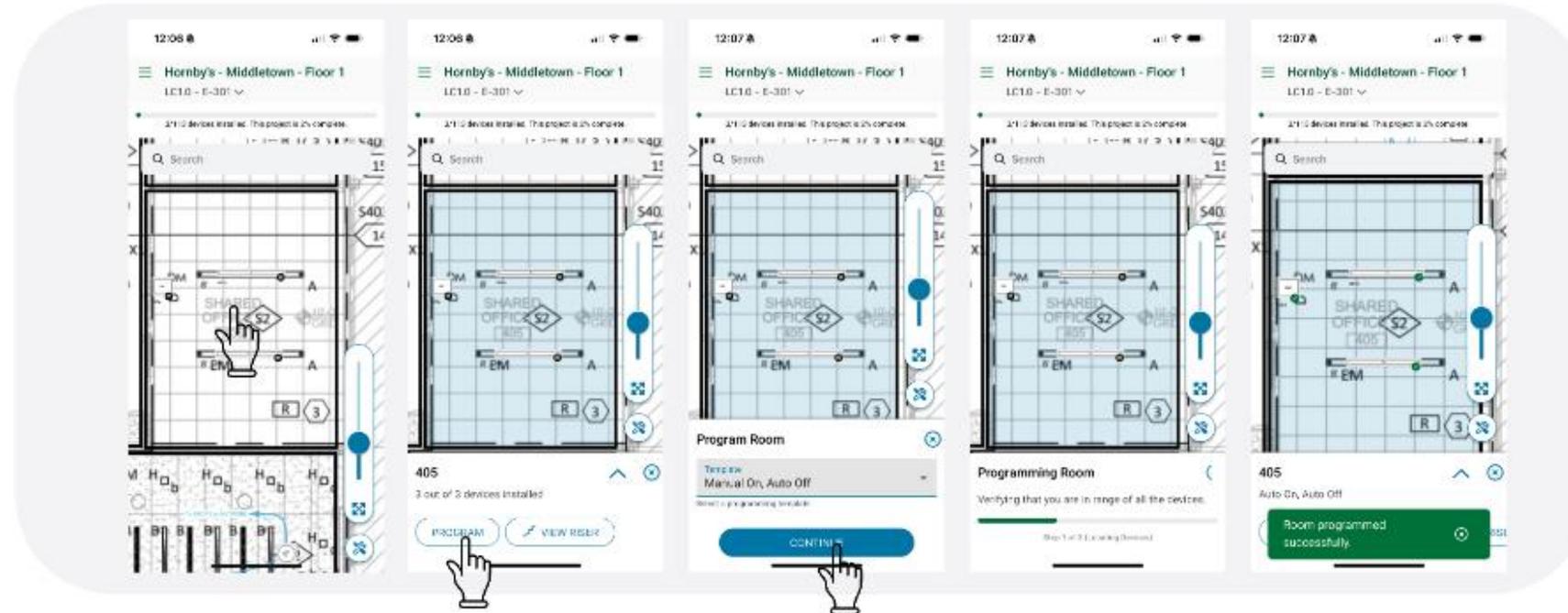
# Import Layout and Assign Devices



- Scan the QR code on the submittal to populate the projects design layout
- Scanning the devices QR Code and place them on the location where they will be installed. No more stickers or writing on plans
- Follow up with send programming



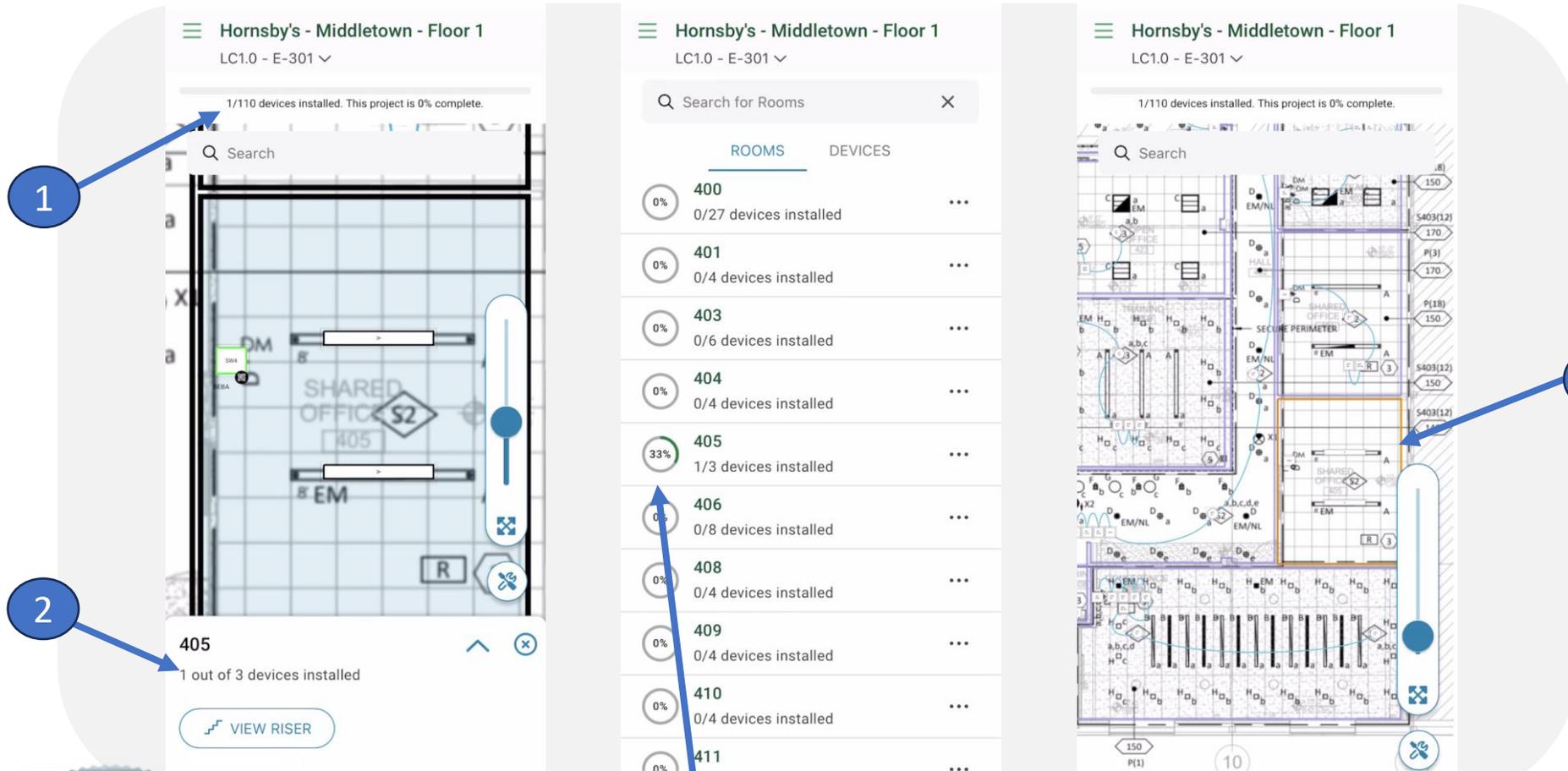
# Program Devices



- Programming will take as few as three clicks
- Devices can be programmed incredibly fast
- Requires little controls knowledge
- Devices work together after being programmed



# View Installation Status



## Track Live Project Status:

1. Total project
2. Per room
3. List view
4. By color

4

## Project Notes

1. Leave notes or picture for a room or for a device
2. All notes are available across mobile devices in seconds



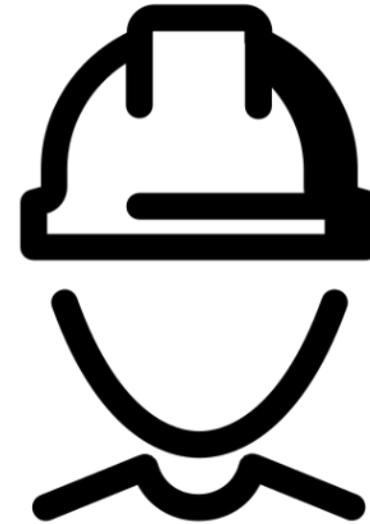
# Installer, Foreman, Project Manager

## Installer

- Scanning is 20% to 50% faster than peel and stick methods
- Doesn't have to share multiple electrical drawing sets
- Quick note taking for installation

## Foreman / Project Manager

- Instant visibility of installation status
- Digital record of installation
- Record drawings can be exported from Visual Controls



**Interesting fact:** 9 out of every 10 contractors preferred the app compared to conventional methods, and the remaining 1/10 had no preference. No one preferred conventional methods over the app.



# Service Plans And Why They Are Important



- It's important to maintain your home and your vehicle to optimize their performance. Same considerations need to be taken into account for lighting control solutions.
- Eliminate budgetary surprises with pre-paid coverage options
- Reduce downtime with preventative maintenance guided by factory experts
- Optimize energy savings as your building needs evolve
- Keeps you from having to go back-Remote programming



That's my 20 minutes

Thank you for the time



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