

Avoid Asset Tagging Pitfalls: Considerations to Develop the Optimal Asset Management Program



Presented By

CAMCODE[®]

1. Where are we now?
2. Why use bar code labels?
3. How to plan a labeling project?
4. Who uses labels?
5. How to choose the right label options
6. Label installation & tagging consistency
7. What goes on the labels?
8. Innovative QR code uses
9. Sequential vs asset specific data
10. End user examples
11. Conclusions



Where Are We Today?

Most companies have poor data quality and poor visibility of their asset database



- **Multiple legacy database systems**
multiple software reporting different information
- **Poor data acquisition**
inability to find what you are looking for
- **Data entry error**
eliminate the issue of human error
- Manual systems: no use of automated collection
- Asset management is not considered core business
- Limited or no data governance policies

Why Use Bar Codes?

Understanding a QR Code Label's Purpose

Whether the label is for an oven, HVAC, or electrical panel, **bar code labels are license plates to access that assets record in your database**



Data Control

- You can manage the information more effectively with an access point to your database
- Utilize all of the information available to manage the equipment
- Have a visual roadmap of what your inventory looks like
- Ability to attach specific documents to an asset
- Maintenance Records

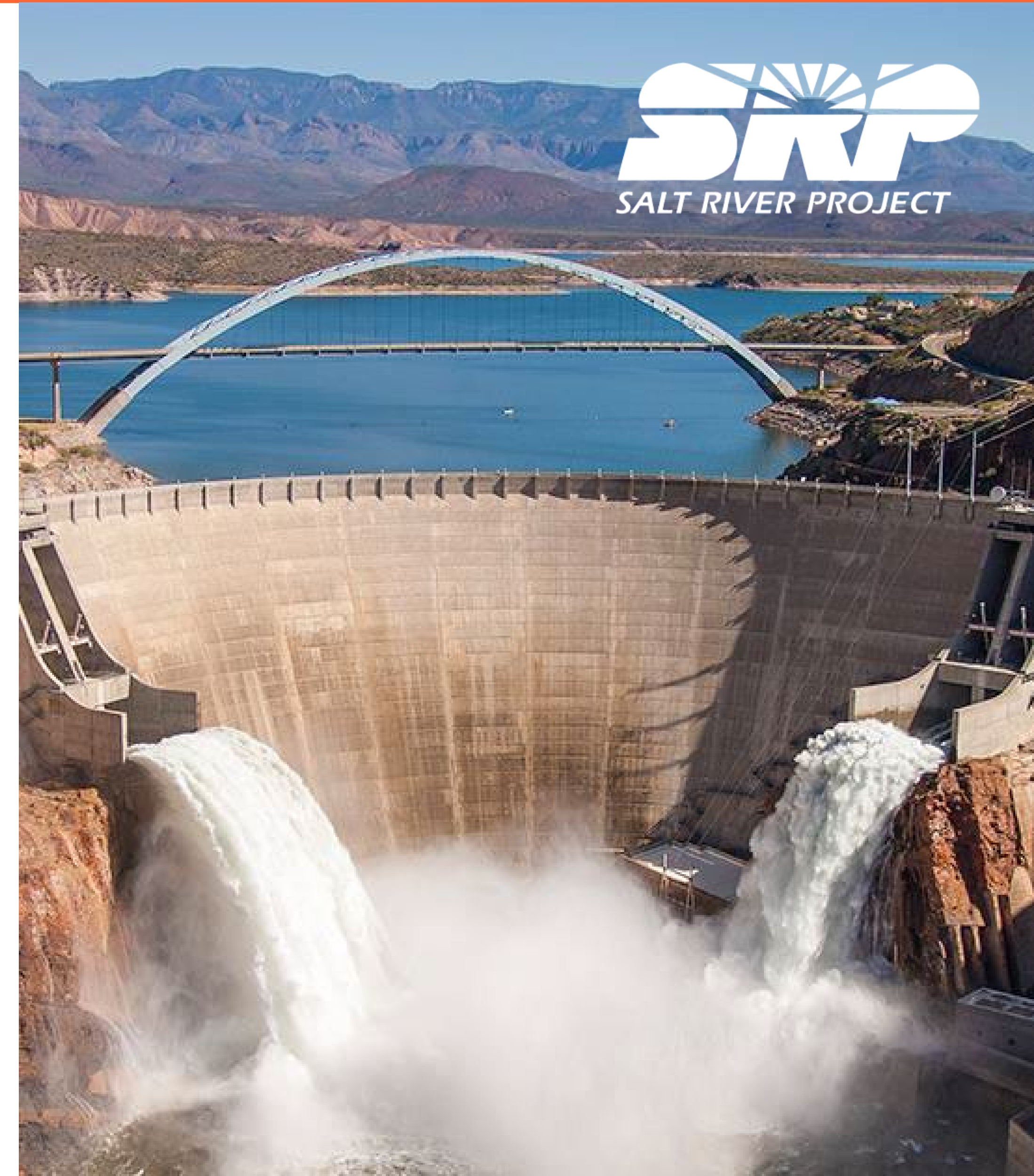


QR Code Label Benefits



Salt River Project Actual Data

- Service requests and work orders are written on the correct asset 100% of the time
- Average time to write an SR before Camcode asset tags and management system:
7-30 minutes
- Average time to write an SR after installing Camcode asset tags and management system: 30 seconds
- Techs can provide real time updates on services provided.
- Hydro SR time reduction is 290 manhours for 12 months
- Generation SR time reduction is 4813 manhours for 12 months



How To Plan & Execute A Labeling Initiative For An Asset Management Program Implementation ?

Who Uses Bar Code Labels?

Anyone who needs to create or satisfy work orders or inspections will potentially utilize the bar code, including:

- Facility managers
- Maintenance managers and staff
- Internal technical staff
- Vendors



Top 5 Label Considerations

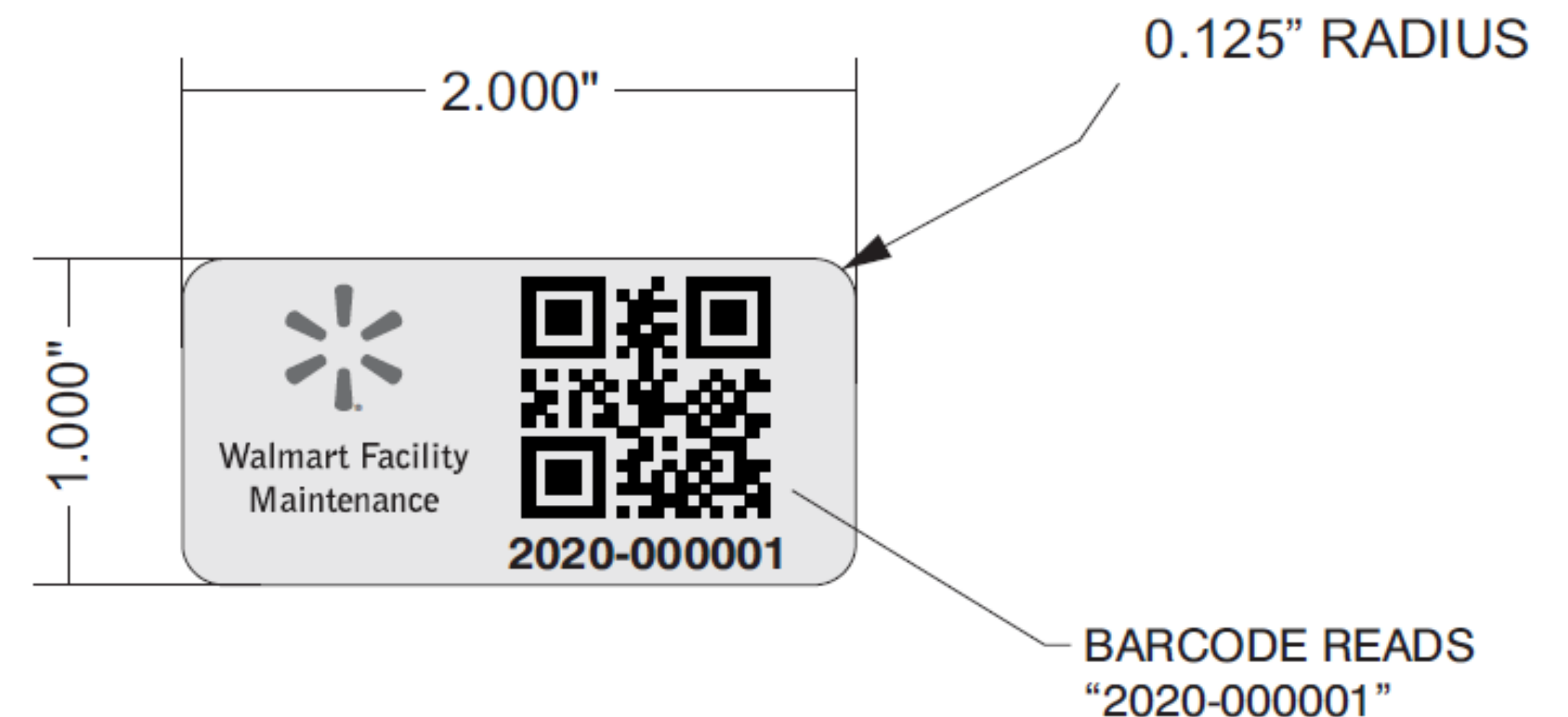
1. What surface(s) are the labels going to be attached to?

2. What's the best label material?

3. How will the label be attached?

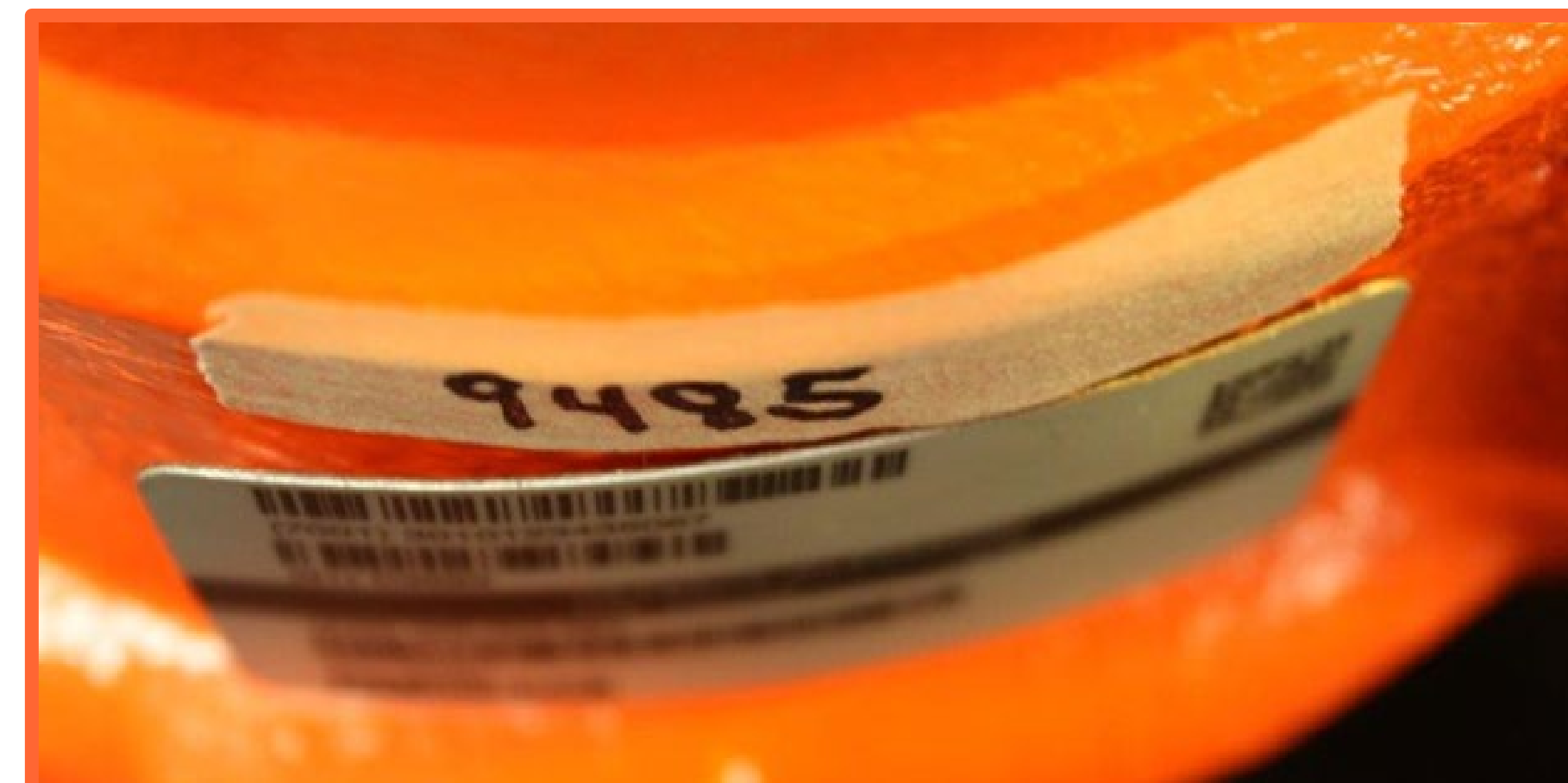
4. Size of the label?

5. How many assets will be labelled and tracked?



Top 5 Label Considerations

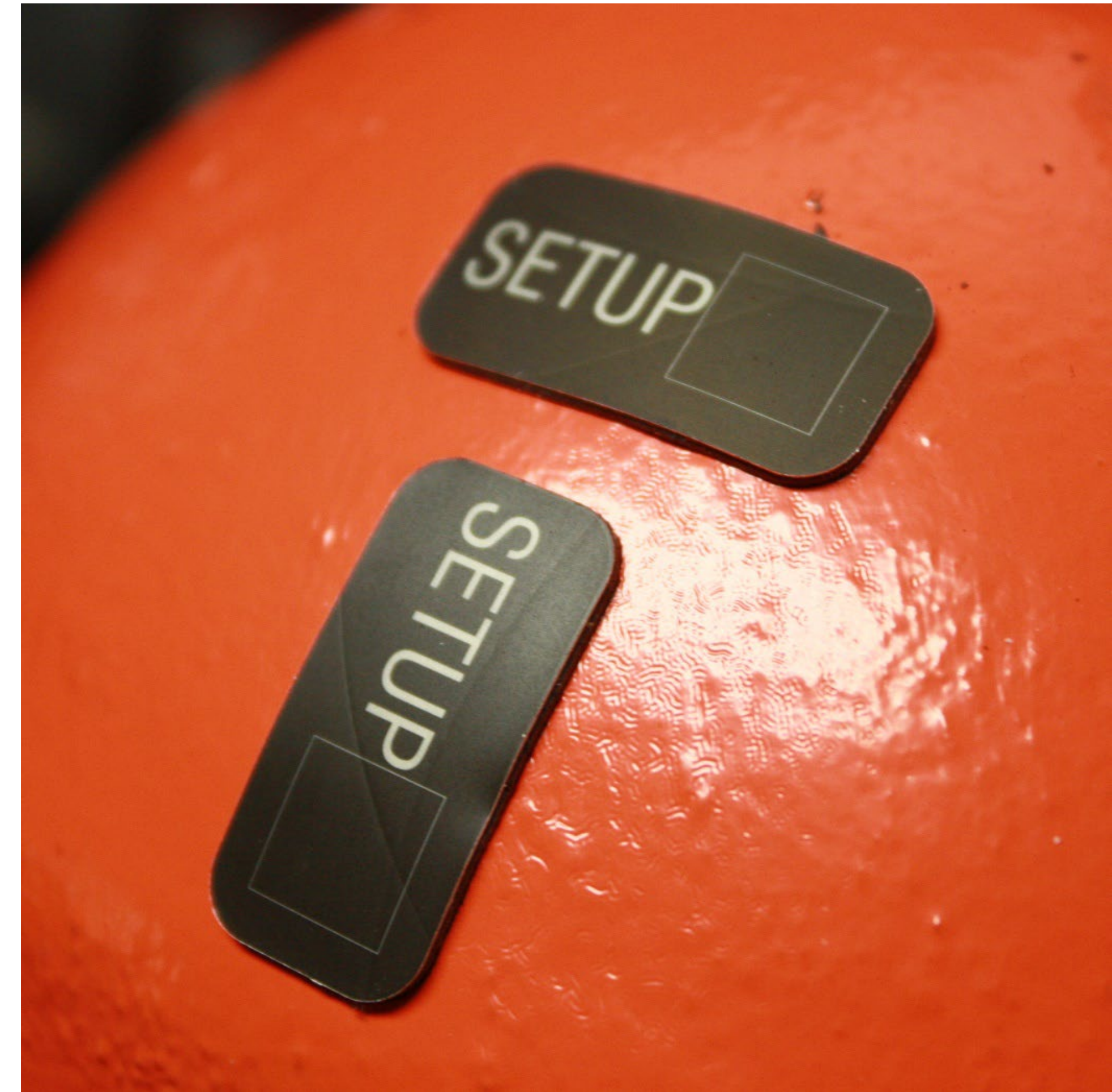
Label Material & Attachment are **CRITICAL**



1. Surfaces to be Labeled

This answer helps determine your label material and attachment

- Curved or irregular surfaces require a flexible label material
- Harsh or high contact environments may require a thicker metal label to guarantee readability
- High energy and low energy surfaces require different adhesives
- Porous or coated surfaces such as Teflon or CARC require special adhesives
- Surface prep is critical.





2. Label Material

First, look at the environment

- Indoor vs outdoor
- UV exposure
- Weather exposure - Temps
- Abrasion
- Harsh chemicals
- Corrosion

Top 5 Label Considerations

Metalphoto®

Photosensitive Anodized Aluminum

- Lasts 30+ years, even in outdoor or harsh environments
- Lower cost than stainless and more durable in many applications
- Imaged using a photosensitive process and features a sub-surface image that offers superior resistance to:
 - UV/weather damage
 - Chemical exposure
 - Abrasion
 - Corrosion
 - Extreme heat or cold





3. The Right Attachment Method Is Critical

- Every environment is different, even in the same project or application
- Different methods of attachment:
 - **Adhesive**
Depends on surface & environment
 - **Mechanical Attachment**
Labor intensive to install
 - **Hanging Tag**
Good for limited label space, requires tie off point
- Most adhesives have temperature limits ranging from -40° to 400°

4. Size of Label

What is the right label size?

- What information must be on the label?
 - QR code, Code 39 or Code 128?
 - Human readable information?
 - P&ID location?
 - Company contact info?
- Room on the asset and how visible?
- Standardize on a single size



5. How Many Assets And Which Ones?

What is an asset?

- Categorized by dollar amount
- Importance of being tracked
- Anything that is critical to how your company functions



Why do we want to track these assets?

- Need quick access to service records
- Planning preventative maintenance
- Is this in our inventory or not?
- Where is the asset located?

What Is The Optimal Plan For The Most Cost-Efficient Installation?

- Facility locations?
- Number of assets per location
- Resource considerations vs. time/cost
- Outsource labor or use internal?





Label Content, Kitting and Installation

Bar code manufacturing

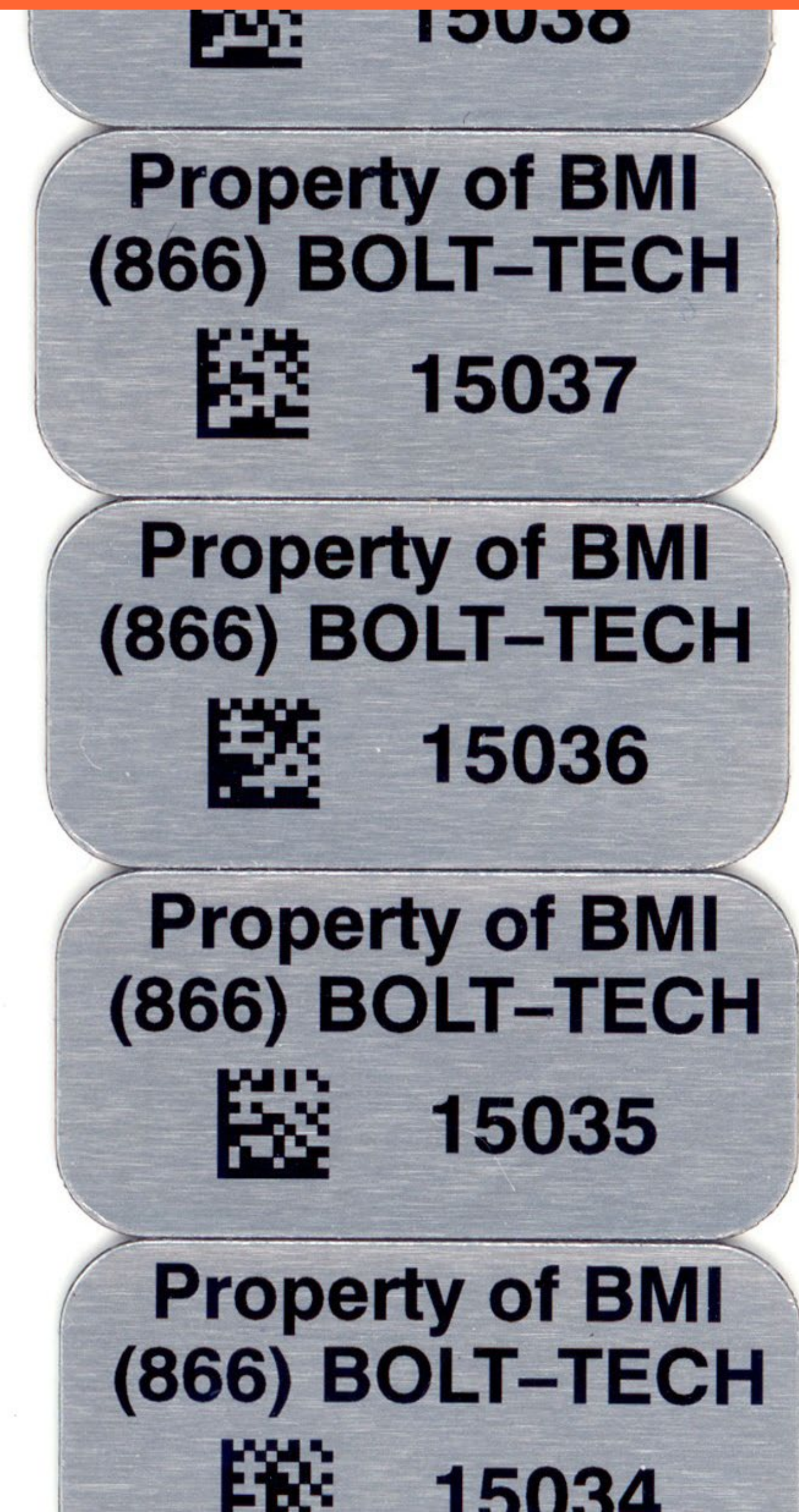
- Sequential numbers vs. asset specific tags will help dictate how the labels are packaged to you.
- Kitting for installation vs. sending bags of tags

Bar code installation

- What is the optimal plan for the most cost-efficient installation?
- Project Timeline can be weather dependent (Adhesive 50F)
- Resource considerations vs. time/cost
- Outsource labor or use internal

Benefits of Sequential Data

- A sequential range provides a license plate method to your assets
- Starting a sequence at a number like 0001, provides more flexibility and allows more tags to be ordered
- More tags ordered = lower per piece price
- Lowers installation costs by adding a label when a record is created
- Easier to tag assets that are changed or added



Label Location is Also Important

- Tagging improperly results in lost labels/tags, lost time, lost data, lost revenue
- **ProTip:** Develop a playbook with software consultants and your labelling provider to ensure your org has a consistent policy across all locations
- In the case of this organization, with so many assets in its database, a Playbook was necessary for staff (from engineering to maintenance) to understand what the asset tag looks like, where the tag is applied to tracked assets and how to apply a tag in the event it is required



Bakery Oven

(Slide 1/2)

(Current Models)

Model and serial number typically located inside the control cabinet

Place asset tag on the front of the unit by the control panel



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Bakery Oven

(Slide 2/2)

(Older Models)

Model and serial number may be located on top, side, or rear of the unit

Place asset tag on the front of the unit by the control panel



Note- some stores may have a 'Proofer' used for baking bread. Please make note of these units when found.



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Ensure Tagging Consistency

Permanence – Get It Right The First Time:

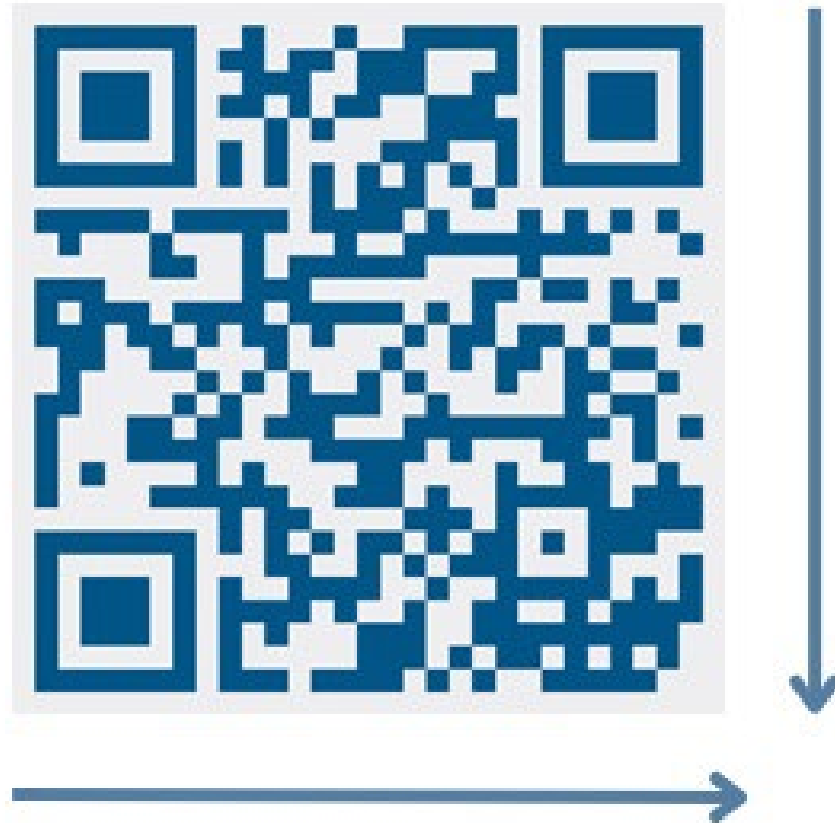
- Tagging improperly will result in lost tags, thus lost data
- Time is the greatest cost, not tags
- Incomplete or incorrect data capture

Standardization:

- Corporate-wide policy allows facilities to work from a set of common rules
- Lowers costs so each plant is not reinventing the wheel
- Lowers maintenance costs as every engineer and maintenance staff understands what tag, how to attach it, where it is etc.

What Should Be On The Labels?

QR Code vs. Linear Barcode



QR Codes

- Can encode URLs as well as strings of numbers and letters
- Can sustain damage to 30% of the symbol code and still scan
- Smaller size allows for smaller labels, more label data
- Today, 100% of our customers use QR codes



Barcodes

- Barcode width increases as you add characters, increasing costs
- Any damage to or marring of code can ruin its ability to be scanned
- Unable to link to URLs and online information

When Should I Use A Web URL vs. Just A Serial Number?

The main consideration is the software application on the intended scanning device(s)

- A QR code linked to a web URL requires a web-based software package and web browser
- A barcode or QR code linked to a non-URL serial number requires a software application installed on the scanning device.



End User Examples

Software Integration

How does the QR code integrate into my software and database?

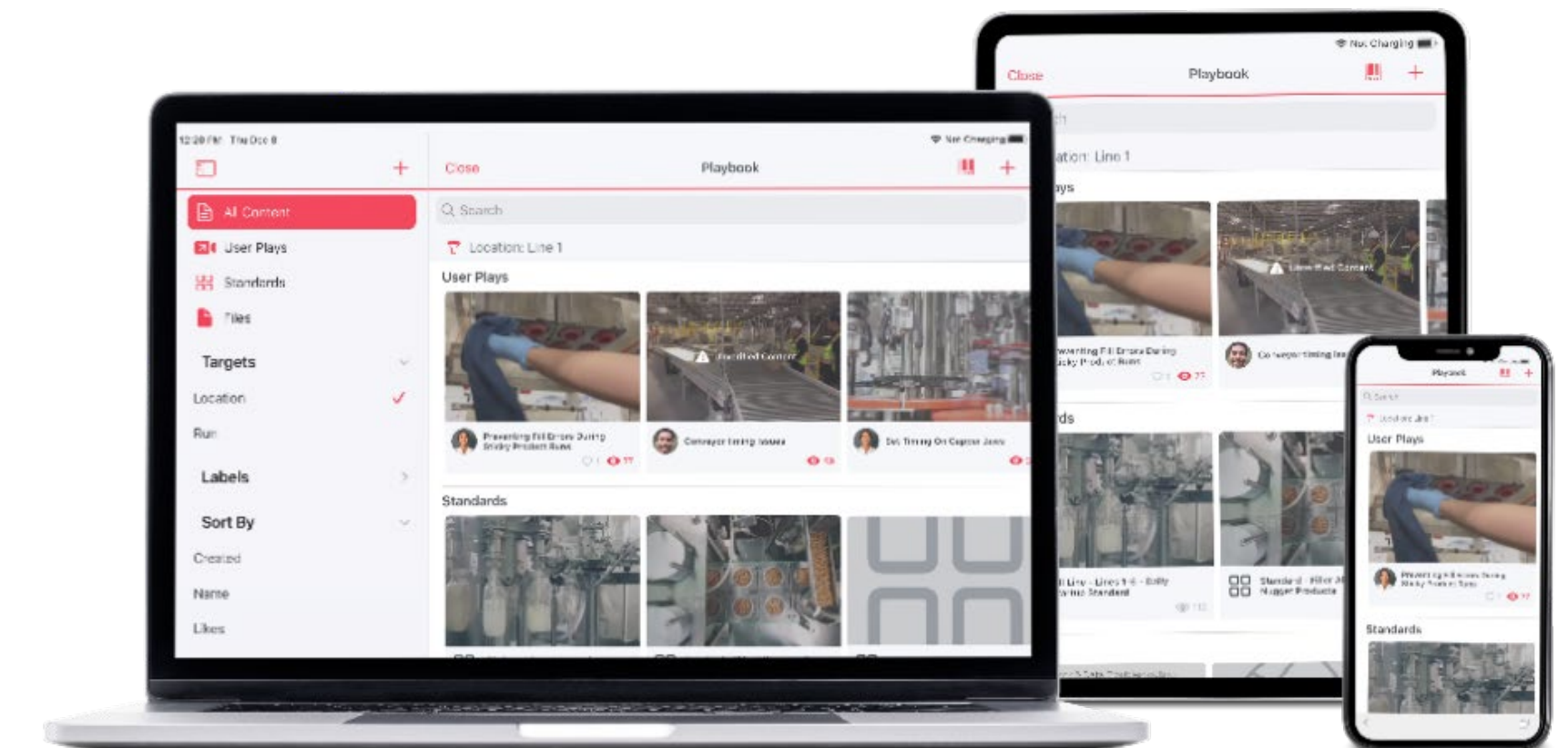
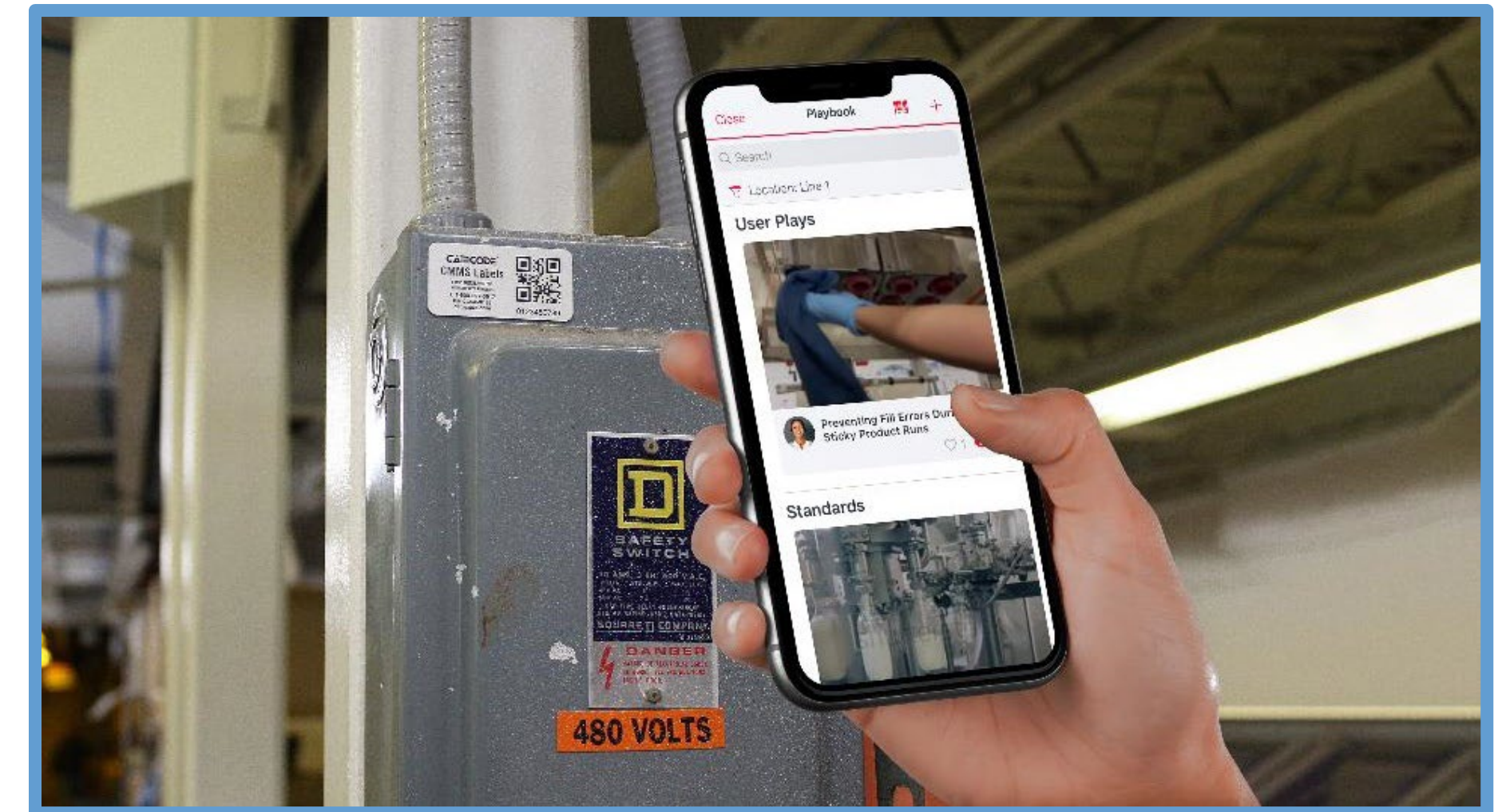
- QR Codes are integrated by what is encoded inside the barcode
- This can be a serialized sequence, specific sequence, text or a URL
- The QR Code acts as an access point to your software and database
- Providing quick and easy access to all records



Innovative QR Code Uses



- Post uses asset labels featuring a QR code that links to instructional videos on how to operate and maintain that particular piece of labelled equipment
- This provides several business benefits:
- Allows operators and maintenance workers to quickly and easily access vital information
- Ensures that the information is correct for that specific machine
- Ensures the information is up-to-date
- All this saves labor hours and dollars



Innovative QR Code Uses



- Amazon uses QR code tags on the outside of their truck fleet to track location and information on each truck
- Each QR code contains two pieces of data:
 - the truck's Amazon assigned unit number
 - the truck's VIN number and manufacturer information
- For regulatory, compliance or maintenance service requests, the code can provide both Amazon and manufacturer information quickly and accurately
- Upon entering and leaving each distribution center, the QR code is scanned, recording time entering, leaving, and at each center
- This provides accurate and easily accessible information needed to make critical business decisions on fleet management



End User Examples



End User Examples



1. **100% accurate database**

- No more keystroke mistakes
- Assets are identified correctly 85% of the time

2. **Fast access to find assets with bar code tag**

- Average time to find the asset information in Max and WO is 9 min

3. **More accurate maintenance tracking**

- Start/stop times
- Faster reaction times

4. **Opportunity to clean-up database**

- Re-associate physical assets

5. **Tags not lasting, reprints etc.**

- 20+ years
- Using the correct tag on the correct asset

Thank You



Any Questions?

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SCAN FOR FREE LABEL SAMPLES!