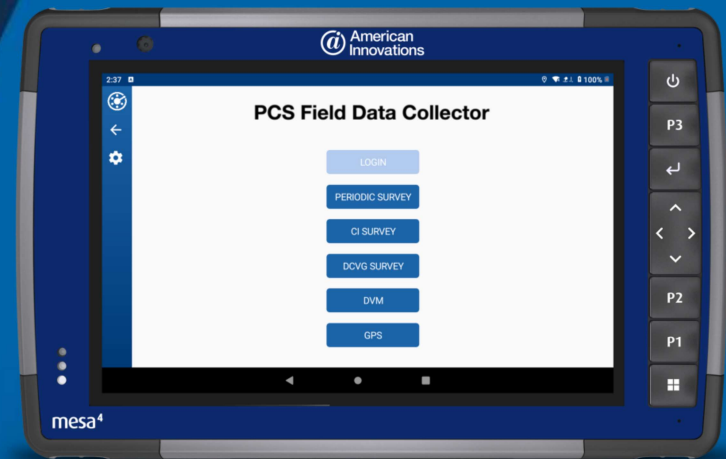




Virtual Brew:
Mornings with AI

Optimizing Field Asset Identification Leveraging RFID Technology

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Poll

Do you currently use RFIDs in FDC while out surveying?

RFID Technology in FDC

Use Case: As a User, I want to be able to scan RFID tags on my pipeline assets while collecting survey compliance data in FDC so that I can quickly identify and locate the correct site in my Survey in FDC.

- The RFID technology in FDC enables the user to use a RFID Reader and RFID tags to quickly and efficiently find the correct sites they are at in field in FDC so that they can collect inspection data.
- RFID Tags come in different forms to allow flexibility in using them on different pipeline assets
- RFID Reader is a handheld device that connects through Bluetooth to the user's tablet and allows them to read RFID tags

Steps to Utilize RFID Technology in FDC

1. RFID Setup
 1. PCS Fields
 2. FDC Prompt Setup
2. Capturing tags while in the field
3. Reading tags for single site
4. Reading tags for multiple sites
5. Overwriting tags for replacement
6. Questions

RFID Reader

- **PENsolid RFID Reader**

- Supported on Android, iOS, Windows
- This RFID reader can be paired for instant tag reading and integrates seamlessly with PCS Field Data Collector
- This reader can be connected via its integrated Bluetooth™ interface.



RFID Tags



- **RFID Key Fob Tag**

- The key fob RFID tag works well hanging from valves and other facilities where it's impractical to apply the tag directly to the asset.



- **RFID Peel and Stick Vinyl Tag**

- Vinyl peel-and-stick RFID tags are easy to apply to any clean, dry PVC surface. They're ideal for PVC test points, pipes and services.



- **RFID Tear Drop Tag - Steel**

- Designed to be bolted onto an exposed metal surface, the heavy-duty teardrop RFID tag is suitable for paint, coatings or bare metal.



- **Stick-on Metal RFID Tag**

- Best for use inside rectifier and bond boxes, these tags can be installed on clean metal using a peel-and-stick adhesive pad.

RFID Reader

• PENSolid RFID Reader

- Micro-USB Port for charging device
 - 10-hour battery life
- Power Button: Turns the Reader on/off
- Bluetooth status light:
 - Solid blue light when connected
 - Blinking blue light when in pairing mode
- Scan Button: Reads the RFID Tags
- Status Lights:
 - Red: Invalid read, didn't find a tag
 - Green: Successfully read tag



PCS: Setup

PCS Information field: RFID

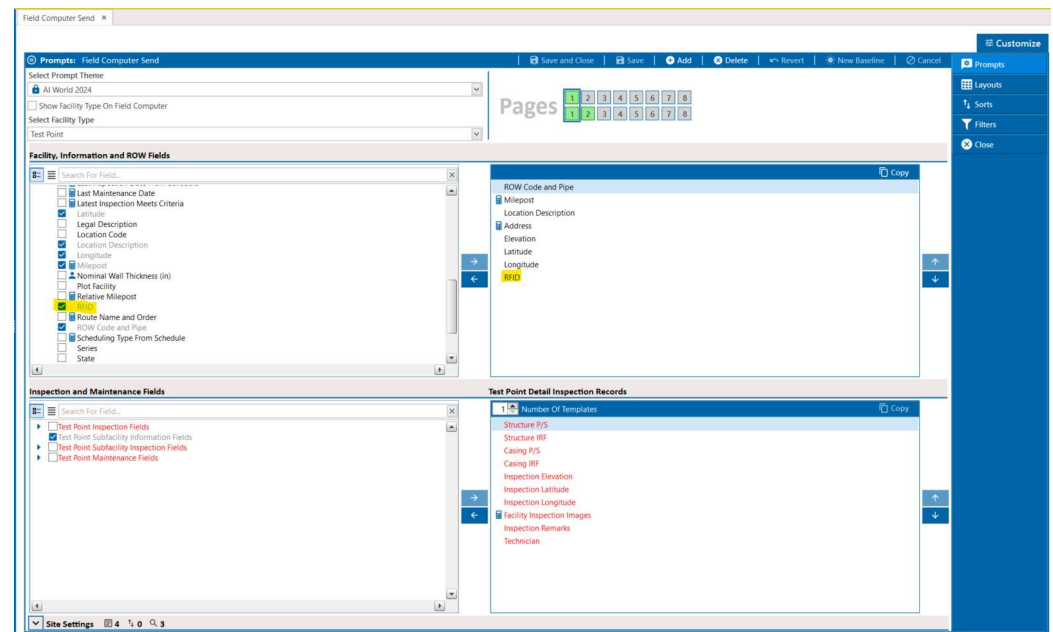
1. Add RFID field to Information Tab for each facility type
2. Allows user to see which sites have RFID Ids set for them

The screenshot displays the Cathodic Protection Data Manager (CPDM) software interface. The main window shows a table of test points with columns for ROW Code and Pipe, Milepost, Location Description, RFID (highlighted in yellow), Address, Elevation, Latitude, Longitude, Effective Date, Facility Active, Test Point Protection Criteria, Activate Structure P/, and Activate Structure I/. The table contains 15 rows of data for various test points, including locations like 'MLV 0.00-51-V', 'Greenview Ave.- E...', 'E. Property valve-C...', 'Station', '22" at Scraper Tra...', 'suction line', '10" W. of scraper', '6" valve', 'TS on Greenview rd', 'oc bu-2', 'PL Xing', 'Pig Trap & Sta.', 'Xing Plains 4"', 'Xing FrontRunner P...', and 'Compressor Station'. The RFID column contains alphanumeric identifiers such as 'E09401503058334' and 'E094010056815275'. Below the table, there are two panels: 'Test Point Detail Information' and 'Facility Level Override'. The 'Test Point Detail Information' panel shows a 'Loading...' status with steps: '1. Initializing Grid Data' and '2. Binding Grid Data'. The 'Facility Level Override' panel shows a 'Refreshing Rows' status with steps: '1. Getting Rows...' and '2. Completing Get Rows...'. The top menu bar includes 'File', 'Modules', 'Data Entry', 'Reports / Graphs', 'Tools', 'Field Computer', 'Help', and 'Cathodic Protection Data Manager (CPDM)'. The user's name 'Patrick McLellan' is visible in the top right corner.

PCS: Setup

PCS Field Computer Send Prompt: RFID

1. Add RFID Prompt to the Prompt theme for EACH Facility Type
2. If included or excluded to prompt theme:
 1. Allow user to Capture RFID tags from FDC
 2. Allow user to Read RFID tags in the survey on FDC
3. Best Practice : always include RFID so that users can see the tag id to compare in PCS if need to know what the ID is.

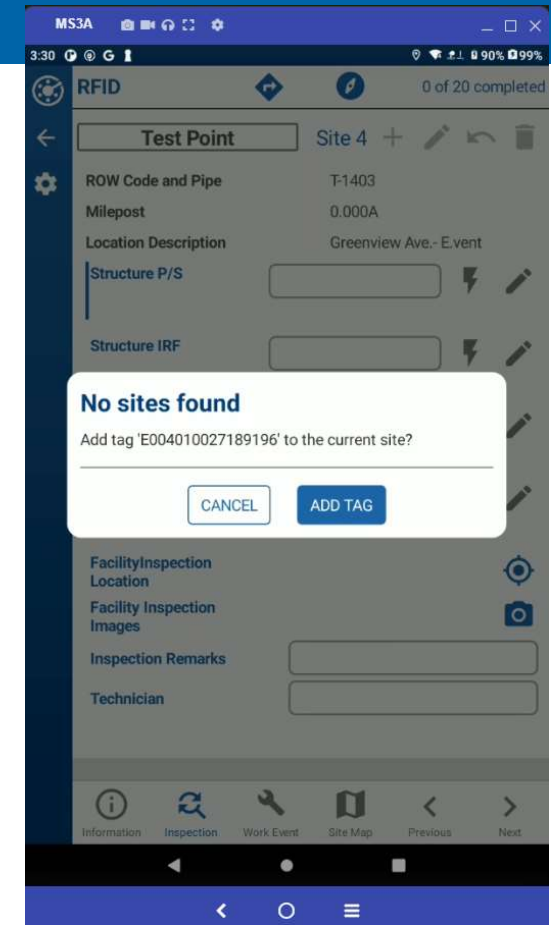


PCS: Capturing Tags in FDC

RFID: Capturing a new tag in FDC sites

1. Select the site in survey and select the Information tab
2. Move RFID Reader close to RFID Tag
3. Select the Scan Button on the RFID Reader
4. Add Tag confirmation message
5. Select Add Tag button to set the RFID tag for site

Use Case: Allows user to install tags on assets and associate RFID tags to sites that can be imported in PCS while in the field



PCS: RFID Single Site

RFID: Reading RFID tag to locate single site

1. From either the site list or a selected site
2. Move RFID Reader close to RFID Tag
3. Select the Scan button on the RFID Reader
4. When the tag is read the site associated with the tag is opened and displays the inspection tab to the user

- Use Case: This allows user to quickly and efficiently identify and navigate to sites in the survey

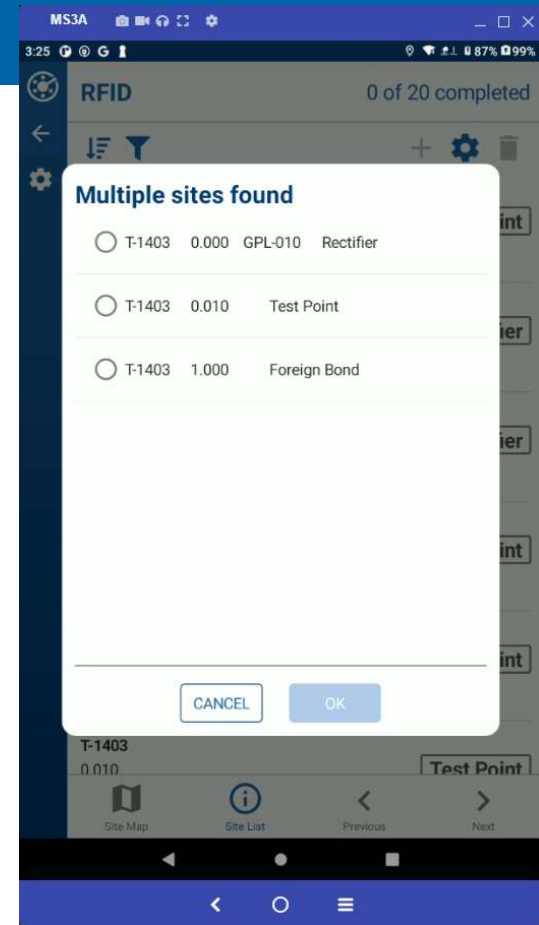


PCS: RFID Multiple Sites

RFID: Reading a Tag Linked to Multiple Sites

1. From either the site list or a selected site
2. Move RFID Reader close to RFID Tag
3. Select the Scan button on the RFID Reader
4. Pop up displaying all sites that use the tag in the survey
5. User selects the site from the list and clicks ok
6. The user is navigated to the inspection tab of the selected site

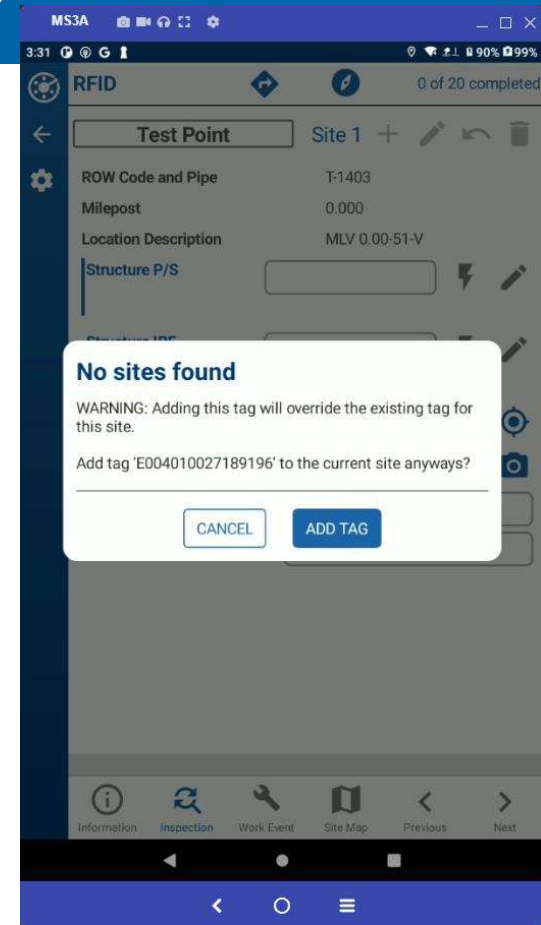
Use Case: User has multiple assets at the same location. Example: Test Point junction box or Test Point and Bond at same location.



PCS: Overwriting Tags in FDC

RFID: Overwriting Existing Tag on FDC

1. Select the site in survey that already has a RFID Tag associated to and select the Information tab
 2. Move RFID Reader close to new RFID Tag
 3. Select the Scan Button
 4. User Prompted with message warning them they about to overwrite an existing tag
 5. Select the Add tag button
- User Case: Allows the user to replace tags in the field and update the site with the new tag



Steps to Utilize RFID Technology in FDC

DEMO TIME

Let's look at these live!