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# TRACK 5: Meter Manager 3.0

*TESCO's Meter School*

**TESCOOL** ▶▶

*Monday July 10, 2023*

10:30 am – 11:30 am

Kevin Tory



- Introduction / Session Purpose
- TESCO Software Team's goals for Meter Manager 3.0
- Review of new and improved Meter Manager 3.0 features and functionality



# INTRODUCTION/OVERVIEW

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- The TESCO Software Team has been working on a completely reworked version of Meter Manager for the past two years. This is the largest update we have ever done.
- The purpose of this session is to familiarize you with Meter Manager 3.0.
- Current customers will be updating to this version during 2024-2026.



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# GOALS FOR METER MANAGER 3.0

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- Mobile enablement - To make Meter Manager available everywhere, especially on mobile devices.
- Improve usability and user experience
- Increase Meter Manager's flexibility
- Expand into Field Work
- Improve the performance of Meter Manager
- Introduce technical improvements
- Expand automated testing



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# AVAILABILITY AND MOBILE ENABLEMENT

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Meter Manager users made it clear that access to Meter Manager on all devices, wherever they are working, is critical. Whether it be iPhones, iPads, Surface Pros, laptops, desktops, MM needs to work, without any hassle.

IT departments stressed they wanted Meter Manager to be easier to deploy.

While connecting to test boards still requires a native Window client, a Web app has been developed for all other users. While Meter Manager started in the meter shop, its use has spread across the entire enterprise.

TESCO has responded to these requests, and with Meter Manager 3.0, deploying MM to hundreds, or even thousands, of users is extremely easy.



# IMPROVED USABILITY AND USER EXPERIENCE

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- **Workflows** – TESCO has deliberately selected workflow designs for the user interface similar to what is commonly found online, so that functions are familiar. For example, screens that involve multiple steps, such as setting up a new meter model, use a workflow very similar to an online check-out. A recent deployment of Meter Manager 3.0 was done in a meter shop where most work processes were not computerized previously. Users were able to perform functions comfortably after only a short amount of training. Not only that, users commented on the ease-of-use compared to other enterprise systems they had used.
- **Enhanced self check-out / check-in** – In Meter Manager 3.0, users can check-out (consign) devices themselves, using a mobile phone or tablet, using either a Bluetooth scanner or the built-in camera to scan devices. Similarly users can check-in used devices from the field. Many utilities that have adopted this functionality have much more accurate inventory.



# IMPROVED USABILITY AND USER EXPERIENCE

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- **Online help** – TESCO found that user manuals were rarely used. Support requests demonstrated that users had not tried things documented in manuals before reaching out to support. Today, people tend to look for a “how to” video rather than a manual. TESCO Software has embraced this change and has produced a set of videos covering all key functionality within Meter Manager 3.0. This concept will be further extended, later this year, by context-sensitive links directly to the applicable video.
- **Configurable User Interface** – In Meter Manager 3.0, users can adjust font-size, hide and unhide columns, and control which fields appear. In Meter Manager 2.0, user-defined fields always appeared in a column on the right side of the screen. In Meter Manager 3.0, user-defined fields can appear alongside the built-in fields. Additionally, built-in fields that are not required for a specific customer can be removed from the screen. For example, on multi-item search, each user can decide which fields to display.



# INCREASE METER MANAGER'S FLEXIBILITY

- **Flexible configuration / business rules** – Virtually every customer has at least 1 unique business rule. Meter Manager 2.0 could accommodate some of these differences via configuration; however Meter Manager 3.0 sports a new workflow engine that allows virtually any business rule to be implemented without a code change.
- **Track device status for multiple external systems** – Meter Manager 2.0 does a yeoman's job of tracking the status of meters and devices in customer's CIS (Customer information system). This concept has been extended to allow for any number of external systems to be integrated, and appropriate business rules implemented and enforced. One current in-flight Meter Manager 3.0 project tracks statuses in CIS, HES, MDM, and in the customer's field service application.
- **Improved check-in process** – Meter Manager 2.0 currently has task lists and user-defined tasks for device testing. In Meter Manager 3.0, this flexibility has been expanded to the check-in process, where checkin is now based on a task list, with applicability rules, just like device testing.





# INCREASE METER MANAGER'S FLEXIBILITY

- **Expanded AMI integration** – direct integration between MM3 and AMI systems has been extended and generalized. Initially, expanded support for L+G Command Center has been added, with additional integration with Itron coming later. Command Center integration currently includes:
  - Creating meters automatically upon shipment and acceptance
  - Installing and removing meters in Command Center
  - Placing meters in and out of quarantine
  - Retiring meters
- **Expanded capability of custom tasks** – Custom tasks in Meter Manager 2.0 is very powerful; however there are several types and not all functionality is available for each type. In Meter Manager 3.0, the full architecture for tasks has been improved and greater functionality is supported across all tasks. Additionally, TESCO has added the ability to add custom logic to tasks, such as special field validations or calculated fields without requiring a software change.



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# EXPANSION INTO FIELD WORK

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Meter Manager 2.0 has primarily been an application for use in meter shops and inventory shops within a utility. TESCO has expanded our footprint to include a new Field Client.

The new Field Client is a multiplatform, native application for iPhone, iPad and Windows tablets. Meter Manager 3.0 has been designed to integrate seamlessly with the new Field Client.

While the Field Client can be used as a stand alone product (without Meter Manager 3.0), automatic integrations are enabled when both products are used together.



# TECHNICAL IMPROVEMENTS

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The world of software development has changed dramatically over the last 15 years. Tools that were state-of-the-art when Meter Manager 2.0 was developed have been supplanted by new and improved tools.

TESCO Software carefully reviewed and selected best-of-breed software development tools for Meter Manager 3.0, that we are confident will be supported for many years to come. As before, TESCO focused on Microsoft tools.

Meter Manager has benefited from Microsoft's push into multiplatform applications. TESCO's decisions several years ago to use relatively new technology has worked out extremely well, as those technologies have matured during that time, and are the main focus of Microsoft's efforts to improve software development.



# IMPROVED PERFORMANCE

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- **Make key functions faster** – Processes have been streamlined, such as check-in, testing and shipping, providing intelligent defaults, and reducing keystrokes.
- **Don't make user wait for longer running processes** – In Meter Manager 3.0, all longer running processes are asynchronous. For example, when you accept a shipment of meters, control is returned to you immediately, and the process continues to run in the background. When the process completes, the user will receive a notification.
- **Decreased impact of longer running operations on other users** – Optimizing longer running functions can be a complex task. If you take something that used to take 10 mins., and you cut it down to 3 mins., you might consider that an improvement. However, if the faster task now impacts other users, that may not be considered an improvement. In Meter Manager 3.0, TESCO has worked very hard to ensure that longer-running operations do not impact other users as a first priority.



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# EXPANDED AUTOMATED SOFTWARE TESTING

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Meter Manager 3.0 includes greatly expanded automated software testing. TESCO's switch to a web application allowed us to use Selenium, the world's most popular automated testing tool. Every new Meter Manager release undergoes thousands of automated tests. This allows the TESCO Software Team to produce better software faster.