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FAMIS and App Tree Mobile Device Work Order Utilization

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May 2019

Outline

- What are FAMIS and AppTree?
- Overview of FAMIS – Work Order Highlights
- FAMIS Desktop
- Paper WO and Equipment Labels
- App Tree
- Acknowledgements

What are FAMIS and App Tree

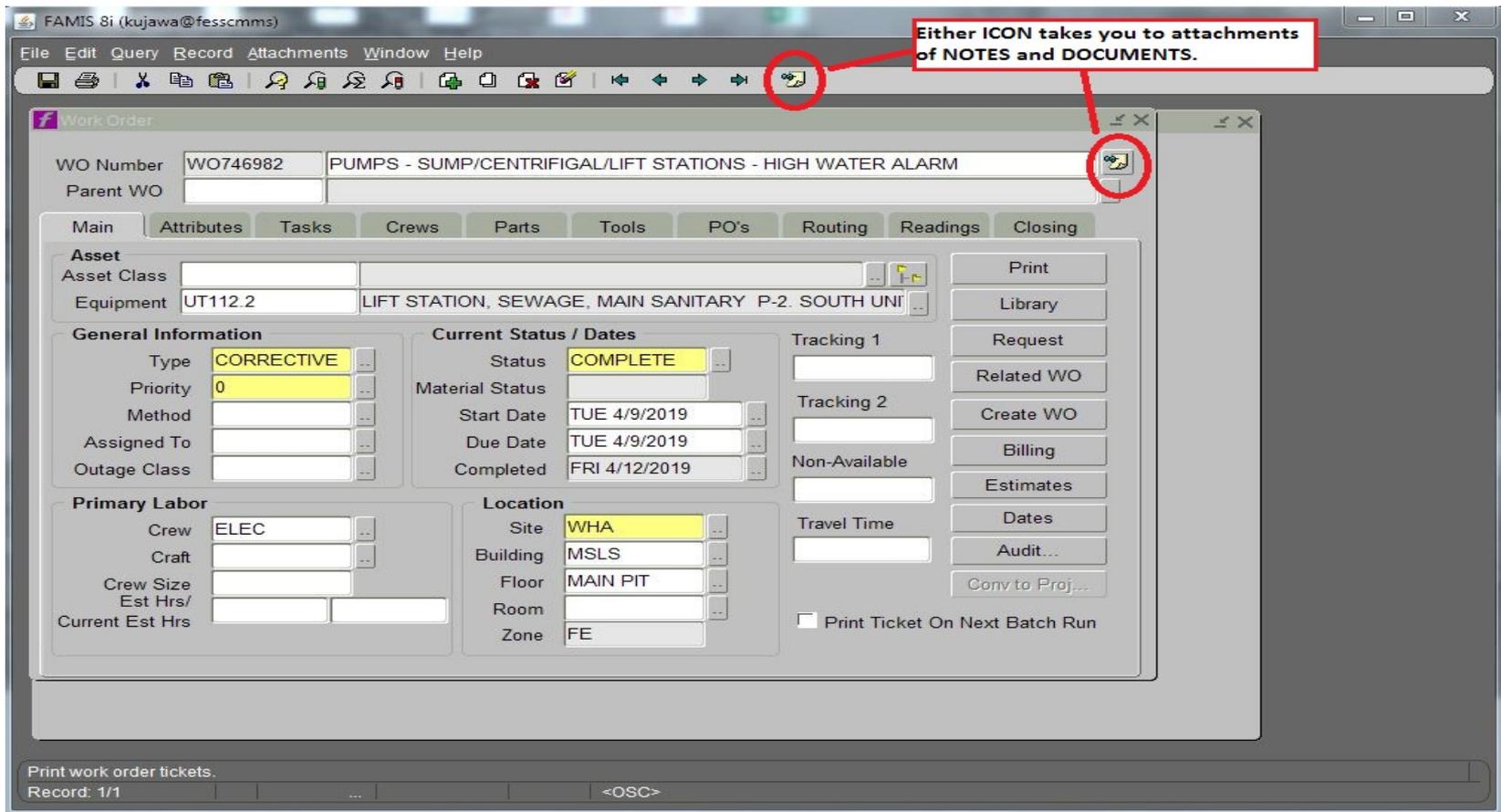
- FAMIS is the Fermi Computerized Maintenance Management System desktop software.
- AppTree is the developer name of the Mobile App.
- Today's goal is to share information about AppTree for our electronic/mobile Work Order process.
- Using AppTree takes us extremely 'close' to a paperless environment for handling Work Orders.
- Paper is sometimes used in areas where mobile devices don't have a signal. Fermilab has many underground areas.

Overview of FAMIS – Work Order Highlights

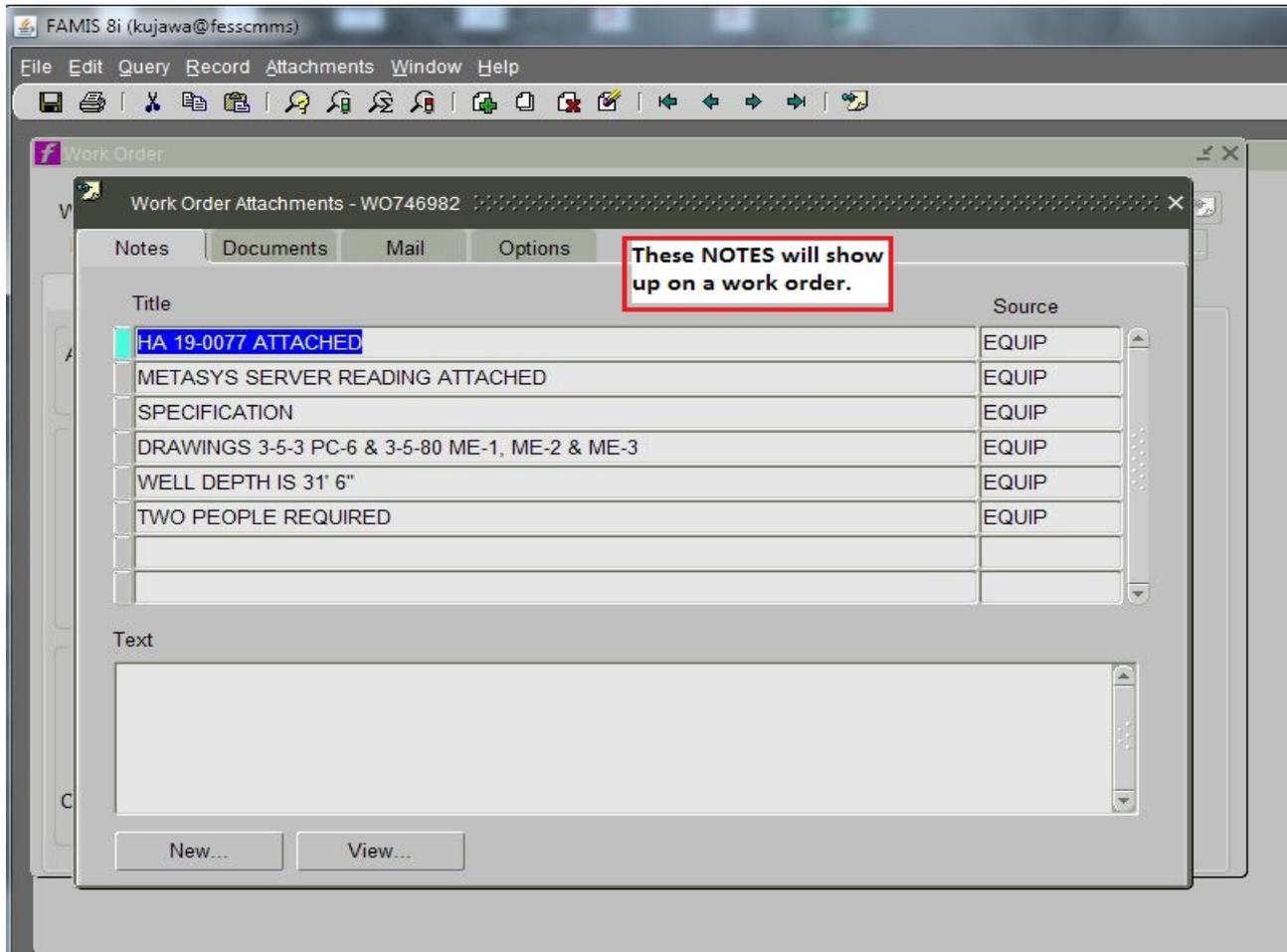
- The Planning and Scheduling Group is the primary source for creating WOs for the craft people; Elec, Mech, HVAC, etc.
- Requests for work is entered as a Work Request.
- Service Requests are reviewed and decide if, and when, to turn them into a WO.
- When a WO is created a Priority is assigned to it.
- They decide what WOs to schedule for that day.
- They assign WOs to individual workers.
(Craft people can now see their WOs on their phone.)
- Supervisors electronically see the WOs. They meet with their group and confirm, or adjust, the work for the day.
- PMs are issued and assigned by the Planning Group.

FAMIS Desktop

> Main Work Order Screen <



FAMIS Desktop



- Here is a paper WO.
Typical info included.
- Short Job Title
 - Requester
 - Equipment Number
 - Building
 - Electrical Group is doing the Work
 - Task List: Job details given to you. Add what you did.
 - NOTES – From FAMIS. This from the Push-Pin Icon/Attachments.

Work Order #: **WO746982** Service Project/Task:60 / 60.03.14.02.02 Priority: 0

PUMPS - SUMP/CENTRIFUGAL/LIFT STATIONS - HIGH WATER ALARM

Schedule Date: 08-APR-19 Requestor: 01829N CARLTON,ROBERT Method:
 Due Date: 09-APR-19 Telephone:3363 4744 4744 Pager:0101 Craft:
 Wo Status: COMPLETE Mail Stop: 303 LR Pager: (630) 531-8073 Crew: ELEC
 Department: Requestor's Id: 01829N CARLTON,ROBERT
 Parent WO #: N/A Requested Start Date: 09-APR-19

-----Equip Info-----

Equipment: UT112.2 LIFT STATION, SEWAGE, MAIN SANITARY P-2. SOUTH UNIT TO BATAVIA
 Mfr: HYDROMATIC Remaining Life (yrs):
 Model #: S4P1500M4-4 Serial #: S33473

-----Location Info-----

Site: WHA OSF-WILSON HALL AREA Contact Name: POLLOCK,JOHN
 Building: MSLS OSF-MAIN SANITARY LIFT STATION Contact Telephone: 5253
 Floor: MAIN PIT MAIN PUMP PIT FIMS Id: LIFT STATION
 Room:

-----Task List-----

DISPATCH REQUESTED THAT WE CHECK OUT PUMP #2 -M-04071911 .

UPDATED : RCARLTON ON 04/08/2019 07:10 PM : PER G.GILBERT : RUN P3 WHEN NEEDED.

UPDATED : RCARLTON ON 04/08/2019 11:20 PM : PASSED ON TO NEXT SHIFT.

REPAIRS COMPLETED OFF OF WO746951 AND WO746949

-----Parts Info-----

BOM002648

-----Notes-----

Note Date	Note User	Title
05-JUN-08	PMARSH	TWO PEOPLE REQUIRED
15-SEP-11	SHIRLEY	WELL DEPTH IS 31' 6"
15-SEP-11	SHIRLEY	DRAWINGS 3-5-3 PC-6 & 3-5-80 ME-1, ME-2 & ME-3

-----Related Info-----

Capital Proj: Req Type: Service
 Procedure: 002007005 Req Number/Phase: SR076114 / 0
 Date Entered: 08-APR-19 Printed: 17-APR-19

-----Response Info-----

Date Completed or Billing: 12-APR-19

Craft ID: _____ Initials: _____
 Hours: _____
 Craft ID: _____ Initials: _____
 Hours: _____

I have read and understand the H.A. associated with this task, if applicable. Initials _____ Initials _____

Condition: _____ Comments: _____

Here are a few Equipment Labels

- We/Fermi assigns equipment labels.
- We print and post the equipment labels.
- We input the equipment information into FAMIS.



Fire Alarm Panel



Transformer



HVAC Unit



Circuit Breaker Panel

App Tree Usage

And now, finally.....Using AppTree!

- You see the WOs assigned to you.
- You can add WO comments of the work you did.
- You can complete a WO.
- You can enter your labor against a WO.
- You can create a WO.
- You can create a service request. This is primarily for other groups that you are requesting work for them to do.
- You can add Pics to a WO.
- You can look up parts in the Stock Room.
- You can search the WO data base. All, not just yours.
- You can search the Equipment data base.

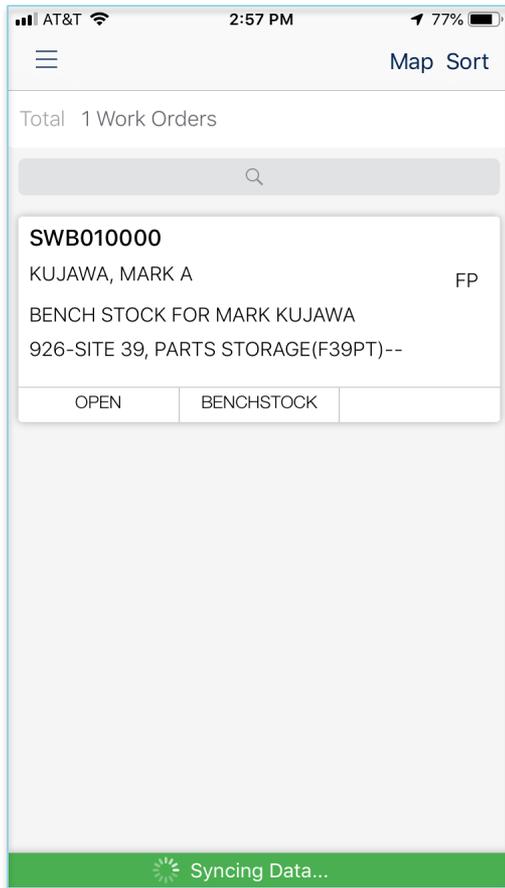
App Tree Usage

The Admin part of AppTree.....

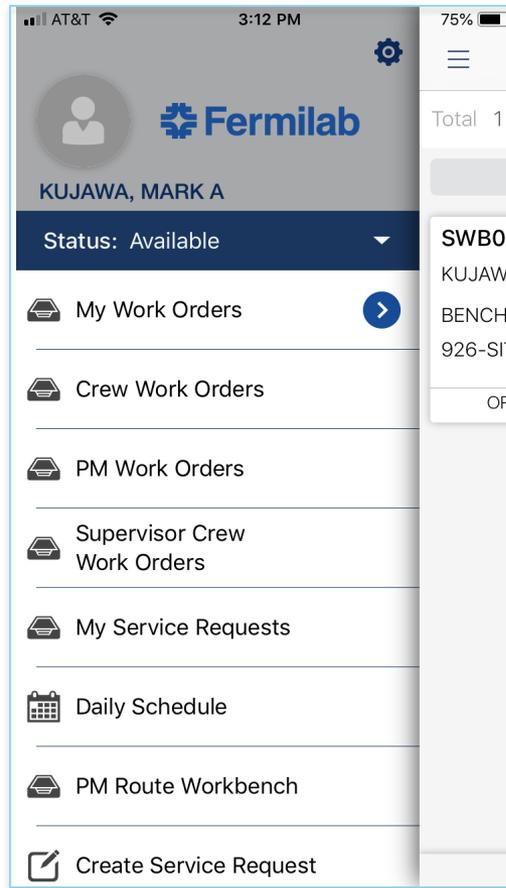
The data base is only as good as the data in it. How to take out the human error of data entry? Here is what Admin has done.

- Create pull down menus.
- Create a hierarchy of fields with pull down menus.
- Auto populate other fields from the menu choices picked.
- Limit how many fields can be free text.
- Limit privileges to certain data fields.
- Limit access to certain menu choices.
- Limit the number of actions you can choose from the Start Menu.

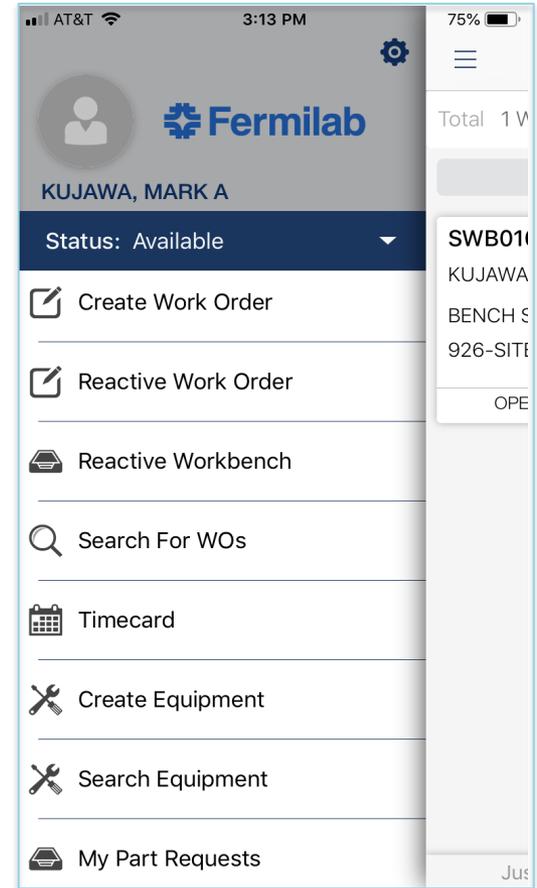
Opening up AppTree... Tap the Icon on mobile device and it opens. No VPN.
The mobile's MAC address is registered on Fermi's network.



Auto Sync, Real Time



1ST Half of Menu



2ND Half of Choices

Our Admin can set up custom menu choices.



Search WO746982

AT&T 7:37 AM 79%

Clear Search

WO Search

Active WOs

WO Number
746982

Description

Site

Building

Status

Crew

Craft

You can enter as much or as little criteria for searching WOs.

Your results could be very successful or very bad.
(There are a few more fields available but not shown).

WO is displayed

AT&T 7:40 AM 80%

Submit Timecard

Work Order Detail

WO Number
WO746982

Child Work Orders

None

Description
PUMPS - SUMP/CENTRIFIGAL/LIFT STATIONS - HIGH WATER ALARM

Equipment
UT112.2

Nomenclature
LIFT STATION, SEWAGE, MAIN SANITARY P-2. SOUTH UNIT TO BATAVIA

Status
COMPLETE

Maintenance Type
CORRECTIVE

Priority

Continue scrolling down to see more of the WO.

AT&T 7:40 AM 81%

Submit Timecard

Maintenance Type
CORRECTIVE

Priority
0

Site
WHA - OSF-WILSON HALL AREA

Building
MSLS - OSF-MAIN SANITARY LIFT STATION

Floor
MAIN PIT - MAIN PUMP PIT

Room

Crew*
ELEC

Craft

Assigned To

AT&T 7:41 AM 81%

Submit Timecard

Accounting

Project 60
Task 60.03.14.02.02

Task List

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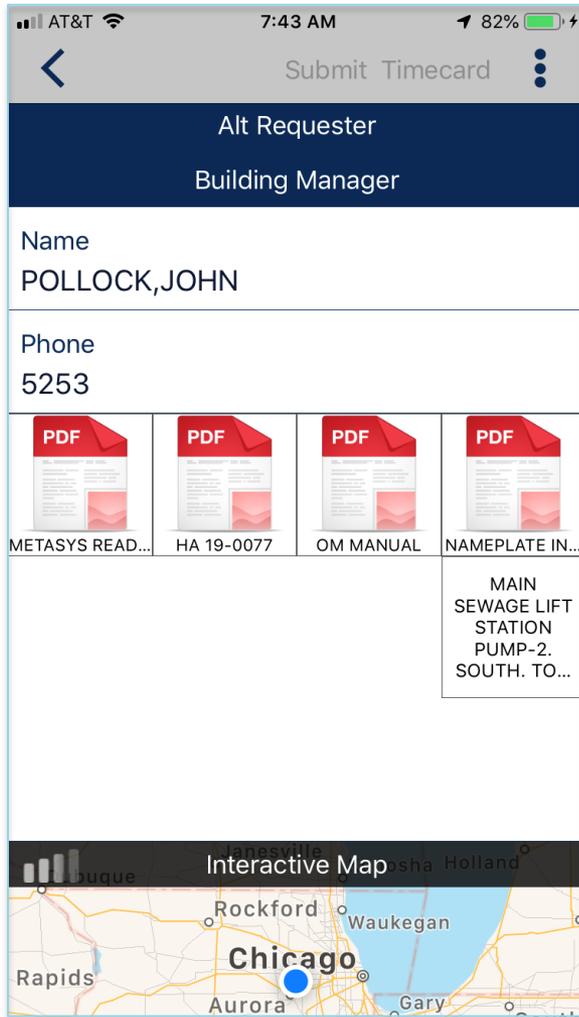
Requester

Name
CARLTON, ROBERT H

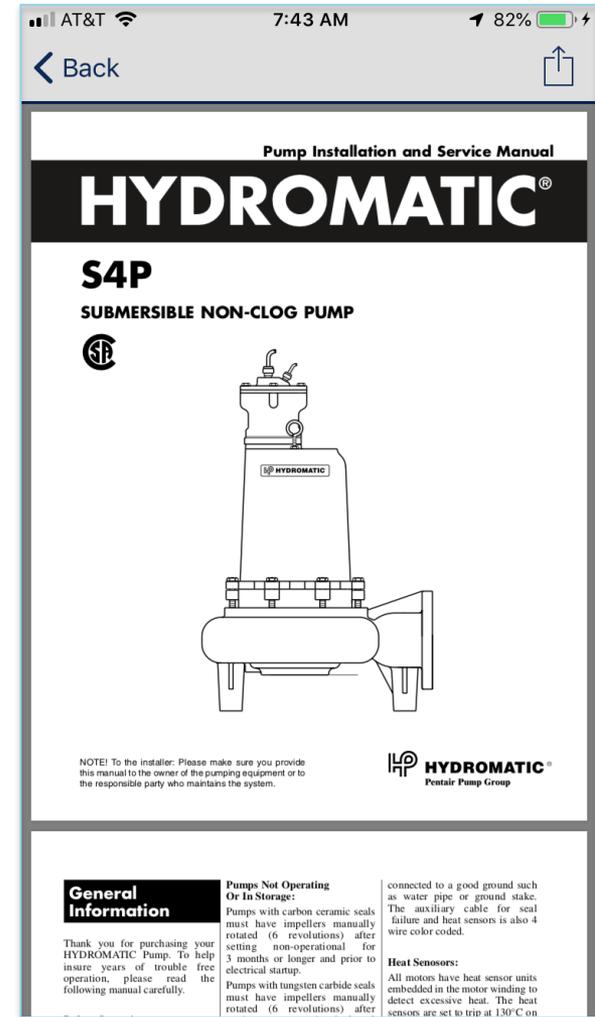
Telephone
3363 4744 4744

At the end of the WO are attachments and a map.

The electrician picked OM Manual.



Real, usable map. Tap to go full screen. Pinch and zoom can be used.



Work is done. Enter your labor and complete the WO.

AT&T 9:01 AM 100%

Submit Timecard

Work Order Detail

WO Number
WO747310

Child Work Orders
None

Description
MISC/NON-SWO CORRECTIVE-CREATE APPTREE OVERVIEW FOR MARTIN B.

Equipment
FP000

Nomenclature
FP PARENT

Status
OPEN

Maintenance Type
CORRECTIVE

Priority
3

AT&T 9:01 AM 100%

Submit

New Time Entry From WO

Work Date*
4/18/19

Employee*
KUJAWA, MARK A

Work Order #*
WO747310 - MISC/NON-SWO CORRECTIVE-CREATE APPTREE OVERVIEW FOR MARTIN B.

Hours*
0:00

Pay Code*
REGULAR

Labor Comments

Is Work Complete ?

New Time Entry From WO

Work Date*
4/18/19

January	15	2016
February	16	2017
March	17	2018
April	18	2019
May	19	2020
June	20	2021
July	21	2022

Employee*
KUJAWA, MARK A

Work Order #*
WO747310 - MISC/NON-SWO
CORRECTIVE-CREATE APPTREE
OVERVIEW FOR MARTIN B.

Hours*
0:00

Pay Code*
REGULAR

The app opens up another menu to pick dates and time to enter.

Enter comments of the work you did. It will attach to the WO.

Slide the switch if WO is complete. It will stay in Plan&Schd list if not complete.

Tap Submit when done.

Submit

KUJAWA, MARK A

Work Order #*
WO747310 - MISC/NON-SWO
CORRECTIVE-CREATE APPTREE
OVERVIEW FOR MARTIN B.

Hours*
0:00

+	0	0
	1	5
	2	10
	3	15

Pay Code*
REGULAR

Labor Comments

Is Work Complete ?

Review of an assigned work order.

- Created and assigned by Planning & Scheduling Group.
- Reviewed by Supervisors. They have the desktop app to see the same thing as Planning and Scheduling.
- Craft people have it on their mobile device.
- WO has enough info to do the work.
- Out in the field, a person can enter comments, add labor, and complete the WO.
- Pick the next WO in your list to do.
- Data submitted or retrieved is REAL TIME.

Creating a Work Order with a mobile device.

- From the Start Menu tap/choose Create Work Order.
- The first 3 fields are pull down menus with an hierarchy.
(This creates standard data entry for filtering and reports).
- Enter the Equipment Number from a search list OR by scanning the equipment bar code label.
- Many fields auto-populate from the Equipment Number entered and the menu choices made.
- Enter a TASK Description of the work. It is free form text.
- Tap Submit, a pop-up window appears with a WO number.
- When you open the WO, there is more auto-populated info such as Bldg. Mgr., attachments, crew, and priority.

Book, Chapter, Section have a hierarchy of pull down menus.

AT&T 11:03 AM 100%

Submit Cancel

Create Work Order

Book

Chapter

Section

Description*

Equipment

Site*

F38 - FARM SITE #38, RECEIVING ROAD

Building*

Floor

AT&T 11:03 AM 100%

Back PL Book

Search

ADMINISTRATIVE
007

CARPENTER
006

DOOR
019

ELECTRICAL
001

ELEVATOR
017

ENGINEERING MECHANICAL
005

FIRE PROTECTION
010

HI VOLTAGE
004

HVAC
003

16 records

BOOK choices:
Pick what group
to do the work.

I picked Fire
Protection.

11:30 AM 100%

Submit Cancel

Create Work Order

Book
010 - FIRE PROTECTION

Chapter

Section

Description*

Equipment 

Site*

Building*

Floor

11:04 AM 100%

Back PL Chapter

Search

ASSIST/SUPPORT
007

CPEMR ON-CALL
005

DISABLEMENT
002

**LEAKING SUPPRESSION GAS OR
SPRINKLER (AIR / WATER)**
004

MISC / NON-SWO
006

MODIFICATION
003

TROUBLE - ALARM - SUPERVISORY
001

7 records

Under CHAPTER for Fire Prot. is a menu that only applies to Fire Protection. It is a general idea of what the WO is for.

I picked Trbl-Alm-Supv.

AT&T 11:30 AM 100%

Submit Cancel

Create Work Order

Book
010 - FIRE PROTECTION

Chapter
001 - TROUBLE - ALARM - SUPERVISO...

Section

Description*

Equipment 

Site*

Building*

Floor

AT&T 12:13 PM 100%

Back PI Procedure

Search

ALARM - DISPATCH REPORTED 010001003
ALARM - FD REPORTED 010001004
SUPERVISORY - DISPATCH REPORTED 010001002
SUPERVISORY - FD REPORTED 010001006
TROUBLE - ALARM - SUPERVISORY - FSM FOUND/REPORTED 010001007
TROUBLE - ALARM - SUPERVISORY - OTHER REPORTED - DESCRIBE 010001008
TROUBLE - DISPATCH REPORTED 010001001
TROUBLE - FD REPORTED 010001005

8 records

Under Section,
these menu choices
further define the
purpose of this WO.

I chose Trouble-
Dispatch Reported.

11:30 AM 100%
 Create Work Order
 Book: 010 - FIRE PROTECTION
 Chapter: 001 - TROUBLE - ALARM - SUPERVISO...
 Section: 010001001 - TROUBLE - DISPATCH RE...
 Description*: TROUBLE - DISPATCH REPORTED
 Equipment: [Barcode icon]
 Site*:
 Building*:
 Floor:

11:12 AM 100%
 Book: 010 - FIRE PROTECTION
 Chapter: 001 - TROUBLE - ALARM - SUPERVISO...
 Section: 010001001 - TROUBLE - DISPATCH RE...
 Description*: TROUBLE - DISPATCH REPORTED-SITE 38| FACP
 Keyboard: Is | Minutes | Percent
 1 2 3 4 5 6 7 8 9 0
 - / : ; () \$ & @ "
 #+= . , ? ! ' [X]
 ABC [Smiley] [Microphone] space Done

These menus build the **Description/Title** on the WO. There is a little room to add **free text** such as Bldg name, HVAC, pump, fire panel.

The **numbers** in each field build what is called a **Phrase Library**. This helps insure accurate data for Reports and Queries.

AT&T 11:14 AM 100%

Submit Cancel

Equipment
FP922D1 - FIRE DETECTION S...

Site*
F38 - FARM SITE #38, RECEIVING ROAD

Building*
F38FO - 922 - SITE 38, FACILITY MGM...

Floor
1FL -

Room
SE-EXIT -

Task List*

Crew
FP

Assigned To

Scrolling down further has more fields to fill in. The next one is equipment.

If you tap in the equipment field, it takes you to a screen to search and pick from a list, OR... tap the barcode icon and your mobile device will read the Equipment Label. Either way, the rest of the fields shown here will auto-populate.

Again, auto-populate insures accurate data.

AT&T 11:15 AM 100%

Submit Cancel

Building*
F38FO - 922 - SITE 38, FACILITY MGM...

Floor
1FL -

Room
SE-EXIT -

Task List*
Replaced smoke detector 01-12.

Crew
FP

Assigned To

No Documents

Interactive Map

Rockford Chicago Waukegan

The last field to fill in is the Task List. It is free form text. Describe the work.

Submit this and get a WO number.

So, a WO was created with 3 menu choices, one picture, and 2 fields of minimal text entry.

The WO includes contact info, equipment description, location, a priority, a work crew, and possibly attachments, all based on the Phrase Library and Equipment number.

You can open up the WO, add your labor and complete it.

2 other things that are commonly done are Reactive WOs and Service Requests.

Reactive Work Orders are emergencies or urgent service calls. They are WOs with a default Priority of 0.

- The Duty Electricians/Mechanics, and Fire Techs are big users of this.
- They are often created/entered after the work is done.

Service Requests are created by anyone to have work done.

- Mechanics can request electrical work and vice versa.
- I could turn in a request for an Emergency Light.
- Planning Group has this in their queue and the WO lifecycle begins again.

Acknowledgements

- Sue Sprosty – Planning and Scheduling Group – Electrical
- Matt Besch – Facilities Maintenance Mechanic
- Patricia Marsh – Data Base Admin – Desktop and Mobile App
- John “JP” Pollock – Mechanical Supervisor

THANK YOU