# Purpose

The purpose of this procedure is to describe the proper means for transit agency mechanics to process maintenance and repair work orders (WO) utilizing Avail’s Enterprise Transit Management Software (ETMS) and barcode technology with a mobile handheld device. Mechanics can open work orders on the mobile device, access important asset information and checklists, perform the work, and close the work. Upon completion, the mechanic’s work activity notes, time spent, materials used, and other information is automatically updated on the work order.

Mechanics are the most accountable in the maintenance process. Therefore, these procedural steps are applicable to every mechanic responsible for documenting vehicle maintenance and repair activities and other essential WO information in the ETMS system, where individual bus histories, work orders, labor hours, parts and inventory are preserved. The Federal Transit Administration (FTA) requires all transit agencies to maintain accurate and comprehensive vehicle maintenance and repair documentation.

# Operational Impact and Metrics

*Operational Impact:* Avail’s ETMS Work Order (WO) system and barcode scanner technology helps maintenance departments establish structured processes and practices designed to promote more efficient workflows and ensures that accurate high-quality data is recorded for reducing maintenance costs and maximizing the service life of transit vehicles. This procedure facilitates improvements in management’s planning for the daily work performed and streamlines common manual entry tasks completed by mechanics. Maintenance staff can monitor workforce availability, view work order details, WO assignments, update the WO status with inspections and maintenance actions, track direct labor hours, inventory parts used and vehicle downtimes.

If this process is not administered appropriately, the results could have a negative impact on the data integrity in tracking work orders and maintaining permanent records of transit vehicle maintenance and inspection activity. Data integrity is crucial to meeting regulatory and safety requirements.

*Metrics:* Maintenance performance and productivity indicators can be monitored and measured against best practice industry standards in various areas, for example:

|  |  |
| --- | --- |
| * Mechanic direct labor hours devoted to inspections, preventive maintenance, and repairs (based on Operation Codes)
 | * Average duration of open and closed work orders
 |
| * Average miles between road and/or component failures
 | * Mechanic on-time work performance
 |
| * Inventory control information (i.e., high parts usage, stock-outs, etc.)
 | * Repeat repairs
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# Definitions

|  |  |
| --- | --- |
| **Class Codes**  | Defines the vehicle type or inventory asset for the work performed |
| **Labor Operation Codes**  | Describes the type of mechanical repair and are used to measure labor hours, also referred to as VMRS codes  |
| **VMRS Codes** | Vehicle Maintenance Reporting Standards (VMRS) are a set of universal numeric codes used to define virtually anything of importance to fleet operations |
| **Problem Codes** | Identifies the specific problem  |
| **Condition** | Describes the expected life cycle condition of an asset for State of Good Repair |
| **Inventory Cycle** | Defines inventory grouping for an asset |

# Frequency

This procedure applies every time a need for maintenance or repair is discovered, resulting in work orders being generated for vehicle inspections, preventative/scheduled maintenance, unscheduled repairs, road calls, defects, rebuilds, or Campaign work orders for a range of fleets.

# Roles and Responsibilities

Transit agency mechanics and facilities staff personnel are primarily responsible for the execution of the practices and procedure outlined in this SOP.

# Procedure

This procedure describes the high-level steps for a mechanic to follow when completing work order entry information in the appropriate ETMS modules while performing vehicle repairs and maintenance.

* 1. Work Orders (WO)
		1. Sign into work order assignments
		2. Create a new WO or select an existing WO
			1. Clock-in to the work order
			2. *If applicable,* review the active warranty information assigned to the vehicle or component
			3. Enter the labor operation code (VMRS codes)
			4. Enter all labor and material entries required to complete the WO
			5. Enter task description, mechanic notes, and insert pertinent documentation or images
		3. *When available,* use the hand-held bar code unit (BCU) to transfer labor and materials data to the WO
			1. Scan barcode labels on the WO, including those for the parts and equipment issued
		4. Enter transactions as necessary to detail the work performed
		5. Change the completion status
		6. Clock out/ log out of WO assignment
			1. Mechanic supervisor reviews, approves, and closes WO
	2. Vehicle Problems (VP)
		1. Enter all road calls
			1. Complete information for National Transit Database (NTD) report, Revenue Vehicle Inventory (A-30)
		2. Enter all defect repairs
		3. Enter all safety repairs
		4. Update vehicle status code
	3. Vehicle Maintenance (VM)
		1. Complete and record all daily fuel and other consumable information
		2. Run the Inspection Forecast Report
		3. Generate the PM (Preventative Maintenance) Checklist
		4. Update vehicle status code
		5. *If applicable,* generate Campaign work orders

# Supporting Documents

The following supporting documents are available online in the Avail Technologies portal:
<https://www.availtecportal.com/knowledge-base/transit-assets>

1. Related Training Materials
	1. [Maintenance Product Knowledge Webinar](https://www.availtecportal.com/knowledge-base/transit-assets/video_tutorials/video-player/docs/default-source/knowledge-base-videos/maintenance-product-knowledge-webinar)
	2. [Maintenance Workflow Diagram](https://www.availtecportal.com/knowledge-base/transit-assets/instructional_tools)
	3. [Note Guide - Maintenance](https://www.availtecportal.com/knowledge-base/transit-assets/instructional_tools)
2. [FNW Work Order User Guide](https://www.availtecportal.com/knowledge-base/transit-assets/product_documentation)
3. [FNW Vehicle Maintenance User Guide](https://www.availtecportal.com/knowledge-base/transit-assets/product_documentation)
4. [FastTrack User Guide](https://www.availtecportal.com/knowledge-base/transit-assets/product_documentation)