

Class Exercise: Mapping a Plan Motor Pool Standardized Vehicle Detailing Process Development

Overview:

After a comprehensive study has revealed significant turnover and abbreviated life span of vehicles in Embassy Motor Pool Operations, recommendations have been made to implement a comprehensive preventive maintenance program on vehicles globally. This preventive maintenance features a standard detailing of vehicles to eliminate dirt and grime which leads to a dulling of vehicle protective clear coat plus a servicing of critical mechanical parts that will have a direct impact on vehicle service life.

Mission:

Your team has been tasked with developing a standardized vehicle detailing and maintenance process that will be documented, tested, refined and implemented at each embassy around the world.

Team Exercise Instructions

Objectives:

- To gain experience mapping tasks used in project planning.
- To experience a simulation structured to develop teamwork, while highlighting each team member's role and perspectives in the planning process.
- To develop familiarity with the "Cards on the Wall" technique and to gain confidence in the ability to relate to other team members to establish a constructive planning environment.

Materials:

- Project Planning Cards,
- Milestone Cards
- Yarn, Scissors and Tape (One set per team)
- Flipchart and flipchart markers (One set per team)

Method:

Each team will develop a process flow to manage the flow of work required for detailing an automobile, from start to finish, by using the "Cards on the Wall" technique. This technique involves creating and placing Project Planning Cards on the wall, stringing black yarn between interrelated cards and then stringing red yarn between "critical" interrelated cards to identify the Critical Path. Examples of the work tasks required to detail and service a vehicle are shown on the following page. All of these tasks must be included in the process. Your team may add additional tasks, if necessary.

WORK BREAKDOWN STRUCTURE

1.0 Vehicle Detailing/Service Project

1.1 Management and Administrative Work

- 1.1.1 Inspecting the work for quality and completeness
- 1.1.2 Ordering rework as appropriate
- 1.1.3 Processing the paperwork for each car to be detailed
- 1.1.4 Processing the paperwork for payment for detailing that must be sent externally
- 1.1.5 General oversight of the operation

1.2 Mechanical Automotive Work

- 1.2.1 Window wiper replacement
- 1.2.2 Exterior lighting service and replacement
- 1.2.3 Four-wheel alignment and tire balancing

1.3 Mechanical Fluid and Filter Work

- 1.3.1 Servicing the transmission
- 1.3.2 Changing the motor oil and filter
- 1.3.3 Performing other miscellaneous filter changing
- 1.3.4 Replenishing window washer fluid
- 1.3.5 Performing battery service
- 1.3.6 Replacing other miscellaneous fluids

1.4 Exterior Appearance Restoration

- 1.4.1 Thorough washing
- 1.4.2 Steam cleaning the engine and undercarriage
- 1.4.3 Touch-up painting of dings and stone chips
- 1.4.4 Polishing the paint and bright work
- 1.4.5 Scrubbing and dressing the wheels and tires
- 1.4.6 Polishing the glass
- 1.4.7 “Dressing” the vinyl top and other non-metallic surfaces

1.5 Interior Appearance Restoration

- 1.5.1 Cleaning and polishing the interior hard surfaces
- 1.5.2 Shampooing the carpeting and upholstery
- 1.5.3 Polishing all glass and other hard surfaces
- 1.5.4 Applying appropriate dressings and preservatives
- 1.5.5 Removing dust and grime from interior details using Q-tips
- 1.5.6 Replacing any interior lights if required

Scenario: The Project Manager is responsible for reviewing the Functional Assignments, shown below, and for assigning functions to team members. Each Team Member will develop the Task Cards required to perform the tasks in the assigned functional area. All tasks are to be identified and timed (Example: Touch-up paint dings – 15 minutes), then linked into the serial/parallel relationships that will satisfy an in-shop schedule of four hours maximum per car using the “Cards on the Wall” technique. The Project Manager will assume the role of GSO/Manager and assign “Employee” roles to the remaining four team members. Each role should use the assigned color for the Task Cards.

Functional Assignments:

- GSO/Quality Assurance Inspector (Yellow)
- External Detailer (plus crew of one) (Blue)
- Internal Detailer (Green)
- Automotive Mechanic (Orange)
- Fluid & Filter Mechanic (plus crew of two) (White)

Resources must work only in their assigned functional role – to eliminate confusion there is no sharing of personnel resources between functional areas. For example, the External Detailer will plan all tasks for the External Detailing Crew and the Fluid and Filter Mechanic will plan all the tasks for the Fluid and Filter Crew.

1. **Suggestions:** Prior to starting the exercise, elect a Project Manager, Timekeeper and Spokesperson. Take the necessary time to determine the best way to approach and complete the process.
2. **To Build the Network:**Place the completed cards in the desired sequence on the wall. The first card should be the start. Tasks that are performed in parallel should be placed in a vertical line. Tasks performed in sequence should be placed in a horizontal line. After placing all cards on the wall, rearrange as desired. String black yarn between tasks to illustrate the dependencies. Next, determine the longest sequence by adding the total time for each sequence in the network. Mark the longest sequence (critical path) by stringing red yard between the tasks in this longest sequence.

3. Team Reports:

Preparation: Develop a “Cards on the Wall” network that shows necessary work, interrelationships, and satisfies a maximum four-hour turnaround schedule per vehicle. Then, identify the critical path within the network. Discuss the team’s solution and using the flipchart, markers and any other appropriate materials, summarize its important aspects in preparing a marketing presentation.

Presentation: Identify: the recommended work day (including total number of work hours); the number of vehicles that can be detailed and serviced each day; and the cost per car. The Team Spokesperson will use the flipchart and wall network in presenting the Team Solution to the class. At the end of the allotted exercise time, the instructor and students will tour the network diagrams to review each team's solution. Each Team Spokesperson will present and explain the team's recommended process to the group. Participants are encouraged to ask questions and offer observations during the solution discussions. At the end of the Team Presentations, the class will reconvene in the classroom.

4. Time Limit:

- Exercise and Team Report Preparation: 90 Minutes
- Presentation of Team Reports: 30 minutes

5. Lessons Learned:

- The advantages and power of using the "Cards on the Wall" technique for networking tasks, determining work assignments, streamlining work flow, identifying task interdependencies, and determining the critical path.
- How promotes teamwork, brings together the critical mass of expertise needed to develop the Project Plan, identifies plan risk areas up front, and sets the stage for sign-on to the completed Plan.