

# 5 Ways to Measure Your Planning and Scheduling Maturity Matrix



Elements		LEVEL 1 NOT ENGAGED	LEVEL 2 EXPERIMENTING	LEVEL 3 ENLIGHTENED	LEVEL 4 GOOD PRACTICE	LEVEL 5 BEST PRACTICE
PLANNING	Planning Education	No formal training provided	Planners have attended a formal planner training course or workshop	Planners have been formally trained. Affected individuals have been provided awareness training but nothing related to specific expectations.	Processes well defined, with maintenance and operations leaders given specific training on expectations with additional on the job coaching.	All affected individuals have received specific training to expectations. Training ongoing for new hires. All personnel modeling expected behaviors.
	Planner Role and Responsibilities	No planner role identified	Role and responsibilities not clearly defined. Planner is involved with reactive work and parts chasing. No dedicated planner.	Planners develop and assemble limited job packages. Dedicated planner as a full time resource. Unclear expectations.	Expectations of full time planners well defined. Still an excessive amount of time on non-core activities.	Planners strictly focused on future work. Zero involvement with reactive work. Roles and responsibilities clearly adhered to.
	Standard Work Procedures	No effective work procedures or accurate time estimates developed by planner.	High level work procedures developed for large jobs and outages. Heavily dependent on OEM manuals. Standard set of expectations for job plan content not established.	Standardized format for job plans established; expectations on quality and content are subjective. No clear expectations for which jobs should have a detailed plan developed.	Formal expectations developed for job plan format and content which is generally followed. Job plans are developed for work on critical assets. Moving towards quantitative vs. subjective inspection criteria.	Level IV + Evidence of continuous improvement system in place. Craftspersons involved in review and approval process.
	Labor Estimation	Job plans have no estimated labor hours assigned.	Jobs are grossly overestimated (1/2 shift or full shift) and not taken seriously in scheduling process. No formal estimating techniques are used.	Job estimates are generally more accurate; basic estimating process applied. Estimates are usually accepted as being accurate but are often overridden.	Jobs are broken down into steps and tasks with a time estimate rolled up into a total. Accepted as accurate and utilized in building the weekly schedule.	Level IV + Job plan include estimates for coordination and other outside resources. Estimates adjusted based on history/craft feedback.
	Job Site Visits	Job site visits are rare/ non existent while "planning" work.	Planner visits job sites for "high profile" jobs only while planning work.	Planner visits large or complex job sites during planning only when no pre-existing job plan exists.	Planner reviews some job plans with maintenance supervisors and technicians at the job site to ensure completeness.	Job site visits and significant interaction with those that will perform the work is a standard practice.
	Identification of Safety Requirements	No identification of Safety/Tag out/Permit requirements by the planner.	Planner includes high level references to site safety policies on work order.	Planner makes reference to generic safety procedures or requirements on the work order based on the equipment type/ environment.	Planner prepares detailed list of safety hazards and references permits required based on job task breakdown and site visit.	Level IV + methods to address these hazards are provided. Permits are pre-populated as much as possible and included in the work packet.
	Determination of Required Materials	No predetermination of needed materials. Materials acquisition is entirely up to technicians "on the fly" while executing job.	Technicians identify their own materials and the planner places the order. List is quite often inaccurate. Job delays from missing material common.	Planners work with maintenance supervisors and technicians along with past job history to develop list. Storeroom runs during job execution still common.	BOM and job history utilized but gaps exist. Planner expends a significant amount of time researching materials. Job delays from missing materials only occasionally occurs.	Bill of materials and past job history leveraged extensively. Delays in job execution due to missing materials a very rare occurrence.
	Materials Kitting	No kitting process in place, materials acquired "on the fly" by technicians and supervisors	Materials lay down areas exist in storeroom - informal process - much confusion and inaccuracy.	Materials kitting and staging occurs for most outage jobs and only ad hoc for weekly/daily work. Technicians drive the process.	Materials kitting and staging occurs for all outage jobs and most weekly/daily work. Storeroom personnel receive pick-lists and assemble the kits.	Kitting a standard practice with few errors. Kits are kept in a secure area, verified for accuracy against the work order and easily identified.

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PLANNING	Bill of Material Management	Equipment Specific Bill of Materials non existent.	Some Bill of Material developed but only for a small portion of equipment - most are incomplete or inaccurate; almost never formally reviewed or corrected/updated.	Level II + Some Bill of Materials are linked to drawings, item number and lead time for delivery.	Level III + formal plan in place to address shortcomings on BOMs. Focus on equipment level. Plan is clearly being executed with results of efforts evident.	BOMS developed to the component level with minor exceptions. Continuous improvement and corrections a standard process. BOMs standard part of CAPEX process.
	Work Order Closeout	Work orders are not returned to the planner for closeout	Work orders are returned to planner for closeout but contain very little if any useful feedback ("Fixed, Done, Complete")	Work orders are returned to planner with hours (actual almost always = estimate) and no indication of missing materials. Planner occasionally makes updates.	Level III + improvement suggestions, materials consumed, and actual hours spent. History allows management reporting on MTBF and Planned vs. Actual hours.	Level IV + component codes, and failure codes. Failure information can be discerned from work order history to drive reliability improvements.
SCHEDULING	Scheduling Meeting Participation	Scheduling meetings not held. Organization completely reactive.	Scheduling meeting only occurs for outages attended only by maintenance personnel. Production doesn't attend	Scheduling meeting occurs with a standard agenda, date, time and required attendees. Production attends meetings on occasion and when present not actively engaged. Schedule not taken seriously.	Level III + Attendees are on time and actively engaged in the scheduling meeting. Moderate level of confidence exists in the developed schedule. Maint driven.	Scheduling meeting occurs like clockwork. Standard time, place, agenda - efficient. Operations drives meetings. Formal approval process (Maint and Operations). Senior Management sponsorship.
	Operations/ Maintenance Use of Backlog for Scheduling	Backlog is not considered when developing a schedule. Daily reactive coordination occurs vs. weekly scheduling	Backlog largely inaccurate and not taken seriously. Next week's schedule originates from both the backlog and on the spot production requests Many very old (>90 days) jobs on the backlog - backlog large.	Schedule is developed using a combination of backlog and last minute emergency lists. Team understands the importance of scheduling from the backlog but still struggles with execution.	Backlog is generally considered accurate and most jobs only scheduled from backlog - not necessarily strictly from the ready backlog (total backlog as well).	Ready backlog is the primary driver for building the schedule. Backlog size and age appropriate.
	Schedule Communication	Largely verbal agreements and informal lists. Shared only between small subset of workforce.	Schedule is published on a network drive or emailed. Rarely viewed/ passive communication/ small subset of organization aware of existence.	Schedule is passively posted and displayed in maintenance shops/ areas only. Frequency of updates sporadic and rarely paid attention to.	Schedule is published and displayed in all areas. Schedule is regularly posted at set date/time/place; awareness of schedule content/importance varies.	Level IV + Schedule is regularly and actively reviewed with personnel at set date/time/place; minimal coordination delays. Published at least 1 week in advance.
	Resource Utilization	Personnel react entirely to radio/ trouble calls from production/maintenance supervisors. Resource availabilty not known.	Available resources not taken into consideration during scheduling. Personnel select their jobs from an assignment box – no names listed. Resource utilization low.	Scheduling based on availability of resources; significant portion of schedule empty to accommodate "emergencies". Time set aside for emergencies - resources not scheduled to 100% availability.	Labor Hours formally scheduled to 100%. Front line supervisors react to schedule breakers but no formal process exists. Resource utilization is moderate. Jobs assigned to personal the day prior to work.	Level IV + formal process in place for "schedule breakers". Resource utilization is very high. Personnel assigned to jobs the week before. Schedule breakers analyzed for improvement.
	Measuring Schedule Compliance	Not measured. No accountabilities set.	Number of work orders completed is tracked. Numbers are suspect to manipulation; methods of measurement are sporadic and variable. No of system accountability.	Only tracking work order completion rate. Formal standard in place but not consistently followed. Measurement published regularly; results not used to drive improvement.	Measured by dividing the total number of labor hours completed by the total number of labor hours scheduled. Measurements formalized and trended but not always followed.	Level IV + Method formalized and consistently followed. Organization regularly tracks and seeks out improvement opportunities.

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