

# **The Daily Production Meeting**

## **Doing It Lean!**



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# The Daily Production Meeting - Doing It Lean!

*by John E. Boyer, President, J. E. Boyer Company, Inc.*

## Introduction

Nearly every manufacturing company has a daily or weekly production meeting. It is where many production, customer, materials, personnel, and other issues are addressed. Any number of people attend ... some because they must, some to gather information, and some to provide information.

Having attended hundreds of these meetings over the years in dozens of companies from many types of industries, it is my experience that these meetings are held in an astonishingly wide variety of ways. Some are very effective ... some are not. Some are full of fact-based information ... others are opinion oriented gripe sessions. Some help sort out the tough issues of the day ... in others only 'good news' is permitted.

Visualize your daily production meeting. Are the right people there? Is the agenda crisp and clear? Are the right issues addressed? Are attendees prepared and accountable? Is information in a one-source fit-for-use condition? Is performance reported, measured, visually charted, and used to effectively drive improvement? In a lean manufacturing environment where daily planning and execution are critical, this meeting plays a key role in cost control and on-time performance. The objective of this presentation is to help you answer "YES" to these questions!

This presentation will be conducted in a rather unusual way. My plan is to "script" a typical poorly conducted daily production meeting and have some random members from the audience conduct the meeting. This will take about 10 minutes. Following this skit, we will determine what was right and what was wrong, and discuss the characteristics of how the meeting should be done. Our participants will then conduct a high performance daily production meeting. You will see a HUGE difference. Once you've seen it, you can go back to your company and do it!

## Daily Production Meeting Definition and Objectives

The Daily Production Meeting (DPM) is a 15-30 minute get-together of key/appropriate people to assess, measure, communicate and plan production schedules. The objectives of the meeting are to:

- Assess rate and schedule performance from the previous day
- Confirm the schedule for the current day
- Set the schedule for the next day or two
- Discuss, report, and resolve production and customer issues
- Maintain valid production dates on all production schedules (or work orders) and customer orders for use by materials and customer service

## Special Importance of the DPM in a Lean Manufacturing Environment

In a lean manufacturing environment, a normal practice is to have Rate-Based Due-Date-Driven Production™ in place. The factory will be organized into a number of cells and/or production flow lines. Each of these cells/lines will have an established daily run rate or rate of output in terms of units, earned hours, equivalent units, and/or dollars. These run rates are by month through an appropriate planning horizon (at least six months) and are updated monthly. These run rates are determined in the Sales and Operations Planning process. For example:

<u>Cell</u>	<u>Run Rate</u>
Large Gizmos	1,000 equivalent units/day
Small Gizmos	5,000 units/day
Special Gizmos	200 earned hours/day

In addition to the run rate, there is a schedule for each cell/line consisting of a number of end items that will be complete each day. It includes items going directly to customers and items going to the distribution system (finished goods). In other words the cell/lines are due date driven. It doesn't matter how the schedule is created (MRP, Kanban signals, other visual methods, other take action reports), there is still a statement of the work that must be completed each day.

Assuming that your lean operation incorporates Rate-Based and Due-Date-Driven Production™, as it should, the DPM becomes especially important as the formal and regular activity for measuring, fine tuning, and communicating the daily schedule.

### Dates

In the DPM it is crucial that dates are maintained and kept valid. This goes for schedule (work order) dates and customer order dates. This is a simple principle, but most companies overlook it.

Here is an example. A customer order has a due date of 10-13-04. However, this date passes and the order does not ship. It is now 10-14-04. The truth is that the due date on the order has changed. It can not be shipped in the past. The only outstanding question is whether to formally deal with it or not. By formally deal with it, I mean change/update the date in the business system. Imagine a customer service person getting a call on 10-14-04 from the customer asking when the order will ship. The person puts the order on their screen and the due date says 10-13-04. In this case of looking at an invalid date, the best the person can do is try to chase the order on the "sneaker net" and get back to the customer. However, if the date was maintained and valid, the customer could be answered right away.

To implement date validity, three date concepts must be understood:

1. Customer Request – this is the date that the customer asked for the shipment to be made. As unrealistic as it may be, it is what the customer wants. It never changes unless initialed by the customer.

2. Original Promise – this is the due date that the company gave to the customer at the time of order entry. It never changes unless repromised based on a customer request.
3. Current Promise – this is the “system positioner” due date and is the current best estimate of what is going to happen. This is the due date that MUST be kept valid daily. It is NEVER past due. You can’t ship something yesterday.

The same logic holds true for schedule (work order) dates. However quite often only two dates are used:

1. Original Schedule – this is the due date that the schedule was originally given at the time the schedule was first established.
2. Current Schedule – this is the “system positioner” due date and is the current best estimate of what is going to happen. This is the due date that MUST be kept valid daily. It is NEVER past due. You can’t produce something yesterday.

Date validity is a wonderful practice to have. Valid dates basically enables the business system to provide valid information. Customer, production, and supplier information can be used straight from the business system. The DPM is a wonderful forum for maintaining date validity.

## **Attendees, Roles, and Accountabilities**

The attendees vary somewhat from company-to-company, but here is a typical list along with roles and accountabilities.

Production Manager – this person is the “owner” of the meeting. His/her role is to set the agenda, establish the time and place, provide a suitable meeting place, establish the performance metrics, coach all attendees on their roles and responsibilities, and run the meeting. And one more thing ... set the expectation that this meeting is NOT optional. Everyone will show up on time dressed to play!

Cell/line Supervisors – these are the people who run the cells and lines. Their role is to know to daily schedule, know the S&OP run rate, know what has been done (or not done) daily, know production problems and solutions, and anticipate problems. Each day they must deal with the simple questions: 1) ‘What was scheduled?’, and 2) ‘What was produced?’ Each supervisor must be prepared to speak crisply to these questions at the DPM.

Scheduler – this is the person who sets the daily schedule for the cells/lines. His/her role is to produce the daily schedule in a fit-for-use condition (similar to the example shown above).

Buyer/Planner(s) – these are the people who buy and schedule purchased materials. Their role is to know the status of all parts shortages and know of any future anticipated parts shortages. At the DPM, they must come prepared with answers.

Customer Service Rep(s) – these are the people who deal with the customer throughout the day. They must deal with the customers' most popular question: WHEN? And they must be prepared to respond with a valid due date. These valid dates are shown on the daily schedule and on open customer orders.

Engineering Support – these are the people who deal with product design issues and production tooling issues. An appropriate amount of engineering knowledge should be present at the DPM to speak to design and tooling issues.

Quality – these are the people who know about the quality issues in terms of rejects, rework, scrap, customer complaints, first articles, and other quality issues. They must be prepared to speak to these issues.

There may be other people present at the meeting as interest and contribution dictate. There is no exactly right and wrong set of attendees. The main point is to know production performance and to resolve all of the schedule issues.

## **Agenda, Location, Time, and Setup**

Here are specifics for a typical DPM:

Time: 4:00 p.m. (daily)

Place: Manufacturing Conference Room

Agenda:

- Call to order – Production Manager (1 minute)
- Report and post rate and schedule performance for the previous day, briefly discuss problems/solutions, and ensure that all schedules have a valid date – each Cell/Line Supervisor (3 minutes each)
- Review the schedule for the next day (plus a few days beyond) and identify any foreseen issues – Scheduler (5 minutes)
- Record and review action items – Production Manager (2 minutes)
- Adjourn – Production Manager – Production Manager (1 minute)

In a business where there are seven supervisors, this meeting should take 30 minutes.

## **Information Format**

There are generally two documents that are needed at the meeting: 1) the daily schedule, and 2) customer open orders. Please read the following descriptions carefully. Many times a company claims to have this information ... almost ... but not quite. If it is not quite right, it's not right at all. Imagine jumping a six foot ditch, and only jumping 5-1/2 feet. Almost, but you're in the ditch!

The Daily Schedule The daily schedule is a listing of all released schedules (or work orders) and planned schedules (or orders) sorted first by cell/line and next by the current schedule due date. When the due date changes (breaks), the quantity and capacity units are totaled. This due date is the one the system uses to position

information in planning calculations. In a lean factory, the daily schedule could look like this for the Large Gizmo cell:

<u>Schedule No.</u>	<u>Status</u>	<u>Part No.</u>	<u>Qty</u>	Current <u>Schedule</u>	<u>Capacity</u>
<u>Units</u>					
W3245	Released	D12872	100	10-12-04	100
W3278	Released	D77124	800	10-12-04	800
W1232	Released	N88123	<u>200</u>	10-12-04	<u>100</u>
Total			1,100		1,000
W3323	Released	D12872	200	10-13-04	200
W2212	Released	D55213	500	10-13-04	500
TBD	Planned	Y66231	<u>100</u>	10-13-04	<u>300</u>
Total			800		1,000

More dates can follow. As many as you like.

Notice the simplicity. This daily schedule is simply a statement of the end items that must be completed day-by-day at a rate prescribed by the S&OP process. By the way, this daily schedule can usually be produced directly from your ERP system in a fit-for-use condition ... no spreadsheet required!

The capacity units can be either normal units, equivalent units, earned hours, or dollars. The point is, these are the units used to assess and level capacity on the cell/line in accordance with the S&OP process. An equivalent unit (EQ) is a convenient way to determine how much cell/line capacity is required without doing a full routing explosion. For example, the highest volume item would carry an EQ of 1.0. An end item that takes twice as long would carry an EQ of 2.0. In this example, part number Y66231 carries an EQ of 3.0.

### Customer Open Orders

Customer Open Orders is a listing of all entered and not shipped customer orders by order line item sorted in current promise due date sequence. When the date changes (breaks), the quantity is totaled. This due date is the one the system uses to position information in planning calculations. In a lean factory, the customer open order report could look like this:

<u>Customer</u>	<u>Order</u>	<u>Line</u>	<u>Part No.</u>	<u>Qty</u>	Original <u>Promise</u>	Current <u>Promise</u>	<u>Cell</u>
ABC Mfg	1324	1	D12872	100	10-7-04	10-13-04	LG
XYZ Mfg	3212	1	Y33244	50	10-13-04	10-13-04	SG
LMN Co Inc	5434	2	H33126	<u>100</u>	10-14-04	10-13-04	SG
Total				250			

More days can and should follow. This format is offered as a simple example. In actual practice, this listing may be dozens of pages long. But it is a critical tool in achieving date validity and is a key tool for the DPM.

## **Performance Measures, Posting, and Visualization**

Performance measures are used to drive improvement, not to punish people. In the DPM, the players must be encouraged and expected to know their performance, and praised for knowing what it is! In the DPM, the two most critical performance measures are:

- **Schedule performance.** This is the percentage of schedules completed vs. the total schedules. Often in a lean environment, it is done by cell or line. This answers the question “did we run the right things?”
- **Run Rate performance.** This is the percentage of output completed vs. output scheduled. This answers the question “did we run the right amount?”

Other performance measures that could be included are quality, safety, and cost. There are a variety of ways to do these which will not be detailed here.

In the meeting, each person who has schedule accountability must come to the meeting prepared with their performance numbers for the day. The results are typically posted on a whiteboard day by day. Each person, in turn, gets the marker in their hand, goes to the board, and writes the numbers. After all, it's their number. Why should anyone else do it?

In addition, the daily numbers are recorded on a spreadsheet and graphed for display and distribution. The daily numbers are summarized in monthly totals.

It is critical to post performance. It is critical that the people accountable for performance do the posting. It is a way to ensure understanding, ownership, and improvement. It's that simple.

## **Keys to Success**

There are four absolute keys for a successful DPM:

1. The company president, general manager, and/or VP of manufacturing must want this done and be willing to get involved. He/she must show up at the meeting to make sure that everyone knows that a high performance DPM is not optional.
2. Show up. That's right ... show up on time. If the meeting is to start at 4:00, then all players should be at the meeting ready to go at precisely 4:00. Not a minute later.
3. Be prepared. Based on each player's particular role, all information must be known before the meeting. Rate and schedule performance, material issues, customer issues, production issues should all be researched, data collected, and facts gathered before the meeting.



4. Information format. This sounds too simple, but it is critical. The schedule used as the basic input to the meeting must be in the fit-for-use condition described. During the presentation, specific formats for the daily schedule and customer open order reports will be presented.

## Output of the DPM

There are four outputs of the daily production meeting as follows:

1. Update any and all dates to ensure date validity as follows:
  - a. Any schedules that were missed that day
  - b. Any customer shipments that were missed that day
  - c. Any future schedules or customer shipments that require a date change
2. Review performance to ensure the team understands if operations are getting better or worse and to know what to work on for improvement. Again, the key performance measures are:
  - a. Schedule performance.
  - b. Run Rate performance.
3. Update the schedule for the next few days. Make sure the schedule is valid in terms of customer needs, material supportability, capacity supportability, and tooling supportability.
4. Record any action items that need attention. Make sure there are specific action items, who is going to do them, and when they are going to be done. Usually, the action plan is listed on a white board.

## Action Plan for Implementation

Are you ready to start? Good! Here is what you do.

- Conduct training for all people affected by the DPM (including the top management people). The training must include the concepts of:
  - Cellular/line flow manufacturing
  - Rate-Based Due-Date-Driven Production™
  - Date management
  - Performance measurement
  - DPM objectives, logistics, and expectations
- Decide that you are going to do it. Not sort of do it. I mean do it. Not optional. Everyone!!
- Determine who will be the owner/leader/chair of the meeting
- Assign the leader and one or two other people to work on the following steps
- Work out all of the meeting logistics:
  - Who will attend
  - Where it will be held ... make the venue a “nice” place
  - When it will be held and for how long
- Get the two primary tools designed correctly:
  - The daily schedule
  - The customer open order report
- Define and agree on the performance measures

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- Daily rate
- Daily schedule
- Design a white board for posting performance and action items
- Design a spreadsheet and graphs for recording and displaying performance and assign a person to keep this up to date
- Train everyone on the specifics of how your DPM will be done

Now you are ready to go. Hold the first meeting. It will be a little ragged at first. People won't quite know what to do, there will be some "data trauma", and the schedules won't quite be fit-for-use. But have courage! Stay with it. In a few weeks, all of the bugs will be worked out. Then, the DPM will flourish as THE forum for sharing information that will help enable a new level of operational performance and customer satisfaction.

I wish you well on your journey. Please don't hesitate to contact me if you get stuck or have a question.

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