

# ***Baseline Production Launch Process***

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# What is Production Launch?

**Definition:** Production Launch is all the activities necessary to get a manufacturing plant to line-rate for a product that is new to the plant.

**Comment:** Production Launch is part of Product Development. Production Launch Process defines how Manufacturing needs to be successful within the enterprise activity we call Product Development. Because Production Launch was first developed from a manufacturing perspective, it's a natural for the application of lean principles and methodologies.

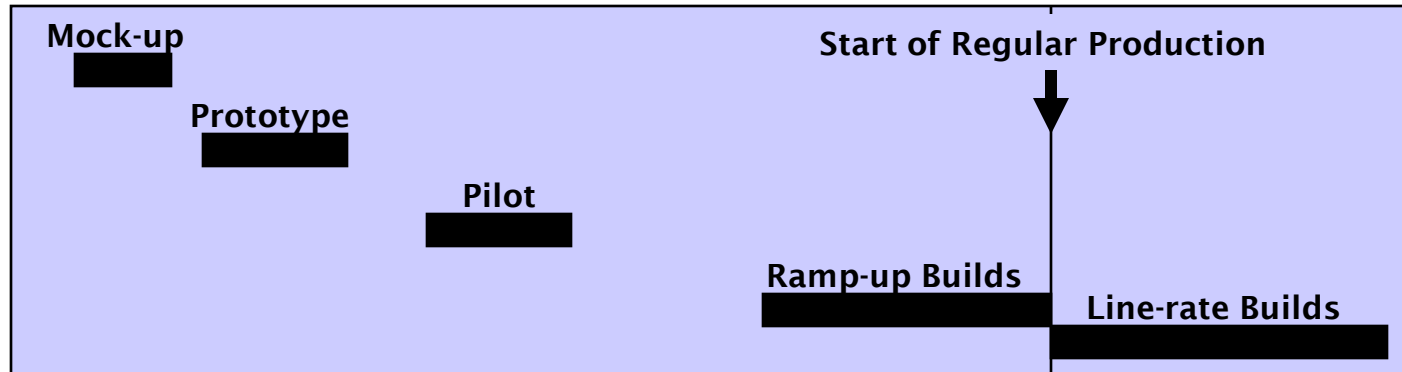
# The Four Key Success Factors

1. **Achievable Build Plan** that comprehends a forecast of build problems and puts in place sufficient resources to resolve forecasted problem volume. Learning curve must also be comprehended.
2. **Dynamic Integration** of all functional area activities that have launch responsibility. Plans have to be readjusted as the program proceeds, yet the program must strive to maintain achievement of critical milestones as sacred.
3. **Part Readiness** activity that assures all tooling, parts and documentation are available for the start of every build event. Starting without all parts available precipitates extreme forms of waste and risk.
4. **Build Issue Resolution** must be fast and comprehensive so as to meet customer requirements for schedule (the Build Plan) and quality.

# Baseline Production Launch Process, B-PLP

- The B-PLP is used as a starting point when working with Clients to develop a *Lean Production Launch* process specific to their business
- The B-PLP serves as a reference business process, easy to adapt to the Client's best practices, culture, and business processes.
- Development of the B-PLP was driven by applying lean management principles
- The scope of the B-PLP is designed around the 4 Key Success Factors of how to win at production launch:
  - An **Achievable Build Plan** is validated and drives resource allocation
  - **Dynamic Integration** of all functional area activities that have launch responsibility are handled by a team with lean norms and procedures
  - **Part Readiness** activity assures all parts, tooling and documentation on time for early build events
  - **Build Issue Resolution** process assures fast build problem solving

# What's in an Achievable Build Plan



## A Build Plan is achievable if:

- You can start and finish the build event on time
- You build with the correct generation of all parts, tooling and documentation
- You can get corrected parts and processes into subsequent builds
- You can execute the build events with the budgeted resources
- You achieve the objectives of each build

# Making a Build Plan Achievable

Now that you see what's coming, what options do you have to meet the challenge at least in the SHORT TERM:

Re-adjust schedule to level it	High potential
Pull ahead builds for earlier learning	High potential
Assure parts are on-time	Moderate to high potential
Increase build resolution manpower	Low to moderate potential
Design for Manufacture	Low to moderate potential
Improve problem solving throughput	Low potential

*Tackle this challenge with your Lean tools or Six-Sigma*

# Dynamic Integration

A Production Launch Team is established which includes one member from each functional area that typically is involved in production launch

Member's primarily allegiance is to the team's success, not to the home functional area.

Members are empowered by their home functional area to make decisions

Team use control documents to manage the production launch (Master Summary Report and Issue Register) which enable dynamic integration

## **NORMS FOR THE TEAM**

- Meet weekly for one hour and come prepared to status your activities
- Any issue raised is logged in the Issue Register with ownership assigned
- Hero's welcome for members who surface emerging problems – getting ahead of the team's problems is critical for success
- No loose ends – everything has an owner who must be a team member
- Problem escalation processes is precise and explicit

# Lean Program Control Documents

- MASTER SUMMARY REPORT
- One page tracking document for complex programs
- Became the lean program management control document – today there are hundreds of applications
- Developed with rigorous elimination of waste as the driver
- Made it easy to standardize day-to-day program management
- Particularly effective for programs that will experience changes to plan during execution

*A MASTER SUMMARY REPORT is not just another pretty face, it's a program control document*



# Master Summary Report - Example

Product XXX: Production Launch (w/Joint Venture Partner) - Master Summary Report																		
#	Funct. Area	PLP Owner	Task Description	2002					2003					Status	Issue #	Issue Escalated	Comments	
				M	J	J	A	S	O	N	D	J	F					M
1	Engrg	WR	Design freeze A															XXXXXXXXXXXXXXXXXXXXXXXXXXXX
2	Engrg	WR	CR release															XXXXXXXXXXXXXXXXXXXXXXXXXXXX
3	Proc E	EA	Mfg. Model BOM - first variant															XXXXXXXXXXXXXXXXXXXXXXXXXXXX
4	Proc E	EA	Routings with progressive release															XXXXXXXXXXXXXXXXXXXXXXXXXXXX
5	Proc E	EA	Routing package for DSI															XXXXXXXXXXXXXXXXXXXX
6	Config	AS	Specification Center operational															XXXXXXXXXXXXXXXXXXXXXXXXXXXX
7	Config	AS	Common change mgmt process with JV Partner															XXXXXXXXXXXXXXXXXXXX
8	Facil	WL	Dynamometer															XXXXXXXXXXXXXXXXXXXXXXXXXXXX
9	Facil	WL	Laser cutting system															XXXXXXXXXXXXXXXXXXXXXXXXXXXX
10	Facil	WL	Robotic welding station															XXXXXXXXXXXXXXXXXXXXXXXXXXXX
11	Facil	WL	Test station															XXXXXXXXXXXXXXXXXXXX
12	Facil	WL	Facilitization of Dept 110 parts															XXXXXXXXXXXXXXXXXXXXXXXXXXXX
13	Facil	WL	Facilitization of Plant 2															XXXXXXXXXXXXXXXXXXXXXXXXXXXX
14	PLP	JB	Staffing Plan - hourly increases															XXXXXXXXXXXXXXXXXXXX
15	PLP	JB	Staffing Plan - salaried increases															XXXXXXXXXXXXXXXXXXXXXXXXXXXX
16	PLP	JB	DSI (Deferred System Installation) @ 60 vehicle															XXXXXXXXXXXXXXXXXXXXXXXXXXXX
17	PMC	RC	Detailed production schedule - all variants															XXXXXXXXXXXXXXXXXXXXXXXXXXXX
18	PMC	RC	Storage, float, and flow to JV Partner schedule															XXXXXXXXXXXXXXXXXXXX
19	Purch	TC	Outsource of dynamometer work for capacity															XXXXXXXXXXXXXXXXXXXXXXXXXXXX
20	Purch	TC	Outsource of laser cutting work for capacity															XXXXXXXXXXXXXXXXXXXXXXXXXXXX
21	Purch	TC	Painting supplier up to capacity															XXXXXXXXXXXXXXXXXXXXXXXXXXXX
22	Purch	TC	Supplier readiness / sourcing all other parts															XXXXXXXXXXXXXXXXXXXXXXXXXXXX
23	Qual	DR	Progressive FPVI first variant at Plant 1															XXXXXXXXXXXXXXXXXXXXXXXXXXXX
24	Comm	BF	Communications / promotional activities															XXXXXXXXXXXXXXXXXXXXXXXXXXXX
25	Train'g	GK	Training for welders, testers and maintenance															XXXXXXXXXXXXXXXXXXXX
26	IS&S	MA	Lotus Notes upgrade for Issue Resol. Process															XXXXXXXXXXXXXXXXXXXXXXXXXXXX
27	IS&S	MA	Electronic routing transfer															XXXXXXXXXXXXXXXXXXXXXXXXXXXX
28	IS&S	MA	Electronic data transfer between JV Partners															XXXXXXXXXXXXXXXXXXXX
29	JV Partner	RM	Temporary solution on routings for JV Partner															XXXXXXXXXXXXXXXXXXXXXXXXXXXX
30	JV Partner	RM	Job shadowing - process validation activities															XXXXXXXXXXXXXXXXXXXXXXXXXXXX
31	JV Partner	RM	Process validation for Dept 112 activities															XXXXXXXXXXXXXXXXXXXX
32	JV Partner	RM	Process validation for Dept 118 and up activities															XXXXXXXXXXXXXXXXXXXXXXXXXXXX
33	JV Partner	RM	FPVI for ICV															XXXXXXXXXXXXXXXXXXXXXXXXXXXX

# Anatomy of a Master Summary Report

## TASK NUMBER

Identifier that is not necessarily unique as TASKS are added or deleted.

## FUNCTIONAL AREA

The FUNCTIONAL AREA that is responsible for executing the TASK

## OWNER

Person who is on the team representing their FUNCTIONAL AREA. They are Identified by their last name or initials. They are responsible for reporting status of their TASKS

## TASK DESCRIPTION

A brief description of the appropriate level of TASK. These TASKS may have more detailed schedules managed by others. If so, then this TASK DESCRIPTION will likely represent a summary

Product XXX: Production Launch (w/Joint Venture Partner) - Master Summary Report

#	Funct. Area	PLP Owner	Task Description	2002			2003			Status	Issue #	Issue Escalated	Comments	
				M	J	J	S	O	N					D
1	Engrg	WR	Design freeze A											
2	Engrg	WR	Design release											
3	Proc	E	Eng. Model BOM - first variant											
4	Proc	E	Outtings with progressive release											
5	Proc	E	Routing package for DSI											
6	Config	AS	Specification Center operational											
7	Config	AS	Common change mgmt process with JV Partner											
8	Facil	W	Dynamometer											
9	Facil	W	Laser cutting system											
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11	Facil	WL	Test station											
12	Facil	WL	Facilitization of Dept 110 parts											
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33	JV Partner	RM	FPVI for ICV											

## COMMENTS

Generally, on a weekly basis, each TASK must have a one line comment on its STATUS, regardless of whether it is Green or Red. This minimizes the need for follow-up questions which can be wasteful of the OWNER's time

## ESCALATION

If the team can't resolve the issues that keep a TASK on schedule, the ISSUE can be escalated in the organization for executive resolution. Escalated issues are the PULL SIGNAL to upper management for help.

## SCHEDULE

A visual representation of the overall program without too much detail. It is usually measured off in weeks or months. Sometimes end dates for the TASK are indicated. This SCHEDULE must not be automatically tied to project planning software.

## STATUS

Best practice is to STATUS a TASK every week as either:

- G On schedule for completion or timing was changed to customer's satisfaction
- R Schedule will be missed if issues are not solved
- C Task is completed

## ISSUE NUMBER

Any TASK which has a STATUS as RED must have an accompanying issue logged in the Issue Register. Displaying the ISSUE NUMBER here makes it easy to find the accompanying issue details. These issues are the PULL SIGNAL for help.

# Issue Register

**Purpose:** This is the second tier of information to a Master Summary Report where details of issues are documented

- STANDARDIZES WORK of the team
- Uses VISUAL CONTROL to see status of issues from a distance
- Single source for PULL SIGNAL to rest of the organization for help on issue resolution
- Clearly identifies which team member is responsible for closure of the issue
- Has a rolling status of progress towards closure and provides a permanent record (in one place) of all issues
- Provides data on closure times to help a LEARNING ORGANIZATION continuously improve the project management process
- Permanent record helps with ISO compliance
- Escalation is made precise and explicit

**Production Launch Issues Register – Example 1**

#	Issue	Issue raised by	Date Logged	Impact Date	Functional Area	Owner	Status	Response/Action	Escalated Via Program Risk Register	Date Closed	Closure variance to Impact Date (4+ days)
7	Transfer Spec Centre duties to XEROX - PLAN	PLP	9-May-01	1-Oct-01	Configuration Mgmt	Alan Stubbs	Y	This is an issue to resolve-A Stubbs/Doug Roodo to prepare proposal for Management/Issue review-and completion sep 04.			
46	Risk management - Gerry Nadeau to integrate the risk Mgmt program level tools to issue resolution		9-May-01	15-Aug-01	Program	Don Minemns	Y	Review with Gerry Nadeau Jun 21 01 Gerry has been invited to attend a meeting 24-Jul to explain the risk process to the group and has accepted the invitation. July 26 01 Due to current issues being worked Gerry has requested to be rescheduled to July 31 01. Process now in place to escalate issues from the PLP register to the Program Issues Register through Dennis Harvey PLP Champion.		14-Aug-01	
63	Final paint at Annisston Army depot by Army staff.	R.M	9-May-01	Dec. 1 01	QA	Angie/Doug	Y	Paint Directive D19 is under review. Support and Training will be provided to GD (Army/D Roodo to visit anniston Week of aug 22/23 for review.D19 in Rev Status training of ANAD is future probably Dec.			
75	XRAY interpretation - GDLS Lima and GM Defense have significant differences interpreting ways		4-Jun-01	24-Jul-01	QA	Doug Roodo	G	AWAITING Hull #11 with 7525 process to 100% and compare GM/GD equipment. Unit will be x rayed on July 24. Xray review #11 complete. Check found that GDLS way did not A report from 3rd party will be available Mon-July 23. D Roodo to travel to Lima July 25 and will review with GDLS. GM/GDLS plan in work for sampling.		13-Aug-01	
76	Storage of Hulls at Anniston	R.C	5-Jun-01	10-Sep-01	Parallel Source Mgt	Ted Coleman Robert Campbell	Y	Ron Martin in concert with purchasing to seek out options at either ANAD or off-base locations. PMC to use this combined effort info to make decision on storage of hulls options. Info from these options expected by mid Aug 01. Info with purchasing to colate and forward to PMC for a decision. ISSUE Owner is PMC Dave Washburne			
79	Mortar Carrier design - Release of Hull data from GDLS to GM Defense	D.M	5-Jun-01	15-Jun-01	Program	Don Minemns	R	Delivery of information has a late impact to MC Build schedule is now upon us. Immediate action required to analyse impact to build schedule. Some CD's with information have arrived from GDLS on July 16 01. CM is analyzing the information, however early indication is that the information that is contained are part drawings. July 26 01, TDP has been received and is being worked towards release to production in CPD. Release date is unknown at this time. TDP information received id for the hull only. Aug 02 01. Memo to Tony Plunkett requesting delivery of the balance of the MC TDP ASAP. Discussed with Tony Plunkett at SHC on Aug 8 01. There is a lack of understanding regarding the requirements. One issue is that without the assembly information the non serialized components cannot be scheduled. TDP's release will be discussed at the Sept 11 01 SC review. Scheduled for release OCT 1 01 DM.	YES		
82	Confirm profile of MEV (AMC) as affects tractors.		12-Jun-01	1-Aug-01	Engineering, Design	Bill Robb	Y	Confirmation requested 18/7/2. MC drawings received from GDLS approx. 8/23. Bob Muller advised of this and shown an MEV Rear Upper Hull which he said was not useful. A model for the MEV was requested approx. 8/31 expected week of 9/6. Renquested 8/7. Obtained & forwarded to Bob Muller 18/9/6. Second file is general. Info received per Bob Muller. 8/24 BR		24-Aug-01	16
83	Storage of Hulls at a GD facility in Michigan		15-Jun-01	20-Aug-01	PMC	Ted Coleman Robert Campbell	Y	Don Minemns is looking into this option and will provide this info to PMC for their review. Discussion on going with TONY Plunkett. This item is being handled by Phil Humphreys. Info with purchasing to colate and forward to PMC for a decision. Closed refer to issue 76 for disposition.		14-Aug-01	
86	GDLS Anniston QA Plan and the integration of roles and responsibilities from this plan		15-Jun-01	27-Aug-01	QA / Program Management	Doug Roodo	G	A Meeting has been set up at Anniston to deal with this issue on Aug 29/24 01. In attendance will be Nannan Amos, Doug Roodo, Ron Martin Phil Humphrey and GDLS people.Meeting took place. Have agreements on many issues, on Site support still to be determined. Team parties agree to integrate Quality Systems.	no	Aug 26/01	
88	ALPHA Build issues are tracked by the MEV process, need to consolidate issues. One D-Base, can ALPHA build issues be tracked on this D-Base		18-Jun-01	15-Aug-01	Prod Readiness	Paul Hurteau	Y	EQT system to be used when available, will not be available. Plan is to continue with the current MEV database. No further action at this time, however once EQT is functional it will be utilized for the MEV process. A new system is being considered "FRACUS" for tracking of ECD's. Configuration Mgmt Alan Stubbs to provide the team with updates.		14-Aug-01	
91	PMC plan for managing GM supplied well... shortages, formal, DMCO part numbers	R.M	26-Jun-01	10-Sep-01	PMC	Robert Campbell	Y	Starling Heights meeting 19-Jul re kits. Sara Hoffman assigned in PMC to prevent shortages.Meeting postponed to 01-Aug. DMCO flow chart to produce Aug 30th			

# Production Launch Issues Register - Example 1

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49	Risk management, - <del>Alan Stables</del> to integrate the risk Mgmt program level tools to issue resolution		9-May-01	15-Aug-01	Program	<del>Alan Stables</del>	Y	Review with <del>Alan Stables</del> Jun 21 01. <del>Alan Stables</del> has been invited to attend a meeting 24-Jul to explain the risk process to the group and has accepted the invitation. July 26 01, Due to current issues being worked <del>Alan Stables</del> has requested to rescheduled to July 31 01. Process now in place to escalate issues from the PLP register to the Program Issues Register through <del>Alan Stables</del> PLP Champion.		14-Aug-01	
63	Final paint at Anniston Army depot by Army staff.	R.M	9-May-01	Dec.1/01	QA	Angie Deane	Y	Paint Directive D19 is under review. Support and Training will be provided to GD (Army) <del>Alan Stables</del> to visit Anniston Week of Aug 22/23 for review. D19 in Rev Status training of ANAD in future, probably Dec.			
75	XRAY interpretation - GDLS Lima and GM Defense have significant differences interpreting xrays		4-Jun-01	24-Jul-01	QA	Deag Roode	G	AWAITING Hull #11 with 75/25 process to 100% xray and compare GM/GD equipment. Unit will be x rayed on July 24. Xray review #11 complete. 1 Crack found that GDLS xray did not. A report from 3rd party will be available Mon. July 23. D. Roode to travel to Lima July 25 and will review with GDLS. GM/GDLS plan in work for sampling.		13-Aug-01	
78	Storage of Hulls at Anniston	R.C	5-Jun-01	10-Sep-01	Parallel Source Mgt	<del>Alan Stables</del> <del>Alan Stables</del> <del>Alan Stables</del>	Y	<del>Alan Stables</del> in concert with purchasing to seek out options at either ANAD or off-base locations....PMC to use this combined effort info to make decision on storage of hulls option....Info from these options expected by wk Aug 6/01....Info with purchasing to colate and forward to PMC for a decision. <b>ISSUE Owner is PMC <del>Alan Stables</del></b>			
79	Mortar Carrier design - Release of Hull data from GDLS to GM Defense	D.M	5-Jun-01	15-Jun-01	Program	Don Morrison	R	Delivery of information has is late, impact to MC Build schedule is now upon us. Immediate action required to analyse impact to build schedule. Some CD's with information have arrived from GDLS on July 16 01. CM is analyzing the information, however early indication is that the information is that is contained are part drawings. July 26 01, TDP has been recieved and is being worked towards release to production in CPD. Release date is unknown at this time. TDP Information recieved id for the hull only. Aug 02 01. Memo to <del>Alan Stables</del> requesting delivery of the balance of the MC TDP ASAP. Discussed with <del>Alan Stables</del> at SHC on Aug. 8 01. <b>There is a lack of understanding regarding the requirements. One issue is that without the assembly information the non serialized components cannot be scheduled. TDP's release will be discussed at the Sept 11 01 SC review. Scheduled for release OCT 1. 01.DM.</b>	YES		
82	Confirm profile of MEV (&MC) as effects trunions.		12-Jun-01	1-Aug-01	Engineering, Design	Bill Roberts	Y	Confirmation requested 1/6/12. MC drawings received from GDLS approx. 8/25. <del>Alan Stables</del> advised of this and shown an MEV Rear Upper Hull which he said was not useful. A model for the MEV was requested approx. 8/31 expected week of 8/6. Rerequested 8/7. Obtained & forwarded to <del>Alan Stables</del> 1/8/15. <b>Second file is openable. Info received per <del>Alan Stables</del> (8/24 BR)</b>		24-Aug-01	18
83	Storage of Hulls at a GD facility in Michigan		15-Jun-01	20-Aug-01	PMC	<del>Alan Stables</del> <del>Alan Stables</del> <del>Alan Stables</del>	Y	<del>Alan Stables</del> is looking into this option and will provide this info to PMC for their review. Discussion on going with <del>Alan Stables</del> . This item is being handled by <del>Alan Stables</del> . Info with purchasing to colate and forward to PMC for a decision. Closed refer to issue 78 for disposition)		14-Aug-01	
85	GDLS Anniston QA Plan and the integration of roles and responsibilities from this plan		15-Jun-01	27-Aug-01	QA / Program Management	Deag Roode	G	A Meeting has been set up at Anniston to deal with this issue on Aug. 23/24 01. In attendance will be <del>Alan Stables</del> , <del>Alan Stables</del> , <del>Alan Stables</del> , <del>Alan Stables</del> and GDLS people. Meeting took place ,have agreements on many issues, on Site support still to be determined .Both parties agree to integrate Quality Systems.	no	Aug.26/01	
88	ALPHA Build issues are tracked by the NEV process, need to consolidate issues. One D-Base, can ALPHA build issues be tracked on this D-Base		18-Jun-01	15-Aug-01	Prod. Readiness	<del>Alan Stables</del>	Y	EQT system to be used when available; will not be available. Plan is to continue with the current NEV database. No further action at this time, however once ETQ is functional it will be ustilzed for the NEV process. A new system is being considered "FRACUS" for tracking of ECOs . Configuration Mgmt <del>Alan Stables</del> to provide the team with updates.		14-Aug-01	
91	PMC plan for managing GM supplied kits....shortages, format, DMC'd part numbers	R.M	26-Jun-01	10-Sep-01	PMC	Robert Campbell	Y	Sterling Heights meeting 18-Jul re kits; <del>Alan Stables</del> massaged in PMC to prevent shortages. <b>Meeting postponed to 01-Aug. DMC flow chart to produce Aug 30th</b>			

# Is the Master Summary Report really Lean?

- STANDARDIZES WORK of the team and standardizes meeting agendas
- Uses VISUAL CONTROL to see status and problems from a distance
- Enables Dynamic Integration (real-time program adjustments) of teams activities REDUCING WAITING
- Documents PULL SIGNALS to organization – the issues log which is referred to after the status column
- Eliminates need for redundant reporting, memos and meeting minutes – MSR serves all reporting needs from team meetings to upper management status report and is updated real time at meetings
- Highlights the PULL SIGNAL when upper management has been notified that help is needed on an issue
- Versatile format can be used on any type of project – not just Lean Product Development which is STANDARDIZED WORK
- Provides “snap shot” for permanent record reducing LOSS OF KNOWLEDGE

Product A: Production Launch (w/Joint Venture Partner) - Master Summary Report 3-Aug-06

#	Funct. Area	PLP Owner	Task Description	2006		2007		Status	Issue #	Issue Escalated	Comments
				J	A	S	O				
1	Engg	WR	Design freeze for hulls						C		Complete with ICV build # 001
2	Engg	WR	CR release for ICV						R	6,7,10	Progressive release late on some systems
3	Proc E	EA	Mfg. Model BOM (ICV only)						G		Work around in place
4	Proc E	EA	Drawings minus DSI with progressive release						R	14	Progressive release late on some systems
5	Proc E	EA	Routing package for DSI						G	25	Schedule not yet determined
6	Config	AS	Close Specification Center						G		Started late but expect on time completion
7	Config	AS	Common change mgmt process with JV Partner						R	9,31,33	Process needed now, not scheduled yet
8	Facil	WL	Dynamometer						G		Requires outsourcing for capacity
9	Facil	WL	Laser burner system						G		Requires outsourcing for capacity
10	Facil	WL	Robotic welding station						G		Work around not required
11	Facil	WL	Test building						R	15,16,18	Schedule and req's not finalized
12	Facil	WL	Facilization of Plant 2 - Dept 110 parts						G		Work around not required
13	Facil	WL	Facilization of Plant 2 - upper hulls						G		Work around not required
14	PLP	JB	Staffing Plan - hourly increases						R	8	Availability of testers at issue
15	PLP	JB	Staffing Plan - salaried increases						R	8,11,12	Not all requirements in, Quality missing
16	PLP	JB	DSI (Deferred System Installation) @ 60 vehicle						R	17	Work content has grown over 2 DSIs
17	PMC	RC	Detailed production schedule - all variants						G		On track
18	PMC	RC	Hull storage, float, and flow to JV Partner schedule						R	21,22,23	Strategy decision req'd in July - still missing
19	Purch	TC	Outsource of dynamometer work for capacity						R	3,4	Source not yet identified
20	Purch	TC	Outsource of laser cutting work for capacity						R	5	Two sources identified - not yet selected
21	Purch	TC	Painting supplier up to capacity						G		No work around required at this time
22	Purch	TC	Supplier readiness / sourcing all other parts						R	28	Late releases hampering timing
23	Qual	DR	Progressive FPVI for ICV at Plant 1						G		Doable but plan not yet in place
24	Comm	BF	Communications / promotional activities						G		But budgets not yet determined
25	Traing	GK	Training for welders, testers and maintenance						G		No problems anticipated
26	ISAS	MA	Lotus Notes upgrade for Issue Resol. Process						C		Was completed but late
27	ISAS	MA	Electronic routing transfer						R	39,36	Requirements not yet established
28	ISAS	MA	Electronic data transfer between JV Partners						R	20	Behind schedule, JV Partner late
29	JV Partner	RM	Temporary solution on routings for JV Partner						G		This is a work around plan
30	JV Partner	RM	Job shadowing - process validation activities						R	27,28	Plan not yet determined
31	JV Partner	RM	Process validation for Dept 112 activities						C		Completed on time
32	JV Partner	RM	Process validation for Dept 116 and up activities						R	30	Plan not yet determined
33	JV Partner	RM	FPVI for ICV						G		Timing between JV Partners should be coincident
34	JV Partner	RM	Paint requirements and validation						G		Plan not yet determined

# Part Readiness

Part shortages are a perennial problem with first builds as suppliers are under pressure to deliver new components

Either an individual or a small team tracks parts

Potentially problematic parts are identified early and given special attention by Supplier Quality organization

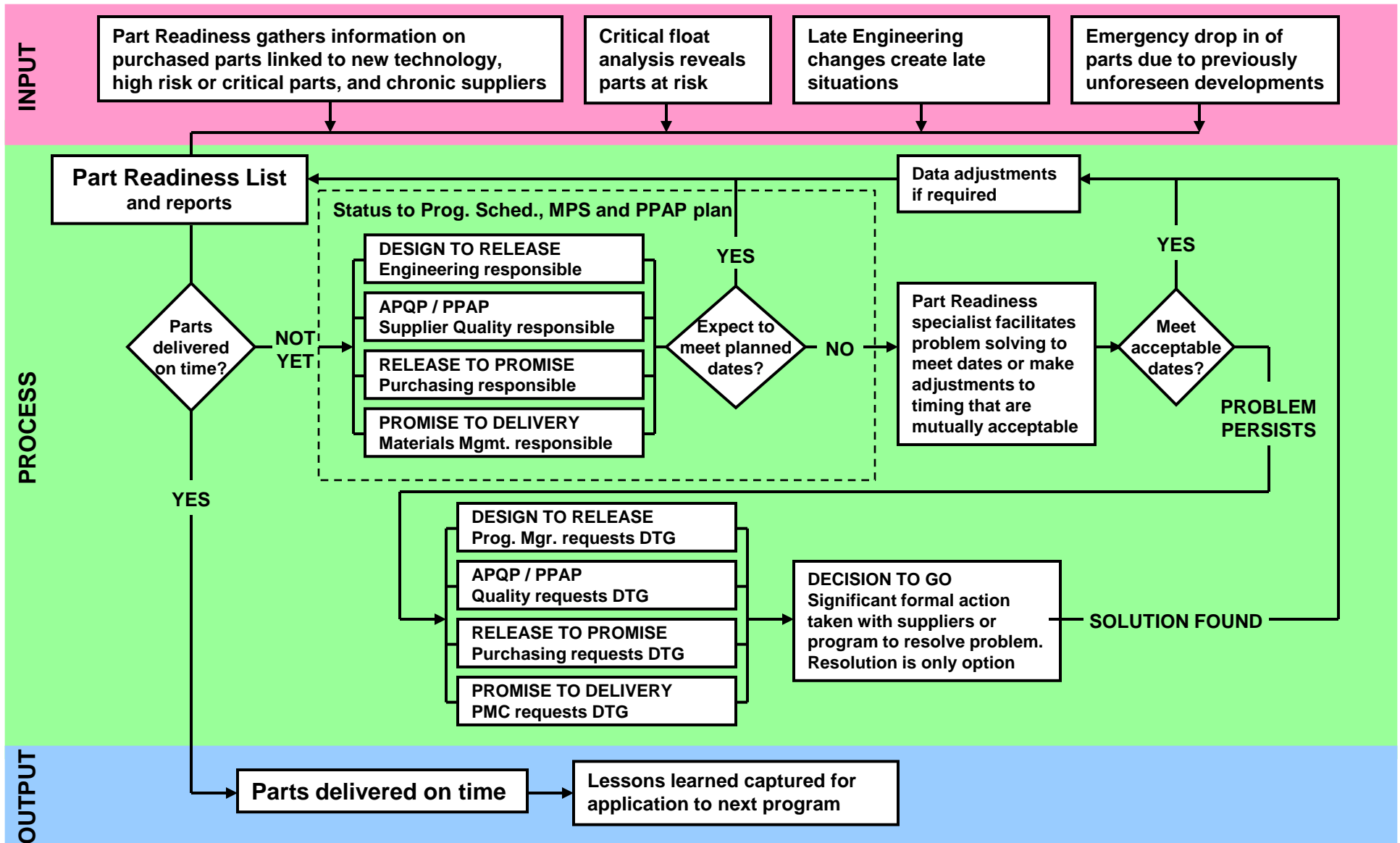
Problematic parts may be identified using FMEA and are likely caused by one of the following problems:

- New technology
- High risk or critical part
- Chronic supplier issues

As problems develop, a Decision To Go (DTG) may send Supplier Quality engineers to supplier to create a resolution

The next page shows a generic flowchart of the Part Readiness process

# Part Readiness Flowchart



# Build Issue Resolution

A company's steady state production quality process is almost never up to the task of issue resolution during a launch situation (inadequate response time and high levels of paperwork)

A separate team meets daily (or more often if necessary) to identify and log build issues

Team meetings are held at the build site and use visual control methodologies as part of the process

Response time is expected to be no more than 24 hours for a solution

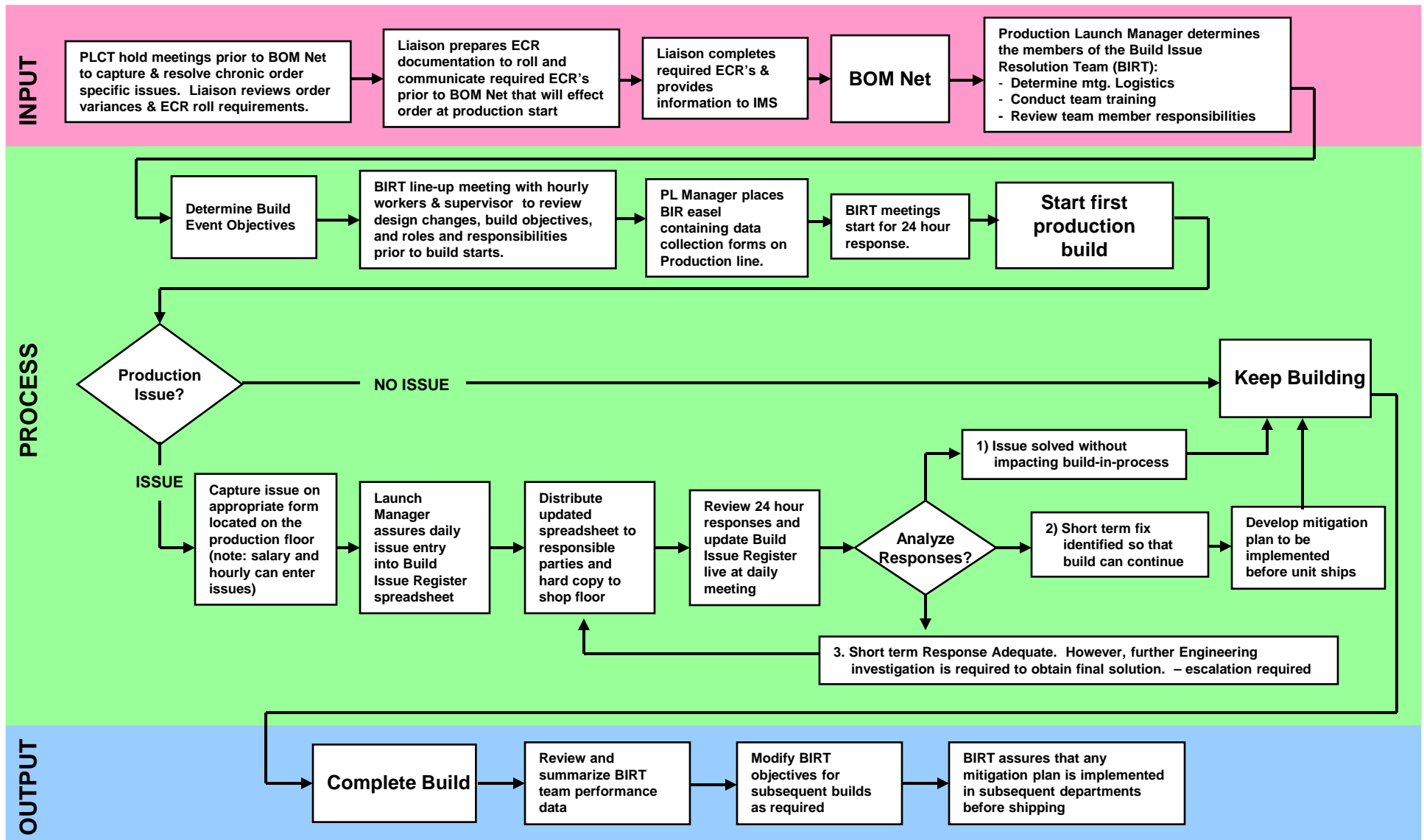
Issue resolution is started immediately when a problem is identified

The log and the response times are used as data to create Achievable Build Plans for the next programs

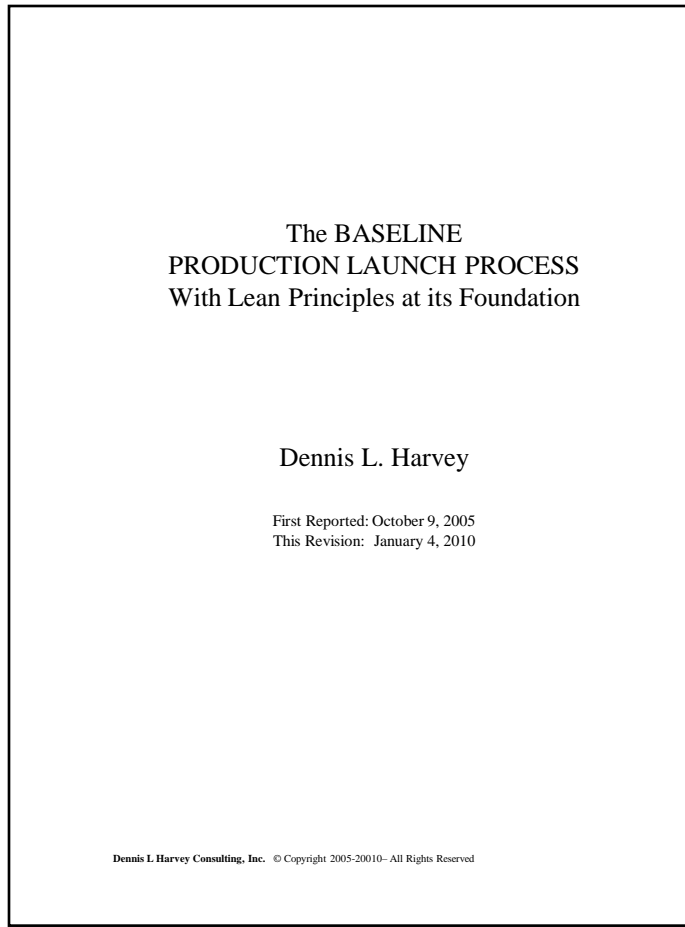
The next page shows a generic flowchart of a Build Issue Resolution process



# Build Issue Resolution Flowchart



# Is the *Baseline PLP* Really Lean?



White paper (10 pages) is available that explains how *Lean Production Launch* embodies all 14 Management Principles of **The Toyota Way** – (Liker 2004)

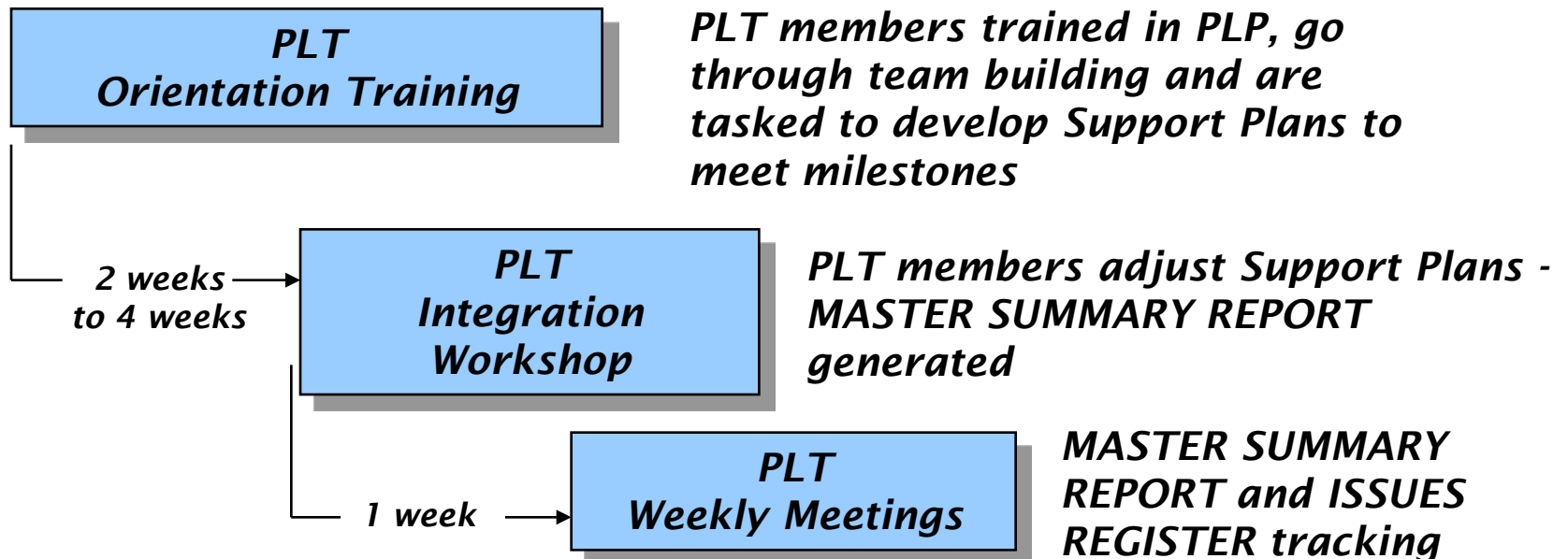
# Typical Client Training Sequence

**Management Overviews -  
Production Launch  
Process**

*Functional Area Directors learn about B-PLP, Client specific Production Launch Process (PLP) developed, program milestones set, and Production Launch Team (PLT) members selected*

## **Consensus to implement Client Specific PLP**

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# How to Get Started

- Initial meeting with consultant to understand Production Launch and discuss potential work scope
- Initial one to two week Client assessment is done and a proposal for a plan forward with specific activities and deliverables is developed
- Plan forward to implement a Lean Production Launch process can include:
  - Readiness Assessment and action plan
  - Integration of B-PLP with Client's best practices and business processes
  - Seminars to assure understanding and support from Client organization
  - Workshops to train program teams on the Client specific Production Launch Process
  - Continued coaching and mentoring of teams and leaders