

# Lean Project Management Tools

General Purpose Lean Templates  
With Examples

By:

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# Lean Business Practices

This presentation contains Lean Templates (with case study examples) that facilitate Lean Business Practices:

- **MASTER SUMMARY REPORT** – highly versatile one page program management tool
- **ISSUE REGISTER** – rolling documentation of program issues and how they are resolved

Both of these tools enable **Dynamic Integration**: the ability to readjust a plan in real time as problems and obstacles emerge, yet still being able to meet program timing for critical milestones as though they are sacred

# Lean Business Practices

All lean templates that follow embody the following lean attributes:

- Utilize Lean Manufacturing techniques, especially **VISUAL CONTROL** and **STANDARD WORK**
- **ELIMINATE REDUNDANT REPORTING** by using a single report for managing the team activities, for executive reporting, and for archiving
- Higher level reports are restricted to **ONE PAGE** to assure simplicity
- **OWNERSHIP** for initiatives, deliverables, and metrics is precise. Nothing falls through the cracks
- Utilize a **LAYERED APPROACH TO DETAIL** so people don't waste time and motion trying to find information at the appropriate level of detail
- The layered approach to reporting virtually **ELIMINATES MEMOS and MEETING MINUTES** which tend to be inefficient for information transfer within an organization
- Set up to allow "snap shots" to be recorded during the year to support ISO requirements and a **LEARNING ORGANIZATION** for continuous improvement
- Bottom-up accountability for performance reporting by using Scorecards - information flow is treated as a **VALUE-STREAM** with **CONTINUOUS FLOW**
- Are designed to **FACILITATE EARLY WARNING OF EMERGING PROBLEMS**, before they become crises - this becomes the pull signal for the Toyota Lean Mgmt Principle 12: *See For Yourself*

# Master Summary Report

**Purpose:** On one page, capture all necessary information to communicate status of a program.

- STANDARDIZES WORK of the team
- Uses VISUAL CONTROL to see status and problems from a distance
- Enables Dynamic Integration (real-time program adjustments) of teams activities
- Documents PULL SIGNALS to organization
- Eliminates need for redundant reporting, memos and meeting minutes – MSR serves all reporting needs
- Highlights when upper management has been notified that help is needed on an issue
- Versatile format can be used on any type of project
- Helps to structure meeting agenda (standardized) and reduce wasted time
- Provides “snap shot” for permanent record

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		
				M	J	J	A	S	O	N	D					J	F
1	Engrg	WR	Design freeze for hulls												C		Complete with ICV build # 001
2	Engrg	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	Routings 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	6-May-06 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	Facilitization of Plant 2 - Dept 110 parts												G		Work around not required
13	Facil	WL	Facilitization 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 DSI's
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	IS&S	MA	Lotus Notes upgrade for Issue Resol. Process												C		Was completed but late
27	IS&S	MA	Electronic routing transfer												R	39,36	Requirements not yet established
28	IS&S	MA	Electronic data transfer between JV Partners												R	20	24-Jun-06 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 118 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

# 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

## 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

## 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.

## 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.

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

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6	Config	AS	Issue 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
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10	Facil	W	Robotic welding station														G		Work around not required
11	Facil	WL	Test building														R	5,16,18	Schedule and reqts not finalized
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19	Purch	TC	Outsource of dynamometer work for capacity														R	4	Source not yet identified
20	Purch	TC	Outsource of laser cutting work for capacity														R		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	2	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
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32	JV Partner	RM	Process validation for Dept 118 and up activities														R	30	Plan not yet determined
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34	JV Partner	RM	Paint requirements and validation														G		Plan not yet determined

# 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	A	M
1	Engrg	WR	Design freeze A														C			XXXXXXXXXXXXXXXXXXXXXXXXXXXX
2	Engrg	WR	CR release														R	6,7,10		XXXXXXXXXXXXXXXXXXXXXXXXXXXX
3	Proc E	EA	Mfg. Model BOM - first variant														G			XXXXXXXXXXXXXXXXXXXXXXXXXXXX
4	Proc E	EA	Routings with progressive release														R	14		XXXXXXXXXXXXXXXXXXXXXXXXXXXX
5	Proc E	EA	Routing package for DSI														G	25		XXXXXXXXXXXXXXXXXXXX
6	Config	AS	Specification Center operational														G			XXXXXXXXXXXXXXXXXXXXXXXXXXXX
7	Config	AS	Common change mgmt process with JV Partner														R	9,31,33	6-May-02	XXXXXXXXXXXXXXXXXXXX
8	Facil	WL	Dynamometer														G			XXXXXXXXXXXXXXXXXXXXXXXXXXXX
9	Facil	WL	Laser cutting system														G			XXXXXXXXXXXXXXXXXXXXXXXXXXXX
10	Facil	WL	Robotic welding station														G			XXXXXXXXXXXXXXXXXXXXXXXXXXXX
11	Facil	WL	Test station														R	15,16,18		XXXXXXXXXXXXXXXXXXXX
12	Facil	WL	Facilitization of Dept 110 parts														G			XXXXXXXXXXXXXXXXXXXXXXXXXXXX
13	Facil	WL	Facilitization of Plant 2														G			XXXXXXXXXXXXXXXXXXXXXXXXXXXX
14	PLP	JB	Staffing Plan - hourly increases														R	8		XXXXXXXXXXXXXXXXXXXX
15	PLP	JB	Staffing Plan - salaried increases														R	8,11,12		XXXXXXXXXXXXXXXXXXXXXXXXXXXX
16	PLP	JB	DSI (Deferred System Installation) @ 60 vehicle														R	17		XXXXXXXXXXXXXXXXXXXXXXXXXXXX
17	PMC	RC	Detailed production schedule - all variants														G			XXXXXXXXXXXXXXXXXXXXXXXXXXXX
18	PMC	RC	Storage, float, and flow to JV Partner schedule														R	21,22,23		XXXXXXXXXXXXXXXXXXXX
19	Purch	TC	Outsource of dynamometer work for capacity														R	3,4		XXXXXXXXXXXXXXXXXXXXXXXXXXXX
20	Purch	TC	Outsource of laser cutting work for capacity														R	5		XXXXXXXXXXXXXXXXXXXXXXXXXXXX
21	Purch	TC	Painting supplier up to capacity														G			XXXXXXXXXXXXXXXXXXXXXXXXXXXX
22	Purch	TC	Supplier readiness / sourcing all other parts														R	28		XXXXXXXXXXXXXXXXXXXXXXXXXXXX
23	Qual	DR	Progressive FPVI first variant at Plant 1														G			XXXXXXXXXXXXXXXXXXXXXXXXXXXX
24	Comm	BF	Communications / promotional activities														G			XXXXXXXXXXXXXXXXXXXXXXXXXXXX
25	Train'g	GK	Training for welders, testers and maintenance														G			XXXXXXXXXXXXXXXXXXXX
26	IS&S	MA	Lotus Notes upgrade for Issue Resol. Process														C			XXXXXXXXXXXXXXXXXXXXXXXXXXXX
27	IS&S	MA	Electronic routing transfer														R	39,36		XXXXXXXXXXXXXXXXXXXXXXXXXXXX
28	IS&S	MA	Electronic data transfer between JV Partners														R	20	24-Jun-02	XXXXXXXXXXXXXXXXXXXX
29	JV Partner	RM	Temporary solution on routings for JV Partner														G			XXXXXXXXXXXXXXXXXXXXXXXXXXXX
30	JV Partner	RM	Job shadowing - process validation activities														R	27,28		XXXXXXXXXXXXXXXXXXXXXXXXXXXX
31	JV Partner	RM	Process validation for Dept 112 activities														C			XXXXXXXXXXXXXXXXXXXXXXXXXXXX
32	JV Partner	RM	Process validation for Dept 118 and up activities														R	30		XXXXXXXXXXXXXXXXXXXXXXXXXXXX
33	JV Partner	RM	FPVI for ICV														G			XXXXXXXXXXXXXXXXXXXXXXXXXXXX

# Additional Master Summary Examples

These examples are available for review in person:

- A six month facility transition project that affected all parts of the organization
- Development of an international joint venture proposal
- A crash program to launch a light armored vehicle in 13 weeks with no prior readiness
- Multiple production launches tracked on one summary
- Project to convert business metrics and systems to the systems used by the acquisition company

# Issues 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



# Production Launch Issues Register – Example 1

#	Issue	Issue raised by:	Date Logged	Impact Date	Functional Area	Owner	Status R/Y/G	Response/Action	Escalated Yes Program Risk Register	Date Closed	Closure variance to Impact Date (+/- days)
7	Transfer Spec Centre duties to XEROX - PLAN	PLP	9-May-01	1-Oct-01	Configuration Mgmt	<del>Alan Stubbs</del>	Y	This is an issue to resolve <del>Alan Stubbs</del> to prepare proposal for Management/Union review--est completion sep 04.			
49	Risk management, - <del>Gregory N...</del> to integrate the risk Mgmt program level tools to issue resolution		9-May-01	15-Aug-01	Program	<del>Gregory N...</del>	Y	Review with <del>Gregory N...</del> Jun 21 01. <del>Gregory</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>Gregory</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>Dennis Harvey</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	<del>Angie/Doug</del>	Y	Paint Directive D19 is under review. Support and Training will be provided to GD (Army) <del>D. Roads</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	<del>Doug Roads</del>	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. <del>D. Roads</del> 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>Red Coleman</del> <del>Robert Campbell</del>	Y	<del>Red Coleman</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>Red Coleman</del></b>			
79	Mortar Carrier design - Release of Hull data from GDLS to GM Defense	D.M	5-Jun-01	15-Jun-01	Program	<del>Red Coleman</del>	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>Tony Shabert</del> requesting delivery of the balance of the MC TDP ASAP. <b>Discussed with <del>Tony Shabert</del> 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.</b>	YES		
82	Confirm profile of MEV (&MC) as effects trunions.		12-Jun-01	1-Aug-01	Engineering, Design	<del>Bill Muller</del>	Y	Confirmation requested 1/6/12. MC drawings received from GDLS approx. 8/25. 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 8/6. Rerequested 8/7. Obtained & forwarded to <del>Bob Muller</del> 1/8/15. <b>Second file is openable. Info received per <del>Bill Muller</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>Red Coleman</del> <del>Robert Campbell</del>	Y	<del>Red Coleman</del> is looking into this option and will provide this info to PMC for their review. Discussion on going with <del>Tony Shabert</del> . This item is being handled by <del>Red Coleman</del> <del>Robert Campbell</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	<del>Doug Roads</del>	G	A Meeting has been set up at Anniston to deal with this issue on Aug. 23/24 01. In attendance will be <del>Red Coleman</del> , <del>Doug Roads</del> , <del>Red Coleman</del> , <del>Red Coleman</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>Red Coleman</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 utilized for the NEV process. A new system is being considered "FRACUS" for tracking of ECOs . Configuration Mgmt <del>Alan Stubbs</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	<del>Robert Campbell</del>	Y	Sterling Heights meeting 18-Jul re kits; <del>Robert Campbell</del> assigned in PMC to prevent shortages. <b>Meeting postponed to 01-Aug. DMC flow chart to produce Aug 30th</b>			

# Production Launch Issues Register – Example 2

#	Issue	Issue raised by:	Date Logged	Impact / Due Date	Funct'l Area	Owner	Response / Action	Escalate
1	Strategy to get parts to GM London for first builds	Harvey	22-Jul-02	5-Aug-02	PLP	Harvey	Decision to have GD Anniston only supply ATGM unique parts with GM using ICV common from its own inventory	
2	Decision on where to build subassemblies	Harvey	22-Jul-02	5-Aug-02	PLP	Harvey	Initial approach was to have GD build all unique subassemblies. At July 24 conference call, concluded that with only four unique subassemblies, they should be built at GM London	
3	Manpower to support building subassemblies at GM London	Harvey	22-Jul-02	5-Aug-02	Production	Gargarella	Manpower assessment under review as of July 30 with <del>Bob Tull</del> . Need to make sure we get people from Locomotive if necessary.	
4	Establish good list of part numbers and revision levels from which GD could work	Harvey	22-Jul-02	26-Jul-02	PMC	McCallough	Scott supplied to GD the list from AMAPS. This became the basis for all transactions	
5	Initial material availability assessment for first ATGM builds	Harvey	22-Jul-02	26-Jul-02	PMC	Weatherbee	<del>Dave Weatherbee, Scott McCallough, and Don Reimer (GD)</del> met on July 24 to reconcile BOM and begin shortage assessment. First assessment was available on July 29. 125 total shortages. 40 without good ETAs for August 5th start	
6	Rev level of material coming from Anniston needs to be identified easily and problems reconciled	Harvey	22-Jul-02	26-Jul-02	PLP	Harvey	During July 22 conference call, it became apparent that GD was not keeping track of rev level of their inventory. GM QA stated that we would have to inspect all parts when they arrive. However, action was requested during July 24 conference call to have	
7	Need approach to ship balance of ATGM unique parts from GD to GM	Harvey	22-Jul-02	26-Jul-02	PMC	Weatherbee	After first five builds, the balance of parts could be shipped in three bigger lot sizes. Details to be worked out as schedule for London builds is developed	
8	Need approach for replenishing ICV common material from GD to GM	Weatherbee	24-Jul-02	2-Aug-02	PMC	Weatherbee	<del>Weatherbee and Reimer</del> developed an approach to focus on high value parts for ICV common. Reduces part number consideration from 2000 to around 300 part numbers. Proposal being finalized with <del>Chris Hattie</del> and should be ready for review as soon as August	YES
9	Concern for parts being received that have HC	Harvey	22-Jul-02	29-Jul-02	Program	Harvey	Not all parts at Anniston have appropriate markings. At July 24 conference call, <del>Harvey</del> set requirement that GM would only accept marked parts. At July 29 conference call, GD informed GM that only one part, a bracket, would be labeled as "black H". W	