

Project Dashboard Design

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## **Introduction**

The dashboard tool provides customers and leadership staff a real-time graphical view of critical project information such as project schedule, costs, issues, quality, and risks. The information is typically posted to a company website offering the customers, leadership and project team with real-time access to project information to providing the progress of the project. While the real-time access to project information in a graphical or chart format is the key benefit of this tool, the other two advantages of the dashboard are its ease of access and up-to-date information (Dow & Taylor, 2015).

## **Project Dashboard Design**

The below provides a high-level dashboard summary for the schedule, costs, risks, and quality associated with the production of the Poseidon Extreme B1000 bicycle. This dashboard is intended for the customer to utilize to see the progress of the production of their product. The four elements were chosen by the customer to track on the dashboard. Thus the project team created the dashboard to display schedule, risk, quality, and budget.

### **Schedule**

The schedule and budget update daily for the customer while the risks and quality are updated as needed. The schedule is the most important element for the customer as the project must stay on schedule to enter the market on time; however, the budget is affected by any schedule delays. Thus the customer needs to monitor it closely as well. Reporting the risks and quality allows the customer to observe any issues which can affect the overall schedule and budget giving them the opportunity to work with the project manager and team to determine if corrective action is needed.

The schedule dashboard provides detailed progress of activities that have started or been delayed. The activity start order is pulled from the network diagram or Gantt chart. The

dashboard indicates that period five is the current reporting period, as shown by the green border on the progress diagram. There are eight activities that indicate 0% completed, but only three of them show up in red. The red activities of work package 1.4 were scheduled to start during period five. However, but due to an approved change request triggered by cost overruns, the scope of the project has removed this deliverable from the project. The remaining 0% activities are scheduled to start during period six, and therefore have no status to report at this time, and are indicated with a white status.

	Project WBS #	% Complete	Status	Progress (Days)					
				1	2	3	4	5	6
Project Time Management	1.1 Frame Set	100%							
	1.1.1 Frame	100%							
	1.1.2 Handlebar	100%							
	1.1.3 Fork	100%							
	1.1.4 Seat	100%							
	1.2 Crank Set	100%							
	1.2.1 Pedals	100%							
	1.2.2 Bearings	100%							
	1.2.3 Crank Arms	100%							
	1.2.4 Sprocket	100%							
	1.3 Wheels	100%							
	1.3.1 Front Wheel	100%							
	1.3.2 Rear Wheel	100%							
	1.3.3 Training Wheels	100%							
	1.4 Training Wheels	0%							
	1.4.1 Wheels	0%							
	1.4.2 Support system	0%							
	1.5 Braking System	100%							
	1.5.1 Levers	100%							
	1.5.2 Cables	100%							
	1.5.3 Pads / Mechanisms	100%							
	1.6 Shifting System	100%							
	1.6.1 Derailleurs	100%							
	1.6.2 Cables	100%							
	1.6.3 Levers	100%							
	1.7 Integration	69%							
	1.7.1 Concept	100%							
	1.7.2 Design	100%							
	1.7.3 Assembly	75%							
	1.7.4 Testing	0%							
	1.7.4.1 Component Test	0%							
	1.7.4.2 Product Test	0%							
	1.7.4.3 Customer Test	0%							
	1.8 Phone Dock	100%							
	1.8.1 Mount	100%							
	1.8.2 Power Supply	100%							
	1.8.3 Bluetooth	100%							
	1.9 Project Management	75%							
	1.9.1 Initiation	100%							
	1.9.2 Preliminary Plan	100%							
	1.9.3 Planning	100%							
	1.9.4 Production	60%							
	1.9.5 Closeout	0%							

Figure 1. Project Schedule.

Deliverable 1.7, Integration, is indicating yellow status. This is due to the reported 69% complete, which is slightly behind the scheduled 83% completion schedule during period five. The customer can see that work package 1.7.3 has not been completed yet and therefore is responsible for the yellow status for deliverable 1.7. However, period five is currently in process and the activities that indicate behind at this current snapshot in time may finish on time, and on schedule. The dashboard should be checked at the end of the period to verify the scheduled completion of these activities.

Deliverable 1.9, Project Management, is also indicating slightly behind. The same explanation for 1.7 applies to this deliverable as well. The customer can see that work package 1.9.4 is dragging down the schedule for the overall deliverable. This work package may still complete on time and schedule by the end of period five. The dashboard should be checked at the end of period five for an up-to-date status.

## **Risk**

The risk management dashboard reports the risks from the risk register and their current status. This project is reporting two high risks, four moderate risks, and three low risks. The risks indicated in red have been realized to some extent, and the appropriate risk responses have been activated. The project schedule and cost overruns were attributed to the same problem with the training wheels. A change in the project scope was indicated in the risk response to protect the business value of the completed product. The customer approved the removal of deliverable 1.4 which then brought the project back under control. This change also was a risk on the risk register under the title of “Change in Customer Requirements.” The impact of the scope change brought the project back under control and therefore was not a negative impact on the project.

Project Risk Management	Date	25-Jun
	No. High Risks	2
	No. Moderate Risks	4
	No. Low Risks	3
	Risk Identified	Action Status
	Personnel Injury	Accept
	Material Weakness	Mitigate
	Project Schedule Overrun	Mitigate
	Project Cost Overrun	Mitigate
	Lack of Specific Skills	Transfer
	Difficult in outsourcing subassemblies	Transfer
	Phone dock vendor unable to deliver supplies	Mitigate
	Change in customer requirements	Accept
	Rate of defect parts is underestimated	Transfer
	Active Risk Responses	
	Scope change (1.4)	processed
	Contingency funds used	30%

Figure 2. Project Risk

The active risk responses up to this reporting point in the project have been a change in project scope and the commitment of a portion of the contingency funds. Each risk response indicates green status which represents that the responses have had the desired effect on returning the project to a controlled status. Other than green status indicates that the planned responses were ineffective at returning the project to a controlled status, and an additional response is required.

## Quality

The customer's reputation will be damaged if the project does not meet a specific quality standard. Damage to the organization's reputation will affect future sales and operations. For this reason, the customer has defined quality as a KPI.

The quality dashboard lists current statuses of specific quality functions. The dashboard indicates that there are two deviations from the product specification as displayed by the yellow box. From this information, the customer can drill down to see that the two deviations that have been detected are pending PM approval for corrective action.

Project Quality Management/ Systems	Quality Stream		Status	# Open
	Change Control		Green	1
	CAPA		Green	0
	Deviations		Yellow	2
	Investigations		Green	0
	Progress		Comment	
	Change Control 001		Closed	
	Change Control 002		Closed	
	CAPA 001A		Closed	
	Deviation XYZ		Pending PM Approval	
Deviation QRE		Pending PM Approval		
Pending Approval Update				
Deviation XYZ		Date	Jun-17	
Action Item	Resolution	Status		
1	Packaging Detail Ink Change, quick	Green		
2	Adhesive of Packaging label	Green		
Deviation QRE		Date	Jun-17	
Action Item	Resolution	Status		
1	Addition of pink bolt option to training wheels. Previous options: Blue, Black, Red	Green		
2	Manual jogging of machine during install of all training wheel	Green		

Figure 3. Project Quality Control



The next lower section provides detail as to each deviation resolution action and the team's progress at implementing the solution. Each identified deviation on the dashboard has two resolution/action items. These items will address how the quality deviation is resolved. Resolution is either acceptance of the deviation through redefining the product specification or correcting the deviation. The correction may require rework of the components and therefore will require additional funding.

### **Budget**

The budget dashboard provides the actual total of the current project versus the budgeted total before the start of production. Currently, the project is at 85% of the planned budget. Each work package is also broken down to provide the actual cost of the work versus the budgeted cost. Each work package for each period has a planned budget with a specific color code assigned for any deviations of the planned budget. Red indicates the actual costs exceeded the budget, yellow indicates actual costs are under budget and green indicates the actual costs did not deviate at all from the budget. Looking at work package 1.1, period one, the actual costs exceed budget, and thus the box is highlighted. However, it does not mean the entire project will go over budget, only that the actual costs for that particular work item exceeded costs. Therefore, the team will need to monitor the work in 1.1 closely to avoid additional costs overruns for that work package.

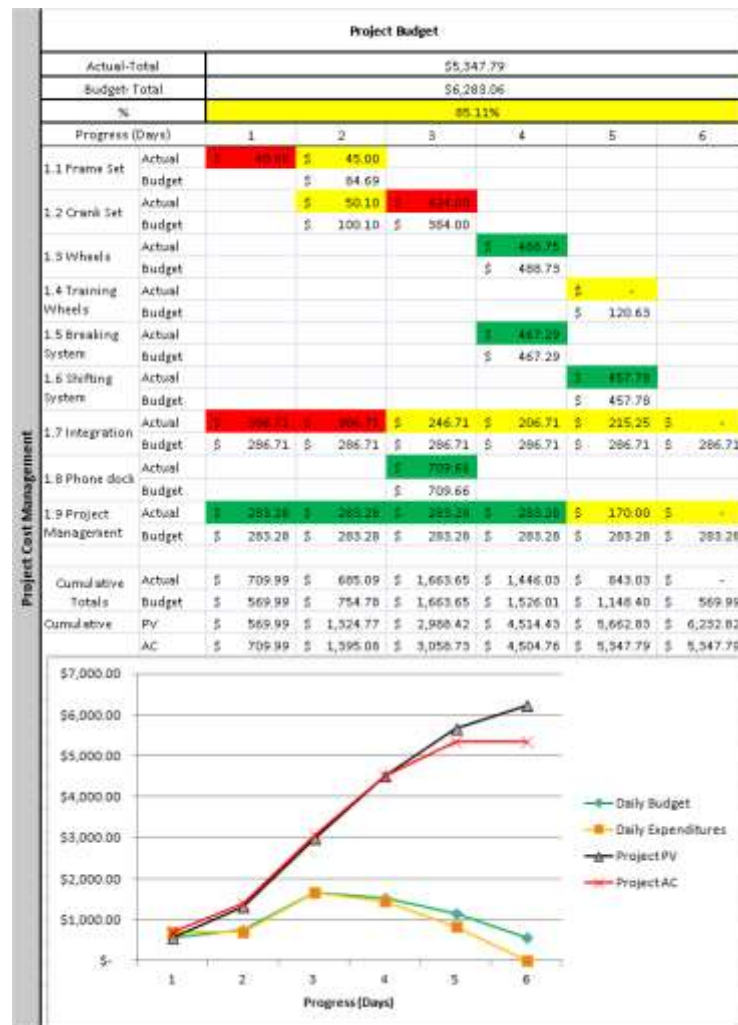


Figure 4. Project Budget

Continuing to work package 1.2 both items deviated from the budget with one item highlighted yellow indicating an under budget actual cost. The cost overrun continues and worsens in period three, turning the status red. The next item, 1.3, maintained the planned budget in actual costs and is highlighted green. Work package 1.4 has been removed from the scope of the project, but the original budget amount is still indicated for this deliverable. Deliverables 1.5 Braking System and 1.6 Shifting systems did not deviate from the budget which is indicated with the green color code. Deliverable 1.7 Integration shows several deviations in each period whether the actual costs were over or under the planned costs. Time periods one and

two indicate an overrun in costs, while time periods three through five were below the planned budget. Work has not yet begun for period six. The work for the last two work packages, 1.8 Phone Dock and 1.9 Project Management, are highlighted green for no deviations except for period five due to work still in progress.

Overall, the project looks to stay on budget if the team monitors the rest of the project closely and takes corrective action for any items looking to exceed budget. The team will also need to investigate why some of the actual costs deviate on the lower side of the budget for the future production of these bicycles. The budget dashboard provides the customer with the desired information breaking down the budget for each work package in each period to see how the costs are being broken out for this project.

## Appendix A

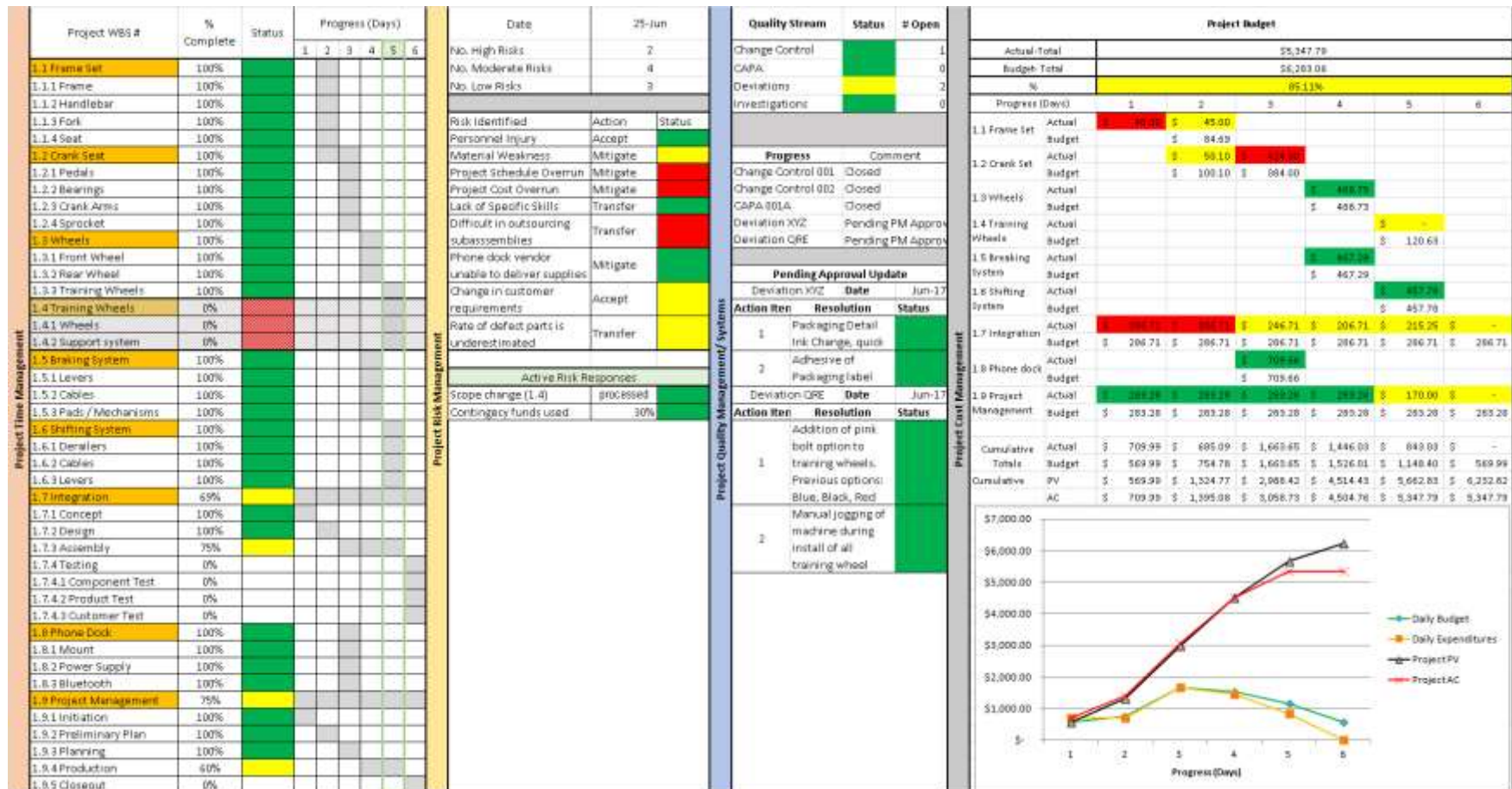


Figure 5. Project Dashboard

### References

Dow, W., & Taylor, B. (2015). *Project management communication tools*. Renton, WA: Dow Publishing, LLC.