

Summarizing Progress with Parking Lot Diagrams

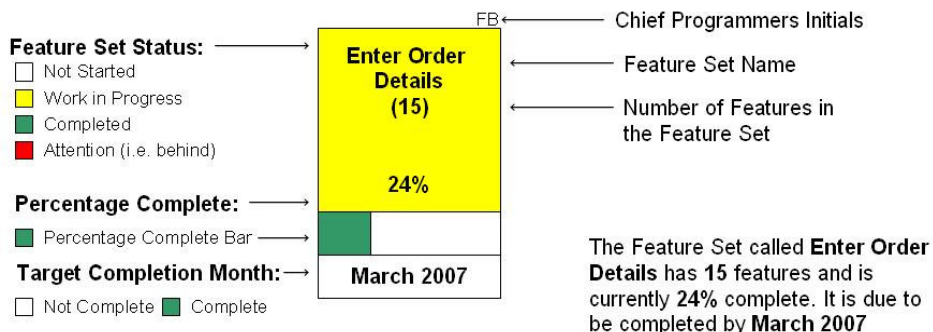


Feature Driven Development (FDD) employs a smart way of rolling up development progress that provides an easily digested summary of project status using Parking Lot diagrams. Yet, their appreciation and use outside of FDD is quite rare. I taught an Agile Project Management class last week and nobody had seen or used them before, which is a shame because, especially for large projects, they are a great dashboard tool to illustrate overall progress and pain points.

Parking lot diagrams are not just for FDD projects, they can be used equally as well on XP, Scrum, or DSDM projects and this post will introduce them and provide you with a sample Excel spreadsheet for creating them.

As projects get larger the number of features (user stories) you likely have to manage increases. Small to medium size projects with a few hundred features can be managed fine with decks of cards, task boards, and burn-down charts, but as projects scale this information becomes hard to manage and difficult to digest by stakeholders. Parking Lot diagrams roll-up features into functional groups and then these groups into functional areas to better illustrate overall progress against business areas.

Let's say we have 15 features associated with our order entry functionality. These features could be rolled-up under an Enter Order Details group and reported using a Parking Lot diagram as shown in the annotated example below.



There is a lot of information here. FDD promotes the idea of a chief programmer, an individual who is responsible for a piece of functionality. Their initials "FB" can be shown above the parking lot diagram. If a stakeholder has a question about this area, then they know (Fred Blogs) is the person to speak to. Alternatively, if you are working on an XP project with shared code ownership it may not be appropriate to display initials, in which case simply don't. Inside the main box the feature group is named (Enter Order Details) and in brackets the number of individual features that make up this group or set is shown (in our case 15).

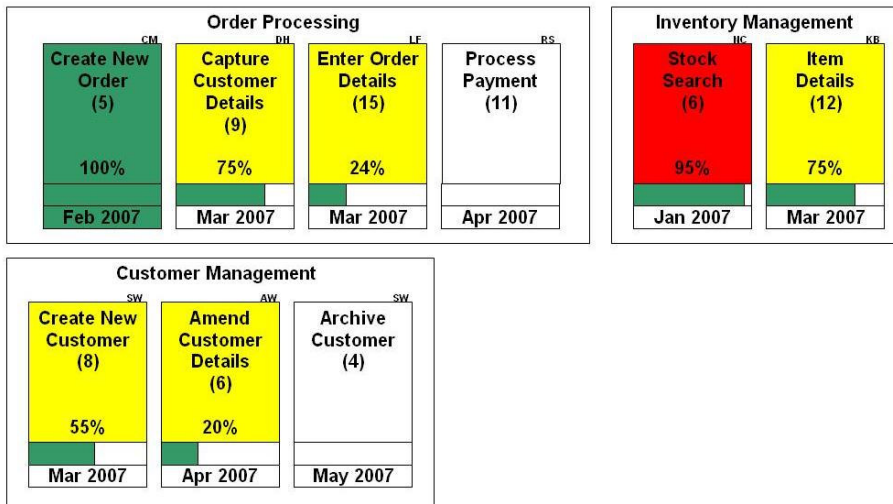
The colour of the box indicates status. With our colour scheme White for not started, Yellow for work in progress, Green for complete, and Red for late. Standards vary, some people use Blue for work in progress, Yellow for nearing the due date, and Red for late, but as long as all the project stakeholders agree on what each colour means you should be fine. The main box also

contains a percent complete figure based upon the combined status of each of the (15) features within it.

The bottom portion of the box contains a progress bar that duplicates the percent complete figure to give a more visual measure of this number and the target completion month for this group of features.

The real power of this technique comes when these feature groups are combined into feature areas and an overall dashboard for the entire project is created.

ABC Project Overall Status



In the example shown above we can see that the feature group “Enter Order Details” is just part of a larger “Order Processing” feature area that contains other feature groups such as “Create New Order”, “Capture Customer Details”, and “Process Payment”. Also, the project has other feature areas such as “Inventory Management” and “Customer Management”. We can also see that “Stock Search” is red, because it should have finished in January and is still not complete.

Using these roll-ups and grouping, the status on hundreds and even thousands of features can be summarized onto a one page view. Also, grouping by business area provides a useful tool to better engage business stakeholders in meaningful dialogue. It is easy to see where the problem areas are, the work in progress, and the work not yet started.

So, how do you produce these fancy diagrams automatically, without spending hours of fiddling around? Well, you can invest in fancy agile project management tool or download this free sample spreadsheet.

<Spreadsheet>

Creating these Parking Lot diagrams in Excel is actually quite easy. We can use Excel’s conditional formatting functionality to change the box colour based on status, and the trick to producing the progress bar is to strategically add a bar graph that has no formatting area or legend. This creates an automatically updating progress bar that stays in sync with the completion status.

3	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	
3	Feature Group	Feature	Due Date	Col. Status	Work Stat %	Comple %	Rem.	Graphic								
4	Process Reports		20/03/2007	White		0%	100%									
5		Sales Report			0%			Process Reports (6)								
6		Leads Report			0%											
7		Conversion Report			0%											(White because not started yet)
8		Marketing Report			0%											
9		Quality Report			0%											
10		Inventory Report			0%											
11								20/03/2007								
12																
13	Create New Order		20/03/2007	Blue		67%	33%									
14		Select Items			100%			Create New Order (6)								
15		Select Quantities			100%											
16		Look up prices			100%											(Blue because in progress get not due for > 14 days)
17		Calculate total			100%											
18		Add taxes			0%											
19		Calculate Grand Total			0%											
20								20/03/2007								
21																
22																
23																
24	Capture Customer Details		10/03/2007	Yellow		64%	36%									
25		Get Name			100%			Capture Customer Details (7)								
26		Get Address			100%											
27		Get Phone numbers			100%											(Yellow because due within 14 days)
28		Check if present			100%											
29		Save if new			50%											
30		Update if existing			0%											
31		Confirm save			0%											
32								10/03/2007								
33																
34																
35																
36	Enter Order Details		27/02/2007	Red		95%	5%									
37		Set order ID			100%			Enter Order Details (5)								
38		Get order items			100%											
39		Calculate total			100%											(Red because overdue)
40		Add taxes			100%											
41		Calculate Grand Total			75%											
42								95%								
43								27/02/2007								
44																

In the sample spreadsheet, the default colour scheme is white for work not started, blue for work in progress, yellow for tasks due for completion within 14 days, and red for overdue tasks. To create your own custom project dashboard, use the formatting and formulae as a sample to build a dashboard for your project features. I would recommend engaging a customer and the development team in defining functional groups and functional areas.

On some projects I have included non-functional requirements such as architectural work and environment tasks in their own functional area of the dashboard. This helps the reporting of iteration zero risk mitigation tasks. So, however you choose to use them, Parking Lot diagrams are an excellent tool to have in your reporting toolbox. When a burn-graph or cumulative flow diagram just is not connecting with the business, consider a Parking Lot diagram.

You can read more about Parking Lot diagrams at the FDD site.

<http://www.featuredrivendevelopment.com/node/618?PHPSESSID=7a40ed233c6d89088117026778b49d96>

Mike Griffiths is an independent consultant specializing in effective project management. Mike was involved in the creation of DSDM in 1994 and has been using agile methods (Scrum, FDD, XP, DSDM) for the last 13 years. He serves on the board of the Agile Alliance and the Agile Project Leadership Network (APLN). He maintains a leadership and agile project management blog at www.LeadingAnswers.com.