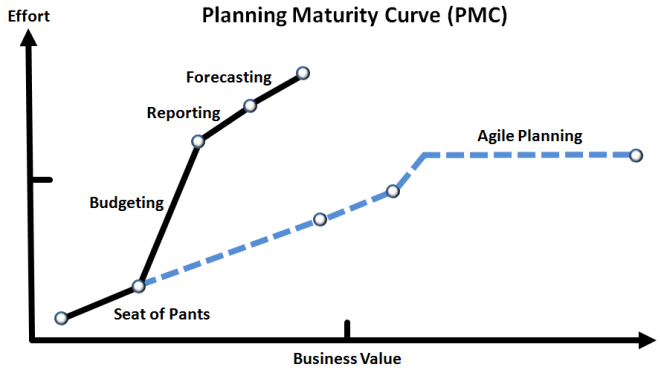
Research paper

The Planning Maturity Curve:

Where Are You? Where Do You Want To Be?

by Rand Heer



More than 70% of companies use spreadsheets as their platform for budgets and forecasting. Many of these companies are in "Excel Hell", a continuing state of inefficiency and disruption related to using spreadsheets for collaborative planning.

In this research paper, we report on the current state of budgeting, reporting and forecasting as impacted by the use of spreadsheets for these activities. The conclusion is not encouraging – all three processes, especially budgeting, consume major management resources with a low return in business value, a relationship we describe graphically by the Planning Maturity Curve.

We also introduce Agile Planning™, a methodology that maximizes business value while significantly reducing the level of management effort devoted to planning activities. In the second part of this paper we present guidelines for implementing agile planning based on adopting planning and reporting software which includes architectures for the three foundations for improving business value: driver-based planning, integration of actuals and scenario analysis.

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The Planning Maturity Curve —

Where Are You? Where Do You Want to Be?

Introduction by Jeffrey Walker

The author of this research paper ***The Planning Maturity Curve*** is Rand Heer—the Founder and CEO of Alight Planning. Rand is a member of a unique group of people who are serial entrepreneurs. As often the case with such people, he is intensely focused and passionate about his field of interest, which is the study, analysis, and advancement of technologies to improve business planning. For decades, Rand has been a leading voice and visionary in this field.

Alight Planning is Rand's fifth start-up. In his companies, he has leveraged emerging technologies to deliver software tools for corporate managers, operating executives and their delegates—especially the planners and finance executives who drive planning. Before Alight, Rand's crowning achievement was Pillar Corporation and products. Pillar extended the use of technology for business planning beyond anything done before, especially shaking the early domain of spreadsheets for large scale multi-user systems. In the process, he established a target for all competitor software companies to emulate.

Ultimately, Pillar was acquired by Hyperion and Hyperion by Oracle. Today, the Pillar vision appears in offerings from Oracle (Hyperion Planning), IBM (Cognos Planning), and SAP (BPC). Many Pillar customers say that Rand's technology and approach suffered from its incomplete inclusion in other vendors' legacy, IT-intensive architectures. Nonetheless the big three competitors (Oracle, IBM and SAP) supply most of the world's largest companies with planning software that have their roots in the Pillar vision.

After Pillar, technology changed immensely. Rand understood how rapidly evolving database, programming and user interface tools could drive a new generation of planning and reporting software. There were two motivators: 1) Pillar's underlying architectures for driver-based planning had been lost in the translation to incumbent architectures; and 2) Rand's continuing entrepreneurial zeal.

Alight Planning uses software standards with cloud technologies that make planning a truly interactive, collaborative and high-value experience that saves time and reduces aggravation. That's what we're all looking for. These benefits are delivered up and down the management ladder, while integrating seamlessly with IT standards and existing systems, a major concern these days. With Alight, Rand advances his vision to new heights and makes his planning tools accessible to companies of all sizes—not just big players with deep pockets.

This research paper takes you through Rand's latest technology insights. The first part, articulated through the ***Planning Maturity Curve,*** is a step-by-step analysis of the current state of traditional planning and reporting practices. This material is a frame of reference where you can measure how you're doing in return-on-business-value for the planning effort you're putting out.

The research paper follows with ideas for moving to a more agile environment that delivers what I think we're all really looking for out of planning—real insights and actionable knowledge, and a more interactive framework for making decisions. It's called Agile Planning.

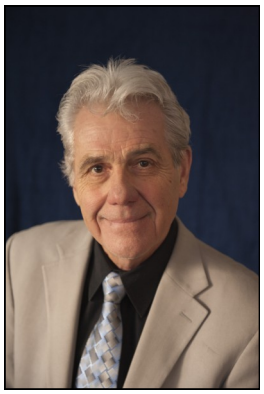
About Jeffrey Walker

Jeff is a recognized serial entrepreneur and business leader in Silicon Valley. He sits on the Board of Directors of Alight Planning.

Jeff founded ***Walker Interactive Products***, one of the first online financial applications companies. He was also one of the early players at ***Oracle*** where he held the positions of EVP of the Applications Division, CFO, and Senior VP of Marketing. After Oracle, he founded ***TenFold Corporation***. Jeff graduated from Brown University.

About Rand Heer

Rand Heer, Founder and CEO of Alight Planning, is a thought leader in the FP&A community. He has written a dozen white papers on planning and technology topics and is a frequent speaker at industry conferences. This paper, ***The Planning Maturity Curve,*** is his latest contribution.



Rand's early days in Finance were at Rockwell International where his non-stop job was implementing planning in troubled operations and new acquisitions. That's when he first understood how painful and inefficient planning and financial reporting could be.

From Rockwell, Rand moved to Silicon Valley where his exposure to technology and start-ups changed everything. His entrepreneurial track was:

- ✓ CFO of Calgene, a biotech startup which Rand took public. Calgene is now owned by Monsanto.
- ✓ Founder of Pillar Corporation which developed Hyperion Pillar, the first enterprise software for budgets and forecasting, later acquired by Oracle.
- ✓ Founder of FP&A Train, the original Essbase training company, later acquired by Hyperion, then Oracle.
- ✓ Founder of OLAP Train which developed the training curricula for Microsoft's SQL Server business intelligence software.
- ✓ Co-founder of Aspirity, a consulting firm specializing in Microsoft business intelligence software, later acquired by Hitachi Consulting.
- ✓ Then he started Alight Planning.

Rand graduated from Harvard Business School a long time ago.

Thanks to the Alight Team

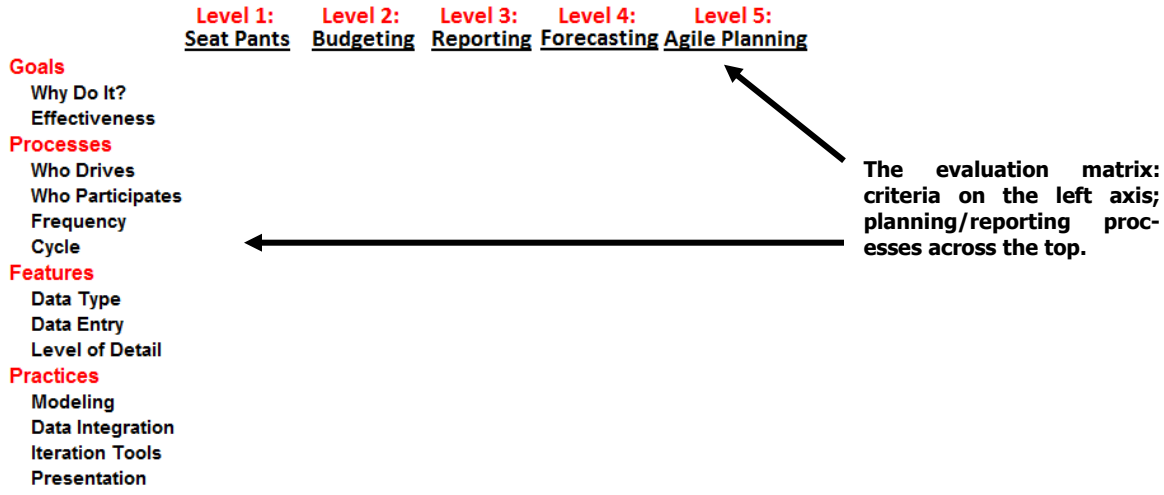
Thanks to the Alight team for their contributions to this research paper, recognizing especially the many real world successes with customers they have helped to implement a more agile planning environment. Also, thanks to Ben Lamorte, Don Koenes and Jeffrey Walker for their special insights and support.

1. The Planning Maturity Curve

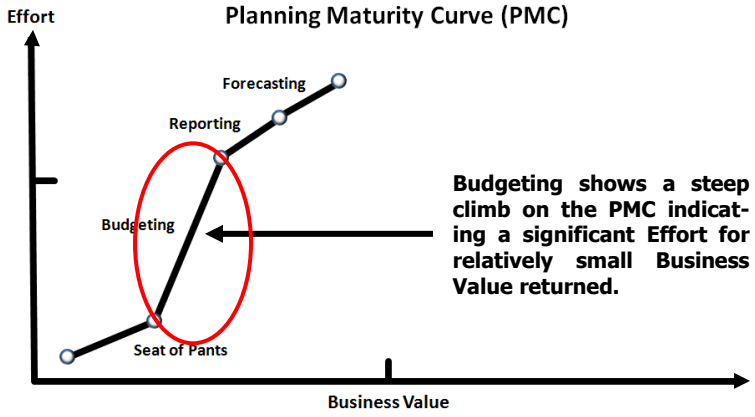
In 1987, Watts Humphrey at Carnegie Mellon described the Capability Maturity Model. The CMM, as he called it, was a conceptual framework for evaluating complex processes—specifically, software development that had high failure rates that were frustrating everyone.

At Alight we have adapted the Humphrey maturity model to planning and reporting processes as shown in the diagram below. If there were a management process that's frustrating us all, as with Humphrey and software, it may be planning. In any case, we think planning needs a closer look and substantive discussion about what's working and what's not.

The left axis of the evaluation matrix describes *Goals, Processes, Features* and *Practices* as applied to planning/reporting activities across the top: *Seat-of-Pants, Budgeting, Reporting,* and *Forecasting.* Also, a new methodology described in this research paper is added. It's called *Agile Planning*.



The materials that follow present our views about the five planning/reporting levels. Underlying the presentation is the Planning Maturity Curve which is a charting of the Effort for the planning/reporting activities by Business Value added. Sources for the curve are conversations with hundreds of large and mid-sized companies we've worked with on planning system evaluations and implementations.



- **Effort** on the Y axis is straightforward—hours or man days of executive, line management and Finance time spent on the activity. For example, Budgeting consumes many man hours of management and finance time during the budget preparation window. Therefore, the Budgeting activity shows a steep climb on the Effort axis. The measure of Effort for the planning/reporting activities is cumulative on the graph.

- **Value** on the X axis is more subtle. We explore many value goals for planning and reporting in this research paper. Certainly a first level measure of value from planning should be how it contributes to profitability and cash flow. In stakeholder terms, value can also be measured by how a process contributes to customer and employee satisfaction, or shareholder value. For graphing the maturity curve, we label the X axis ***Business Value*** to capture these various ideas of value contribution. Most importantly, value is not described by finance or accounting terms such as accountability and control. Later when describing Agile Planning, we add to the definition of value: planning should deliver ***Insight***, ***Actionable Knowledge*** and ***Decisions.***

Here are our conclusions about how the five planning/reporting activities score on the maturity curve—all explained in the materials that follow:

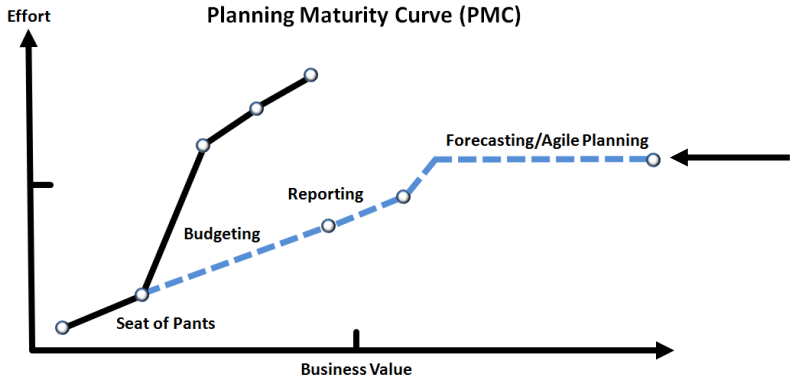
- ✓ ***Seat-of-Pants:*** much low level resource planning is done through ad hoc, Seat-of-Pants methods. It doesn't take a lot of time and returns meaningful Business Value.

- ✓ ***Budgeting*** is under siege by many in the finance community. Increasingly, it's perceived as huge time sink with a low marginal contribution. In the short term, though, don't look for a revolt against Budgeting. It's not going away soon.

- ✓ ***Reporting*** is a moving target. The default is to do reporting in spreadsheets. However, new reasonably priced tools—e.g. business intelligence (BI) and visualization interfaces—are changing information management and reporting at a rapid pace.

- ✓ ***Forecasting*** consumes low levels of Effort and continues to move us to the right on Business Value, but not by much. Increasingly, the conversation revolves around what can be done to improve forecasting techniques and de-politicize the process.

- ✓ ***Agile Planning*** can move you substantially to the right on the maturity curve with a low incremental effort. The section of this research paper ***Guidelines for Agile Planning*** presents recommendations for how to implement a more agile planning environment. Below is our assessment of how the maturity curve would be redrawn implementing the recommendations.



You can change the shape of the maturity curve significantly reducing Effort and increasing Business Value by moving out of Excel and adopting practices for Agile Planning.

2. Seat-of-Pants: *Simple Resource Planning*

Seat-of-Pants planning occurs naturally, frequently and without a lot of formal procedure, documentation or number crunching.

Goals? We do Seat-of-Pants planning because it's a fast and easy way to manage simple short term resource allocations, and it's better than doing nothing.

Goals	
Why Do It?	Simple resources
Effectiveness	Better than nothing
Processes	
Who Drives	Anyone
Who Participates	Ad hoc
Frequency	As required
Cycle	Event driven
Features	
Data Type	Unstructured
Data Entry	Unstructured
Level of Detail	Unstructured
Practices	
Modeling	None
Data Integration	None
Iteration Tools	None
Presentation	Xls, Ppt, Doc

Budgets aside, it's surprising how much resource management gets done through ad hoc, on-the-fly planning sessions. For example,

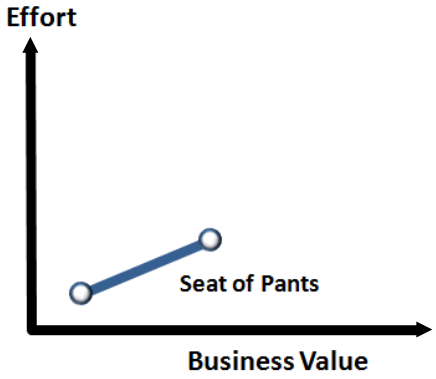
- ✓ A marketing manager, conference coordinator and accountant meet for an hour to sort through logistics and costs for an upcoming conference.
- ✓ A sales team meets to plan next month's road trips and customer calls. Maybe someone adds up trip costs, but nobody is really thinking 'budget'.

Seat-of-Pants planning is how many resource decisions are made in real time with information currently available to the ad hoc group of participants.

In terms of ***Processes***, anyone can drive the planning meeting. Participation is ad hoc depending on who's needed—i.e. who's relevant to the decision/resource allocation. The planning occurs as required—i.e. driven by specific events such as the upcoming conference or road trip.

Unlike budgeting and forecasting, data ***Features*** are not important or are unstructured. Practices for modeling and data integration are not relevant as well. Documentation of analyses and decisions are, for the most part, handled with Microsoft Office tools—i.e. Xls, Ppt and Doc—and distributed via email.

Seat-of-Pants planning occurs with great frequency in most organizations, and for the most part, good work gets done. On the maturity curve, we score a meaningful step up in Business Value for the Effort involved.



Seat-of-Pants **planning occurs frequently and delivers good Business Value for the marginal, naturally occurring Effort. Many resource decisions, large and small, are made through this planning method outside of the budget system or accounting controls.**

3. Budgeting: *Setting Standards*

Budgeting is in the DNA of all large and most mid-sized businesses.

- ✓ Budgeting's ***Goal*** is to ***Set Standards***—sales targets and quotas; management bonus hurdles; cost center spending; costs for inventory valuation; etc.
- ✓ With setting standards comes the goal of ***Precision*** driven by: 1) the need for accountability at the lowest possible level; and 2) buckets to make tax accounting easy.

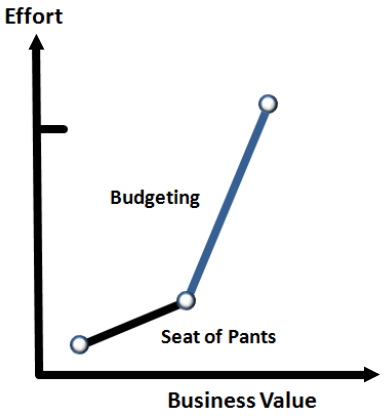
Goals	
Why Do It?	Set standards
Effectiveness	Precision
Processes	
Who Drives	IT/Finance
Who Participates	All managers
Frequency	Once a year
Cycle Time	Months
Features	
Data Type	Financial
Data Entry	Many static
Level of Detail	Lowest accts; CC's
Practices	
Modeling	Minimum
Data Integration	GL, HR
Iteration Tools	Process controls
Presentation	Reports in binders

In terms of ***Processes***, IT and Finance jointly drive Budgeting. The job includes:

- ✓ Specifying the procedures and templates, defining rollup structures, maintaining formulas, importing data, and more. In large scale systems such as Hyperion Planning and Cognos Planning, this is more the domain of IT than Finance.
- ✓ Organizing managers who have cost center/spending authority. All are required players regardless of materiality or level of spending.
- ✓ Managing the budgeting cycle which is measured in months—one to three on the low end, four to six on the high end. Thank goodness we do it only once a year!

In terms of ***Features***, it's the data that's the killer. The assumption for Budgeting is that the more the data, the greater the precision, and therefore the greater the accuracy—a fundamental accounting perspective. The focus is financial data at the lowest level of detail—i.e. natural class sub-accounts for each cost center. Most data entry is static and hand keyed by the line managers. Do the math: 100 cost centers * 40 accounts * 12 months = 48,000 data entry points!

Our view of Budgeting's position on the Planning Maturity Curve is not complimentary. Budgeting consumes a huge amount of Effort* for a marginal contribution to Business Value, possibly no more than Seat-of-Pants.



***Budgeting* consumes as much as half of the manpower effort devoted to planning in most organizations, due principally to its focus on lowest level details and the cumbersome, highly politicized review process. The contribution to Business Value is probably not much greater than Seat-of-Pants.**

Budgeting, especially when done with spreadsheets, is a broken process in many organizations. The principal break points are:

- **Budgets Not Flexible** Budgets are fixed for the year, but business conditions continuously change. Without a flexible revision, the budget is stuck in the mud, frequently obsolete by Q2. Later when reporting against budget, variance analysis can becomes a less valuable exercise because explanations are either a timing difference or an assumption change. Because variance analysis is backward-looking on things that don't really matter any more—i.e. budget assumptions that are out of date—it's obvious why the Business Value of budgeting is seen by many as marginal.

- **Operational Disconnect** Budgeting focuses on financial outcomes. The financial data are frequently disconnected from operational drivers of the business such as number of customers or units by product line or channel. If the line manager does have operational backup, it's in a disconnected spreadsheet not visible to Finance or higher level managers or available for scenario analysis.

- **Incentive Compensation** Because incentives are based on achieving budget targets, budgeting becomes a political process characterized by sandbagging and other games. Too often, the rewards go to the best game player, not the best manager.

Quotes from the Pros

"The budgeting process…hides growth opportunities. It promotes bad behavior—especially when market conditions change midstream and people still try to 'make the number'."

Jack Welch, former CEO of GE

"With budgeting, the devil is not in the details; it is the detail."

David Axson in *The Management Mythbuster*

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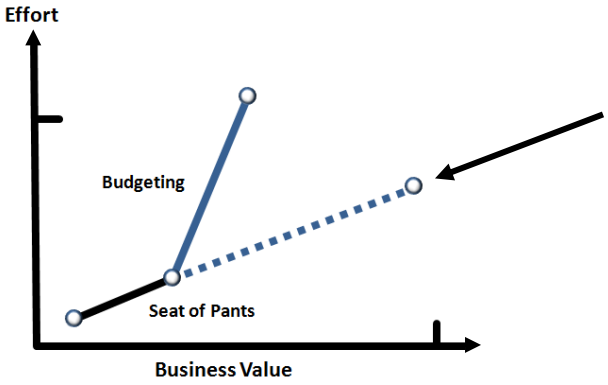
* In his book *The Management Mythbuster*, David Axson estimates that 20,000 man days are consumed by budgeting in a typical $1 billion business. Published by John Wiley & Sons, p. 73.

Budgeting is a process under siege by many in the finance, academic and analyst communities, especially in the context of the economic crisis in late 2008 which obsoleted virtually every 2009 budget in corporate America.

The limitations inherent in Budgeting are exacerbated by the limitations of its traditional platform, spreadsheets. The problem is that spreadsheets are an inadequate, antiquated platform for doing complex planning. Budgets should be done using a software planning application which will save Effort and contribute to Business Value on the maturity curve.

For more on this topic, see ***Guidelines for Agile Planning: Move Out of Excel*** where we present a comprehensive analysis of Excel issues and the solutions that planning applications are delivering.



The impact of planning applications on the budgeting maturity curve? **Moving out of Excel and into a planning application can reduce the Effort and increase Business Value. How much depends on the application and its specific functionality.**

4. Reporting: *Where Are We?*

The ***Goals*** of reporting, of course, are to know *where we are* in financial performance and do so at a very precise level. Again, an emphasis on a precision of actuals with a comparison to budget at the same precise lowest level.

Goals	
Why Do It?	Where are we
Effectiveness	Precision
Processes	
Who Drives	IT/Finance
Who Participates	All managers
Frequency	Monthly
Cycle Time	Days
Features	
Data Type	Financial
Data Entry	NA
Level of Detail	Lowest accts; CC's
Practices	
Modeling	None
Data Integration	GL, HR
Iteration Tools	Process controls
Presentation	Reports in binders

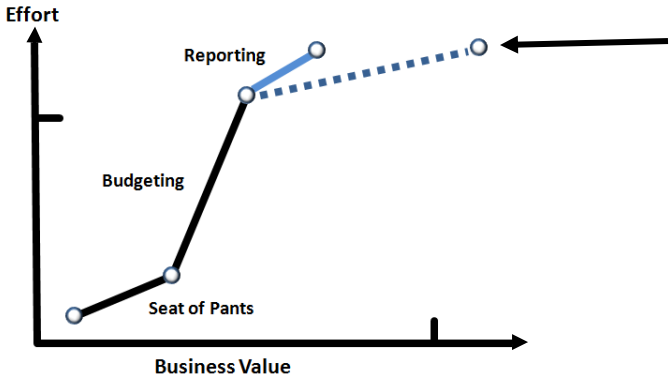
In terms of ***Processes***, IT and Finance drive the Reporting process. IT creates and delivers the reports; Finance generally runs the reviews. All managers (which can be a lot of people) participate because managers, by definition, have budgets and spending authority that need to be monitored against actuals.

Reporting reviews can become as onerous as budgeting. In many organizations the reviews become a meaningless drill:

- ✓ Variance analysis becomes a "groundhog day" exercise where the same dialog occurs — volumes or operating conditions have changed since the budget was prepared, or variances are caused by timing differences that will work themselves out.
- ✓ Even though companies try, forecasting does not generally involve cost center managers at the account level. In short, there is no easy way to incorporate the variance impacts on the year in forecasts even when they are understood.
- ✓ Budget and actual data are divorced from underlying operational drivers. Therefore, there is no ready information for segregating unit volume and rate variances.

Most financial reporting is done in Excel or in the company's general ledger system. In either case, the contribution to Business Value on the maturity curve is marginal.

As with Budgeting, the opportunity for improving value is enhanced by moving from Excel or the general ledger into a formal planning and reporting application. This is discussed in ***Guidelines for Agile Planning: Get Out of Excel.***



The impact of planning applications on the reporting maturity curve? **Moving out of Excel and into a planning application can increase the Business Value of reporting, especially when incorporating business intelligence (BI) and visualization tools.**

5. Forecasting: *Test Target Achievement*

After its publication, the finance team gets to work 'rolling over' the budget and its templates to adapt to the forecasting process which kicks off in earnest in Q2.

- ✓ The first priority ***Goal*** of Forecasting is to ***Test Target Achievement***—i.e. who's going to make their numbers, who won't and by how much. Finance's credibility is on the line and too many people are already asking the uncomfortable questions.

- ✓ Hand-in-hand with testing target achievement is the goal of ***Forecast Accuracy****. The forecast credibility game is described by the hockey stick. The curve depicts the tension throughout the organization as the fiscal year end approaches. At the inflexion point, generally Q3, there is a 'balance of year' scramble to get the numbers in sync. As under-performing business units come clean, forecast accuracy crumbles. Then out comes the padding.

Goals	
Why Do It?	Test Target Achievement
Effectiveness	Forecast Accuracy
Processes	
Who Drives	Finance
Who Participates	Selective Mgmt
Frequency	Monthly, Quarterly
Cycle Time	Weeks, Days
Features	
Data Type	Financial
Data Entry	Mostly static
Level of Detail	Lowest accts; CC's
Practices	
Modeling	Some
Data Integration	GL, HR
Iteration Tools	BE, Hi, Low
Presentation	Reports Online

* In an April 2009 survey conducted by Duke University and CFO Magazine, "the ability to forecast results" was the number one concern of CFOs, ranking ahead of working capital management, employee morale and balance sheet strength.

In terms of ***Processes***, Finance drives forecasting, selectively sorting through which of the line managers participate and what data inputs are pursued. Specifics vary widely. However, there are some foundations:

- ✓ Most forecasting systems are a retread of the budget system with its lowest level of account and cost center detail. This imposes a huge data load on Finance. We often see incorporation of tops down methods for adjusting budgeted detail as a means for getting forecast numbers fast—i.e. an end run around arcane level of detail. It gets uglier as the year progresses, trying to keep track of original budget commitment versus tops down 'adjustments'.

- ✓ Data is gathered ad hoc by Finance and assembled into a formal forecast within a couple of weeks, if not sooner. The short cycle time is driven by the small window between month end close and the next round of forecast reviews with executive committees and the Board. It's a killer schedule that burns up a lot of good people.

By Q3 there is a 'balance of year' scramble to get the numbers in sync. As underperforming business units come clean, forecast accuracy crumbles, then out comes the padding.

- ✓ As with budgeting, version control in forecasting is important—especially for measuring the prior forecast to the current. Remember the goal—***forecast accuracy*** which is best enforced by tracking forecast changes cycle to cycle. This is especially not fun as year end approaches and hockey sticks are revealed.

There are encouraging signs. Conversations between software vendors, consultants, analysts and user communities are focusing on solutions for making planning in general and forecasting specifically more efficient and effective. The big questions are:

- ✓ What can we do to de-politicize planning processes?
- ✓ How can we make planning better connected to operational drivers?
- ✓ And how can we shore up the disconnect between strategy and operational financial models?

These are themes of the second part of this research paper, ***Guidelines for Agile Planning***.

From the Pros

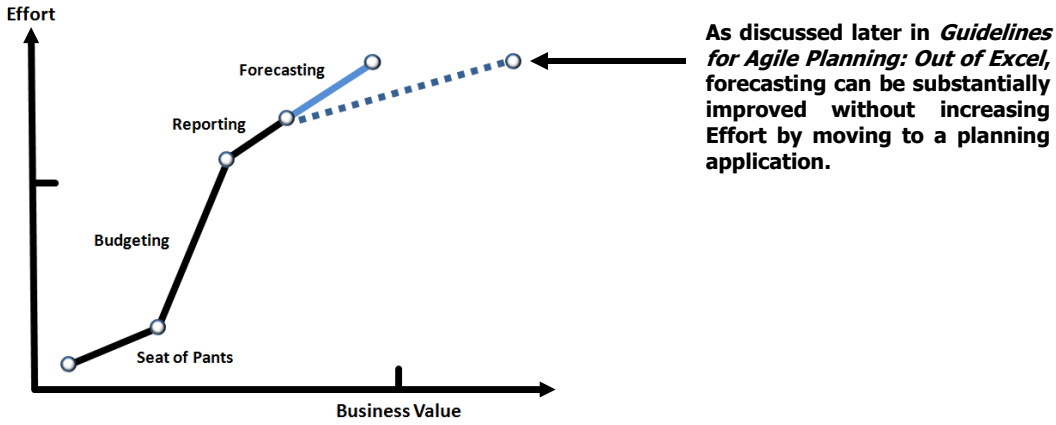
"Forecasting is a game where executives demand ever better numbers and their subordinates seek to ratchet down expectations."

David Axson in *The Management Mythbuster*

"There is only one thing we know for sure about a forecast. It's likely to be wrong!"

Morlidge and Player in *Future Ready, How to Master Business Forecasting*

Below is our drawing of the maturity curve for Forecasting. Relative to Budgeting, the activity consumes lower Effort and moves us to the right on Business Value. For many in Finance, forecasting is the worst nightmare because of the short cycle time and lack of tops down methods. For this reason, many companies are moving out of Excel and into planning applications to improve forecasting as well as budgeting.



6. Agile Planning: *Insights, Actionable Knowledge, Decisions*

Agile Planning is what we think planning should be, but we never quite get there with our current Excel templates, accounting systems, and ERP software.

Forward thinking managers articulate a vision for planning using the terms *insights*, *actionable knowledge* and *decisions*—these are descriptors of the deliverables we really want from planning but too often can't quite achieve.

The ***Goal*** of Agile Planning is to deliver ***Business Value*** measured by how much ***Insight***, ***Actionable Knowledgeable*** and ***Decision Making*** are facilitated through the planning process. The value should flow through to all players involved in planning and reporting from the CEO down through the organization.

Goals	
Why Do It?	**Business Value**
Effectiveness	**Insights, Action, Decisions**
Processes	
Who Drives	**Finance**
Who Participates	**Relevant mgmt**
Frequency	**Event, strategy driven**
Cycle Time	**Days, Hours**
Features	
Data Type	**Financial, operational**
Data Entry	**Some static**
Level of Detail	**Higher accts; depts**
Practices	
Modeling	**Driver-based**
Data Integration	**GL, HR, Operations**
Iteration Tools	**Scenarios**
Presentation	**Real Time**

The ***Processes*** of Agile Planning are very different from traditional Budgeting, Reporting and Forecasting.

- ✓ ***Who Drives*** Finance is in the driver seat. IT must take a back seat because agility—i.e. moving fast with changing participation— is important. Agile Planning is characterized by quick turnaround and quick response which is not typically possible with IT-intensive, large scale planning applications such as Hyperion Planning or Cognos Planning. By ***quick***, we mean seconds or minutes, not hours or overnight.

- ✓ ***Who Participates*** Getting to Agile Planning means cutting the number of players. In organizations with hundreds of cost centers, all managers cannot participate, only *Relevant Managers* whose spending or revenue authority is material to the planning or forecasting task. With Agile Planning, accountability is associated with key drivers for business activities. Forcing accountability by business organization irrespective of driver relationships (i.e. who controls the driver) bogs down the process.

- ✓ ***Frequency*** Unlike large companies where Budgeting, Reporting and Forecasting are scheduled activities, Agile Planning in its pure form is driven by events (e.g. planning a response to a competitor's price move) or by strategy issues (e.g. should we expand distribution to Asia). While normally event or strategy driven, Agile Planning methods can be easily adapted to a company's scheduled forecast cycle. It's doubtful that Agile Planning can be adapted to traditional budgeting. Rather, if budget is required, let it be a snapshot of your current agile forecast at the time.

The case for Agile Planning gets more interesting when we explore data ***Features***. To move to the right in Business Value on the Planning Maturity Curve, we need to expand ***Data Type*** and restrict ***Level of Detail***.

Data Type for Agile Planning should include integration of operational elements of the business, not just financial data from the general ledger.

- ✓ This includes revenue drivers such as number of units, customers, transactions and the like as well as operational cost drivers such as production and service levels, man hours and other measures of cost activity.
- ✓ Operational integration can overcome a weakness of current systems where underlying assumptions are not documented in the planning process or are not accessible to Finance for review or scenario analysis.

Level of Detail is a fundamental problem with Budgeting and Forecasting systems**.**

- ✓ Planning cannot be agile where Finance and line managers must deal with thousands of direct inputs.
- ✓ Frequently in large organizations, therefore, the ability to implement Agile Planning requires higher level planning structures, especially natural class accounts. Much more to follow on this topic.

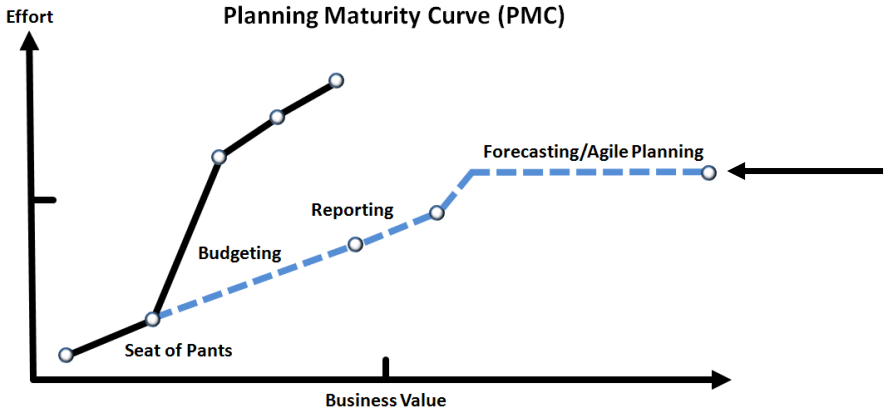
Practices for Agile Planning**—**this is where we deliver our most concrete advice. Moving to the right on the maturity curve requires a five step program that includes:

1. **Getting Out of Excel** and into a database driven planning/reporting application will solve a large number data integrity, security, consolidation and modeling problems. The statement is pretty straightforward and confirmed by scores of surveys and real world experiences: you cannot move across the Planning Maturity Curve or implement agile planning while using spreadsheets as the planning platform. See Guidelines for Agile Planning: Out of Excel.
2. **Reducing Level of Detail** for planning and reporting. In most companies, structures and levels of detail that drive planning are based on out-of-date chart of accounts structures that are divorced from how line managers think. With too much detail, which is a frequent consequence, you spend more time maintaining a model than using it, and you stifle driver-based planning. In Guidelines for Agile Planning: Reduce Levels of Detail, we provide specific guidelines for thinking through the critical question: ***"what levels of detail should I plan and report at."***
3. **Moving to Driver-Based Planning** goes hand-in-hand with our recommendations for integrating operational drivers into the planning process and structuring data at higher levels of detail than traditional budgets and forecasting. In Guidelines for Agile Planning: Implement Driver-Based Planning, we describe a step-by-step methodology for moving to this more efficient and effective foundation for planning.

4. **Integrating Actuals Data** Importing actuals data from outside sources can be messy, especially if using Excel. We use the term integration to communicate a more robust set of functionality, namely bringing operational information (in addition to general ledger financials) into the planning/reporting database. The parameters are integrating data: a) from any source; b) at any level of detail; and c) with modeling of actuals data to achieve true apples-to-apples comparisons with plan. In Guidelines for Agile Planning: Integrate (Don't Just Import) Actuals, we explore these software feature sets needed to deliver Agile Planning.

5. **Planning with Scenarios** Agile Planning is about scenarios, lots of them. If you can't predict the future, the next best thing is to set up scenarios that let you explore how you might behave (or decide) if things are better or worse or just different. Scenario analysis is about understanding what's behind the numbers—the most critical assumptions, volume and rate impacts, and especially what's driving material changes to the P&L and cash flow. In Guidelines for Agile Planning: Implement Scenario Analysis, we explore how to use scenarios to achieve the principal goals of planning— insight, actionable knowledge and decisions.

Below is a redraw of the maturity curve assuming continuation of Budgeting and Reporting, but with Forecasting and Agile Planning combined as the same process—that is, Forecasting is implemented using structures and processes characteristic of Agile Planning including, of course, the five recommended practices above.



Here's the objective: redraw the maturity curve for your organization and move toward a forecasting process that is more agile. Do this by step-by-step testing then adopting the recommended practices.

7. Case Study in Agile Planning: Pittsburgh Mercy

Ray Wolfe strode into the conference room. Ray is CFO of Pittsburgh Mercy, a regional mental health care facility with 60 outpatient treatment centers.

Everyone was seated and ready to roll for the forecast review—Shelley and Dave from Finance, five heads of community treatment centers, the service coordinator, and heads of acute case management and emergency care—including Ray, eleven persons total.

Who attended was carefully coordinated, though Ray often shuffled forecasting group membership based on comparability of operating activities, key measures, and the corporate reporting hierarchy.

From the finance side, Dave was the planning administrator who ran the planning software application on his laptop in real time during the review session. The eight line managers were a subset of 100+ managers in the organization with revenue and cost management responsibility across 25 treatment programs.

Each quarter Ray conducts fifteen such planning sessions. Each session includes the same finance team and combinations of line managers whose responsibilities are functionally similar or overlap in service requirements.

The agenda kicks off with Ray updating the room on global trends, overriding budget issues and community dynamics. Then the fun begins: a review of prior meeting commitments including a focus on what worked and what didn't; an open exchange of information with a focus on best and worst practices; and a real time update of commitments and financial plans. For the most part, the process works.

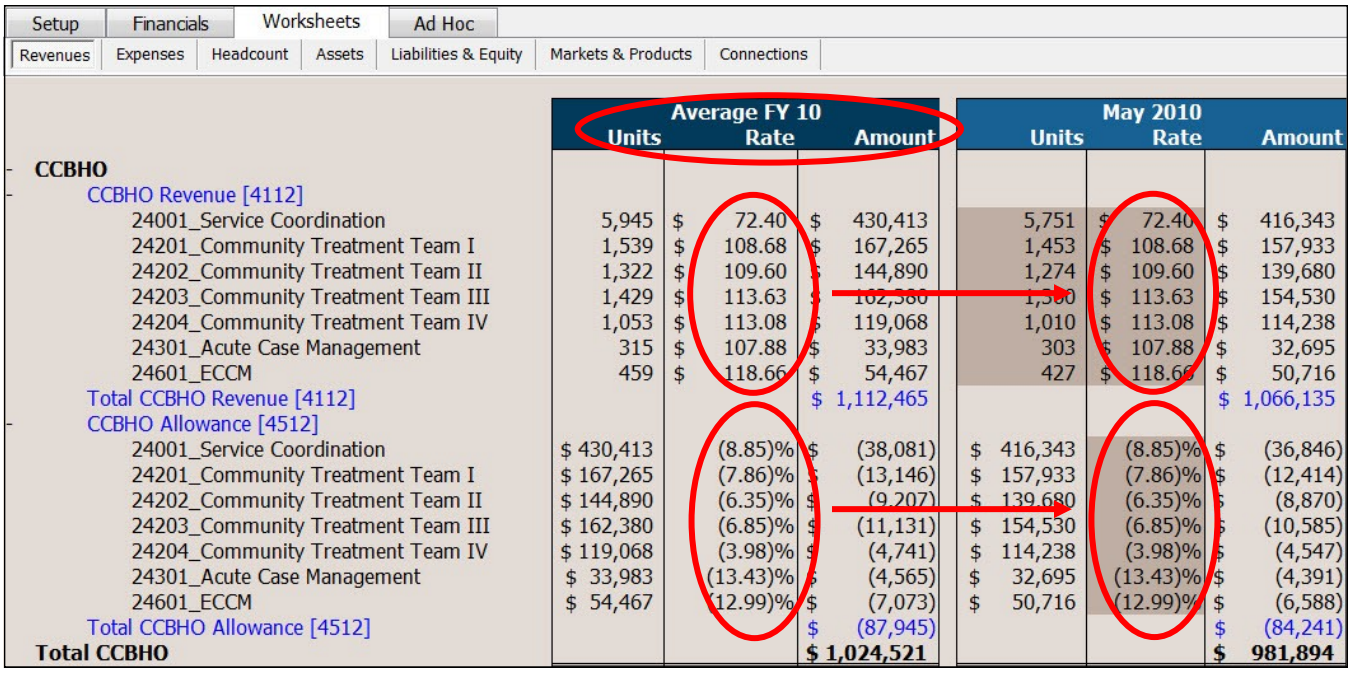
In just a few hours each quarter, mental health practitioners without business or finance training have the opportunity to participate in a planning and performance review process with a real-time understanding of how their own groups' results impacts overall results and a clarification of short term priorities. Then, back to the basics of running the clinics.

It wasn't always so smooth. Just two years earlier when Ray was appointed CFO, the organization was in trouble. After a painful disposition of an underperforming facility, the new organization—60 outpatient facilities providing mental health, retardation, drug/alcohol rehab and homeless services—was 'operationally challenged':

- ✓ Service demands were increasing at a 20% rate;
- ✓ Budgeting was spreadsheet-based with all the attendant problems—linking and formula errors, too much wasted time; no efficient way to import actuals and compare, etc.
- ✓ Budgeting was a ritual without meaning—full year totals with no seasonality, no operational integration, no P&L visibility for the hundreds of revenue/cost centers, and no real manager buy-in.

Now, a year and a half later, the forecast review meetings are working with remarkable results.

- ✓ Ray choreographs the agenda and participation which is based on relevancy and congruent interests. Groups and participation dynamics are reshuffled regularly to optimize sharing of common experiences.
- ✓ Data is presented in an overhead projection in real time. The planning tool is also the presentation tool. Forecast assumption changes, such as forecasting collection rates based on latest averages, immediately ripple through the financial statements and cash flow. [Example below.]



	Average FY 10 Units	Average FY 10 Rate	Average FY 10 Amount	May 2010 Units	May 2010 Rate	May 2010 Amount
CCBHO						
CCBHO Revenue [4112]						
24001_Service Coordination	5,945	$ 72.40	$ 430,413	5,751	$ 72.40	$ 416,343
24201_Community Treatment Team I	1,539	$ 108.68	$ 167,265	1,453	$ 108.68	$ 157,933
24202_Community Treatment Team II	1,322	$ 109.60	$ 144,890	1,274	$ 109.60	$ 139,680
24203_Community Treatment Team III	1,429	$ 113.63	$ 162,380	1,360	$ 113.63	$ 154,530
24204_Community Treatment Team IV	1,053	$ 113.08	$ 119,068	1,010	$ 113.08	$ 114,238
24301_Acute Case Management	315	$ 107.88	$ 33,983	303	$ 107.88	$ 32,695
24601_ECCM	459	$ 118.66	$ 54,467	427	$ 118.66	$ 50,716
Total CCBHO Revenue [4112]			$ 1,112,465			$ 1,066,135
CCBHO Allowance [4512]						
24001_Service Coordination	$ 430,413	(8.85)%	$ (38,081)	$ 416,343	(8.85)%	$ (36,846)
24201_Community Treatment Team I	$ 167,265	(7.86)%	$ (13,146)	$ 157,933	(7.86)%	$ (12,414)
24202_Community Treatment Team II	$ 144,890	(6.35)%	$ (9,207)	$ 139,680	(6.35)%	$ (8,870)
24203_Community Treatment Team III	$ 162,380	(6.85)%	$ (11,131)	$ 154,530	(6.85)%	$ (10,585)
24204_Community Treatment Team IV	$ 119,068	(3.98)%	$ (4,741)	$ 114,238	(3.98)%	$ (4,547)
24301_Acute Case Management	$ 33,983	(13.43)%	$ (4,565)	$ 32,695	(13.43)%	$ (4,391)
24601_ECCM	$ 54,467	(12.99)%	$ (7,073)	$ 50,716	(12.99)%	$ (6,588)
Total CCBHO Allowance [4512]			$ (87,945)			$ (84,241)
Total CCBHO			**$ 1,024,521**			**$ 981,894**

The unit/rate/amount structure of the planning application lets the Finance staff and community treatment team members understand underlying driver relationships and project forward based on historical rates and visible trends. For example in the screenshot, the average year to date actual Revenue and Allowance rates for each Treatment Team are the basis for forecasting forward into May and later timeframes. These rates are automatically computed from the underlying units and general ledger amounts imported from the GL.

- ✓ The presented data, both historical actuals and forecast, incorporate operational activity drivers such as number of outpatient transactions, payer types, and collection rates. The availability of operational information integrated with financial results forms the basis of the line manager dialog for understanding and sharing of best practices.
- ✓ Fundamental to the process are multiple scenarios. The team learning experience and forecast commitment process is based on creating and comparing working scenarios in real time.

Since abandoning spreadsheets for a database planning application, Ray and Pittsburgh Mercy have successfully renovated its planning processes and culture by implementing Agile Planning:

"We have a whole new culture for planning and analysis. It's agile and truly real-time collaboration."

- ✓ Line managers have a renewed sense of participation and energy;
- ✓ $600,000 in revenue enhancements and cost efficiency improvements have been redirected to improve services; and
- ✓ Forecast accuracy at the bottom line is now 2% quarter to quarter.

In addition, Pittsburgh Mercy no longer budgets. All planning and decision making derive from the two year rolling forecast process described here. When budget presentations are made to the Board, Ray reports on the latest and most credible forecast. With a forecast accuracy of 2%, nobody cares or questions that the process is not more structured and does not go to the lowest level of detail in the chart of accounts. As Ray says, "We have a whole new culture for planning and analysis. It's agile and truly real-time collaboration."

Guidelines for Agile Planning*

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* Rob Kugel, Senior Vice President of Ventana Research, published a white paper in 2009 titled ***Integrated Business Planning: Redesigning Planning for a More Dynamic Business Environment***. In this paper Rob presents a series of recommendations similar to the guidelines presented here including, especially, the importance of getting out of spreadsheets for planning and adopting driver-based planning. Rob's paper, and others from Ventana, also include important benchmarking of planning and reporting practices.

1. Out of Excel

The statement is emphatic: companies over $50 million in sales with complexity in their businesses cannot reduce Effort and improve Business Value on the Planning Maturity Curve while planning and reporting in spreadsheets.

Still today, more than 70% of companies use Excel as their principal infrastructure for budgets and forecasting. Many of these companies are in "Excel Hell", a continuing state of inefficiency and disruption related to using Excel for collaborative planning. The spreadsheet symptoms of Excel Hell are broken formulas, consolidations that choke, and wrong numbers. The organizational symptoms are inefficiency, frustration and decisions based on bad information.

This section ***Guidelines for Agile Planning*** explores the problems and issues of using spreadsheets for budgeting, reporting and forecasting, and how adopting a planning application can resolve most of these problems.

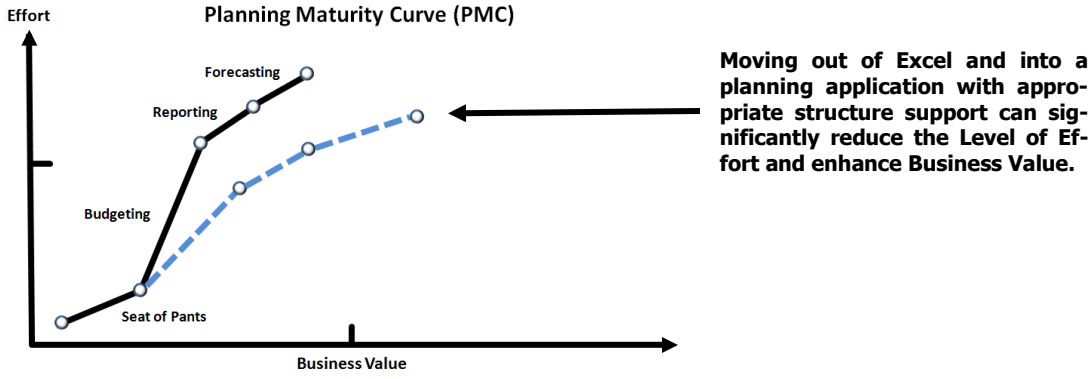
Spreadsheet Problems with Structure

Yes, spreadsheets are flexible, but having the flexibility to do anything you want isn't helpful when you're staring at a blank Excel worksheet.

Budgets and forecasting require structure, lots of it— rollups to financial statements; revenue, expense and headcount detail mapped to the rollups; importing and exporting disparate data types; modeling interfaces; and more.

Called budget templates, you build these planning structures from scratch in Excel using cell-based formulas and sometimes macros. The templates take weeks or months to develop; they're difficult to maintain, especially when you roll over time periods; and they break when line managers decide to modify the templates by entering rows or columns on-the-fly.

Adopting a planning and reporting application with appropriate ***structure elements*** will reduce overheads for maintaining spreadsheet planning templates and improve the efficiency of planning activities. Organizations typically see a 20% to 40% efficiency gain (i.e. less Effort on the maturity curve) with meaningful movement to the right in Business Value. In short, the advice is to get out of Excel if you're a mid-sized company or larger.



Structure Guidelines for Planning Apps

Below are guidelines for what to look for in serious planning and reporting software to deal the Excel Hell structure problems.

- **Line Item Detail** Spreadsheet templates are nearly always structured so that users cannot add line items; doing so causes calculation and consolidation errors. The most important structure benefit of adopting a planning application is "line item detail", giving users the ability to add and individually name line items on-the-fly—e.g. new revenue items, new expense items or new employees. Additions will automatically roll up to the correct sub-totals and financial statements. In addition, users should be able to plan amounts at the line item level which document or calculate underlying activity assumptions about units and rates. For example: for revenue planning, units sold * selling price = the sales amount; for headcount planning, # heads * salary rate = salary amount; etc.

- **Rollup Structures** You create and maintain rollup structures (i.e. financial statement consolidations) manually in Excel. This is an arduous, error prone job and a huge source of Finance's frustration with spreadsheets. Most planning applications incorporate support for GL chart of account strings (e.g. company, product, department, cost center, natural account, sub-account, etc.) as well as custom dimensions (e.g. customer, region, job, etc). Such structures roll up to financial statements—though capabilities for constructing and integrating the P&L, balance sheet and cash flow vary widely between software packages.

- **Multi-User Security** Lack of appropriate user security with spreadsheets is a major weakness. Solid planning applications include security controls for Finance or plan administrators to define plan elements each user may access (e.g. what products, cost centers, accounts, etc.) and the type of access (e.g. ***changing values*** versus ***adding line items*** versus ***model building***).

Who Moved My Excel?

Excel's lack of structure is the principal reason companies move from spreadsheets to planning applications.

The simple tradeoff is this: you make the change when the costs of wasted staff time, delays, errors and frustration finally exceed the costs of buying and re-creating everything you have now in a planning package.

Years ago, mid-sized companies never came close to the breakeven cross over because planning and reporting packages cost seven zeros. Now, you can buy robust multi-user planning and reporting applications for less than $100K, software and installation complete.

This is affordable for any organization where planning is important, which in our metric is all companies with more than $50 million in sales and complexity in their businesses.

For Fortune 1000 companies, it's a mixed bag:

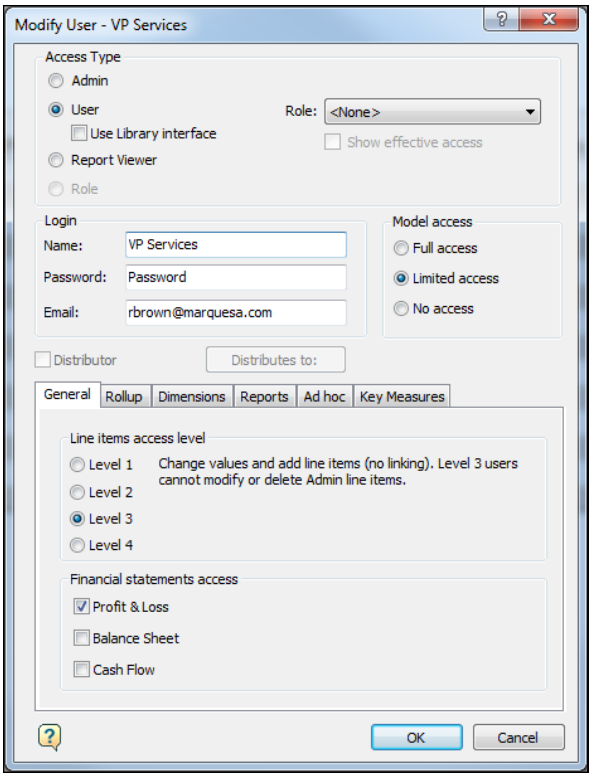
- ✓ **Expensive performance management packages (called CPM or BPM) deliver substantially improved visibility up and down the reporting structure for financial rollups, reporting, business intelligence and graphics. However, there is little driver-based planning or real time scenario analysis going on anywhere in the daisy chain, especially at corporate.**

- ✓ **At the business unit level, modeling tools in the CPM packages are frequently based on Excel, or Excel with its attendant cell-based modeling problems is the principal vehicle that feeds the CPM/BPM packages.**

In any case, the larger the company, the more likely disconnected are the players at every level from operational drivers and scenario analysis.

- **Process Controls** Unless programmed, spreadsheets do not provide process controls for managing planning cycles and revisions. Sometimes called "workflow", such functionality includes: managing and tracking how data flows between users within approval levels; version controls for managing plan cycles and scenarios; audit trails to identify who changed what line items; email notification of events and instructions between plan administrators and users; and much more.

- **Import Actuals Structures** A major source of spreadsheet inefficiency and frustration is getting data into Excel from outside sources such as the general ledger and human resources system. Frequently, data is rekeyed by hand because formats are incompatible. With planning applications, Finance should be able to import any financial *or* operating data from any source at any level of detail. Such import capabilities will include maintenance routines that update metadata—e.g. changes in account or cost center structures— and extensive error checking.



A well designed planning application includes interfaces for the Finance Administrator to manage user security and access, data flows, email notification, and status tracking. These are frequently called process or workflow controls.

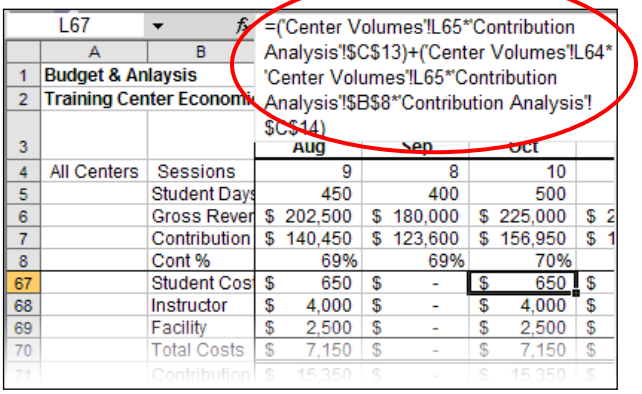
Spreadsheet Problems with Modeling

A simple model for budgets and forecasting is where salaries drive payroll taxes —easy to do in Excel or any planning application. More sophisticated financial plans include higher level models such as formulaic sales by channel, customer type or geography; linked direct and indirect product costs; activity-based headcount; and variable bonuses and sales commissions. A well constructed budget or forecast for a mid-sized company might include scores of such modeled relationships.

As everyone knows, you build financial models in Excel using the formula bar and links to cells in the current or other worksheets, or other workbooks. The example below is a formula that builds up a cost element for a service product in cell L67. The syntax of the formula is "cell-based"—that is, the references for calculation of cell L67 point to cells notated by row and column headers on other worksheets.

Cell-based modeling is a root cause of Excel Hell and the most common reason for bad financial plan answers. There are four unavoidable ugly issues:

- ✓ **Formula Errors** Building formulas is an inherently inefficient and error prone process requiring clicking between worksheets, triple checking syntax, and auditing results. The cell-based syntax does not call out what the formula is actually doing. To audit, you need to trace through cell references using Excel's arrow structure, which is better than nothing, but extremely tedious.



- ✓ **Structure Errors** Changing structures— e.g. adding, moving or deleting rows and columns —frequently creates errors including incorrect subtotals or broken formulas. Broken formulas contain the notation ***#Ref*** which ripples through financial statement rollups making them unreadable, or causes errors when consolidating template workbooks into master workbooks. Anyone, anywhere in the process can innocently cause an error.

- ✓ **The Lone Ranger** The only person who understands an Excel financial model is the one who built it, and that's only if he or she is working with it most days staying familiar. When the team member who built the budget template moves on to another job, panic sets in. Frequently the person who steps in decides to start over.

- ✓ **Manager Excel Skills** Excel modeling requires specialized skills learned through training and years of experience. The interfaces become second nature for finance staff who run the budget and forecasting processes. Most line managers, however, have minimal spreadsheet skills though they understand best the operational drivers and relationships. Good intensions aside, most spreadsheet errors occur because inexperienced users do wrong things. That's Excel—the user is not protected.

Quotes from Excel Hell

"I set up the Excel model with inputs and outputs on a presentation worksheet. So, I'm in the exec review changing the model inputs; the results show up right away. I'm doing great! Then the CFO asks 'what if we take out the piracy rate in China?' I didn't have that on my front sheet, but I found it on a backup worksheet and made the change. Arrrgh! The calcs on the presentation sheet were all *#Refs*. I fumbled around, but couldn't recover. My goose was cooked. Lesson learned: *Don't bring live Excel models into a review meeting.*"

Division Finance Manager at a Fortune 500 company

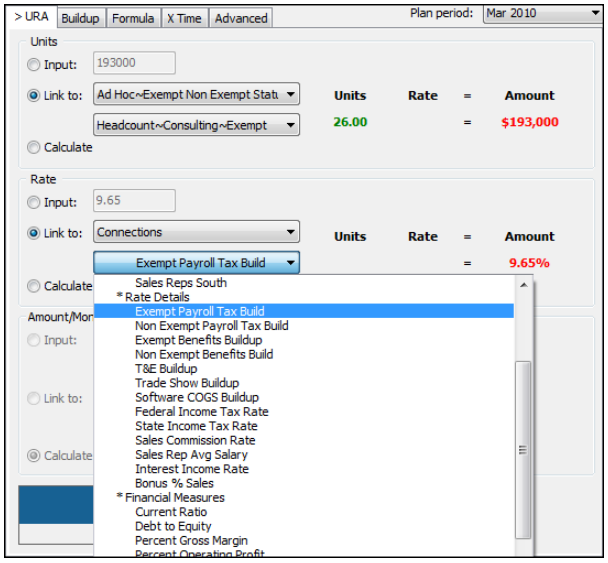
"Jim quit. We're screwed!"

VP Finance, mid-sized construction firm.

Modeling Guidelines for Planning Apps

All planning applications support financial modeling at some level. Many fall short, however, because they use a cell-based formula interface like Excel, or they use Excel itself as the interface. Some packages simplify modeling functionality thereby reducing flexibility in designing driver solutions. Others do a good job incorporating the functionalities described below.

What's needed for robust modeling are: ***Object-Based Linking***, ***Audit Trails*** and ***Protecting Users***, the three basics for streamlining modeling that lay the foundations for driver-based planning discussed later.



The line item for Exempt Payroll Tax is linked to a Rate Detail item called 'Exempt Payroll Tax Rate'. This is Object-based Linking where you create models by linking to names of things rather than cell references. Object-based linking reduces errors and provides a built-in audit trail of model relationships.

- **Object-Based Linking** The right solution for dealing with the problems of cell-based syntax is to make linking object-based, which is available in some planning applications. For example, instead of = Admin!L25 * Assumptions! H21, computing payroll tax would be in the form of: ***Consulting Salaries * Exempt Payroll Tax Rate***. The linking is clear by virtue of the naming conventions. In addition, the linked relationships automatically function across all time periods without having to be manually repeated with fill right operations, which cause errors when executed across time periods.

- **Audit Trails** Financial models are inherently complex. Audit trails should be available to help users trace how objects relate to each other including what the current line item is linked to and what line items are linked to it. Audit trails should also let users enter notes, identify who last changed an item and when, and be easily viewed on the report interface.

- **Protecting Users** Planning applications should allow non-finance users to add line items and otherwise build driver models while at the same time protecting them from themselves—i.e. the user can do stupid things, but can't break the model causing ***#Ref*** errors as in Excel. Operations such as inserting a new line item, adding total and variance columns and spreading values across operator columns should be automatic and error free. Input cells should be easily distinguished from formula cells (e.g. by being a shaded color), and users should be prevented from overwriting formulas without the plan administrator having to manually set protection at the cell level, which is the Excel process.

2. Reduce Level of Detail

A key to effective planning and reporting is doing so at the right level of detail. With too much detail, you spend more time maintaining a model than using it. With too little, you end up not getting important questions answered.

Whether in Excel or in a planning application, too much detail drives up the consumption of Effort on the Planning Maturity Curve and, quite frankly, kills the opportunity to enhance Business Value. Phrased another way, it will be difficult to get to Agile Planning where the chart of accounts at the lowest levels strictly drives planning structures, which traditionally is the case because of the requirements of the Budgeting and Reporting processes discussed earlier.

So, who *should* the right level of detail serve?

The Managers Who Do the Planning

By default, planning is done in nearly all organizations based on the lowest level natural class accounts in the general ledger. Most of the time, this is the wrong kind of detail for planning. The arguments for stepping up from this lowest level are:

- **Let Managers Plan the Way They Think** Planning is as much an art as a science. Allowing managers to plan the way they think facilitates applying their expertise and insights, which, in turn, delivers more accurate and useful plans, and lets managers feel good about their involvement.

  In combination with line item detail discussed earlier, planning at higher account levels lets line managers plan with lower level line items that reflect how *they think about the business*. Let's walk through an example:

  - ✓ Planning at the ***Travel & Entertainment*** total level instead of the detailed account level such as ***T&E Accommodations***, ***T&E Meals***, ***T&E Transportation*** makes it easy for line managers to plan with their own line items they create on the fly, reflecting the drivers for their areas of responsibility, and using their own descriptors. It gives the overall format 'space' where otherwise the information load would be too cluttered.

  - ✓ Two illustrative cases: a) a sales manager plans T&E with line items for customer trips, conferences, and team meetings; and b) a public relations manager plans T&E based on the number and timing of road shows and special events. Yes, they're both creating more detail, but the detail is ***buildup information*** which each manager understands and can explain.

  - ✓ By contrast, restricting managers to the lowest level natural accounts stifles the planning because there's no space left for the manager's own line item detail or clear logic for crossing between the sub-accounts. Where planning detail is not easy to use or self documenting, the manager either does the buildup off-line, or guesses based on history. Regardless, the manager's thought process is disrupted and there is no ready documentation of where the numbers are coming from.

	Jan 2011	Feb 2011	Mar 2011
Administration			
T&E-Accomodations [2100]	$ 1,969	$ 1,969	$ 1,969
T&E-Meals [2110]	$ 984	$ 984	$ 984
T&E-Transportation [2120]	$ 441	$ 441	$ 441
T&E-Customer Entertainment [2130]	$ 1,016	$ 1,016	$ 1,016
T&E-Other Entertainmnet [2140]	$ 354	$ 354	$ 354
T&E-Conferences [2150]	$ 1,244	$ 1,244	$ 1,244
T&E-Other [2160]	$ 748	$ 748	$ 748
Total Administration	**$ 6,756**	**$ 6,756**	**$ 6,756**
Marketing			
T&E-Accomodations [2100]	$ 2,500	$ 2,625	$ 2,756
T&E-Meals [2110]	$ 1,250	$ 1,312	$ 1,378
T&E-Transportation [2120]	$ 560	$ 588	$ 617
T&E-Customer Entertainment [2130]	$ 1,290	$ 1,354	$ 1,422
T&E-Other Entertainmnet [2140]	$ 450	$ 472	$ 496
T&E-Conferences [2150]	$ 1,580	$ 1,659	$ 1,742
T&E-Other [2160]	$ 950	$ 998	$ 1,047
Total Marketing	**$ 8,580**	**$ 9,008**	**$ 9,458**
Sales			
T&E-Accomodations [2100]	$ 2,461	$ 2,461	$ 2,461
T&E-Meals [2110]	$ 1,230	$ 1,230	$ 1,230
T&E-Transportation [2120]	$ 551	$ 551	$ 551
T&E-Customer Entertainment [2130]	$ 1,270	$ 1,270	$ 1,270
T&E-Other Entertainmnet [2140]	$ 442	$ 442	$ 442
T&E-Conferences [2150]	$ 1,555	$ 1,555	$ 1,555
T&E-Other [2160]	$ 935	$ 935	$ 935
Total Sales	**$ 8,444**	**$ 8,444**	**$ 8,444**

This is what planning looks like using the lowest level accounts for T&E. The driver is an accounting/tax oriented structure that obfuscates or pre-empts visibility into what line managers really have on their minds.

This is what planning looks like using a higher natural class level for T&E. Managers create line items and spread data *the way they think*.

	Apr 2011	May 2011	Jun 2011
Marketing			
Travel & Entertainment [2100]			
Road Shows	$ 1,250	$ 2,500	$ 3,750
Special Events	$ -	$ 1,500	$ 3,000
Total Travel & Entertainment [2100]	$ 1,250	$ 4,000	$ 6,750
Total Marketing	**$ 1,250**	**$ 4,000**	**$ 6,750**
Sales			
Travel & Entertainment [2100]			
Customer Meeting Trips	$ 7,500	$ 4,500	$ 7,500
Major Conferences	$ -	$ 8,500	$ -
Team Meetings	$ 5,000	$ -	$ -
Total Travel & Entertainment [2100]	$ 12,500	$ 13,000	$ 7,500
Total Sales	**$ 12,500**	**$ 13,000**	**$ 7,500**

- **Set the Stage for Driver-Based Planning** There are two perspectives for reducing the detail in support of driver-based planning which we discuss in the next section:

  - ✓ Stepping up the natural account level, especially for expense planning, is nearly always necessary to support driver-based planning architectures. You cannot build driver formulas into account structures—e.g. accommodations, meals and entertainment—that are extraneous to the real spending drivers—e.g. number of sales reps or number of trips.

  - ✓ You need to identify the right level to plan for other dimensions of the business such as cost center/departments, products, customers, employees/jobs, etc. Planning at too high or too low a level for these other dimensions can undermine the driver planning initiative.

  You want planning levels that facilitate driver-based planning so that managers can manipulate the operational assumptions of the business which they control rather than typing in static dollar amounts. You build such driver models for the most relevant, financially sensitive elements of the business such as commodity driven materials costs, big dollar expense items, or departments with large numbers of variable headcount.

  Building driver models will necessarily add more detail—e.g. more modeled line items—to an overall plan. Reducing unnecessary or not-so-material detail makes room for adding the driver detail. See *Guidelines for Agile Planning: Implement Driver-Based Planning* on page 34.

Implementation Guidelines

Below are broad *and* specific guidelines to help you think through the ***right levels*** for planning.

- **Start with Goals and Objectives** Understanding the right level to plan begins with a substantive discussion between Finance, executive management and line managers about the goals and objectives of planning and reporting. Such a discussion is framed by several important issues:

  - ✓ Continuing to budget and report at the lowest levels of detail—e.g. this may be a mandate from corporate headquarters— may drive a decision to set up a second system at higher levels for forecasting with agile planning. Inefficient as this sounds, some companies adopt a two system solution, especially where the budgeting structures simply cannot be adapted to forecasting for political or practical reasons.

  - ✓ Where replacing a traditional annual budgeting process with quarterly or monthly rolling forecasts is feasible, then consider restructuring the chart of accounts before or in conjunction with implementing new planning/reporting software. Frequently this job is long overdue anyway because account structures were set up by finance managers from an earlier time with different philosophies—or by outside consultants who were not close to planning issues.

  - ✓ In thinking through right levels for planning, you need to have a handle on big picture objectives, proof of concept examples and a timetable for implementing driver-based planning itself, which is an integral underpinning for Agile Planning. Talking through the main operational drivers and how complex the driver models will be frequently clarifies the ***level of details*** discussion.

- **Do the Math for Line Items** For each level of detail issue—e.g. natural accounts, products, customers, etc.—you should ***do the math*** for how many plan line items would be created at different levels, then talk through how many inputs are required and how managers would work with the interfaces. Doing the math will intuitively tell you whether you are focusing on key drivers—i.e. the trees that comprise the forest, without getting into branches, twigs and leaves.

  If you're having difficulty getting a handle on the numbers, a flexible planning tool should let you test the data by importing actuals at alternate levels. Getting a "visual picture" of the data by testing imports at various levels often clarifies the ***level of detail*** issues.

Information Fatigue

"...as information finds more ways to reach us... another consequence is becoming alarmingly clear: trying to drink from a fire hose of information has harmful cognitive effects. And nowhere are those effects clearer...than in our ability to make smart, creative, successful decisions."

Sharon Begley, *I Can't Think*, Newsweek Magazine, March 7, 2011, p. 28.

- **Level of Detail Best Practices** Below are best practices for ***level of detail*** analysis by dimension type. Practices may vary from these guidelines, of course, based on size of the organization, type of business, fixed and variable cost structure, the nature of business drivers, and other factors. In other words, these suggestions are not written in stone.

  - ✓ ***Natural Class Accounts*** As recommended previously, if you have a proliferation of natural accounts, you should plan and report at a higher level in the class account structure. If higher levels do not exist in the system, create them. For tax accounting purposes, actuals data can still be gathered at lower sub-account levels (e.g. separate items with special tax treatments such as meals and entertainment) then handled as a special analysis for preparation of tax returns.

  - ✓ ***Employees/Jobs/Benefits*** A common mistake in planning employee costs is doing so at the individual person level accompanied by calculating payroll taxes and benefits by person. This lowest level of detail results in precise budgets but obfuscates benefits and payroll tax impacts and reduces flexibility for doing meaningful driver-based planning and scenario analysis, two major foundations for Agile Planning.

    The most frequently adopted practice that provides visibility into the numbers and maintains flexibility is planning by job title with average salary rates. With this practice, payroll taxes and benefits are calculated from totals for salaries and headcount by cost center/department. Analyzing historical payroll tax rates by department adequately deals with issues such as FICA caps where timing impacts could be material.

  - ✓ ***Revenues by Products/Customers*** Fairly detailed revenue planning is critical for most businesses. Such planning should be done using relevant expressions and dimensions— e.g. units, prices, dollars, transactions, customers, products, services, projects, regions, etc. In addition to impacts on sales and cash flow, these same revenue driver structures are also important for getting a handle on the variable and semi-variable costs (e.g. direct cost of sales and large department overheads) that you'll need for driver-based planning. Therefore, when structuring levels of detail for revenues, think through the cost side at the same time.

    We generally recommend building up revenue forecasts with some combination of products, projects, services and/or customers using, where possible, a unit/rate/amount structure.

Level of Detail at Pittsburgh Mercy

"In the beginning, implementing a planning system from scratch was an experiment. We found out right away that we could try out different structures.

We ended up turning the income statement on its head. For example, Transportation is incredibly important in our business. So we structured the P&L so that we could look at Transportation at a high level across the individual reporting entities and compare them to each other.

And we had to make decisions about how much detail we needed to maintain. We didn't show lower levels of detail on transportation— for example gas, oil and vehicle maintenance — because we needed to talk with our managers at a level that made sense. A lower level of detail 'muddied up the screen'.

Our first pass with all the lowest level accounts produced reports with 14,000 line items. We then moved up the account chain and settled on levels that give us a file with 4,000 line items across 200+ revenue/cost centers. It works fine."

Ray Wolfe, CFO, Pittsburgh Mercy

See page 20 for the full Pittsburgh Mercy case study.

Where number of customers or product SKUs are too prolific to be forecast individually (e.g. as in retail operations) planning should be done with either of two procedures:

1. A higher product or customer grouping where units, average pricing and/or margins are congruent within the group; or
2. By applying the 80-20% rule and forecasting only the most important products and customers with an "All Other" bucket for picking up the 20% plug balance.

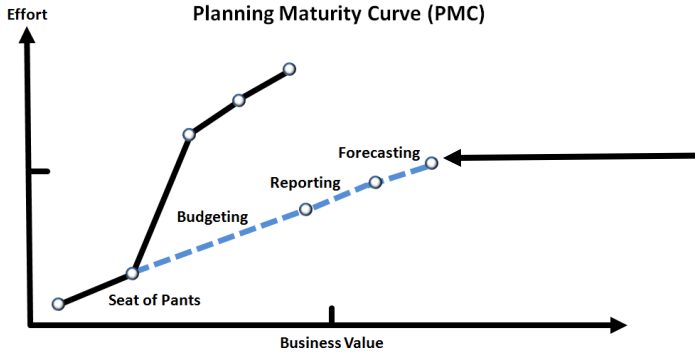
Revenue planning with driver models is a critical topic for most organizations that requires extensive discussion and testing, especially since sales and marketing staff should be incorporated as users into the planning system. Doing revenue forecasting outside of the financial planning system—e.g. through the S&Op (Sales and Operating Planning) — significantly reduces flexibility for driver-based planning and scenario analysis.

- **Other Guidelines** Here are some final ideas for consideration:

  - ✓ **Ask the Materiality Question** In analyzing levels of detail, continuously ask the question "what makes a difference in how we make decisions and run the business?"
  - ✓ **Data Collection** For a given level of planning detail, can you find comparable actuals data in the general ledger or operating databases. Frequently, this will be a scramble.
  - ✓ **Are the Data Manageable?** No matter how correct a level may seem, if you spend more time maintaining data than applying the resulting insights into better plans, then you've got it wrong.
  - ✓ **Go Step-by-Step** Don't shoot for perfection out of the box. You can transition to different levels of detail for planning and for reporting actuals as separate processes over time. In other words, you do not need to get everything right on the first try, including apples-to-apples comparison of actuals to plan for every single thing in the financial model.

In summary, with the right planning tool, it is not necessary to force your planning to match the GL structures lockstep at all levels. The right tool will allow you to plan the way you think and align the results for the way you need to report, and *vice versa*.

In conjunction with moving out of Excel into a planning application, managing level of detail, which in most cases means planning at higher levels than in the chart of accounts, will substantially reduce Effort and deliver meaningful Business Value on the maturity curve.



Reducing the level of detail, in addition to moving out of Excel and into a planning application, will further reduce the Level of Effort and enhance Business Value by meaningful margins.

3. Implement Driver-Based Planning

A major problem with all types of planning and reporting on the Planning Maturity Curve is the disconnect between the operational elements of a business and financial plans— especially when planning is done in spreadsheets.

For example, managers have difficulty forecasting headcount and expenses because spreadsheet templates do not contain models that allow them to relate their spending to marketing forecasts or other operating activities. As well, finance staff who roll up the numbers coming from line managers have little backup for evaluating the reasonableness of submissions or for answering questions from the executive staff.

What's missing is driver-based planning, a best practice methodology where financial plans incorporate assumptions about business activities which are modeled to drive financial data such as revenue projections, headcount, spending and capital requirements. With driver-based planning, managers are empowered to do better budgeting and, in particular, improve the accuracy and decision making usefulness of rolling forecasts. As well, in the context of the maturity curve, driver-based planning is essential to improving Business Value and achieving a more agile planning environment.

Case Study: Whitehorse Corp*

Helen Marston, Call Center Manager for Whitehorse Corp., a $400 million manufacturer of electronic equipment, is reworking the Excel template for her department's expenses.

Each quarter Whitehorse updates its business plans. Key managers such as Helen revise spending projections for the balance of the year based on the latest marketing forecasts. The process is time consuming and involves a lot of guesswork.

In the past two weeks Helen has been given three different forecasts for unit sales, new products and new customer installations, each version supposedly more accurate than the last. Revising her numbers takes three hours each time.

To do the update, Helen pours through operating statistics for her department which are in a separate database from accounting information. Metrics include number of operators, number of customers calling, calls per day, etc. Though Helen understands the drivers in her business, she has no real procedure for tying out this operating history to the marketing forecasts or monitoring results.

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* Whitehorse is a fictional company. However, the experiences of the principals in the case are illustrative of the stories we've heard from scores of finance managers in nearly every type of business.

Helen enters headcount projections into an Excel template which updates salaries and benefits. She does so with a lot of guessing. She's glad when the exercise is over. She hasn't learned anything, but her job is done for this round. Back to managing the call center, her real job.

Peter Forrester, Financial Planning Manager for Whitehorse, is studying the Excel templates department managers submitted for the forecast.

- ✓ The headcount Helen forecasts for the Call Center seem low in relation to the latest marketing forecast which has sales up 20% in the next quarter. Helen provides no backup or justification. Peter has no special insights either. He rolls Helen's numbers into the forecast.
- ✓ The pattern is opposite for the Service Center. Harry Laswell, the manager, forecasts a dramatic increase in headcount, much higher than the 20% sales increase would seem to justify. He attaches a passionate note arguing that Service has been understaffed for months and now is the time to remedy the situation before everyone quits. After a heated phone call with Harry, Peter rolls the Service numbers into the forecast.
- ✓ Staffing plans for sales reps are inconsistent. In four regions, headcount doesn't change for any of the three marketing forecasts—i.e. nobody paid attention, perhaps for good reason. For other regions, salaries and benefits vary, but other headcount related expenses that in theory should be impacted by new hires, such as training and recruitment fees, are unchanged. Peter rolls the numbers into the forecast knowing that expenses are probably understated.

"Here we go again," Peter says as he enters the board room to present the forecast update to the executive staff. The numbers add up on the PowerPoint slides, but Peter has an incomplete understanding of changes in overhead spending, a stated focus of the current reforecast. Too many times during the review he's asked the two dreaded questions: ***"Where did that number come from?"*** and ***"Why did that number change?"*** Sometimes Peter has an answer. Other times he says: "I don't know."

Case Analysis

Whitehorse recognizes that annual budgets need to be supplemented with forecast updates. However, the forecasts are not very accurate, and there is little analysis of underlying assumptions, impacted in part because the forecast cycle is squeezed into a tight two week time frame after the quarter end close. Unlike budgeting, quarterly updates don't have the luxury of a four month cycle time.

At the operations level, responsible managers like Helen and Harry do their best, but the process is essentially manual despite the fact that the spreadsheet-based system captures information from the line managers and rolls it up to corporate. The spreadsheet templates do not contain models that allow managers to relate their spending plans to the market forecasts. Nor do managers have information systems that integrate operational data into the forecast templates.

What's missing is driver-based planning, a best practice methodology where financial plans—namely budgets and rolling forecasts—are structured using models of underlying business activities that drive financial data.

Driver-based planning incorporates a series of operational sub-models within the overall financial planning system—e.g. production, call center, services, marketing and sales models. The sub-models have input assumptions about activity levels—e.g. unit sales, customers, transactions and the like—which drive revenues, direct product costs, variable and semi-variable headcount and expenses, and capital spending which, in turn, roll up to financial statements. Used in conjunction with scenario analysis, driver-based financial plans become the foundation for many executive and intermediate level decisions, allocation of resources and investor communications. Driver-based planning models can be used across any planning activity including budgets, forecasting and ad hoc planning.

With driver-based planning, companies can empower line managers like Helen to do better at budgeting and, in particular, improve the accuracy and decision usefulness of rolling forecasts. Finance staff like Peter also have better information to understand the numbers, negotiate with line managers, and explain assumptions to higher ups like the CFO and executive staff.

Driver Model Fundamentals

Driver-based planning is about modeling. It's based on the idea (or structure) that many line items in a plan have an inherent unit/rate/amount architecture that is the basis for linking together activity driver and financial relationships.

Here are the fundamentals for getting started:

- ✓ First, identify the important drivers in the business. Drivers are typically operating activities that you can measure—*numbers of things* such as units of product, customers, installations, deliveries, transactions, throughput and the like. The key word is *units*: if an activity can be thought of as *units* of something, then it may be part of an activity driver model.

- ✓ Operating activities—i.e. the *units*—may have driver relationships between each other that are connected through a *rate*. For example, 70% percent of customers who buy software also buy consulting services. The formula is: *units* of software * 70% = # of customers. 70% is the rate.

- ✓ A unit/rate/amount structure is typically applied to a series of line items that are linked. Below is an example of how an activity model might be constructed for Helen's Call Center starting from Marketing's forecast of new customers. Notice the unit/rate/amount construction:

    1. # of New Customers * Calls Per Customer = **Total Calls**
    2. Total Calls * Length of Calls In Hours = **Total Call Hours**
    3. Total Call Hours / Operator Utilization % = **Operator Hours**
    4. Operator Hours / Hours Per Month = **# of Operators**
    5. # of Operators * Salary Rate = **Operator Salaries**
    6. Operator Salaries * Payroll Tax Rate = **Operator Payroll Taxes**
    7. # of Operators * Benefits Rate = **Operator Benefits**
    8. # of new Operators * Training Cost = **Training Expense**
    9. # of Operators * Cost Per Workstation = **Operator Workstation Assets**

    Line items 1 through 4 build up the basic driver relationships. Items 5 through 9 translate the key result, # of Operators, into financial impacts that roll up to the P&L and balance sheet.

		Mar 2010			Apr 2010			May 2010		
		Units	Rate	Amount	Units	Rate	Amount	Units	Rate	Amount
Gross Sales										
Software										
North										
Software Licenses	**1.**	100	$ 2,200	$ 220,000	150	$ 2,200	$ 330,000	200	$ 2,200	$ 440,000
Advanced Upgrades		52	$ 1,500	$ 78,000	60	$ 1,500	$ 90,000	90	$ 1,500	$ 135,000
Total North				$ 298,000			$ 420,000			$ 575,000
Total Software				**$ 298,000**			**$ 420,000**			**$ 575,000**
Services										
Consulting										
Consulting Hours	**2.**	2,800	$ 150	$ 420,000	4,200	$ 150	$ 630,000	5,600	$ 150	$ 840,000
Total Consulting				$ 420,000			$ 630,000			$ 840,000
Support										
Tech Support		$ 298,000	15 %	$ 44,700	$ 420,000	15 %	$ 63,000	$ 575,000	15 %	$ 86,250
Training Sales	**3.**	65	$ 1,000	$ 65,000	98	$ 1,000	$ 98,000	130	$ 1,000	$ 130,000
Total Support				$ 109,700			$ 161,000			$ 216,250
Total Services				**$ 529,700**			**$ 791,000**			**$ 1,056,250**
Total Gross Sales				**$ 827,700**			**$ 1,211,000**			**$ 1,631,250**

The above driver-based revenue model illustrates a unit/rate/amount architecture across multiple line items.

1. **# of Software Licenses * price = Software Licenses amount**
2. **# of Consulting Hours * bill rate = Consulting Hours amount**
3. **# of Training Students * price = Training Sales amount**

Driver Model Types

There are two types of driver models with variations on the themes:

- **Single Track** Starting from one principal driver—e.g. number of new customers—this type of model tracks a single series of unit/rate/amount relationships to one or several financial impacts that are especially material to the financial plan. The call center model previously laid out in steps 1 through 9 is a single track model.

  - ✓ Well constructed plans will include many single track sub-models which are easy to build and integrate into financial statements if the software tool supports a unit/rate/amount architecture at the line item level.

  - ✓ As with the call center example, you frequently build single track models for departments with large numbers of variable or semi-variable headcount—e.g. sales, call center, service, installation, support, consulting or production operations. Operational drivers for such headcount are usually easy to identify.

  - ✓ You also build single track models for obvious major expenses—e.g. electricity in a production facility; explosives supply costs for a mining operation; telephone costs for a communications center, etc.

- **Replicated** This type of model starts with a ***template*** which, once refined and tested, is replicated across multiple data elements or dimensions which share the same or near same model characteristics. Replicated models are best explained by an example:

  - ✓ Supposed you want to build a sales order model and apply it to your top 100 customers. First, you first build a template that defines the mathematical relationships between steps in the process, such as the amount and timing of an order, which are then consolidated into a production plan and then shipments. Then you 'replicate' the template across customers, each of

which have unique input assumptions for volumes, prices, timing and other variables which are individually manipulated by the planners.

- ✓ You can identify ***replicated models*** by the words ***dimension*** and ***across*** in the structure jargon. For example, *across* describes these replicated models: payroll taxes *across* cost centers; a retail model *across* stores; product sales *across* regions; a service offering *across* projects. The dimensions here are: ***cost centers***, ***stores***, ***regions***, and ***projects***.
- ✓ All robust planning applications incorporate tools for building the templates, then automating the replication across the dimension type. Some mid-market tools are limited in replication capabilities.

Benefits of Driver-Based Models

Once a driver-based planning model is in place, many new planning and analysis activities are possible, all of which drive toward a more agile planning environment. Here are some quick perspectives:

- **Tight Turnaround Has a Chance** Rolling forecasts with tight turnaround cycles are now feasible and efficient. Line managers can quickly respond to changes in marketing forecasts. Updates to revenue plans ripple through the activity model automatically adjusting variable headcount and related expenses. With headcount planning incorporated directly into the model, managers now focus on the driver assumptions and underlying cost rates which are entered and tested within the planning tool. Relevant players in the plan cycle can see changes in a controlled environment and talk about the underlying driver assumptions and impacts. ***The playing field is leveled and discussions are more objective.***

- **A Focus on What's Important** With driver-based models, it's easy to identify and manage the most important, financially sensitive activities in the business. The old saying now has meaning: *"Don't manage the dollars, manage the underlying units and rates that cause the dollars to be spent."* Managers know what's important because well constructed driver models automatically highlight financial impacts, allowing managers to focus performance improvement energies on the most critical driver activities. In other words, a well constructed driver-based model will identify for you what's actionable—i.e. it delivers *actionable knowledge*, an essential element of Agile Planning.

- **Visibility Into the Numbers** With driver-based planning, true volume/rate causal analysis of variances is now possible. When actual financial results differ from plan, it's a straightforward exercise to identify the operational drivers which caused the variance. In many cases, the analyst can segregate financial variances by volume (i.e. units) and rate (i.e. price/cost per unit) impacts. See ***Guidelines for Agile Planning: Integrate (Don't Just Import) Actuals*** on page 47 for a more detailed discussion of volume/rate analysis.

- **Real Time Planning** With driver-based planning, real time planning and analysis of scenarios is now possible. To make this work, the planning tool is also the presentation tool used right in the planning session with the relevant managers attending. This requires, naturally, that refresh performance of the planning application is fairly instant. That is, when driver assumptions are changed, within seconds data are updated for revenues, expenses, headcount at the lower levels with automatic rollups to the P&L, balance sheet and cash flow as well. For additional perspectives, see also ***Guidelines for Agile Planning: Implement Scenario Analysis*** starting on page 48.

Driver-Based Planning at La Mancha Resources

Driver-Based Planning at La Mancha

"We're a gold mining company. Our planning is based on the 'physicals' of the business—the operational drivers of how you run a mine.

For example: to mine gold, we use explosives to break the ground and advance our mining meters. That means we need flexible and accurate models to forecast the cost of explosives, also called *ANFO*. Based on meters of mining advancement, diameter of drill holes, drill patterns and depth, you get a handle on how many tons of ANFO you need to buy each month. In the example, ANFO spending of $38,867 for May (35.43 tons @ $1,097 per ton) flows directly into the P&L and Balance Sheet financial plan.

Another example. We buy huge equipments that cost millions of dollars — they're called *Jumbos*, *Loaders* and *Trucks* — and they often break down due to the environment they are operating in. We need models where production plans take in to account equipment capacities, availabilities and reliabilities that drive hours and dollar cost of maintenance. These variables need to roll up to spending and capital plans with updates of the P&L and Cash Flow. Financials need to be updated automatically and in real time when assumptions change.

We need to do the planning with an integrated system where the managers at the mines can build the models themselves and test the assumptions in real time. That's what they're doing. Lots of requirements here."

Brett Fordham, Commercial Manager, La Mancha Resources

		May 2011		
		Units	Rate	Amount
Planning Detail				
FL Physicals				
Development				
- Assumptions				
Operating Dev (m)	URA			297
Capital Dev (m)	URA			139
Dev Total (m)	Form			436
Operating Dev %	URA	297	436	68.1 %
Capital Dev %	URA	139	436	31.9 %
Cuts Operating	URA	297	3.5	84.9
Cuts Capital	URA	139	3.5	39.7
Cut Length (m)	URA			3.5
Holes /Cut Operating	URA			60
Holes /Cut Capital	URA			80
Hole Diameter (mm)	URA			45
- Explosives				
ANFO Density (t/m3)	URA			0.8
ANFO Wastage	URA			2.0 %
Charge Length (m)	URA	3.5	94 %	3.3
ANFO/Hole (t)	Form			0.00420
ANFO/Cut Operating (t)	URA	60	0.00420	0.2520
ANFO/Cut Capital (t)	URA	80	0.00420	0.3360
ANFO (t)	Form			35.43
ANFO Total	URA	35.43	$ 1,097	$ 38,867

		May 2011		
		Units	Rate	Amount
Capacity				
Jumbo Capacity				
- Assumptions				
Dev Blasthole (m)	URA	3.5	108 %	3.8
Reamers /Cut	URA			5.0
Bolts /Cut	URA			25
Dev Bolt Hole (m)	URA			2.8
Operating Blastholes	Form			5,943
Operating Bolt Holes	Form			2,123
Operating Drilling (m)	Form			24,709
Capital Blastholes	Form			3,573
Capital Bolt Holes	Form			993
Capital Drilling (m)	Form			14,573
Drilling Required (m)	Form			39,282
Jumbos Required	URA	39,282	20,000	2.0
Planned Jumbos	Form			2
Drilling /Jumbo (m)	URA	39,282	2	19,641
Penetration Rate (m/hr)	URA			50
Percussion Hours (hr)	URA	19,641	50	393
Start Hours	XT	1,100	1	1,100
End Hours	Form			1,493
Jumbo Capacity (m/mth)	URA			20,000
Overcapacity Threshold	URA			15 %

Implementation Guidelines

The following are guidelines for implementing driver-based planning which include obvious recommendations from previous sections:

- ✓ **Move to a Planning Application** Except in very small organizations, you cannot do robust driver-based planning in spreadsheets. In evaluating planning applications, be sure you can easily model units, rates and amounts (the fundamental structure for driver-based planning) and make sure that the modeling interface is object based.
- ✓ **Get Coaching from the Software Vendor** The company that sells you the planning package should have competent staff to jumpstart your adaptation of the software to driver-based planning. During the sourcing process, ask the vendor to show you examples of driver models they have built.
- ✓ **Build Models with the Operational Teams** Whether Finance has the skill set or not, driver models connecting operational elements of the business—e.g. Marketing, Sales and Production—should be built with the participation of the line managers who will use and benefit from the models. The two models at La Mancha highlighted in the panel on the previous page (ANFO and Jumbo capacity) were built by the operations team in just a few hours.
- ✓ **Build Models Incrementally** Driver models can be built and connected into the financial plan structure on a one off, incremental basis—that is, you do not need to create a driver-based model for an entire organization as one large project before gaining benefits. As well, as models are developed incrementally over time, the Finance and operational teams gain experience, the modeling process moves faster, and the models get better.
- ✓ **Target Large Block Headcounts** Frequently, the easiest driver models to develop with a large return in Business Value are single track models for headcount. Target the models for departments with large numbers of similar positions doing similar work—e.g. a call center, a professional services group, sales teams, etc. Usually the managers of such organizations understand the headcount drivers and utilization issues and can trace through the variable cost impacts—e.g. salaries, benefits, travel, communication costs, etc.
- ✓ **Apply the 80-20% Rule to Replicated Models** While replicated models are a powerful tool, they should be used judiciously when applied to complex dimensions. For example, it would bog down a forecast system and make it less agile if a customer model, requiring ten inputs each, were replicated across 1,000 customers.* That's too many inputs and defeats the level of detail principles discussed earlier—see *Guidelines for Agile Planning:* ***Reduce Level of Detail*** on page 29.

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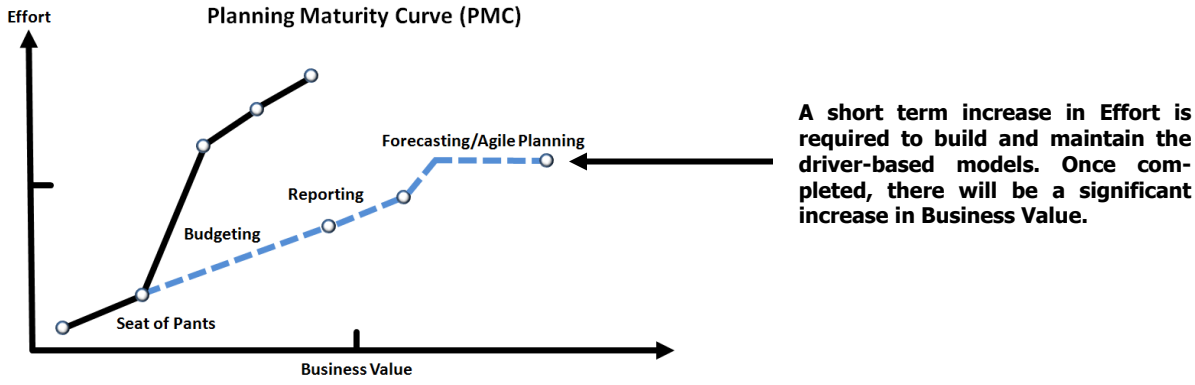
* OLAP (Online Analytical Processing) databases such as Oracle's Essbase and Microsoft's Analysis Services are excellent tools for analyzing *actuals* data and transactions across thousands of dimension members—e.g. customers or products. This is the foundation for what is called business intelligence—aka BI. Volumes of data in BI for actuals are to great for budgeting and forecasting.

Driver-based models need to be designed, tested and maintained which will require a short step up in Effort on the maturity curve. However, implementing driver-based planning will substantially reduce the level of Effort for planning and reporting and increasing Business Value. Once you get started, it will become obvious that implementing driver-based planning will move you faster into true Agile Planning than any other recommendation in this research paper. Here's the picture:



4. Integrate (Don't Just Import) Actuals

While difficult to measure, ***Integrating Actuals*** surely moves us right on the Planning Maturity Curve enhancing Business Value. Without substantive integration of actuals and the lessons learned from both operational and financial histories, we're just guessing in our financial plans about what's working and what's not.

Import Versus Integrate

The processes for importing and integrating data from outside sources into a planning/reporting application is called ***ETL*** (Extract, Transform, Load). High end performance management systems such as Hyperion Planning, Cognos Planning and BPC include robust ETL capabilities. Mid-market applications include ETL as well, but most have limitations.

Here are the basic definitions for import versus integrate, which are important for understanding and evaluating ETL and modeling tools in various packages:

- **Import Actuals** For simple budgeting, the focus is on importing actuals from the general ledger (GL):
  - ✓ The import updates GL 'metadata'— i.e. the chart of accounts string for company ID, department, cost center, natural class account, etc. Updates include error checking for duplicates, missing information, bad formats and the like.
  - ✓ The import then moves numeric data from the GL into the planning application for time periods selected. This is generally done by manipulating a trial balance for whatever subset of accounts the planning/reporting application is designed. This can be everything for all financial statements and companies, or for a subset—e.g. just the P&L or specific entities.
  - ✓ The process is automated using 'connectors' or semi-automated (meaning a human being intervenes by clicking commands) using Excel or specialized ETL tools.
- **Integrate Actuals** The definition goes substantially beyond GL import. Here are the parameters:
  - ✓ **Any Source** The planning and reporting application supports updating metadata and data feeds from any source, not just the GL. Typical additional sources include ***HR*** (human resources) systems; ***CRM*** (customer relationship management) databases; ***S&Op*** (sales and operations planning) systems; ***RDBMS*** (relational databases); and ***OLAP*** (online analytical processing) systems.
  - ✓ **Any Data Type** The data from any source can be any type relevant to the planning and reporting requirements. For example, text data for notes; text data for metadata and line item descriptors; numeric data formatted as numbers, currency or percentages; and numeric data identified as units, rates or amounts for driver-based planning.
  - ✓ **Any Level** A data refresh can go to any level in the planning application—e.g. line item detail, natural class accounts, or cost center/department totals. Bringing in operational or financial data to any level is integral to being able to compare actuals and plan apples-to-apples.

- ✓ **Any Modeling** Actuals data for any source or number type can be modeled within the planning application—that is, manipulated mathematically with links to other line items and with back calculations of data (e.g. rates).

Robust, high end performance management systems can do all of the above. It's only a matter of time and money. Mid-market planning and reporting applications may be limited in one or several of the above areas. It's called ***apples-to-apples***.

The Problems with Actuals

Finance staffs spend endless hours with databases, spreadsheets and other tools integrating actual and plan data for budget and forecast templates, financial reporting, graphs and other purposes. This is the least fun activity finance people can do. The fundamental driving issue is ***apples to apples*** comparisons of actual and plan data, especially for budget reporting.

Here are the problems:

- ✓ **Data Spread Across Multiple Sources** Versatile Excel is the old school vehicle for data integration and reporting. However, normalizing data structures and importing to Excel consume major Finance *and* IS resources and often increase the risk of errors. While technology is improving for integrating into Excel (e.g. ODBC), nonetheless much of the job is done by manual rekeying which is painfully slow and error prone.

- ✓ **Actuals and Plan At Different Levels** Actuals financial data is readily available from the GL at the natural class account level. By contrast, budgets and forecasts are often appropriately developed with line items below the natural class account—e.g. T&E for Asia customers, T&E for user conferences, etc.—based on each manager's planning perspective. Therefore, actual and plan data can be at ***different levels*** with obvious comparison problems.

- ✓ **No Underlying Activity Drivers** It's not just about the dollars. Meaningful planning and analysis requires digging into the underlying drivers and rates that cause dollars to be spent. For example, call center headcount and salaries are substantially driven by call levels. Too often the driver data for either or both actual and plan are not available or too difficult to pull together from disparate databases. This is a recurring theme of this research paper. The distinction is that organizations should have visibility into drivers for actuals as well as plan data—especially underlying rates which are difficult to isolate for actuals because they are not natively calculated in resident databases.

- ✓ **Actual and Plan Structures Out of Sync** New products, cost centers and accounts are frequently added to the chart of accounts. Rolling forecasts result in new line items being added to the planning application. Maintaining actual and plan structures to keep data in sync is a continuing job. The issue is also the root of most data integrity issues—bad maintenance means bad numbers and incompatible comparisons.

- ✓ **Actuals Not Integrated with Forecast** Once actuals performance is understood, the forecast should be adjusted accordingly for material items. However, frequently there is no straightforward mechanism for incorporating the actuals findings into a forecast. For example, a product manager realizes actual average price for a product is not reflected in the rolling forecast. The problem: the mechanics for doing so are not set up in the planning interface —i.e. there is no easy interface for integrating actuals with plan.

Implementation Guidelines

How Finance can deal with the problems of integrating actuals is laid out in the recommendations that follow:

- **Actual *and* Plan Line Items Below Natural Class Accounts** How managers think is how managers should be able to plan. Invariably, that means planning structures need to include the capability for users that can be trained and trusted to add line items below natural class accounts. Letting managers plan below the account level encourages more detailed and relevant data, more meaningful and logical thinking, and capture of information that would otherwise be lost in non-linked spreadsheets or scratch notes.

  The same mentality should carry over to reporting of actuals. For the most important items—e.g. detail of product sales, headcount or major spending items— actuals reports should be set up to capture the relevant line item detail from the CRM, personnel or general ledger. Below is an example of actual and plan line item detail for actuals and plan:

	Jan 2011 Act	Feb 2011 Act	Mar 2011	Apr 2011
Sales				
Compensation [6100]	$ 47,150	$ 53,452	$ 62,995	$ 66,293
Commissions [6103]	$ 16,300	$ 19,790	$ 21,788	$ 19,664
PR Taxes & Benefits [6105]	$ 11,665	$ 11,770	$ 13,897	$ 13,953
Travel & Entertainment [6120]				
Regular Sales Travel	$ 36,500	$ 28,500	$ 32,500	$ 32,500
T&E Conferences	$ 5,400	$ 2,850	$ 3,000	$ 3,000
Travel & Entertainment [6120] Plug	$ 1,600	$ 1,500		
Total Travel & Entertainment [6120]	$ 43,500	$ 32,850	$ 35,500	$ 35,500
Total Sales	**$ 118,615**	**$ 117,862**	**$ 134,180**	**$ 135,410**

The focus is on T&E for the Sales department. Both actuals data (Jan, Feb) and plan data (Mar, Apr) have line items below the natural class account Travel & entertainment [6120] and incorporate an apples-to- apples comparison. Shaded cells for actuals are imported from the GL including the account total for 6120. The line item 'Travel & Entertainment [6120] Plug' reconciles the imported actuals total with the line item detail which is either imported or manually entered for material items.

- **Modeling for Actuals Reporting** Every line item in a plan *and* each corresponding actual financial result potentially have an underlying relationship waiting to be modeled. For planning, the simplest expression of this is the Unit * Rate = Amount structure. Again, the T&E example where T&E is driven by headcount:

Units * Rate = Amount
13 plan heads * $2,500 T&E per head
= $32,500 for Sales T&E

For actuals, the driver formulation using units and rates is reversed:

Amount / Units = Rate
$28,500 for Sales Travel / 11 actual heads
= $2,591 T&E per head

To get actual and plan data apples-to-apples, the planning application should include the capabilities for linking to other actuals data and back calculation of actual rates as shown below.

	Feb 2011 Act			Mar 2011		
	Units	Rate	Amount	Units	Rate	Amount
Sales						
Compensation [6100]			$ 53,452			$ 62,995
Commissions [6103]			$ 19,790			$ 21,788
PR Taxes & Benefits [6105]			$ 11,770			$ 13,897
Travel & Entertainment [6120]						
Regular Sales Travel	11.00	$ 2,591	$ 28,500	13.00	$ 2,500	$ 32,500
T&E Conferences			$ 2,850			$ 3,000
Travel & Entertainment [6120] Plug			$ 1,500			
Total Travel & Entertainment [6120]			$ 32,850			$ 35,500
Total Sales			**$ 117,862**			**$ 134,180**

The actual rate of spending of $2,591 for Sales Travel in Feb is constructed by importing the Amount $28,500 from the general ledger, linking Units to the actual Sales Rep heads, then back calculating the rate value which equals $2,591. This is an example of modeling actuals data with linking and rate calculations.

- **Financial and Operational Comparisons** The most fundamental financial analysis activity is comparing actual and plan data, both for computing variances between them and for identifying actuals trends that should be spread into or reflected in plans. The analysis is typically one of three stories:

  - ✓ What targets are we hitting and what are we missing—e.g. sales for specific products, headcount, spending items, capital utilization, etc? Variance analysis and actuals trends give us information we can act upon to change behaviors and refocus current resources.

  - ✓ What important assumptions underlying future plans are being proved or disproved from current experience—e.g. product mix, utilization rates, efficiencies, etc.? Apples-to-apples visibility of actual and plan data gives us information we can use to tune forecasts and underlying strategies.

  - ✓ What problems do we have in our accounting and/or planning systems that are generating bad or false information—e.g. CRM sales statistics not tying with the general ledger or expense budget errors and omissions? Further research on variances or inconsistent trends often reveal system deficiencies.

The exciting result of planning and reporting with a unit/rate/amount architecture and being able to model actuals line items is that the benefits of traditional variance and trend analyses are now extended to ***operational activities*** as well as financial impacts. Fundamental "rates" of the business—e.g. customer conversion rates, productivity rates, utilization rates, any type of activity measure—are revealed—with actuals as performance measures, and with plan as key assumptions that can be examined and adjusted in light of actual results.

In the examples below, the unit/rate/amount architecture and modeling of actuals laid the groundwork for comparing actual and plan data apples-to-apples and for identifying actual trends to incorporate into plan.

Key Measures	Type	Jan 2011 Act	Jan 2011
- Activity Measures & Ratios			
Total Licenses Units	Amt	142	180
Consulting Hours	Units	1,950	2,520
Total Headcount	Units	65.00	69.00
Sales per Head Annual	Amt	$ 170,696	$ 170,174
Sales per Rep Annual	Amt	$ 614,288	$ 617,143
Customer Avg Sales	Amt	$ 6,511	$ 5,436
Customer Acquisition Cost	Amt	$ 2,152	$ 1,594
Current Ratio	Amt	2.8	2.9
Debt to Equity	Amt	0.392	0.374
Percent Gross Margin	Amt	68.5 %	65.5 %

Jan Actual and Jan Plan data are compared side-by-side for a range of operational measures and financial ratios.

Key Measures	Type	Jan 2011 Act	Feb 2011 Act	Mar 2011	Apr 2011
- Consulting Model					
Software Licenses	Units	59	86	100	69
Software Licenses	Units	38	56	50	50
Software Licenses	Units	45	59	60	60
Total Licenses Units	Amt	142	201	210	179
Consulting Customers	Rate	60 %	50 %	70 %	70 %
Consulting Customers	Amt	85	101	147	125
Consulting Billed Hours	Rate	23	23	20	20
Consulting Billed Hours	Amt	1,950	2,300	2,940	2,500
Consulting Staffing Hours	Rate	75 %	89 %	80 %	80 %
Consulting Staffing Hours	Amt	2,595	2,595	3,675	3,125
Consultants	Units	15.00	15.00	21.00	18.00
Consulting	Amt	$ 321,388	$ 395,714	$ 498,750	$ 424,500
Consulting	Amt	$ 196,840	$ 214,463	$ 286,243	$ 254,342
Consulting Margin	Amt	$ 124,548	$ 181,251	$ 212,507	$ 170,158
Consulting Margin Percent	Amt	38.8 %	45.8 %	42.6 %	40.1 %
Consulting Bill Rate	Amt	$ 149	$ 152	$ 150	$ 150

The screenshot shows line items for a driver model that forecasts consulting revenues and expenses. The format lays out actual and plan data side-by-side revealing trends in actuals that the planner may choose to incorporate into the plan, or not. Note the underlined line item which is a conversion rate—i.e. the percentage of customers who buy consulting services. Jan and Feb actual conversion rates of 60% and 50% do not support the forecast rate of 70%, an important conclusion from the analysis.

- **Volume/Rate Causal Analysis** A major benefit of a unit/rate/amount architecture is the ability to do volume/rate causal analysis, the mother of all variance analyses practiced in most Fortune 500 companies, especially in manufacturing operations.

  Causal analysis answers the generic question: how much of the total dollar variance amount is due to a variance in the underlying unit volumes versus a variance in the underlying rate. The following are examples of questions that can be answered only through volume/rate analysis.

  > *The total variance in sales for Product A is $40,500. How much of that variance is because unit volume was higher or lower versus a higher or lower selling price?*
  >
  > *Year to date headcount is up 15% over plan. What's the financial impact of the headcount increase excluding salary adjustments?*

  The power of causal analysis is demonstrated in the example below along with the specific formulas for doing the calculations.

	Jan Act			Jan Plan			Causal		
	Units	Rate	Amount	Units	Rate	Amount	Units	Rate	Amount
Gross Sales									
USA							2.	3.	1.
Software USA									
Software Licenses	20	$ 4,625	$ 92,500	30	$3,000	$ 90,000	$ (30,000)	$ 32,500	$ 2,500
Advanced Upgrades	16	$ 1,219	$ 19,500	10	$1,500	$ 15,000	$ 9,000	$ (4,500)	$ 4,500
Subcription Updates	68	$ 10	$ 650	30	$ 20	$ 600	$ 760	$ (710)	$ 50
Total Software USA			$ 112,650			$ 105,600	$ (20,240)	$ 27,290	$ 7,050
Services USA									
Consulting	70	$ 136	$ 9,525	150	$ 150	$ 22,500	$ (12,000)	$ (975)	$ (12,975)
Tech Support	$ -	0%	$ 11,500	$ 73,920	15%	$ 11,088	$ (11,088)	$ 11,500	$ 412
Training	23	$ 1,457	$ 33,500	20	$1,500	$ 30,000	$ 4,500	$ (1,000)	$ 3,500
Total Services USA			$ 54,525			$ 63,588	$ (18,588)	$ 9,525	$ (9,063)
Total USA			$167,175			$169,188	$ (38,828)	$36,815	$ (2,013)

Example of Volume/Rate Causal Analysis

1. The total variance for the Software Licenses, January actual versus plan, is favorable $2,500. However, the devil is in the details.

2. There is an unfavorable volume variance of $30,000 due to lower license unit sales. The causal analysis formula for this volume variance is: (20 units actual – 30 units plan) * $3,000 plan price.

3. There is an offsetting favorable rate variance of $32,500 due to a higher actual average price for Software Licenses. The causal analysis formula for this rate variance is: ($4,625 actual price - $3,000 plan price) * 20 actual units.

While the example above is based on revenue line items, the most traditional use of volume/rate analysis, these calculations can be applied to any type of line item anywhere in a financial plan if supported by the planning applications—e.g. to isolate volume/rate impacts for headcount, expenses, foreign currency, working capital, capital spending, etc.

4. Implement Scenario Analysis

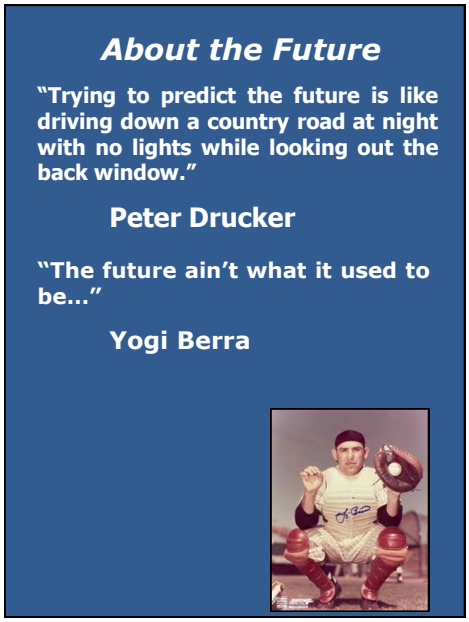
Budgeting is about managing versions, not scenarios. As the budget is developed, Finance keeps track of versions to understand who changed what and to make sure the right amounts are approved. Like the lawyers who shred old versions of marked up documents as new ones are approved, once a new budget version is OK'd, there's rarely a need to look back at the old numbers or change them.

Scenario analysis is about understanding what's behind the numbers—the most critical assumptions, volume and rate impacts, and especially what's driving material changes to the P&L and cash flow. Unlike budgeting where versions are strictly controlled, the nature of scenario analysis results in a natural proliferation of scenarios where accountability for specific numbers may be obfuscated.

If you can't predict the future, which none of us can, the next best thing is to set up scenarios that let you explore how you might behave (or decide) if things are better, worse or just different.

Unfortunately, as we saw in the section ***Forecasting: Test Target Achievement***, forecasting is still too much like budgeting, using the same templates and with goals that include confirmation of target achievement and forecast accuracy. If the forecast process incorporates ranges or any type of scenario analysis—e.g. best estimate, high and low— the exercise is generally not taken seriously, or the high/low ranges are too tight or structured to be of any real help.

Our views of forecasting are very different. We believe that forecasting should become an agile planning process that moves beyond the narrow objectives of confirming target achievement and forecasting accuracy. Antithetical to these objectives, forecasting should be about scenarios, lots of them. If you can't predict the future, which none of us can, the next best thing is to set up scenarios that let you explore how you might behave (or decide) if things are better, worse or just different.



Types of Scenario Planning

The deliverables of scenario analysis are ***insights*** and ***actionable knowledge***, key elements of our definitions of Business Value on the Planning Maturity Curve. By analyzing a scenario and comparing it to a baseline case or other scenarios, the management team is better able to understand what's happening in the numbers and evaluate best courses of action.

Where there is an immediacy to the issue—e.g. to proceed with a capital project or change pricing—the deliverable is also ***decision making***, another fundamental of Business Value on the curve. In short, because it is decision and action focused, robust scenario analysis is a critical underpinning for forecasting that should incorporate agile planning practices.

There are three basic categories of scenario planning with lots of variations in between. These include:

1. **Manage Resource Allocations** Marketplace assumptions about volumes, pricing, product mix, capacity and the like have immediate impacts on resource allocations, both P&L impacts and capital requirements, that should be incorporated into management's thinking and forecasts.

   ✓ With well constructed driver-based models, the resource impacts of marketplace changes can be tested and confirmed with scenario analysis—e.g. the impact of various volumes levels on services or support staffing; or the impact of the timing of product introductions on inventories, receivables and production capacity.

   ✓ Where the financial model is integrated with operations, the interaction of resource planning between departments and for overall infrastructure can also be tested and confirmed with scenarios—e.g. how across the board changes in headcount impact rent space or how revenue plans impact capacities.

   Below is an example of a scenario analysis that compares the revenue and related spending resource impacts of alternative plans in response to marketplace changes.

	Baseline	Do Nothing	Meet Price	Abandon
Revenues	1.	2.	3.	4.
Software	$ 5,067,753	$ 4,881,703	$ 4,807,653	$ 4,134,453
Support	$ 720,948	$ 697,362	$ 696,284	$ 632,446
Consulting	$ 3,270,180	$ 3,135,220	$ 3,270,180	$ 2,708,660
Total Revenues	$ 9,058,881	$ 8,714,285	$ 8,774,117	$ 7,475,559
Net Revenues	$ 9,058,881	$ 8,714,285	$ 8,774,117	$ 7,475,559
Cost of Goods Sold				
Services & Support	$ 1,780,365	$ 1,710,966	$ 1,780,365	$ 1,488,543
Total Cost of Goods Sold	$ 1,780,365	$ 1,710,966	$ 1,780,365	$ 1,488,543
Gross Margin	$ 7,278,516	$ 7,003,319	$ 6,993,752	$ 5,987,016
Operating Expenses				
Administration	$ 1,158,607	$ 1,158,683	$ 1,171,223	$ 1,026,150
Marketing	$ 1,088,183	$ 1,102,772	$ 1,127,822	$ 968,025
Sales	$ 2,013,348	$ 2,048,923	$ 2,147,779	$ 1,516,463
Product Development	$ 802,776	$ 799,530	$ 802,776	$ 789,222
Total Operating Expenses	$ 5,062,914	$ 5,109,908	$ 5,249,600	$ 4,299,860
Operating Profit	$ 2,215,602	$ 1,893,411	$ 1,744,152	$ 1,687,156

The business problem is that the company's main competitor has cut prices by 30% in a key market segment. To the left are P&Ls for four alternate scenarios compared side-by-side:

1) *Baseline* is the forecast for the current year before taking action;

2) *Do Nothing* is the impact of keeping price steady but losing volume;

3) *Meet Price* is the impact of cutting price to meet the competitor; and

4) *Abandon* is the impact of leaving the market segment altogether.

In all cases, the driver model ripples through Services and Sales headcount staffing as volumes and pricing change.

2. **Strategic Plans/Programs** Until now, we've not talked about Strategic Planning as a separate activity. The protocol in many large organizations is to separate strategic planning as a process from operational budgeting and forecasting. This frequently results in fumbling, miscommunication and lost time as Finance and line managers try to reconcile the gap between strategic assumptions and operational budgets which are developed at different levels of detail using different methodologies.

   In our view, strategic planning should be done using the same planning tool, financial models, and processes as forecasting/agile planning incorporating the same (or similar) structures and operational drivers. To make this work, there are two qualifiers:

   - ✓ **Time Periods** Strategic planning often requires a longer term perspective than operational plans. The planning horizon frequently needs to be extended beyond that of a normal rolling forecast—e.g. from an 18 month rolling plan to 36 months. With appropriate driver structures and "spread tools" which most planning applications include, incorporating additional time periods should be straightforward. This solution would not work, of course, if the strategic horizon needs to be a much longer term—e.g. five to twenty years as is normally the case in capital intensive industries such as energy production and infrastructure construction.
   - ✓ **Specialized Structures** Strategic planning may require specialized structures within the forecasting model —e.g. creating new product categories, departments or dimensions not otherwise in the baseline model. With line item detail in planning packages, however, adding incremental structures to capture and test strategic issues should be easily accommodated.

   This short discussion of strategic planning and relative time frames under serves the topic. For industry analysts such as Craig Schiff at ***BPM Partners*** and Steve Player with the ***Beyond Budgeting Movement,*** the holy grail of planning is how to integrate longer range strategic planning with short term operational plans.

3. **Black Swan Planning*** Taken from Nassim Taleb's book *The Black Swan: The Impact of the Highly Improbable,* this type of planning is about risk assessment—i.e. building financial models and testing scenarios of extreme cases which could have unanticipated impacts that jeopardize survival of the organization.

   The financial crisis in late 2008/2009 and its impact on capital markets was a Black Swan event that threatened many organizations. Black Swans can be industry specific as well. The abrupt shutdown of Siegfried and Roy's Las Vegas show, a $100 million business, after the tiger attack was a Black Swan event for MGM Mirage which stressed the balance sheet immediately. Finally, Mother Nature creates Black Swan's such as the earthquake and tsunami in Japan.

* Go to ***http://ie.arcticfoxtv.com/224/planning-for-black-swans*** to view a webinar by the author titled *Planning for Black Swans.*

The objective of Black Swan planning is to test the magnitude of financial impacts, especially on the balance sheet and cash flow, of potential threats or events that are normally seen as not very probable. There are two basic purposes: 1) specific contingency planning—e.g. what would you do if a Blank Swan event occurred? and 2) redundancy planning—where should you expend resources now to cushion against a specific type of Black Swan event that might occur.

Black Swan planning is very messy but should be on Finance's list. To get there, you need financial models with substantial driver-based planning capabilities and explicit balance sheet modeling which should be easy to do with the right planning application.

Implementation Guidelines

As with driver-based planning, you need to make sure the planning application you move to supports robust scenario analysis. Such functionality is substantially different from simple version control tools in budgeting packages. Here are the guidelines:

- **Scenarios Are Easy to Create** Unfortunately with some large scale performance management packages, creating scenarios becomes an IS project—i.e. Finance needs to go to IS to add or delete scenarios—clearly not a workable situation for Agile Planning. Here are the simple things that you need as Finance or as the plan administrator:
  - ✓ You can rapidly create scenarios on-the-fly—e.g. in less than a minute— and start making changes with no IT dependency. Same thing with deletions; it's quick and easy to kill scenarios that are no longer needed.
  - ✓ You can set up scenarios for line managers to use in the planning process. Included here is the ability to selectively choose which scenarios from line managers to incorporate (or not) into a consolidated plan.
- **Scenarios Are Easy to Maintain** With budgeting, versions typically do not require ongoing maintenance; again, old versions are superseded by new ones. Scenarios typically do require maintenance because the idea of scenarios is to test multiple input assumptions and structures in a variety of combinations. Therefore:
  - ✓ The planning application should support adding and deleting line items across selected scenarios in a single operation. Calculation and update of financials after structure changes should take only a minute or two.
  - ✓ The planning application should support making input changes to multiple scenarios in one operation. This is a major problem with spreadsheets where scenarios are created by ***Save As*** operations. Changing an input across scenarios—e.g. increasing monthly rent in three out of six scenarios— involves opening up multiple spreadsheet workbooks as separate operations. Tedious maintenance kills scenario planning.

- **Scenario Drill Down** Budgeting focuses on amounts in accounts. Agile planning is about understanding differences between scenarios at any level of detail. Therefore:

  - ✓ You should be able to analyze and compare scenarios starting from financial statements and drilling down through all levels—e.g. through products, departments and accounts to the line item level where assumptions are input and modeling occurs.

  - ✓ Where the underlying data or links are available, scenario comparisons should reveal variances in underlying unit activity drivers and rates.

  - ✓ As shown in the example on page 49, you should be able to display multiple scenarios side-by-side, also with scenario drill down to any level of detail.

	2011 Scenario A	2010 Baseline Fcst	Variance
Gross Sales			
Software	$ 7,792,306	$ 6,867,400	$ 924,906
Services	$ 8,288,292	$ 8,552,360	$ (264,068)
Total Gross Sales	$ 16,080,598	$ 15,419,760	$ 660,838
Net Sales	$ 16,080,598	$ 15,419,760	$ 660,838
Cost of Sales			
Software	$ 468,954	$ 381,827	$ (87,127)
Consulting	$ 3,183,391	$ 3,341,494	$ 158,103
Training	$ 165,710	$ 164,011	$ (1,699)
Support	$ 676,830	$ 671,107	$ (5,723)
Total Cost of Sales	$ 4,494,885	$ 4,558,439	$ 63,554
Gross Margin	$ 11,585,713	$ 10,861,321	$ 724,392
Operating Expenses			
Administration	$ 2,126,219	$ 2,144,164	$ 17,945
Marketing	$ 2,821,214	$ 2,630,315	$ (190,899)
Sales	$ 1,890,758	$ 1,786,115	$ (104,643)
Development	$ 1,415,438	$ 1,409,265	$ (6,173)
Depreciation & Interest	$ 230,418	$ 236,093	$ 5,675
Total Operating Expenses	$ 8,484,047	$ 8,205,952	$ (278,095)
Operating Profit	$ 3,101,666	$ 2,655,369	$ 446,297

Scenario Drill Down and Comparisons:

In the examples, forecast scenarios are compared to a baseline scenario with calculation of the variance.

The left panel is the P&L comparison of a forecast scenario to the baseline for the full year.

The lower panel, is the same comparison with "drill down" to the lowest level of revenue detail—i.e. to the line item level—and includes units, rates and amounts in the comparisons.

Note the highlighted totals which tie out between the two views.

	2011 Scenario A			2010 Baseline Fcst			Variance		
	Units	Rate	Amount	Units	Rate	Amount	Units	Rate	Amount
Gross Sales									
Software									
North									
Software Licenses	938	$ 2,211	$ 2,074,156	944	$ 2,170	$ 2,048,800	(6)	$ 41	$ 25,356
Advanced Upgrades	555	$ 1,501	$ 832,880	430	$ 1,500	$ 645,000	125	$ 1	$ 187,880
New Product X	680	$ 1,210	$ 822,500	-	$ -	$ -	680	$ 1,210	$ 822,500
Total North	2,173		$ 3,729,536	1,374		$ 2,693,800	799		$ 1,035,736
South									
Software Licenses	636	$ 2,217	$ 1,409,900	666	$ 2,170	$ 1,445,200	(30)	$ 47	$ (35,300)
Advanced Upgrades	322	$ 1,519	$ 489,180	303	$ 1,500	$ 454,500	19	$ 19	$ 34,680
Total South	958		$ 1,899,080	969		$ 1,899,700	(11)		$ (620)
West									
Software Licenses	752	$ 2,198	$ 1,652,910	797	$ 2,170	$ 1,729,400	(45)	$ 28	$ (76,490)
Advanced Upgrades	341	$ 1,498	$ 510,780	363	$ 1,500	$ 544,500	(22)	$ (2)	$ (33,720)
Total West	1,093		$ 2,163,690	1,160		$ 2,273,900	(67)		$ (110,210)
Total Software	**4,224**	**$ 1,845**	**$ 7,792,306**	**3,503**	**$ 1,960**	**$ 6,867,400**	**721**	**$ (115)**	**$ 924,906**
Services			**$ 8,288,292**			**$ 8,552,360**			**$ (264,068)**
Total Gross Sales			**$ 16,080,598**			**$ 15,419,760**			**$ 660,838**

- **Real Time Feedback** Whether you're a financial analyst working through the numbers late at night or the CFO answering questions live in an operations review, scenario analysis should be delivered by the planning tool in real or near real time. Here are the criteria:

  ✓ When you change an input assumption, all elements of the financial model—the P&L, balance sheet, cash flow, financial ratios, and performance metrics—should update in seconds, not minutes or hours.

  ✓ When you change a structure—e.g. adding line items or accounts— the model including roll-ups to financial statements should update in a couple of minutes or less.

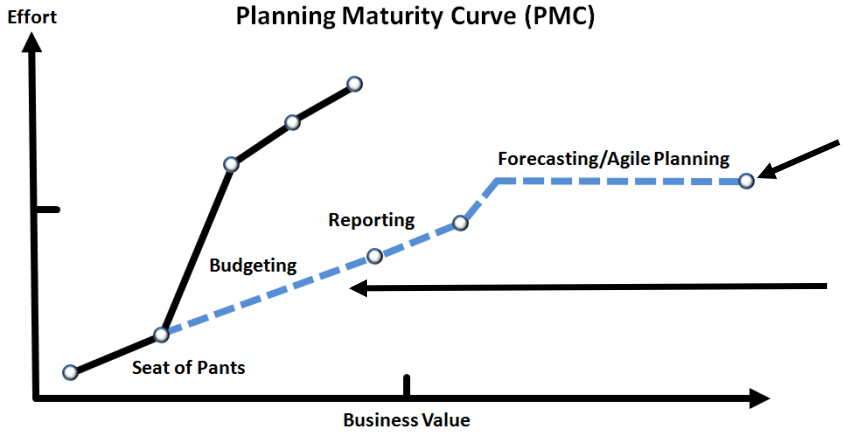
  In short, for true agile planning, scenario analysis must satisfy *the need for speed* we're used to with Excel. Scenario analysis must be an interactive process responsive to questions and testing of assumptions on-the-fly with tight feedback loops on the numbers.

Maturity Curve Summary

Below is our last look at the maturity curve. Implementing all five of our recommendations moves you all the way to the right in Business Value while reducing Effort. Our assessment is that planning man hours could be cut in half by implementing agile planning practices.

Again, the five recommendations are:

- ✓ Get out of Excel and move to a planning/reporting application.
- ✓ Reduce the level of detail across dimensions, especially natural class accounts.
- ✓ Implement driver-based planning focusing on operational drivers of the business.
- ✓ Integrate actuals including importing operational data and modeling of actuals.
- ✓ Implement scenario analysis for resource, strategic and Black Swan planning.



Implementing driver-based planning, integrating actuals and using scenario analysis requires some marginal Effort for Forecasting/Agile Planning but also moves you all the way to the right in Business Value.

Moving out of Excel and reducing level of detail substantially reduce Effort and marginally improve Business Value for Budgeting and Reporting processes.