

Hyperion Focus 17

Essbase for non-statutory operational reporting

Examples and experiences from the client base

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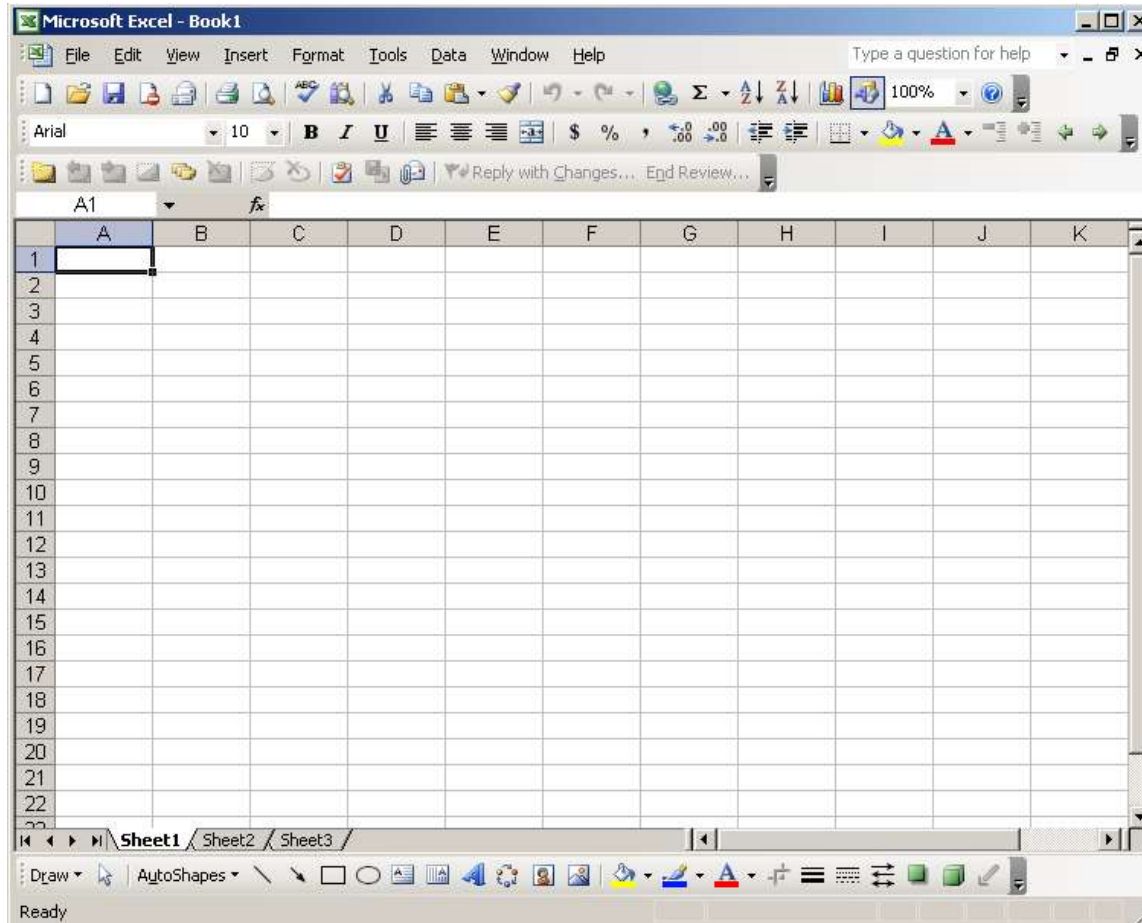
Agenda

- Outgrowing Excel
- Example Use Cases
- Benefits of using Essbase
- Considerations
- Conclusions



Most Modeling is Done Here!

It is the right tool, but...



- Disconnected
- Data Security Risks
- Error-prone
- Doesn't scale
- No controls / audit trails
- Multiple calculations
- Spreadsheets are inefficient for more than two dimensions



Business is more than “2D”

- We typically look at more than two dimensions (multi-dimensional)
- So what do we do?
 - » Add more column headers!
- In our example:
 - » “Total” Market BY “Total” Product, Actual Sales for Qtr1 = 95,820
- Creates HEADACHES!

Market

Product

Time

Measures

Scenarios

	B	C	D	E
1		Market		
2		Product		
3	Actual			Actual
4	Jan			Qtr1
5	31,538	Sales		95,820
6	<u>14,160</u>	<u>COGS</u>		<u>42,877</u>
7	17,378	Margin		52,943
8				
9	5,223	Marketing		15,839
10	4,056	Payroll		12,168
11	75	<u>Misc</u>		<u>233</u>
12	<u>9,354</u>	<u>Total Expenses</u>		<u>28,240</u>
13				
14	<u>8,024</u>	<u>Profit</u>		<u>24,703</u>
15				

Multi-Dimensional = Multi-Sheet...

	A	B	C	D	E
1			Market		
2			Product		
	A	B	C	D	E
1			South		
2			Product		
	A	B	C	D	E
1			Central		
2			Product		
	A	B	C	D	E
1			West		
2			Product		
	A	B	C	D	E
1			East		
2			Product		
3			Actual		Actual
4			Jan		Qtr1
5		6,780	Sales		20,621
6		<u>3,007</u>	<u>COGS</u>		<u>9,080</u>
7		3,773	Margin		11,541
8					
9		1,161	Marketing		3,521
10		865	Payroll		2,595
11		<u>15</u>	<u>Misc</u>		<u>45</u>
12		<u>2,041</u>	<u>Total Expenses</u>		<u>6,161</u>
13					
14		<u>1,732</u>	<u>Profit</u>		<u>5,380</u>

Market(s)



Multi-Sheet = Nightmare

- How about by Brand and by Market?
 - » 5 Brands BY 500 Properties = 2500 Sheets!
- What about by Location too?
- Welcome to “Spreadsheet Hell”

	A	B	C		A	B	C		A	B	C		A	B	C				
1			East	1			West	1			South	1			Central				
2			Colas	2			Colas	2			Colas	2			Colas				
3		A	B	C		A	B	C		A	B	C		A	B	C			
4	1			East	1			West	1			South	1			Central			
5	2			Root Beer	2			Root Beer	2			Root Beer	2			Root Beer			
6	3		A	B	C		A	B	C		A	B	C		A	B	C		
7	4	1			East	1			West	1			South	1			Central		
8	5	2			Cream Soda	2			Cream Soda	2			Cream Soda	2			Cream Soda		
9	6	3		A	B	C		A	B	C		A	B	C		A	B	C	
10	7	4	1			East	1			West	1			South	1			Central	
11	8	5	2			Fruit Soda	2			Fruit Soda	2			Fruit Soda	2			Fruit Soda	
12	9	6	3		A	B	C		A	B	C		A	B	C		A	B	C
13	10	7	4	1			East	1			West	1			South	1			Central
14	11	8	5	2			Diet Drinks	2			Diet Drinks	2			Diet Drinks	2			Diet Drinks



Outgrowing Excel

Authors	Year	Number Audited	Average Size (Cells)	Percent with Errors	Cell Error Rate	Comment
Davies & Ikin	1987	19		21%		Only serious errors
Cragg & King	1992	20	50 to 10,000 cells	25%		
Butler	1992	273		11%		Only errors large enough to require additional tax payments
Dent	1994	Unknown		30%		Errors caused by users hard-wiring numbers in formula cells. Henceforth, all future computations would be wrong.
Hicks	1995	1	3,856	100%	1.20%	One omission error would have caused an error of more than a billion dollars.
Coopers & Lybrand	1997	23	More than 150 rows	91%		Off by at least 5%
KPMG	1998	22		91%		Only significant errors
Lukasic	1998	2	2,270 & 7,027	100%	2.2%, 2.5%	In Model 2, the investment's value was overstated by 16%. Quite serious.
Butler	2000	7		86%	0.4%**	Only errors large enough to require additional tax payments**
Clermont, Hanin, & Mittermeier	2002	3		100%	1.3%, 6.7%, 0.1%	Computed on the basis of non-empty cells
Interview I*	2003	~36 / yr		100%		Approximately 5% had extremely serious errors
Interview II*	2003	~36 / yr		100%		Approximately 5% had extremely serious errors
Lawrence and Lee	2004	30	2,182 unique formulas	100%	6.9%***	30 most financially significant SSs audited by Mercer Finance & Risk Consulting in previous year.
Powell, Lawson, and Baker	2007	25		64%		11 of 25 spreadsheets contained errors with non-zero impacts. Among the ten spreadsheets with non-zero impacts for which error size was reported, all 10 had an error that exceeded \$100,000, 6 had errors exceeding \$10 million, and 1 had an error exceeding \$100 million.
Total since 1995		113		88%		

Panko Raymond R. (1998, Spring) What We Know About Spreadsheet Errors *Journal of End User Computing* (10/2) 15-21. Revised May 2008.

*In 2003, the author spoke independently with experienced spreadsheet auditors in two different companies in the United Kingdom, where certain spreadsheets must be audited by law. Each audited about three dozen spreadsheets per year. Both said that they had never seen a major spreadsheet that was free of errors. Both also indicated that about five percent of the spreadsheets they audited have very serious errors that would have had major ramifications had they not been caught. Audits were done by single auditors, so from the research on spreadsheet and software auditing, it is likely that half or few of the errors had been caught. In addition, virtually all of the spreadsheets had standard formats required for their specific legal purposes, so error rates may have been lower than they would be for purpose-built spreadsheet designs.

**The low cell error rate probably reflects the fact that the methodology did not inspect all formulas in the spreadsheet but focused on higher-risk formulas. However, error has a strong random component, so not checking all formulas is likely to miss many errors.

***Unlike other authors, Lawrence and Lee (2004) measured "issues" rather than only quantitative errors. This explains why the average "error rate" is higher than those seen in other studies.

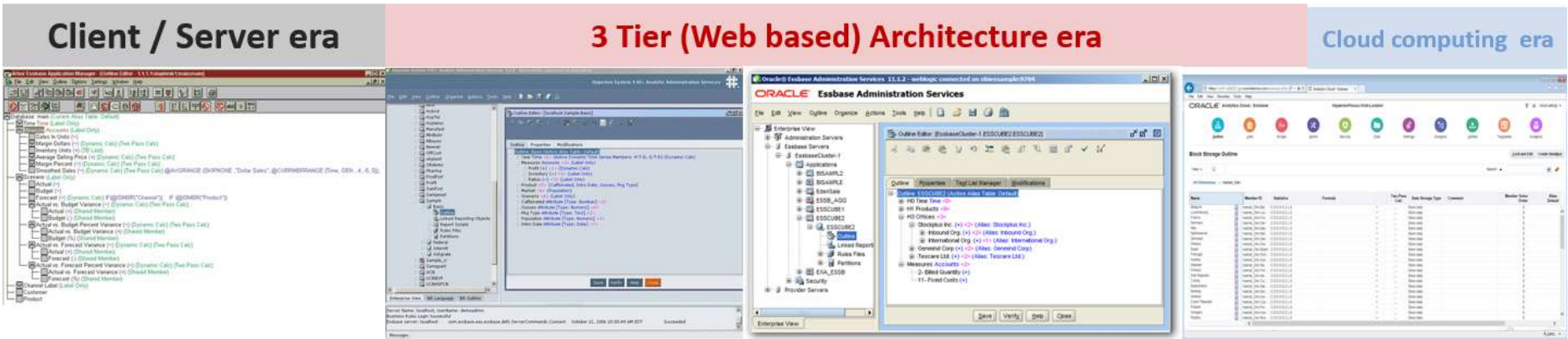


Outgrowing Excel

- Time to consider moving to a more robust solution when:
 - » Data becomes business critical
 - » Data Volumes grow
 - Numbers of calculated cells
 - Size of grid
 - Volume of data required to prepare the analysis
 - » Data availability becomes important
 - » When Excel becomes a “cottage industry” producing multiple similar reports
- Other potential Spreadsheet problems are:
 - » Uncontrolled
 - » Unarchived
 - » Not subject to coherent back up policy



The evolution of Essbase



- Essbase has been around for 28 years and has experienced countless facelifts & improvements
- In 2017, Essbase is still one of the most powerful analytics tool on the market



Essbase / Planning clients



PACIFIC LIFE RE



Handelsbanken

DE BEERS

FINANCIAL TIMES



John Lewis Partnership

PEARSON



StanleyBlack&Decker



GallifordTry plc



Harper Collins



YODEL



ORACLE Platinum Partner

ORACLE Gold Partner



Analytic Scalability Enterprise-wide

Sales & Marketing	Development & Delivery	Human Resources	Finance	Executive Management
		 <small>strategy and technology consultants to the world</small>	 <small>Healing health care. Together.™</small>	



Example Use Cases

- Profitability Cost Allocations
- Flash Reporting
- Risk Reporting
- Common Reporting (CoRep)
- Bonus Calculations
- Sales Reporting
- Airline Route/Capacity Planning
- Resource Planning
- Production Planning
- Materials Planning



Specific Use Cases

- Profitability Cost Allocations
 - » Major UK Retailer
 - » Replaced Excel models
 - » Sales and Driver data from Data Warehouse
 - » Income Statement from EBS/DRM
 - » Allocate Costs across 5 business dimensions including Channel and Fulfilment
 - » Provide for functionality to Weight drivers, manage Allocation Scope and allow user to select Driver.
- Flash Reporting
 - » UK Courier & Distributor.
 - » Replaced Excel based Flash reporting with enhanced reports .
 - » Loading data to Essbase using FDM, reduced time preparing and mapping data.
- Bonus Calculations
 - » UK Fund and Investment Manager
 - » Replaced Excel model calculating employee bonuses with Essbase model
 - » Model took into account performance, employment status & bonus tiers to calculate and forecast remuneration.



Essbase Sweet Spots

- Spreadsheet Hell
- Modeling / Looking into the Future
- Ad hoc Financial Analysis
- Profitability Analysis





Benefits of Essbase

- Essbase = Extended Spreadsheet Database
- Server based
 - » Data Integrity
 - » Managed Backups
 - » Automated Maintenance
- Multidimensionality allows multiple spreadsheets to be collapsed into single Essbase application
- Model can support more dimensions (within limits)
- Opportunity to eliminate/reduce spreadsheet errors
 - » Peer Review
 - » Design



Benefits of Essbase

- Familiar spreadsheet frontend available (SmartView / Excel Add-In)
- Spreadsheet-like calculation commands
 - » @SUM() - (Lotus 123/Essbase)
 - » =SUM() - (Excel)
- Aggregation functionality
 - » BSO
 - » ASO
 - » Hybrid BSO/ASO from 11.1.2.3.500 onwards
 - » Parallel calculations
- “One version of the truth”



Considerations

- Licensing
 - » Planning users will need full Essbase licence if using Essbase for applications other than Planning/Budgeting related.
- Design effort important in eliminating errors.
- Start small and expand.
- Design to answer a defined question; do not try to answer all questions at once.



Conclusions

- Essbase can be used to solve a wide variety of Business analysis and reporting problems that are currently in Spreadsheets.
- Provides “one version of the truth” and brings improved data security and traceability.
- One application can support multiple reports, and security can ensure that users only see the data that they should.



Essbase

- OLAP Database
 - » Dimensional “cube” of information
 - » The “By’s” of the company,
 - » How you “see” the Business
 - » Ability to “slice n dice” the data
- Essbase is commonly used to
 - » Combine multiple sources of disparate data
 - » Analyze summarized data
 - » Provide an intuitive data model
 - » “What If” and predictive analysis
 - » “Speed of thought”
 - » Satisfy the needs of a variety of users
 - Executives, managers, analysts & other business users
 - From power users to novices



Q&A



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Thank you

