

Smart View Report Automation

Utilizing Smart View VBA Functions



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Welcome

- Presenter: Jim Wilking
- HCG
 - Based in Minneapolis, MN
 - Leading provider of consulting, training, and product sales, tools and custom tailored applications for Business Intelligence software
 - Specializing in Oracle Hyperion EPM



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HCG Company Overview

Oracle BI/EPM Specialists

Consulting

- Oracle Certified Gold Partner
- Oracle BI and EPM
- Oracle BI Enterprise Edition Plus
- Custom tailored applications

Education

- Oracle Approved Education Center – Minneapolis, MN
- Oracle Approved Education Center – Phoenix, AZ
- Custom Training Solutions
- Onsite Training
- Live Virtual Training
- Self-Study Training
- Mentoring

Support and Development

- Oracle BI and EPM support
- System Health Check
- Essbase Add-Ons
- Custom tailored applications



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Questions

- Questions
 - Answered at the end of this presentation
 - Contact information for questions and follow-up will be provided at the end of this presentation



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Presentation Assumptions

- You have basic knowledge of Excel
- You have basic knowledge of Essbase and the Smart View add-in
- You want to understand how Smart View VBA functions can automate reporting

How do you produce 475 reports each month?

John

Associate Analyst



Suresh

Financial Analyst



Karen

Reporting Analyst



- All three analysts have the same basic end user Essbase access
- They do not have Essbase developer security rights
- They do not have access to EAS or other Essbase development tools

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Answer: Automate your Essbase reporting!

- Utilize the power of the built-in smart view VBA functions

What are Smart View VBA functions?

- Visual Basic for Applications (VBA) functions that enable you to automate common tasks
 - Connect to a database, retrieve, disconnect, etc.
- Included with Smart view
 - Used by a small portion of customers
 - Functionality is typically unknown and very underutilized

What reporting typically exists?

1. Manually update report templates created by others
2. Manually create reports yourself

What is report automation?

- No user interaction other than to press a button, check a box or make a selection
- Report content changes based on the user's action

Report Automation Options

1. Develop a reporting template from which you generate all the reports and distribute them to your users
2. Develop a reporting template from which your users make selections to create their own reports
3. Develop a fully automated reporting model to generate reports and distribute them to your users

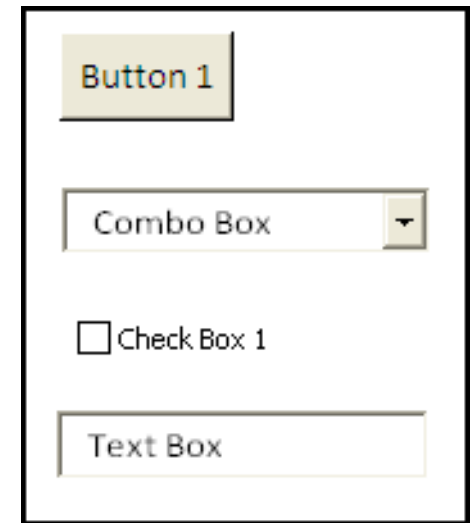
How is it done?

- Customize and automate Smart View reporting using:
 - Microsoft Excel
 - Utilized as the user interface and for the report output
 - Excel Macros
 - Stores a saved sequence of Excel menu commands and/or keystrokes
 - Performs commands like formatting, copying and inserting rows
 - Smart View functions (formerly the Smart View Toolkit) perform tasks like connect, retrieve, disconnect
 - Visual Basic for Applications (VBA)
 - The programming language used in Excel macros

Some Technical Details

Excel Controls Trigger Actions

- Excel controls are things like command buttons, combo boxes, check boxes, text boxes, etc.
- Excel controls:
 - Allow the user to make selections
 - Change the contents of the report
 - Can be assigned to a macro to perform a desired action



Smart View VBA Functions In Action



John

Associate Analyst

- 2 years of experience, new in role
- New to Essbase
- Familiar with Excel
- Responsible for department reporting
- Goal is to reduce manual steps needed to produce his reports

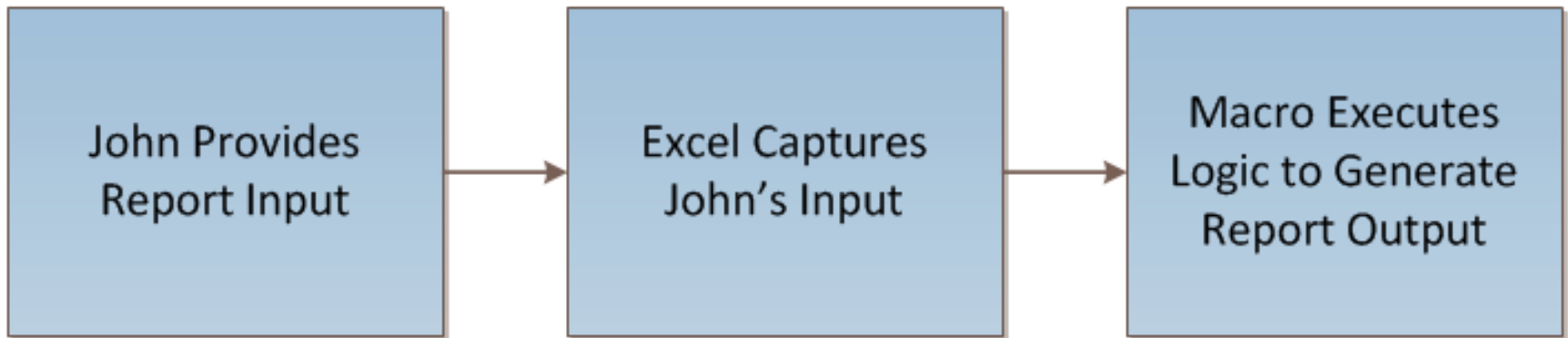
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How John utilizes Smart View VBA functions

- Designed a reporting model in Excel
 - Created a simple menu to pick the desired report parameters
 - Applied the required formatting using Excel
- Utilized Smart View VBA functions to automate:
 - Essbase Connection
 - Essbase Retrieve
 - Essbase Disconnect

Logic Flow for John's Automation



Smart View VBA Functions in John's Model

1. HypConnectToAPS
2. HypConnect
3. HypSetGlobalOption
4. HypSetSheetOption
5. HypRetrieveRange
6. HypDisconnect
7. HypDisconnectFromAPS

John's Report Automation Demo

Excel Menu

Month

Market

Report Output

Product Performance Report												
West												
DEC												
	Sales		Profit		Profit %	%	Margin		COGS		Inventory	
	Actual	Budget	Actual	Budget	Actual	Actual	Actual	Budget	Actual	Budget	Actual	Budget
Colas	2,293	2,670	223	530	9.73	48.28	1,107	1,330	1,186	1,340	15,765	16,430
Root Beer	2,868	2,700	820	860	28.59	55.79	1,600	1,510	1,268	1,190	13,002	12,050
Cream Soda	3,065	2,780	971	950	31.68	57.03	1,748	1,600	1,317	1,180	11,894	11,240
Fruit Soda	2,890	2,050	434	370	15.02	46.99	1,358	990	1,532	1,060	18,272	23,400
Diet Drinks	3,012	2,960	629	730	20.88	52.39	1,578	1,550	1,434	1,410	17,107	17,030

QUARTER - TO - DATE DEC												
	Sales		Profit		Profit %	Margin	Margin	COGS		Inventory		
	Actual	Budget	Actual	Budget	Actual	Actual	Actual	Budget	Actual	Budget	Actual	Budget
Colas	6,755	8,430	759	2,170	11.24	49.59	3,350	4,320	3,405	4,110	14,524	15,410
Root Beer	8,513	7,820	2,439	2,840	28.65	55.79	4,749	4,480	3,764	3,340	12,758	11,770
Cream Soda	8,750	7,570	2,632	2,850	30.77	56.73	4,964	4,410	3,786	3,160	11,372	10,520
Fruit Soda	8,537	5,280	1,380	1,200	16.16	48.01	4,099	2,680	4,438	2,600	16,701	20,870
Diet Drinks	8,999	8,830	1,987	2,630	22.08	53.14	4,782	4,750	4,217	4,080	16,132	16,000

YEAR - TO - DATE DEC												
	Sales		Profit		Profit %	%	Margin		COGS		Inventory	
	Actual	Budget	Actual	Budget	Actual	Actual	Actual	Budget	Actual	Budget	Actual	Budget
Colas	28,306	34,830	3,549	8,890	12.54	49.95	14,139	17,780	14,167	17,050	8,592	10,250
Root Beer	34,200	31,810	9,727	10,950	28.44	55.72	19,056	18,240	15,144	13,570	11,755	11,070
Cream Soda	35,391	30,480	10,731	11,670	30.32	56.37	19,949	17,890	15,442	12,590	8,880	8,350
Fruit Soda	35,034	22,730	5,854	5,670	16.71	48.19	16,882	11,730	18,152	11,000	9,524	9,350
Diet Drinks	36,423	35,690	8,087	10,570	22.20	53.24	19,392	19,210	17,031	16,480	11,725	11,850

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How to add the Smart View functions to your workbook

1. Select File/Import File from the Visual Basic Editor menu bar
2. Right-click on any item in the Project Explorer and select Import File... from the pop-up menu.
3. From the Import File dialog, locate and open the file smartview.bas from one of the following folders:
 - Smart View 9: *Essbase-install-dir\SmartView\Bin*
 - Smart View 11: *Essbase-install-dir\Oracle\SmartView\Bin*

Smart View VBA Functions In Action



Suresh

Financial Analyst

- 5 years of experience, new in role
- Essbase experience
- Savvy Excel user and some VBA
- Responsible for validating and sending out reporting to non-Essbase users
- Goal is to reduce his workload during month end

How Suresh utilizes Smart View VBA functions

- Designed a reporting model in Excel
 - Created menu with drop down boxes
 - Applied the required formatting using Excel

- Utilized Smart View VBA functions to automate:
 - Essbase Connection
 - Essbase Retrieve
 - Essbase Disconnect
 - Populate Essbase members in drop down boxes

Smart View VBA Functions in Suresh's Model

1. HypConnectToAPS
2. HypConnect
3. HypSetGlobalOption
4. HypSetSheetOption
5. HypRetrieveRange
6. HypDisconnect
7. HypDisconnectFromAPS
8. HypQueryMembers

Suresh's Report Automation Demo

Excel Menu

Report Output

Enter Report Parameters

Year

Month

Market



Central Product Performance Report												
FY2011												
DEC												
	Sales		Profit		Profit %	Margin %	Margin		COGS		Inventory	
	Actual	Budget	Actual	Budget	Actual	Actual	Actual	Budget	Actual	Budget	Actual	Budget
Colas	2,813	2,690	792	890	28.15	57.84	1,627	1,580	1,186	1,110	11,736	9,030
Root Beer	2,320	2,920	753	1,220	32.46	55.82	1,295	1,670	1,025	1,250	11,122	5,210
Cream Soda	2,669	2,400	824	810	30.87	56.61	1,511	1,360	1,158	1,040	12,107	10,490
Fruit Soda	2,860	2,300	785	650	27.45	55.87	1,598	1,310	1,262	990	10,287	13,630
Diet Drinks	3,422	3,480	1,064	1,300	31.09	56.87	1,946	2,020	1,476	1,460	14,439	10,290
Product	10,662	10,310	3,154	3,570	29.58	56.57	6,031	5,920	4,631	4,390	45,252	38,360

QUARTER - TO - DATE DEC												
	Sales		Profit		Profit %	Margin %	Margin		COGS		Inventory	
	Actual	Budget	Actual	Budget	Actual	Actual	Actual	Budget	Actual	Budget	Actual	Budget
Colas	8,139	7,800	2,249	2,970	27.63	57.81	4,705	4,690	3,434	3,110	11,380	8,910
Root Beer	6,993	9,260	2,271	4,130	32.48	55.86	3,906	5,330	3,087	3,930	10,890	6,080
Cream Soda	8,034	6,880	2,450	2,690	30.50	56.34	4,526	4,000	3,508	2,880	11,590	9,890
Fruit Soda	8,292	6,340	2,245	1,990	27.07	55.96	4,640	3,690	3,652	2,650	9,946	12,290
Diet Drinks	10,348	10,500	3,230	4,350	31.21	56.92	5,890	6,160	4,458	4,340	14,079	10,400
Product	31,458	30,280	9,215	11,780	29.29	56.51	17,777	17,710	13,681	12,570	43,806	37,170

YEAR - TO - DATE DEC												
	Sales		Profit		Profit %	Margin %	Margin		COGS		Inventory	
	Actual	Budget	Actual	Budget	Actual	Actual	Actual	Budget	Actual	Budget	Actual	Budget
Colas	33,808	33,930	9,490	12,110	28.07	57.75	19,525	19,950	14,283	13,980	9,989	9,600
Root Beer	29,206	34,970	9,578	14,260	32.79	55.79	16,294	20,180	12,912	14,790	9,952	9,390
Cream Soda	33,215	28,440	10,091	11,370	30.38	55.96	18,588	16,650	14,627	11,790	9,241	8,690
Fruit Soda	33,451	27,840	9,103	8,550	27.21	55.96	18,719	16,290	14,732	11,550	8,443	8,290
Diet Drinks	42,660	42,540	13,419	16,860	31.46	56.85	24,254	24,960	18,406	17,580	12,711	12,060
Product	129,680	125,180	38,262	46,290	29.50	56.39	73,126	73,070	56,554	52,110	37,625	35,970

Smart View VBA Functions In Action



- 3 years of experience in reporting roles
- Experienced Essbase user
- Experienced Excel and VBA developer
- Responsible creating and distributing reporting
- Goal is to automate monthly reporting

Karen

Reporting Analyst

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How Karen utilizes Smart View VBA functions

- Designed a reporting **template** in Excel
 - Created menu with drop down boxes
 - Applied the required formatting using Excel
 - Developed logic to dynamically populate the product members
- Utilized Smart View VBA functions to automate:
 - Essbase Connection
 - Essbase Retrieve
 - Essbase Disconnect
 - Populate Essbase members in drop down boxes
 - Identify all children members of the selected product member

Karen's Report Automation Demo

Excel Menu

Report Output

Enter Report Parameters

Year

Month

Market

Product



Central Product Performance Report												
FY2011												
DEC												
	Sales		Profit		Profit %	Margin %	Margin		COGS		Inventory	
	Actual	Budget	Actual	Budget	Actual	Actual	Actual	Budget	Actual	Budget	Actual	Budget
Colas	2,813	2,690	792	890	28.15	57.84	1,627	1,580	1,186	1,110	11,736	9,030
Root Beer	2,320	2,920	753	1,220	32.46	55.82	1,295	1,670	1,025	1,250	11,122	5,210
Cream Soda	2,669	2,400	824	810	30.87	56.61	1,511	1,360	1,158	1,040	12,107	10,490
Fruit Soda	2,860	2,300	785	650	27.45	55.87	1,598	1,310	1,262	990	10,287	13,630
Diet Drinks	3,422	3,480	1,064	1,300	31.09	56.87	1,946	2,020	1,476	1,460	14,439	10,290
Product	10,662	10,310	3,154	3,570	29.58	56.57	6,031	5,920	4,631	4,390	45,252	38,360

QUARTER - TO - DATE DEC												
	Sales		Profit		Profit %	Margin %	Margin		COGS		Inventory	
	Actual	Budget	Actual	Budget	Actual	Actual	Actual	Budget	Actual	Budget	Actual	Budget
Colas	8,139	7,800	2,249	2,970	27.63	57.81	4,705	4,690	3,434	3,110	11,380	8,910
Root Beer	6,993	9,260	2,271	4,130	32.48	55.86	3,906	5,330	3,087	3,930	10,890	6,080
Cream Soda	8,034	6,880	2,450	2,690	30.50	56.34	4,526	4,000	3,508	2,880	11,590	9,890
Fruit Soda	8,292	6,340	2,245	1,990	27.07	55.96	4,640	3,690	3,652	2,650	9,946	12,290
Diet Drinks	10,348	10,500	3,230	4,350	31.21	56.92	5,890	6,160	4,458	4,340	14,079	10,400
Product	31,458	30,280	9,215	11,780	29.29	56.51	17,777	17,710	13,681	12,570	43,806	37,170

YEAR - TO - DATE DEC												
	Sales		Profit		Profit %	Margin %	Margin		COGS		Inventory	
	Actual	Budget	Actual	Budget	Actual	Actual	Actual	Budget	Actual	Budget	Actual	Budget
Colas	33,808	33,930	9,490	12,110	28.07	57.75	19,525	19,950	14,283	13,980	9,989	9,600
Root Beer	29,206	34,970	9,578	14,260	32.79	55.79	16,294	20,180	12,912	14,790	9,952	9,390
Cream Soda	33,215	28,440	10,091	11,370	30.38	55.96	18,588	16,650	14,627	11,790	9,241	8,690
Fruit Soda	33,451	27,840	9,103	8,550	27.21	55.96	18,719	16,290	14,732	11,550	8,443	8,290
Diet Drinks	42,660	42,540	13,419	16,860	31.46	56.85	24,254	24,960	18,406	17,580	12,711	12,060
Product	129,680	125,180	38,262	46,290	29.50	56.39	73,126	73,070	56,554	52,110	37,625	35,970



Smart View VBA Functions in Karen's Model

1. HypConnectToAPS
2. HypConnect
3. HypSetGlobalOption
4. HypSetSheetOption
5. HypRetrieveRange
6. HypDisconnect
7. HypDisconnectFromAPS
8. HypQueryMembers

Excel Template Benefits Illustrated

- Dynamic report retains same starting point for all users
- Essbase substitution variables retained for all users
- Excel file opens as read-only
- Excel save forces user to save as a different file

Smart View VBA Functions In Action Summary



John

Retrieve Automation

Advantages

Quick development cycle

Designed to meet personal needs

Disadvantages

Maintenance for both the drop down boxes and product members



Suresh

Menu Automation

Advantages

Quick development cycle

No drop down box maintenance

Disadvantages

Hard coded product members



Karen

Dynamic Report Automation

Advantages

Flexible – dynamic products

Meets multiple users' needs

No drop down maintenance

Disadvantages

Specialized knowledge of VBA

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In Conclusion

Why Report Automation is Important

- Reduces reporting errors (saves you from headaches)
 - Central validation of data and formulas
 - All template driven reporting has consistent look and feel
- Saves time
 - Analysts can focus on interpreting the data rather than generating reports
- Saves money
 - More efficient report generation
 - Less payroll required for reporting operations

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Presentation Contest

Question:

How long did it take to produce 475 reports utilizing the Smart View VBA functions demonstrated today?

Every product for every market (same format as the demos)

- I need two volunteer contestants
- Closest estimate without going over (Price is Right rules)
- Answer:

11 minutes



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Thank You!

Follow Up

- Questions
 - Jim Wilking
 - jwilking@harbinger-group.com
- HCG contact information
 - 763-785-1028
 - Web site: <http://www.harbinger-group.com>
 - Linked In: <http://www.linkedin.com/companies/hcg>
 - YouTube: <http://www.youtube.com/hcguniversity>



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