

September 9–11, 2013
Anaheim, California

Business Intelligence
for a **PASSIONATE**
COMMUNITY



0108 - I'm no Magician, but I've got my own bag of 'Dashboards (Xcelsius)' tricks (and I'll share)!

Sandy Brotje, Developer, Business Intelligence
Harris Corporation, Healthcare Solutions

Who am I?

- Sandy Brotje
- Developer, Business Intelligence, Harris
- Business Objects customer – 10+ years
- Data Warehousing experience – 10+ years
- Previously ASUG Ohio Chapter Steering Committee member
- Previously a NOBOUG Steering Committee member
- Customer Chair ASUG SAP Dashboarding and Visualization Influence Council (DAVIC)
- Presenter at SAP BusinessObjects User Conference – 7 times

Harris - BI Value Proposition

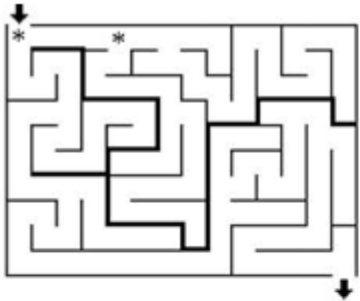
Enterprise Performance Management (EPM)

- BI is a C-Suite Strategy, not a toolset
- Alignment & accountability with strategic objectives
- Drive performance improvement
- “Intelligence” instead of “Reporting”
- Role of governance in successful BI

Harris helps leverage BI to achieve EPM for Health Care

- Our products enable health system performance improvement
- We know how to leverage BI to achieve strategic objectives
- We have travelled the EBI journey with Cleveland Clinic and others

Our BI Products focus on Enterprise Performance Improvement



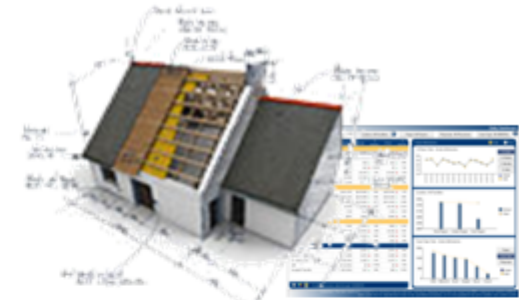
BI Roadmap Consulting

- **Description:** Enterprise BI Consulting for strategy alignment, governance, perf improvement focus
- **Example Customers:** COH, LGH, Ottawa, SSM



UHC SaaS Dashboards

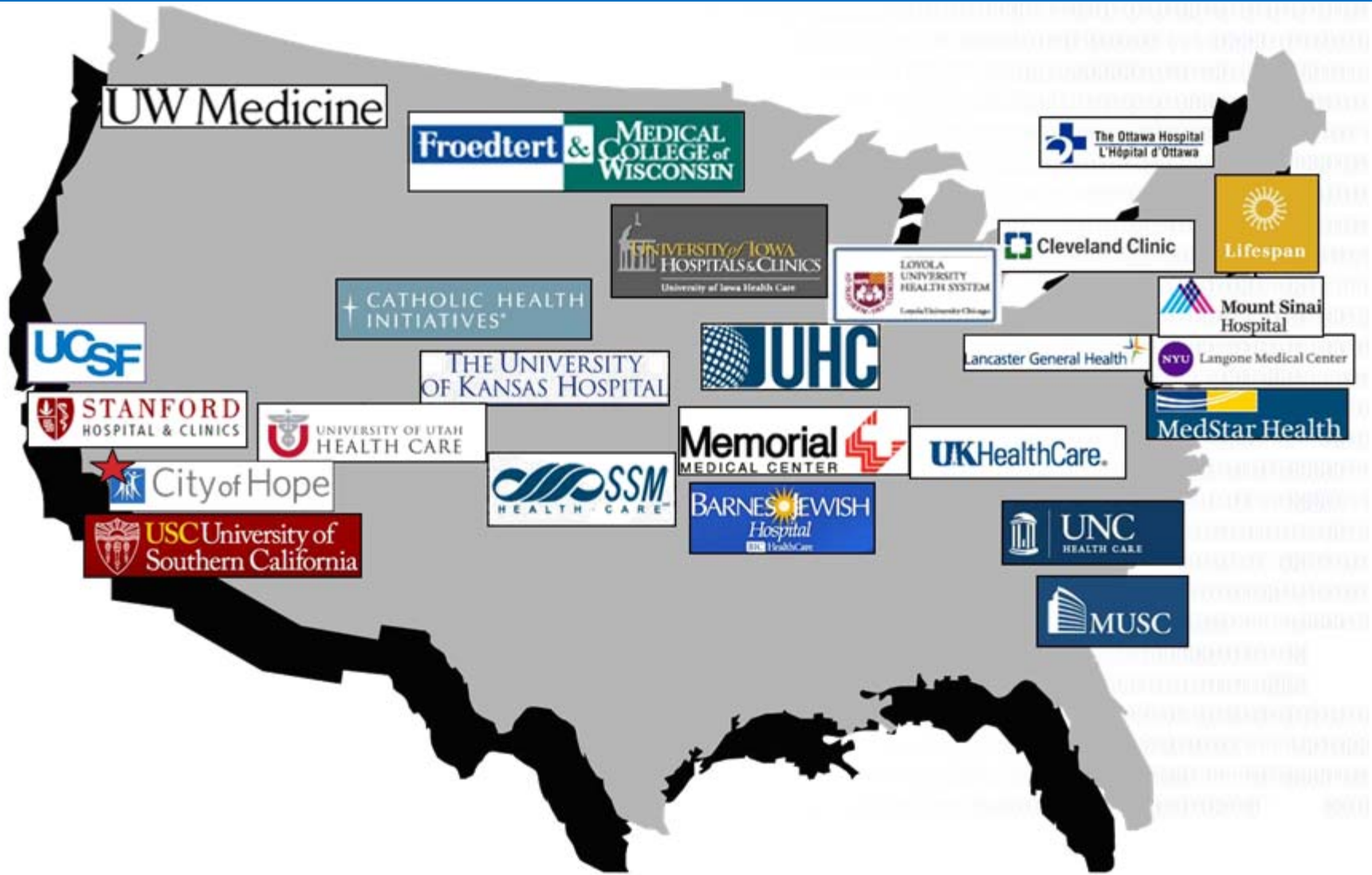
- **Description:** Executive / Physician oriented tools built on UHC comparative database; AMCs Only
- **Current Customers:** 22 live customers



Performance Dashboards

- **Description:** Clinical, Financial, and Operational Perf Improvement (UI, Metrics, Data Elements)
- **Example Customers:** COH, SSM, CHI, LGH

Harris Business Intelligence Customers



YTD

Location: All Facilities

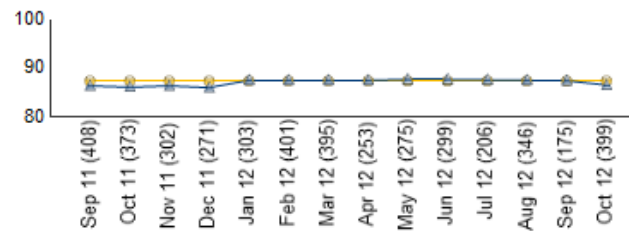
Physician: All Physicians

Domain	Actual	Goal		Prior		N
Patient Experience (Mean Score)						
Std Overall Rating	86.5	85.9	✓	86.6	✗	3,290
Std Facility	86.5	83.8	✓	86.5	✗	3,290
Std Nursing	86.5	85.3	✓	86.5	✗	3,290
Std Overall Assessment	86.3	87.4	✗	87.6	✗	3,290
Std Personal Issues	86.5	86.6	✗	86.5	✗	3,290
Std Physician	86.5	86.8	✗	86.5	✗	3,290
Std Registration	86.5	86.8	✗	86.5	✓	3,290
Question						
Std Overall Assessment	86.3	87.4	✗	87.6	✗	3,290
Degree staff work together	86.6	86.4	✓	86.5	✓	3,290
Likely to Recommend	85.9	89.3	✗	87.1	✗	3,290
Overall rating of care	86.5	86.5	✓	89.1	✗	3,290

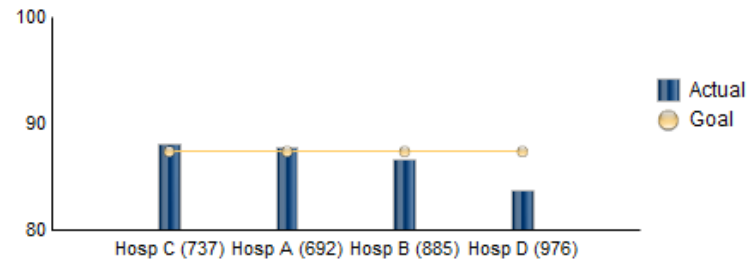
Std Overall Assessment

Goal Prior

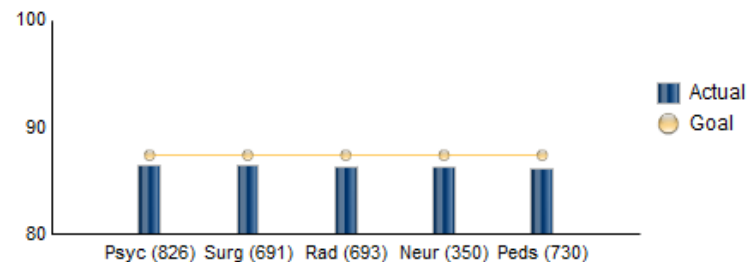
13 Month View



Location: All Facilities



Physician: All Physicians



YTD

Location: All Facilities

Physician: All Physicians

Domain	Actual	Goal		Prior		N
Patient Experience (Mean Score)						
Std Overall Rating	86.5	85.9	✓	86.6	✗	3,290
Std Facility	86.5	83.8	✓	86.5	✗	3,290
Std Nursing	86.5	85.3	✓	86.5	✗	3,290
Std Overall Assessment	86.3	87.4	✗	87.6	✗	3,290
Std Personal Issues	86.5	86.6	✗	86.5	✗	3,290
Std Physician	86.5	86.8	✗	86.5	✗	3,290
Std Registration	86.5	86.8	✗	86.5	✓	3,290
Question						
Std Overall Assessment	86.3	87.4	✗	87.6	✗	3,290
Degree staff work together	86.6	86.4	✓	86.5	✓	3,290
Likely to Recommend	85.9	89.3	✗	87.1	✗	3,290
Overall rating of care	86.5	86.5	✓	89.1	✗	3,290

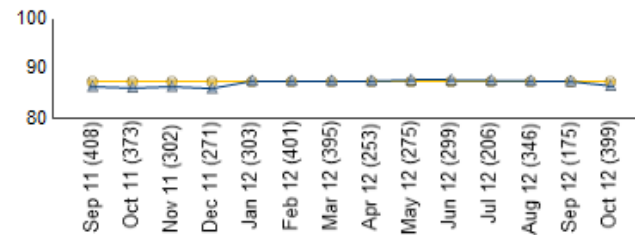
Std Overall Assessment

Goal Prior

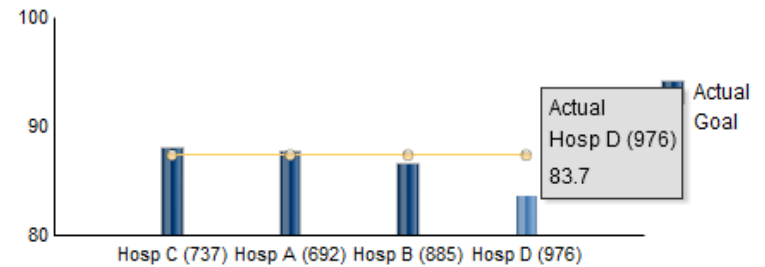
13 Month View

13 Month

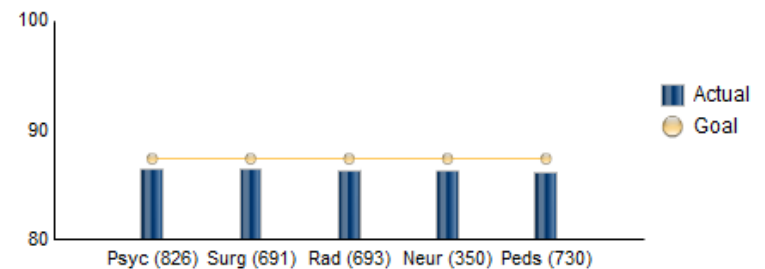
8 Quarter



Location: All Facilities



Physician: All Physicians



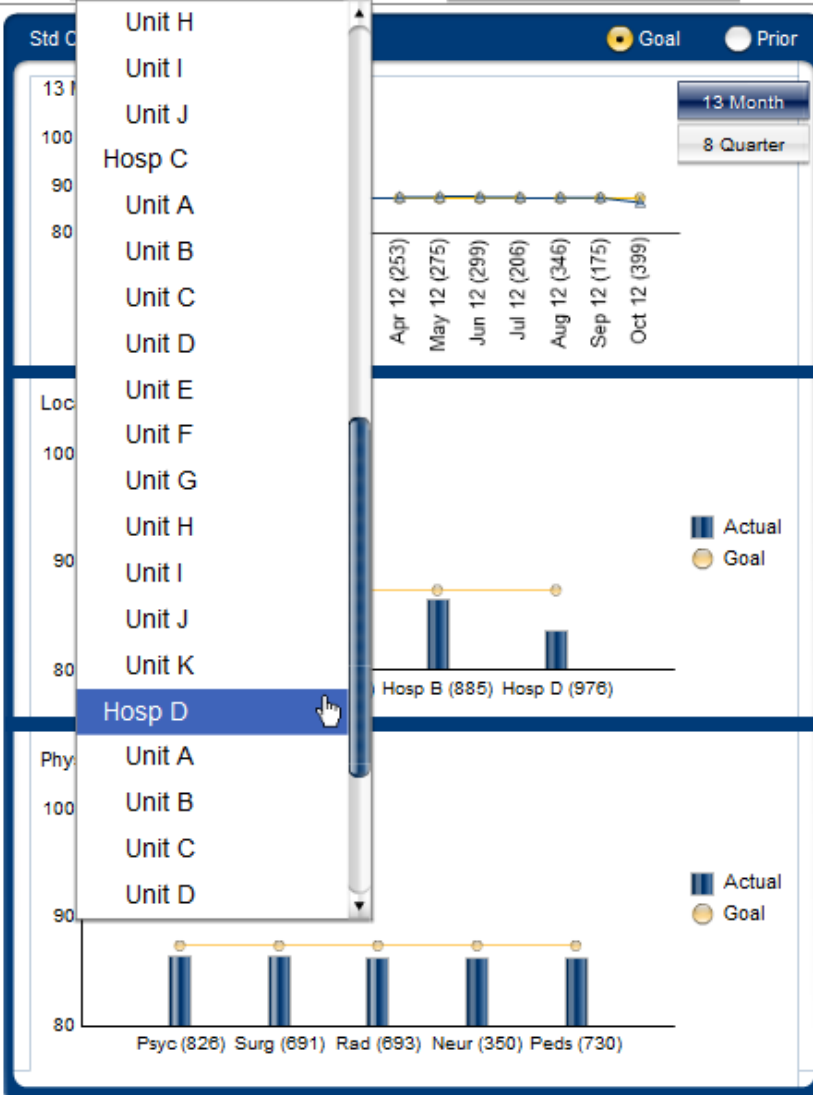
Std Overall Assessm... data through 10/16/2013 [Data Extract](#) [Comments](#)

YTD

Location: All Facilities

Physician: All Physicians

Domain	Actual	Goal		Prior		N
Patient Experience (Mean Score)						
Std Overall Rating	86.5	85.9	✓	86.6	✗	3,290
Std Facility	86.5	83.8	✓	86.5	✗	3,290
Std Nursing	86.5	85.3	✓	86.5	✗	3,290
Std Overall Assessment	86.3	87.4	✗	87.6	✗	3,290
Std Personal Issues	86.5	86.6	✗	86.5	✗	3,290
Std Physician	86.5	86.8	✗	86.5	✗	3,290
Std Registration	86.5	86.8	✗	86.5	✓	3,290
Question						
Std Overall Assessment	86.3	87.4	✗	87.6	✗	3,290
Degree staff work together	86.6	86.4	✓	86.5	✓	3,290
Likely to Recommend	85.9	89.3	✗	87.1	✗	3,290
Overall rating of care	86.5	86.5	✓	89.1	✗	3,290



YTD

Location: Hosp D

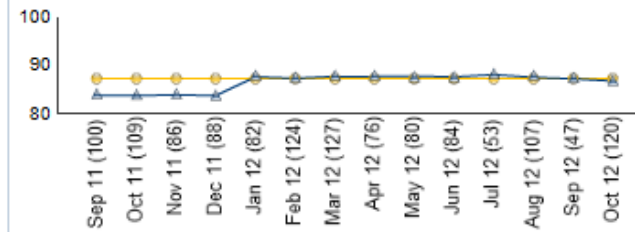
Physician: All Physicians

Domain	Actual	Goal	Prior	N
Patient Experience (Mean Score)				
Std Overall Rating	86.2	85.9	86.6	976
Std Facility	86.4	83.8	86.5	976
Std Nursing	86.4	85.3	86.5	976
Std Overall Assessment	83.7	87.4	87.6	976
Std Personal Issues	86.5	86.6	86.5	976
Std Physician	86.6	86.8	86.6	976
Std Registration	86.5	86.8	86.5	976
Question				
Std Overall Assessment	83.7	87.4	87.6	976
Degree staff work together	86.6	86.4	86.5	976
Likely to Recommend	78.1	89.3	87.1	976
Overall rating of care	86.4	86.5	89.2	976

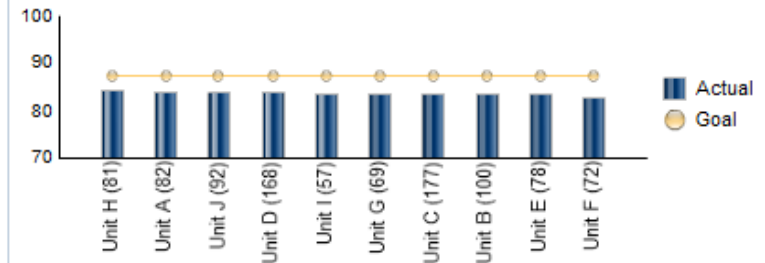
Std Overall Assessment

Goal Prior

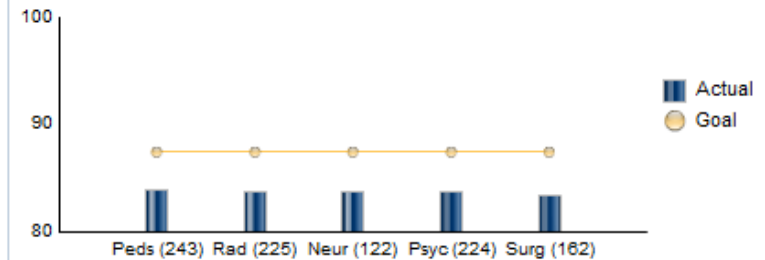
13 Month View



Location: Hosp D



Physician: All Physicians



? Std Overall Assessm... data through 10/16/2013

Data Extract

Comments

YTD

Location: Hosp D

Physician: Surg

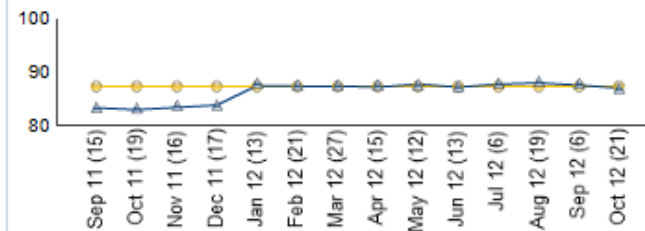
Domain	Actual	Goal		Prior		N
Patient Experience (Mean Score)						
Std Overall Rating	86.1	85.9	✓	86.6	✗	162
Std Facility	86.3	83.8	✓	86.4	✗	162
Std Nursing	86.4	85.3	✓	86.6	✗	162
Std Overall Assessment	83.3	87.4	✗	87.5	✗	162
Std Personal Issues	86.4	86.6	✗	86.7	✗	162
Std Physician	86.3	86.8	✗	86.2	✓	162
Std Registration	86.5	86.8	✗	86.6	✗	162
Question						
Std Overall Assessment	83.3	87.4	✗	87.5	✗	162
Degree staff work together	86.9	86.4	✓	86.6	✓	162
Likely to Recommend	76.5	89.3	✗	86.9	✗	162
Overall rating of care	86.5	86.5	✓	89.1	✗	162

Std Overall Assessment

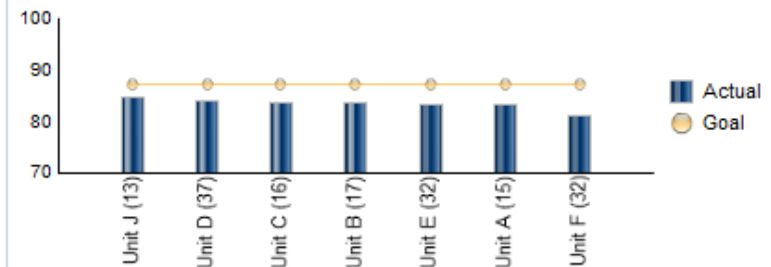
All Physicians

Prior

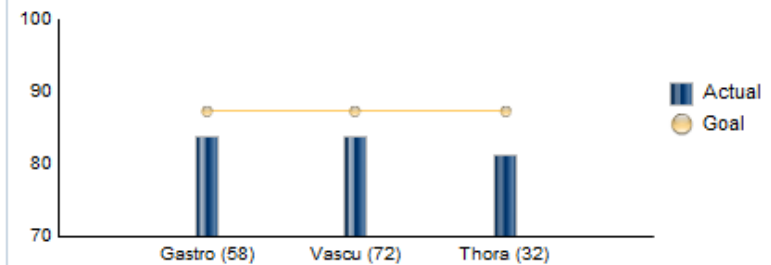
13 Month View



Location: Hosp D



Physician: Surg



Std Overall Assessm... data through 10/16/2013

Data Extract Comments

Return on Investment

- Significant reduction in development/developer time

- Say this, don't show this

Best Practices

- As we go through the presentation, I will point out Best Practices for Xcelsius/Dashboards development
 - Save Often and Version ★

Agenda

- User Experience: *Open Sesame*
- Polishing reports: *Abracadabra*
- Troubleshooting Tips: *Fortune Telling*

User Experience: *Open Sesame*

- Creative Sorting
- Definition Accessibility Options
- Query Loading
- Capturing 'BOUSER'



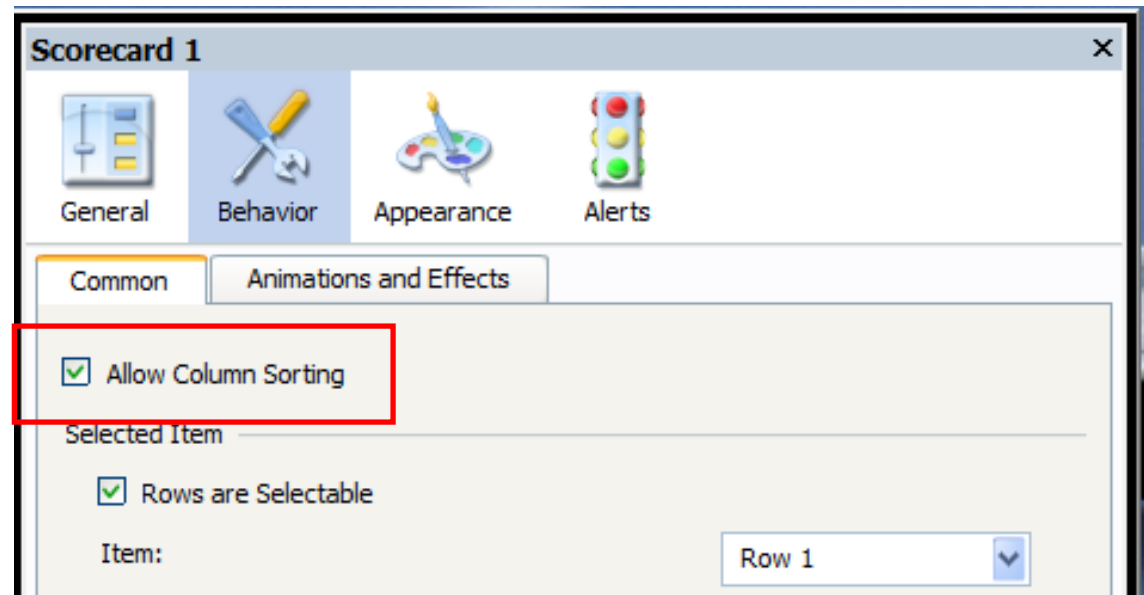
Open Sesame: User Experience

- Creative Sorting – Alternative to Built-In Property
 - To Accomplish:
 - Component: List View or Scorecard
 - Spreadsheet: Formulas
 - Component: Selector, i.e. Toggle Button

Open Sesame: User Experience – Creative Sorting ^{1/5}

- Components With Built-In
 - List View: Yes, But Header Sort is Always On
 - No check box to click
 - Scorecard – Behavior, Allow Column Sorting Check Box
 - Use Scorecard, Possibly Spreadsheet Table

Name	Q1	Q2	Target
Company 1	1000	↗ 1300	▲
Company 2	1200	↘ 900	◆
Company 3	500	↗ 600	▲
Company 4	800	↑ 2800	●
Company 5	1700	→ 1750	◆



Open Sesame: User Experience – Creative Sorting ^{2/5}

- Formula Work

- R: INDEX(\$I\$5:\$L\$205,MATCH(F5,\$K\$5:\$K\$205,0),1)
- S: INDEX(\$I\$5:\$L\$205,MATCH(F5,\$L\$5:\$L\$205,0),2)

	F	G	H	I	J	K	L	M	R	S
1										
4	#	D	Focus_Id	Date_Username	Username_Date	Sort_By_Date	Sort_By_User	UserName	Display for Date	Display for User
5	1								#N/A	#N/A
6	2								#N/A	#N/A
7	3								#N/A	#N/A
8	4								#N/A	#N/A
9	5								#N/A	#N/A
10	6								#N/A	#N/A

★ INDEX & MATCH rather than VLOOKUP

Open Sesame: User Experience – Creative Sorting 3/5

- Formula Work, cont.
 - Display
=IF('Controls'!D33=1,R5,IF('Controls'!D33=2,T5,IF('Controls'!D33=3,S5,U5)))

	P	R	S
1			
4	Display	Display for Date	Display for User
5		#N/A	#N/A
6		#N/A	#N/A
7		#N/A	#N/A
8		#N/A	#N/A
9		#N/A	#N/A

Open Sesame: User Experience – Creative Sorting 4/5

- Selectors

- Toggle Button

- Transparency: 100%

Off

Comments	Sort By:	<u>Date</u>	<u>User</u>
administrator:07/29/13-This metric needs improvement			
bkelly:06/11/13-test from bk			
rcolli15:06/11/13-Testing			

Comments	Sort By:	<u>Date</u>	<u>User</u>
rcolli15:06/11/13-Testing			
bkelly:06/11/13-test from bk			
administrator:07/29/13-This metric needs improvement			

Open Sesame: User Experience – Creative Sorting 5/5

- Toggle Button

The image displays two side-by-side screenshots of SAP BusinessObjects configuration windows. The left window is titled "Date Toggle" and the right window is titled "User Toggle". Both windows have a similar layout with tabs for "General", "Behavior", and "Appearance". The "Date Toggle" window shows a "Source Data" table with the following data:

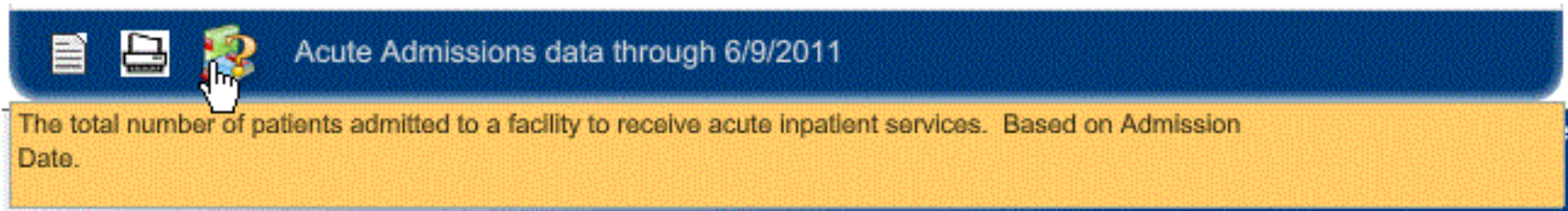
Status	Source Data
Off	1
On	2

The "User Toggle" window shows a "Source Data" table with the following data:

Status	Source Data
Off	3
On	4

Open Sesame: User Experience

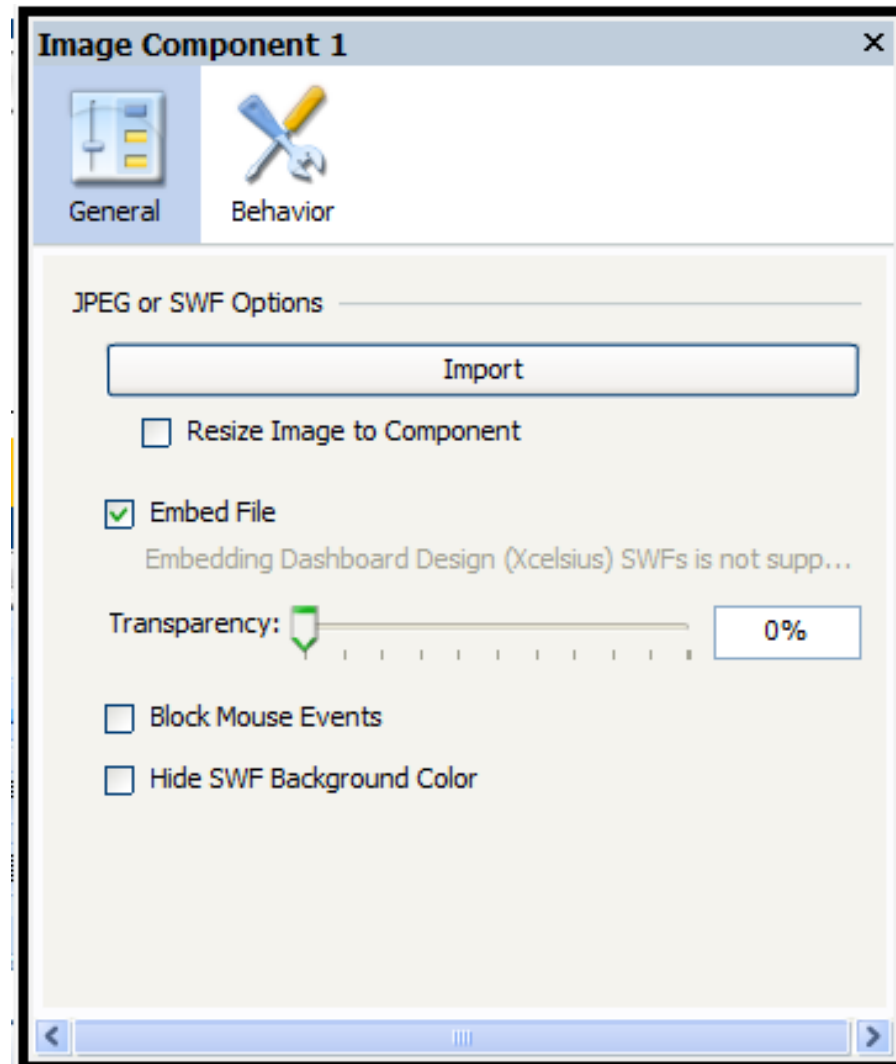
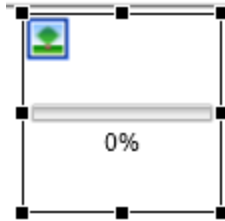
- Definition Accessibility Options
 - To Accomplish Definition Hover:
 - Components: Image & Icon
 - Spreadsheet: Formulas
 - Component: Text, Label



- To Accomplish Data Dictionary:
 - Components: URL
 - Webi Report

Open Sesame: User Experience – Definition Hover ^{1/4}

- Arts and Backgrounds
 - Image Component



Open Sesame: User Experience – Definition Hover 2/4

- Selectors
 - Icon Component
 - Transparency: 100%

The 'Definition Icon' configuration window shows the 'General' tab selected. It includes fields for 'Label', 'Display Value', and 'Data Insertion'. The 'Source Data' field is set to 'Controls!\$D\$19' and the 'Destination' field is set to 'Controls!\$D\$19'. There are also icons for 'Behavior', 'Appearance', and 'Alerts'.



The 'Definition Icon' configuration window shows the 'Animations and Effects' tab selected. It includes a 'Source Data' table and 'Interaction Options'.

Status	Source Data
Unchecked	0
Checked	1

The 'Interaction Options' section includes:

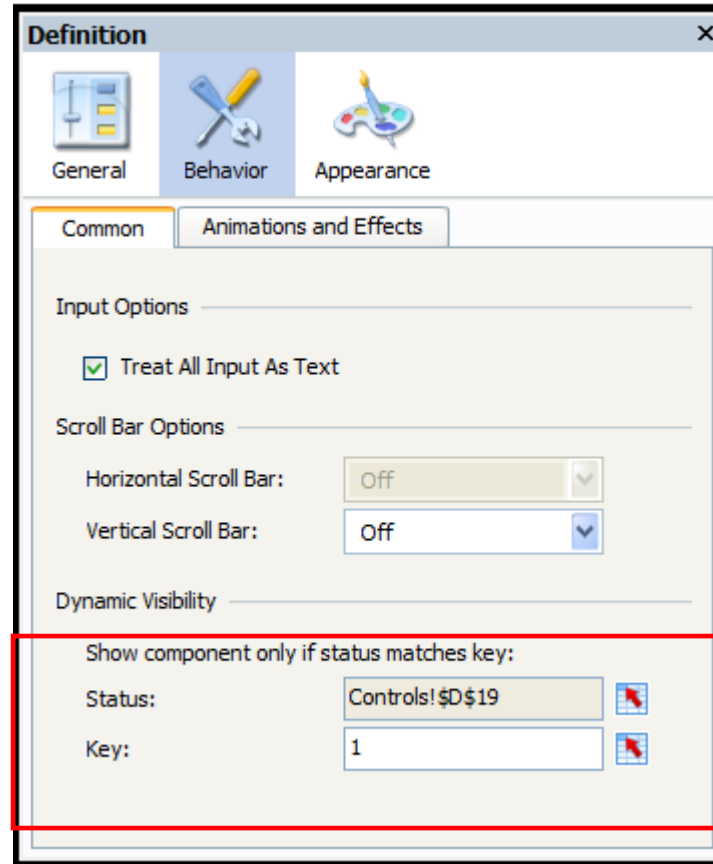
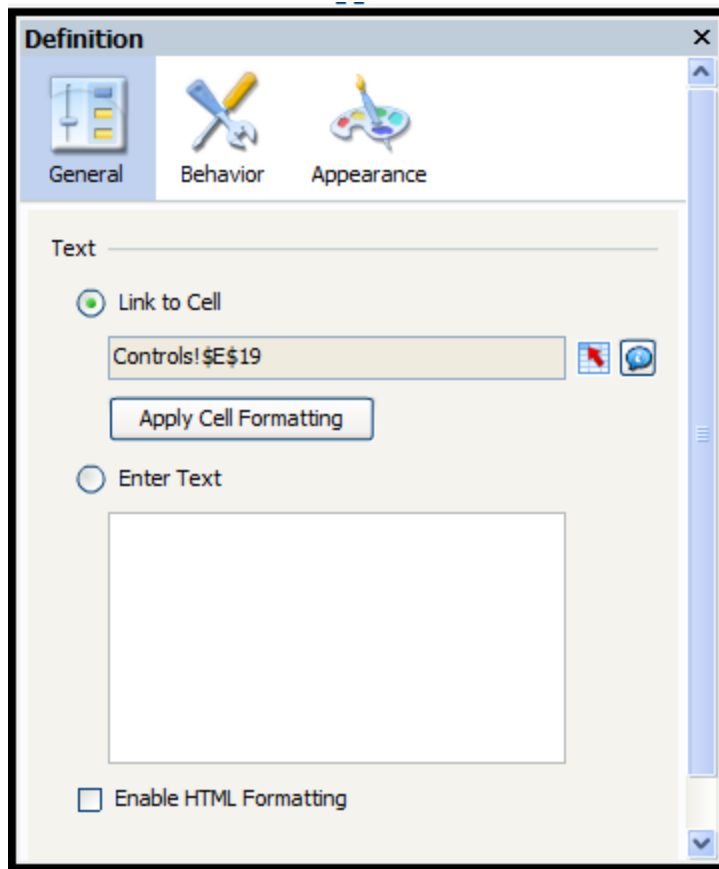
- Insert On: Mouse Over
- Selected Item: [Empty]
- Item: Unselected

Open Sesame: User Experience – Definition Hover ^{3/4}

- Formulas
 - May be needed to get the definition/text required
 - May be needed to enhance display, such as concatenate
 - Use “&” NOT “=CONCATENATE()”
 - =A1&B1 
 -  ■ =CONCATENATE(A1,B1)

Open Sesame: User Experience – Definition Hover 4/4

- Text, Label
 - Link to Cell: Bind Cell With Definition



Open Sesame: User Experience – Definitions Webi 1/3

- Create Link to Another Report
 - Web Connectivity, URL Button

Data Dictionary

The screenshot shows the 'Data Dictionary' configuration window. It has a title bar with the text 'Data Dictionary' and a close button. Below the title bar are three tabs: 'General' (selected), 'Behavior', and 'Appearance'. The 'General' tab contains the following fields and options:

- Label:** A text input field containing 'Data Dictionary' with a red arrow icon to its right.
- URL:** A text input field containing 'Controls!\$C\$52' with a red arrow icon to its right.
- Encode URL:** A checked checkbox.
- Window Options:** A section containing an 'Open In:' label and a dropdown menu set to 'New Window'.

Open Sesame: User Experience – Definitions Webi ^{2/3}

- Link = Cell C52 in Example, OpenDocument
- Default URL
 - <http://<servername>:<port>/OpenDocument/opendoc/openDocument.jsp?iDocID=AajgyRwp73hMojR.pA29.34&<parameter1>&<parameter2>&...&<parameterN>>
- 4.0 New Default URL
 - <http://<servername>:<port>/BOE/OpenDocument/opendoc/openDocument.jsp?<parameter1>&<parameter2>&...&<parameterN>>

Open Sesame: User Experience – Definitions Webi 3/3



Operations Scorecard Data Dictionary Report

The purpose of this top section is to display reasons why someone would use this dashboard, helpful notes or other important information.

Bed Management

	Metric Definition
Avg Length of Stay (ALOS)	Enter Definition For Avg Length of Stay (ALOS)
Opportunity Days	Enter Definition For Opportunity Days

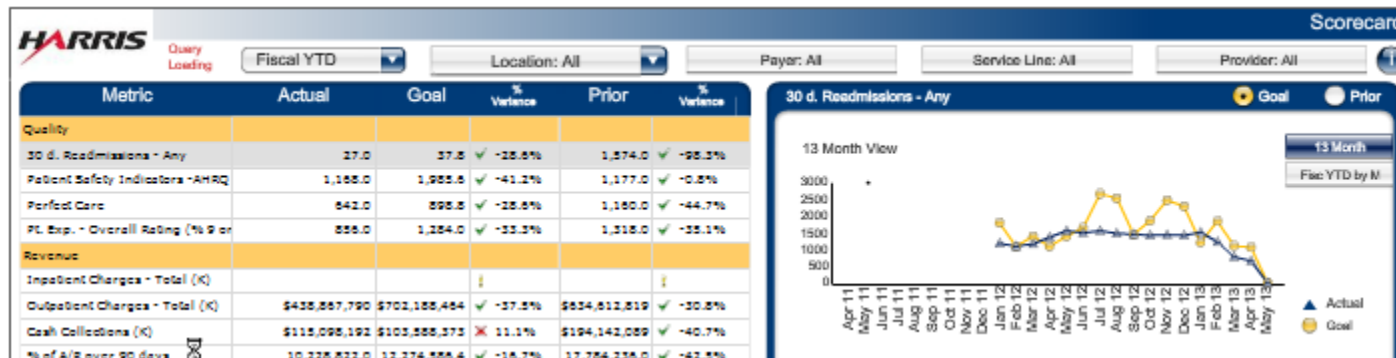
Discharge

	Metric Definition
Anticlpated Discharge - Home	Enter Definition For Anticlpated Discharge - Home
Anticlpated Discharge - Home care	Enter Definition For Anticlpated Discharge - Home care
Anticlpated Discharge - Hospice	Enter Definition For Anticlpated Discharge - Hospice

Open Sesame: User Experience

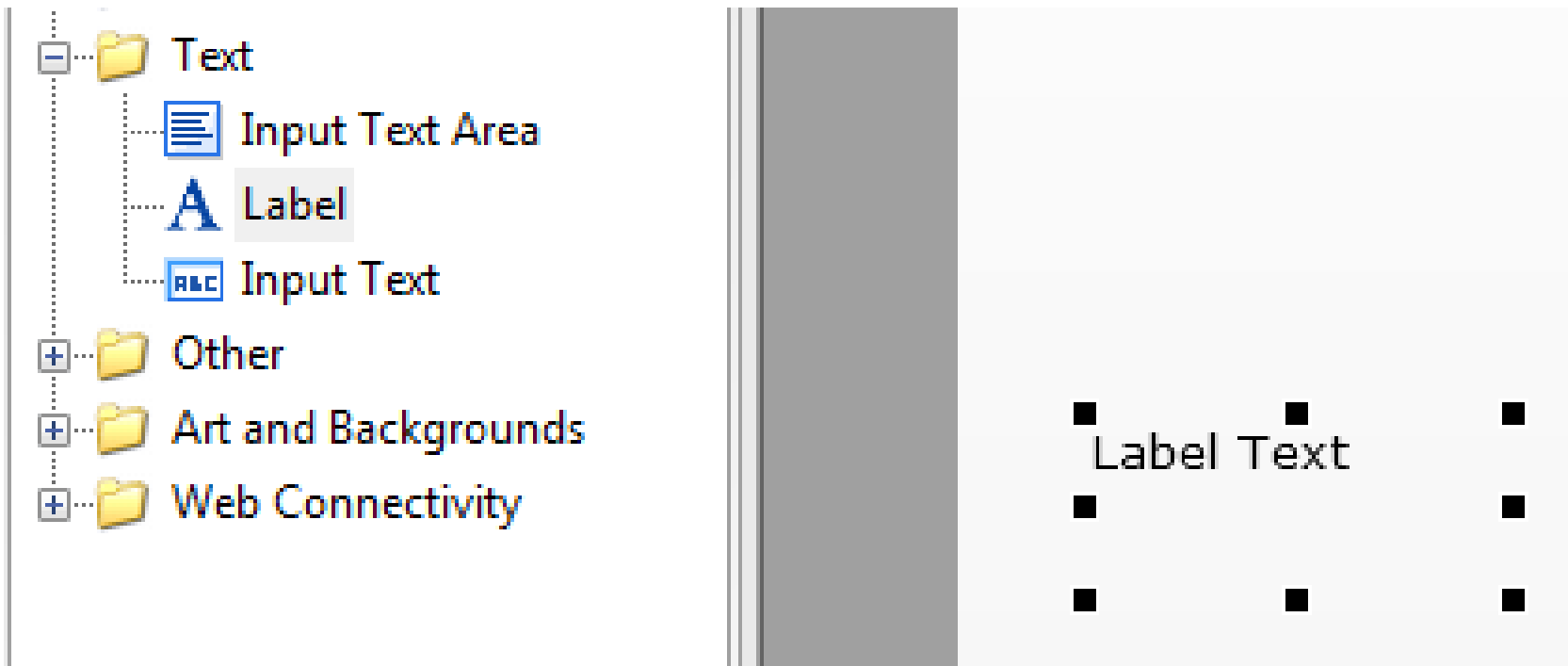
- Query Loading: Alert Users a Query is Loading
 - To Accomplish:
 - Component: Label
 - Data Manager: Usage Tab | Load Status
 - Dynamic Visibility

Query Loading...



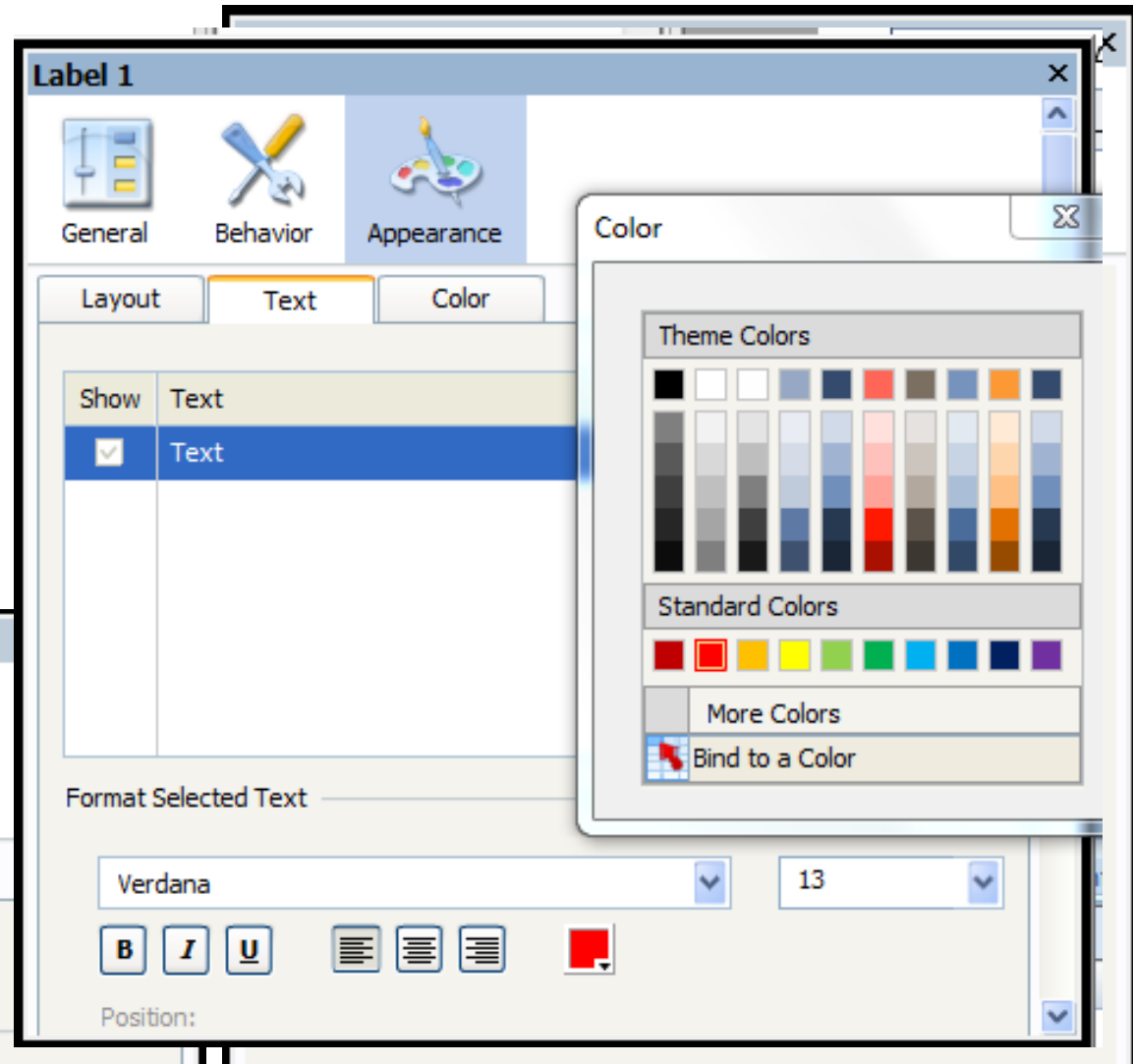
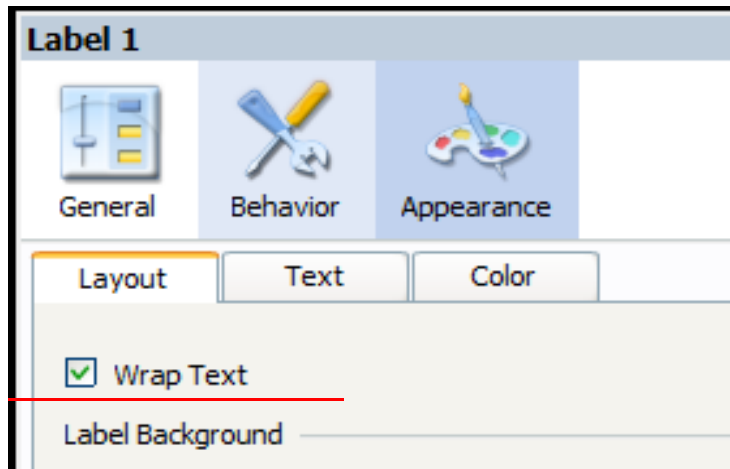
Open Sesame: User Experience – Query Loading ^{1/4}

- Label



Open Sesame: User Experience – Query Loading 2/4

- Link to Cell
- Wrap Text
- Edit Text Color



Open Sesame: User Experience – Query Loading 3/4

- Data Manager
 - 1 & 0

The screenshot displays the SAP Data Manager interface. On the left, the 'Usage' tab is active, showing 'Refresh Options' and 'Load Status' sections. The 'Refresh Options' section includes checkboxes for 'Refresh Before Components Are Loaded' and 'Refresh Every', and a 'Refresh on Trigger' section with radio buttons for 'When Value Changes' (selected) and 'When Value Becomes'. The 'Load Status' section includes text boxes for 'Loading Message' (containing 'Loading'), 'Idle Message' (containing 'Idle'), and 'Insert In', along with checkboxes for 'Enable Load Cursor' and 'Disable Mouse Input on Load'. On the right, a data table is overlaid with columns A, B, and C. Row 4 contains 'Loading Msg' in column A and '0' in column B. Rows 5, 6, 7, and 8 contain 'Query 1', 'Query 2', 'Query 3', and 'Query 4' respectively in column A, with red cells in column B. Row 9 is empty.

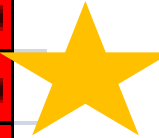
	A	B	C
3			
4	Loading Msg	0	
5	Query 1		
6	Query 2		
7	Query 3		
8	Query 4		
9			

Open Sesame: User Experience – Query Loading 4/4

- Dynamic Visibility
 - Status: Formula
 - Key: True Value of Formula

```
=IF(SUM(B5:B8)>0,1,0)
```

	A	B
3		
4	Loading Msg	1
5	Query 1	0
6	Query 2	0
7	Query 3	0
8	Query 4	1
9		



Label 1

General Behavior Appearance

Common Animations and Effects

Input Options

Treat All Input As Text

Scroll Bar Options

Horizontal Scroll Bar: Auto

Vertical Scroll Bar: Auto

Dynamic Visibility

Show component only if status matches key:

Status: 'Sheet1'!\$B\$4

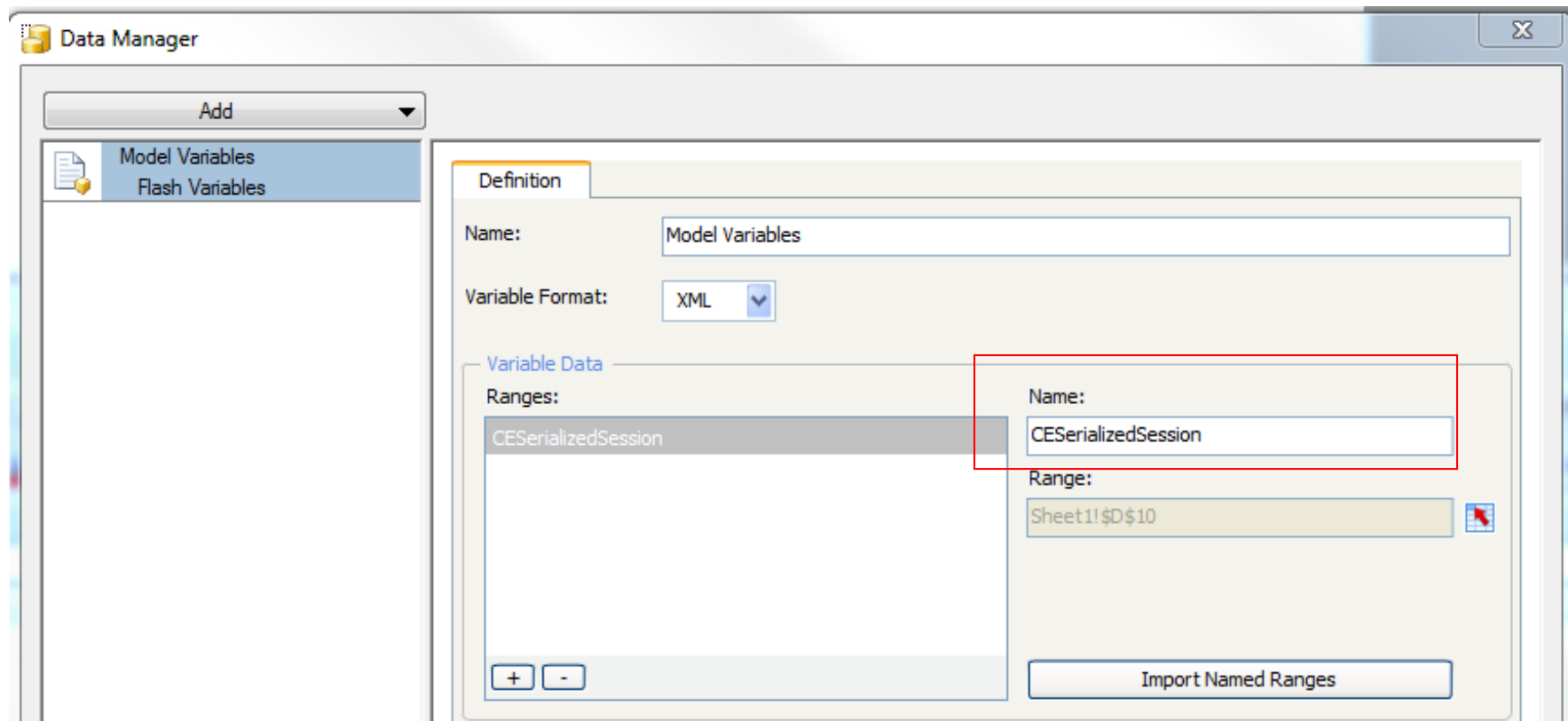
Key: 1

Open Sesame: User Experience

- BOUSER – Capturing User Name
 - To Accomplish:
 - Data Manager: Flash Variable
 - Formula In Spreadsheet

Open Sesame: User Experience – BOUSER ^{1/2}

- Data Manager - Flash Variable
 - “CESerializedSession”
 - Alternative to Universe @variable(BOUSER)



Open Sesame: User Experience – BOUSER 2/2

- Spreadsheet Formula
 - Parse Out User Name
 - =RIGHT(LEFT(D10,FIND(",",D10,1)-1),((FIND(",",D10)-1)-(FIND("=",D10,1))))

	A	B	C	D	E	F	G	H
8		User ID	#VALUE!					

Open Sesame: User Experience – BOUSER *Example*

- “CESerializedSession”
 - 3&35=Administrator,
 - =RIGHT(LEFT(C24,FIND(",",C24,1)-1),((FIND(",",C24)-1)-(FIND("=",C24,1))))
 - =RIGHT(LEFT(C24,FIND(",",C24,1)-1))
 - =((FIND(",",C24)-1)-(FIND("=",C24,1)))

3&35=Administrator,8P&63=secEnterprise,8P&4F=12,8P&4E=308667Jk7PnEHJe5nrlZaJ,8P&1=Administrator+account,8P&3k=@myserver.com:6400,8P&5U=308668JU9awTep4RLx9zFx308667Jk7PnEHJe5nrlZaJ,8P&S5,88&pa,8P&Tm=3650,83&2r=myserver.com:6400.8P&lu=1033,83&Tn={3&.2={3&O=PersonalCategory,8P&2=726,83},?z&.1={3&O=FavoritesFolder,8P&2=725,83},?z&.3={3&O=Inbox,8P&2=727,83},?z&U=3,83},?z&7r,83&PP=1024,83

3&35=rcolli15,8P&63=secEnterprise,8P&4F=225132,8P&4E=311682JHnHceK57tlkqP16,8P&1,8P&3k=@myserver.com:6400,8P&5U=311683J35iex10l2EsIcl9311682JHnHceK57tlkqP16,8P&S5,88&pa,8P&Tm=3650,83&2r=@myserver.com:6400,8P&lu=1033,83&Tn={3&.2={3&O=PersonalCategory,8P&2=225134,83},?z&.1={3&O=FavoritesFolder,8P&2=225133,83},?z&.3={3&O=Inbox,8P&2=225135,83},?z&U=3,83},?z&7r,83&PP=1024,83

Polishing reports: *Abra*cadabra

- Multiple Formats
 - Tables
 - Charts
- Users Obtain Help
- Easy Linking to Reports

- Details, Details, Details
- Always Important - Flawless Finish
 - Good to have a second set of eyes ★



Abacadabra: Polishing Reports

- Formatting Tables
 - To Accomplish:
 - Text Formula
- Formatting Charts
 - Multiple Charts vs Dynamic Labels
 - Selectable Series
 - Fixed Labels & Horizontal Axis Labels

Abracadabra: Polishing Reports – Formatting Tables ^{1/3}

- Text Formula
 - Multiple Formats On Any Row

Metric	Actual	Format
Revenue	236782	\$
Census	1018	,
Perfect Care	0.88	%
Readmissions	15	

Metric	Actual
Revenue	\$236,782
Census	1,018
Perfect Care	88.0%
Readmissions	15

Abracadabra: Polishing Reports – Formatting Tables ^{2/3}

- Bring Format Back in Query Results or Create Legend
 - Display =TEXT(N5,O5)

	L	M	N	O	P
Metric Sort	Metric Name	Actual	Format	Display	
1	Revenue	236782	\$#,##0	\$236,782	
2	Census	1018	#,##0	1,018	
3	Perfect Care	0.88	#0.0%	88.0%	
4	Readmissions	15	#,###	15	

Abracadabra: Polishing Reports – Formatting Tables 3/3

- INDEX & MATCH - Populate Display Data
- Metric =INDEX(\$L\$5:\$P\$8,MATCH(G5,\$L\$5:\$L\$8,0),2)
- Actual =INDEX(\$L\$5:\$P\$8,MATCH(G5,\$L\$5:\$L\$8,0),5)

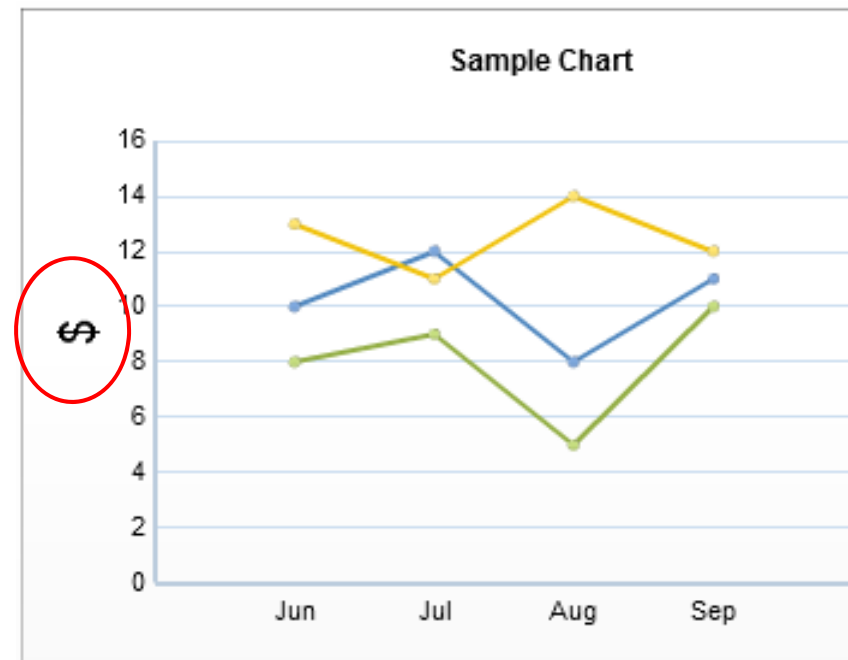
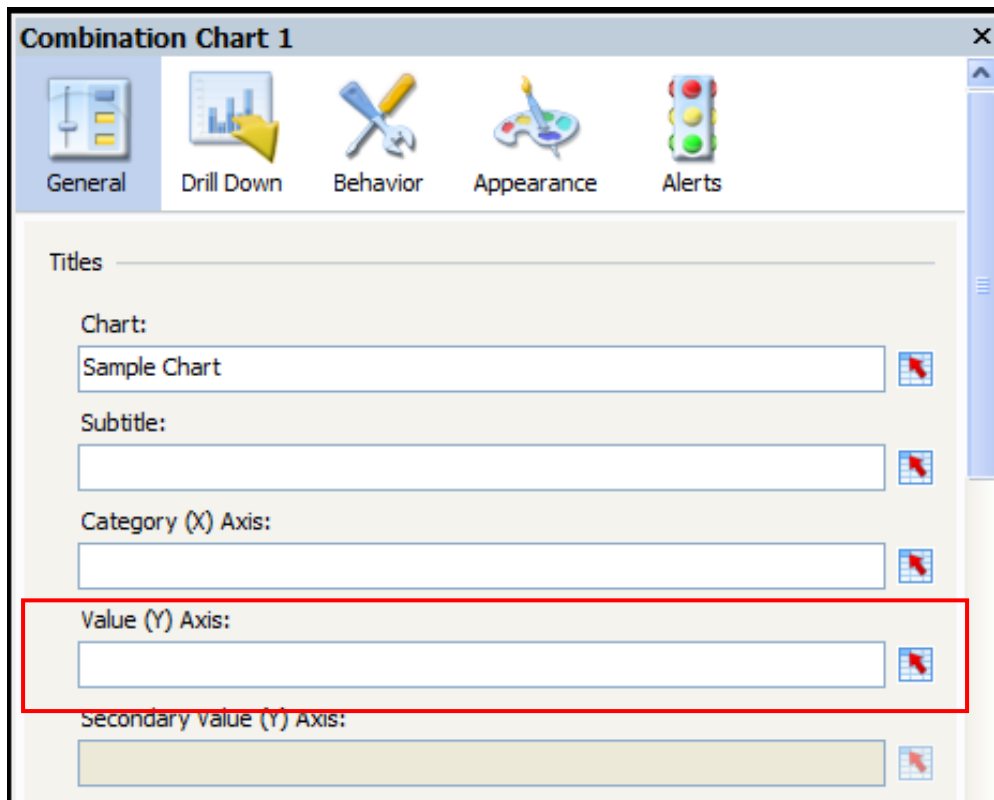
G	H	I
	Metric	Actual
1	Revenue	\$236,782
2	Census	1,018
3	Perfect Care	88.0%
4	Readmissions	15

L	M	N	O	P
Metric Sort	Metric Name	Actual	Format	Display
1	Revenue	236782	\$#,##0	\$236,782
2	Census	1018	#,##0	1,018
	Perfect Care	88.0%		88.0%
	Readmissions	15		15

Metric	Actual
Revenue	\$236,782
Census	1,018
Perfect Care	88.0%
Readmissions	15

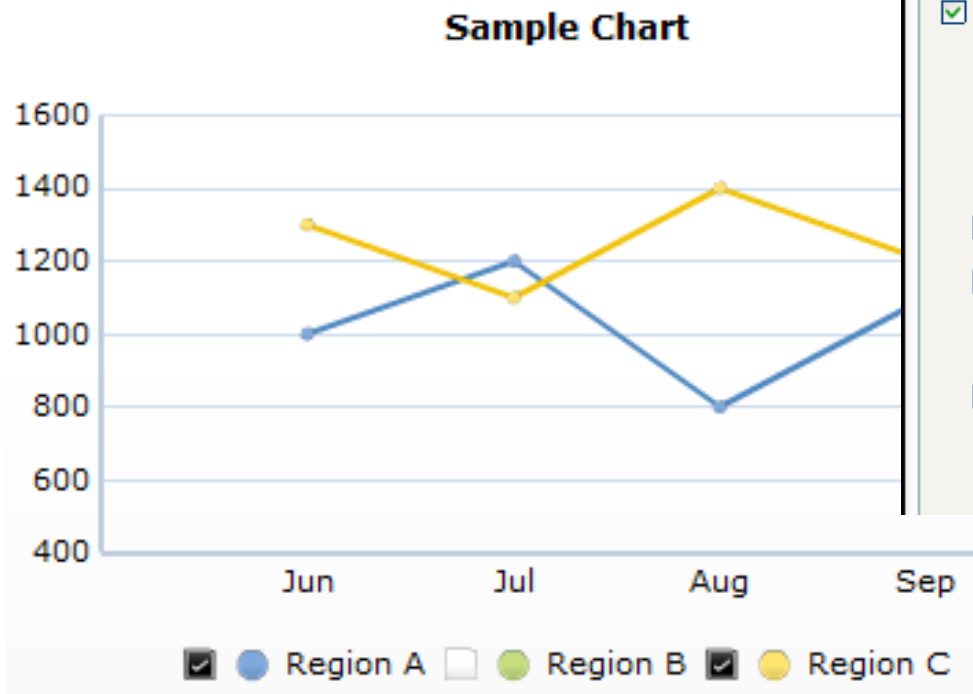
Abracadabra: Polishing Reports – Formatting Charts 1/4

- Multiple Charts with Dynamic Visibility
- Dynamic Value (Y) Axis



Abracadabra: Polishing Reports – Formatting Charts 2/4

- Option to Graph Multiple Series
 - Allow User to Remove/Interact
 - Appearance Tab



Layout Series Axes Text Color

Enable Legend

Position: Right

Vertical Offset: 0

Horizontal Offset: 0

Show Fill

Show Border

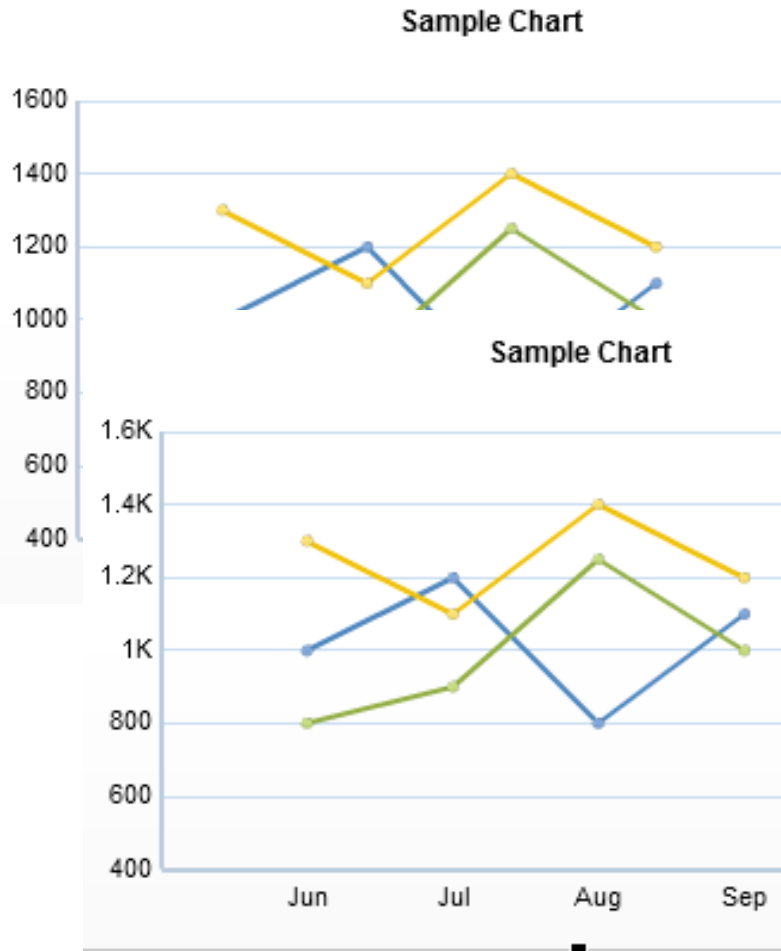
Border Thickness: 1

Enable Hide/Show Chart Series at Run-Time

Interaction: Check Box

Abracadabra: Polishing Reports – Formatting Charts 3/4

- Option to Use Fixed Label



Combination Chart 1

General
Drill Down
Behavior
Appearance
Alerts

Common
Scale
Animations and Effects

Scale

Manual (Y) Axis

Minimum Limit:

Maximum Limit:

Auto (Y) Axis

Allow Zoom

Less

(Y) Axis Scale:

Fixed Label S

Label Abbrevi

Divisions

Label Unit Abbreviations

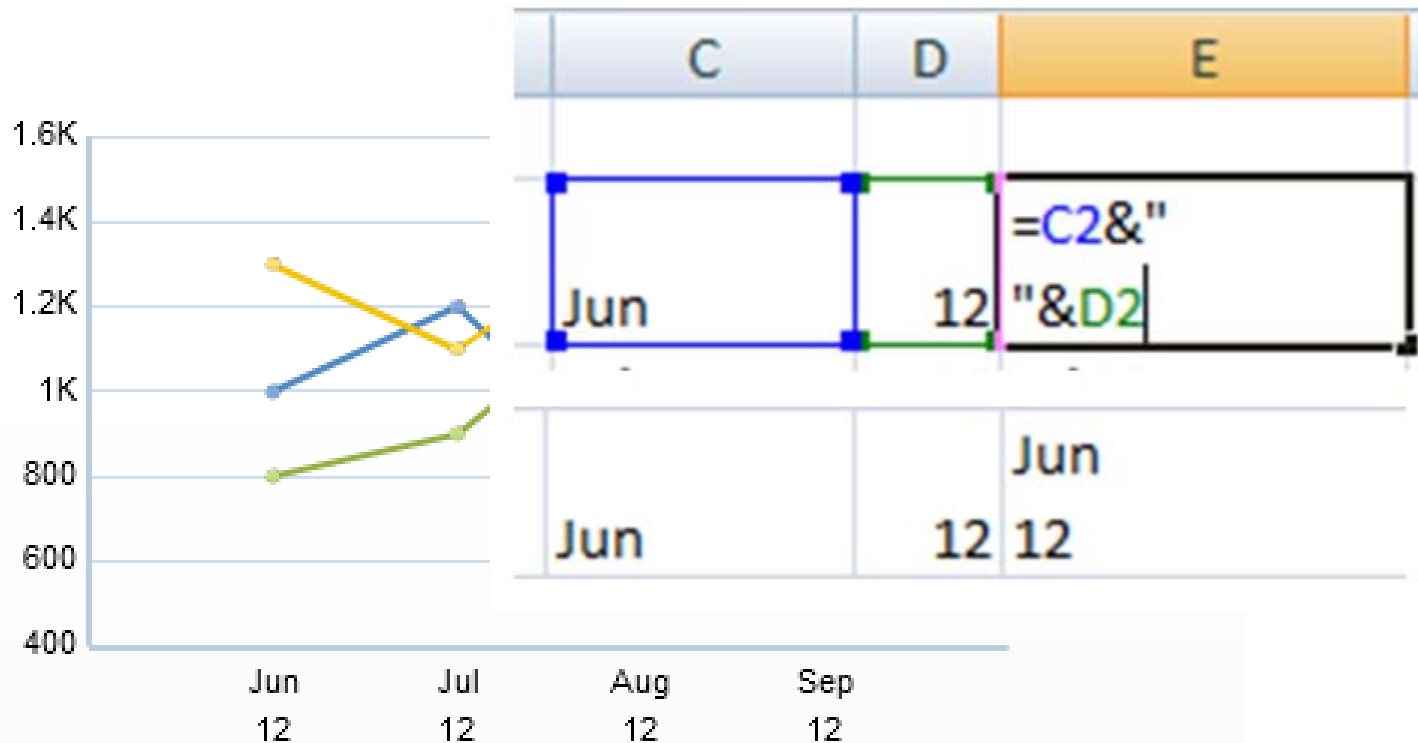
Units	Displayed Sign
thousands	K
millions	M
billions	B
trillions	T

Abracadabra: Polishing Reports – Formatting Charts 4/4

- Long Horizontal Axis Labels

Jun 12 Jul 12 Aug 12 Sep 12

- Create Row Break, ALT+Enter



Abracadabra: Polishing Reports

- Help & Linking to Other Reports
 - To Accomplish:
 - Review Create Link to Another Report - OpenDocument

Abracadabra: Polishing Reports – Help & Linking ^{1/2}

- OpenDocument

- Pass Parameters

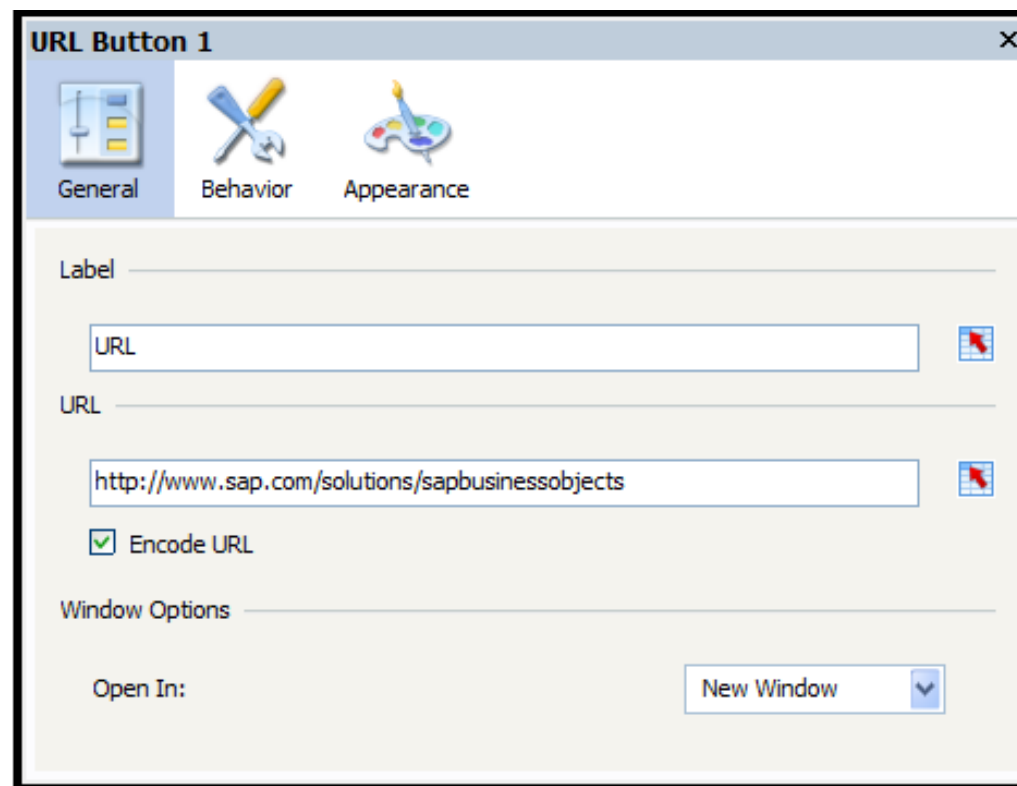
- =OpenDocument/opendoc/openDocument.jsp?iDocID=AXAJ0Tf3SHlCmLncMAkLVV0&lsSDashboard ID="&D10&"&lsSDimension ="&E18&"&lsSCode="&E16&"&lsSPeriod Type="&E17&"&lsSFocus ="&D20&"&lsSTrend="&E19

- 4.0 - “/BOE/”

- | | |
|------------------|--|
| <i>lsS[NAME]</i> | Specifies a value for a single prompt. [NAME] is the text of the prompt. |
|------------------|--|

Abracadabra: Polishing Reports – Help & Linking 2/2

- Email Link
 - Web Connectivity, URL Button
- URL = `mailto:sbrotje@harris.com&Subject=XcelsiusDashboards`



Troubleshooting Tips: *Fortune Telling*

- Connection Refresh Buttons
- Behind The Scenes: Preview Mode
 - Simple step prior to taking the Snapshot
- Sometimes Things Just Fall Apart
 - = Xcelsius/Dashboards

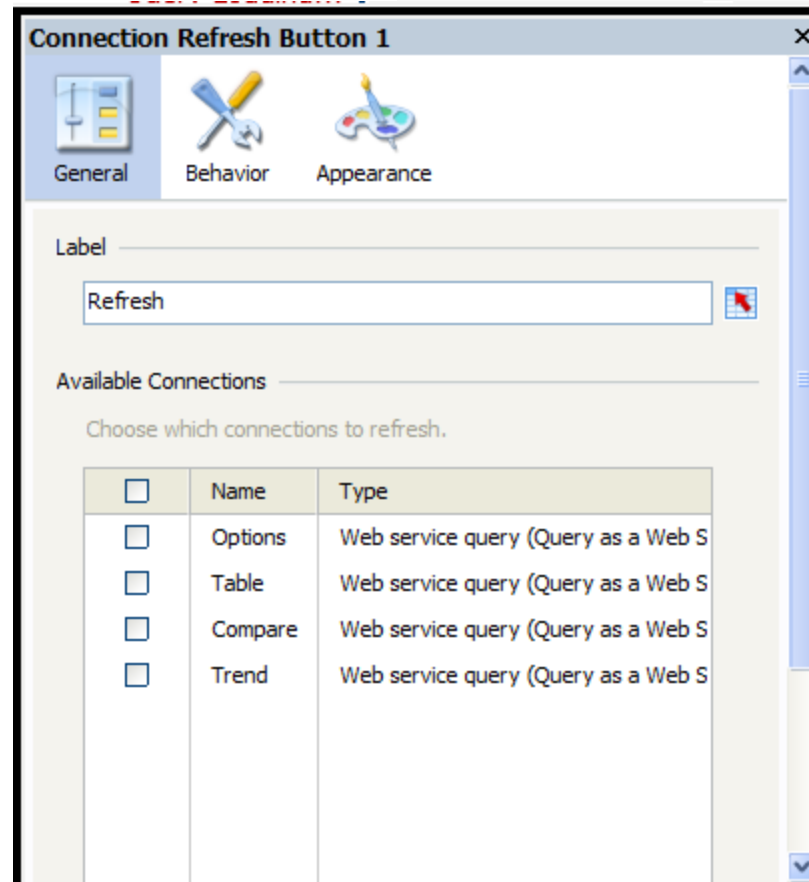


Fortune Telling: Troubleshooting

- Connection Refresh Buttons
 - To Accomplish:
 - Component: Connection Refresh Button – Front of Canvas
 - Understanding of “Refresh After Components Are Loaded” vs “Refresh Before Components Are Loaded”

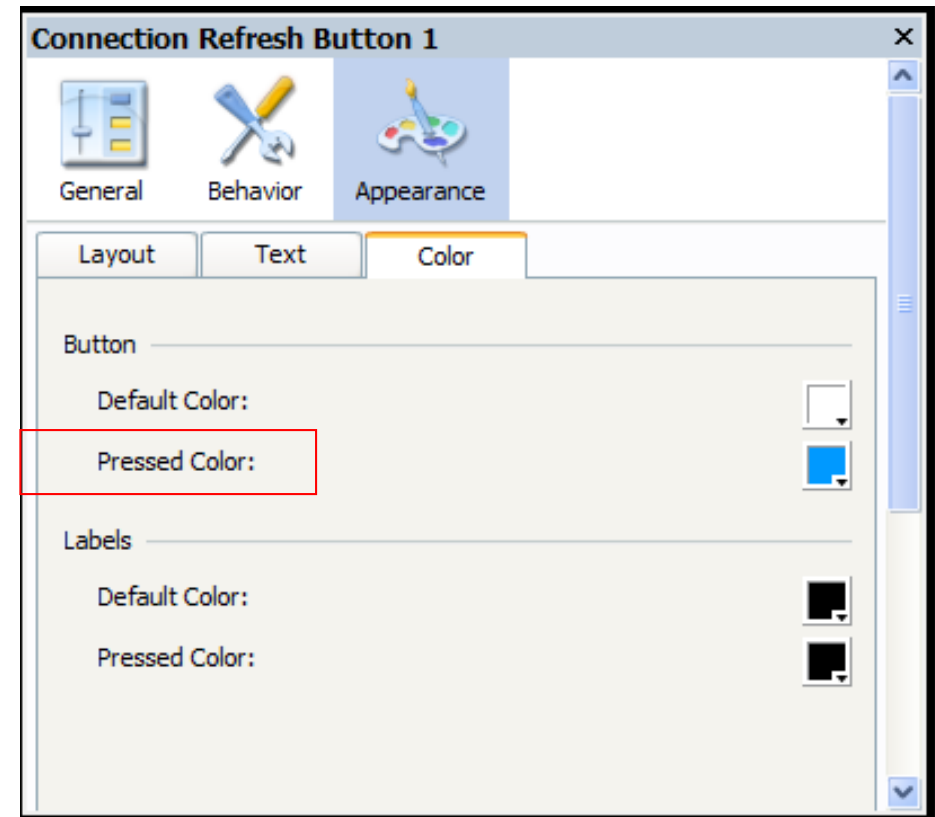
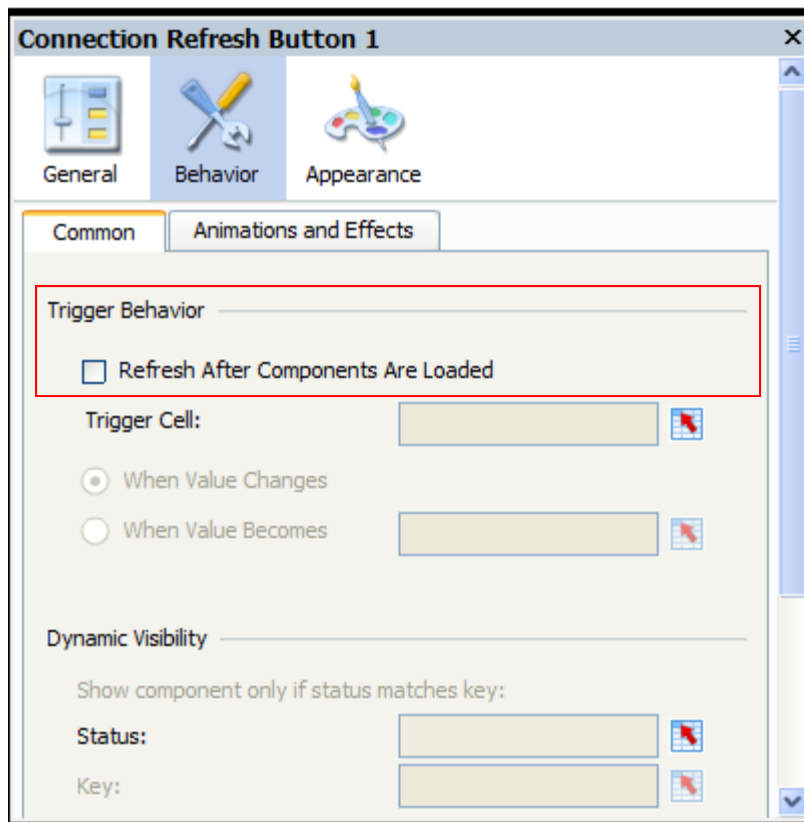
Fortune Telling: Troubleshooting – Refresh Buttons ^{1/2}

- Web Connectivity
 - Connection Refresh Button



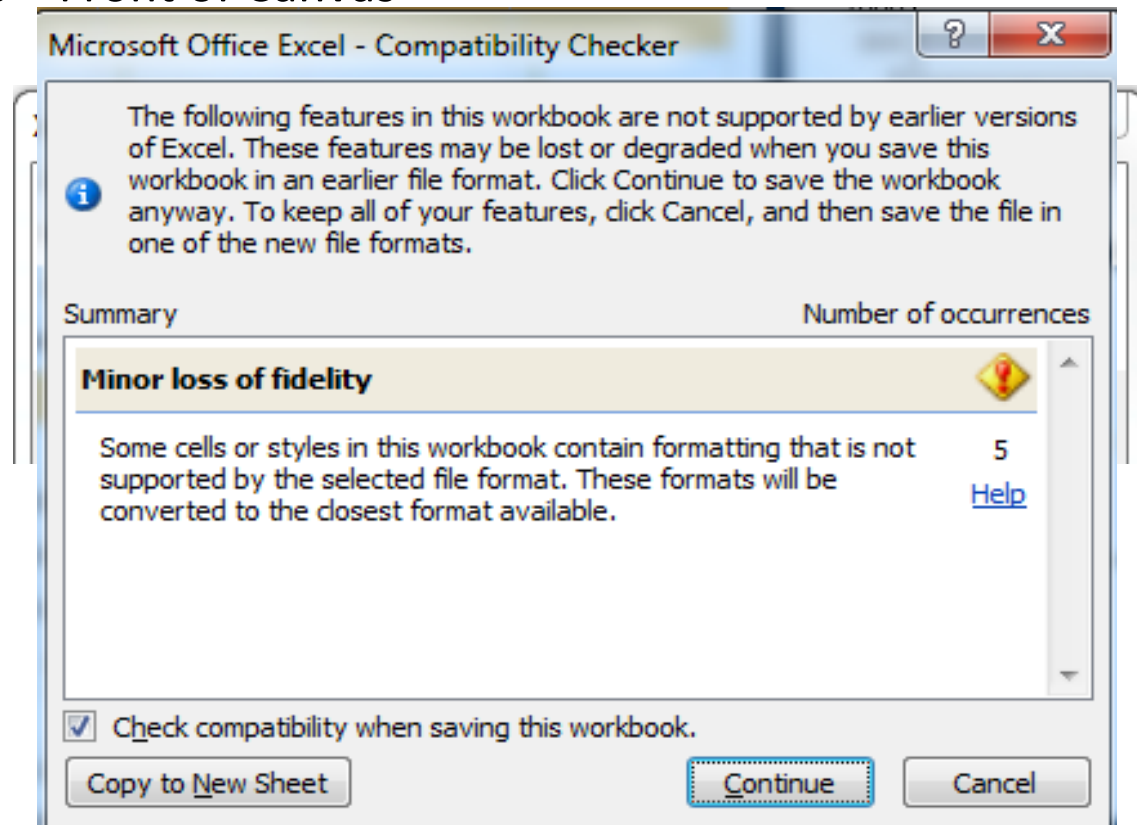
Fortune Telling: Troubleshooting – Refresh Buttons 2/2

- Refresh After Components Are Loaded
 - Vs Refresh Before Components Are Loaded, Found Where ??
 - ★ ■ Only Select One Option



Fortune Telling: Troubleshooting

- Behind The Scenes: Preview Mode
 - To Accomplish:
 - Layering Components – Front of Canvas
 - Avoid Crash
 - Avoid Excel Versioning



Fortune Telling: Troubleshooting – Before Snapshot

- Avoid Spreadsheet Table – Format of Spreadsheet
- Use Scorecard or List View



Company 1	5,000
Company 2	\$3.48
Company 3	0
Company 4	35%

I'm no Magician, but I've got my own bag of 'Dashboards (Xcelsius)' tricks (and I'll share)!

- Q&A
- Thank you
- Sandy Brotje
 - sbrotje@harris.com