Agenda

Finance Dashboard
- Purpose
- Data sources
- Development and Delivery
- Demo
- Evolution, Future Development & Feedback

Dashboards with Lumira
- Create your own custom dashboards

EIM Updates
- Components of Business Intelligence (BI)
- Benefits of BI and EIM
- The Reporting Process
- Examples
  - Simplifying data
  - Analyzing, Presenting and Communicating Date
  - Merging external data with SCEIS Data
  - Projections and Trend Analysis
Dashboard: Purpose

Reports are great,

- Can be time consuming to build
- May not be in one place or system
- May not give a complete picture
- Can be time consuming to maintain

BUT

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Dashboard: Purpose

Different users need different information, or the same information differently

State View  
Agency View  
Organizational Unit View
Dashboard: Purpose

- Verifying Transactions
- Managing Budget or Cash
- Projecting the Future
- Measuring Performance
Dashboards assist with analyzing & controlling your strategies.
Dashboard: Purpose

Executive/High Level View of Data

Simplify Complex Data

Track KPIs and other Key Information

Finger to the Pulse

Summarize Large Amounts of Information in One Place

Identify and Correct Negative Trends
Dashboard: Date Sources

- Expenditures, Encumbrances & Budget (FM Budget vs Actual)
- Revenue (FM Revenue Report)
- Cash (Available Cash)
Dashboard: Development & Delivery

Development
- Dashboard evolution
- Feedback needed
- Enterprise view to be used as template for customized agency views

Access & Delivery
- SCEIS login, password and appropriate roles required
- Link from website
- Working on other delivery methods
Location in Business Objects

Dashboard: Access
Dashboard: Overview
Dashboard: Overview

Filters:

- Posting Period
- High Level Fund
- Fund
- Fund/Cost Center
- Functional Area
- Funded Program
## Dashboard: Overview

### Finance Dashboard

### Overview

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Budget</td>
<td>$277,602,027.03</td>
<td>$281,405,884.43</td>
<td>$282,768,002.00</td>
</tr>
<tr>
<td>Real Adj</td>
<td>$13,426,548.90</td>
<td>$46,987,771.68</td>
<td>$26,904,831.12</td>
</tr>
<tr>
<td>Cash Adj</td>
<td>$21,890,440.94</td>
<td>$27,407,578.11</td>
<td>$22,135,419.33</td>
</tr>
</tbody>
</table>

### Budget vs Actual

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>YTD Exp</td>
<td>$67,980,022.43</td>
<td>$62,462,014.42</td>
<td>$62,452,220.35</td>
</tr>
<tr>
<td>% of YTD</td>
<td>25.54%</td>
<td>25.12%</td>
<td>25.00%</td>
</tr>
</tbody>
</table>

### Circumstances

- **2016**: $32,668,343.37
- **2017**: $35,938,153.88
- **2018**: $42,867,966.18

### Personal Services

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>YTD Exp</td>
<td>$6,580,283.90</td>
<td>$6,824,024.35</td>
<td>$6,170,355.09</td>
</tr>
<tr>
<td>% of YTD</td>
<td>25.00%</td>
<td>25.00%</td>
<td>25.00%</td>
</tr>
</tbody>
</table>

### Cash

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gen Fed</td>
<td>$11,305,787.96</td>
<td>$19,988,812.04</td>
<td>$24,253,515.05</td>
</tr>
<tr>
<td>Fed Fed</td>
<td>$1,265,774.73</td>
<td>$1,836,006.05</td>
<td>$1,706,884.15</td>
</tr>
<tr>
<td>Exec Fed</td>
<td>$73,218,011.76</td>
<td>$102,638,139.74</td>
<td>$114,603,470.34</td>
</tr>
<tr>
<td>Robit Fed</td>
<td>$2,705,840.44</td>
<td>$4,660,112.94</td>
<td>$3,904,303.34</td>
</tr>
</tbody>
</table>

### Revenue

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>YTD Rev</td>
<td>$16,167,102.23</td>
<td>$23,000,618.32</td>
<td>$24,000,180.27</td>
</tr>
<tr>
<td>% of YTD</td>
<td>5.04%</td>
<td>4.99%</td>
<td>5.00%</td>
</tr>
<tr>
<td>% of Cash</td>
<td>25.00%</td>
<td>25.00%</td>
<td>25.00%</td>
</tr>
</tbody>
</table>
Dashboard: Overview – Budget vs Actual
Dashboard: Overview – Personal Services
Dashboard: Overview – Revenue

Finance Dashboard
Revenue
Dashboard - Future Plans

December 2017
- Dashboard into Production

January – June 2018
- Feedback and adjustments

June 2018 - Beyond
- Develop and deploy agency specifics dashboards
- New delivery methods
Lumira – Creating Your Own Dashboard

Learn more and see great examples at: https://saplumira.com/
Lumira – Rollout

January to June 2018
- Subgroup of “Super Users” to help build templates

July to December 2018
- Train more users and develop process to roll out templates

January 2019 - Beyond
- Develop more templates for agency use
Enterprise Information Management Updates
Updates

Mission
• Business Intelligence, Reporting & Data Solutions
• Data Ambassadors

Team
• Kelly & Kelsey – Analysts
• Eric – Programmer
• Abhilash & John - Consultants

Current Major Projects
• Lumira & Design Studio Implementation
• SQL Server Implementation and Use
• RUG Meetings & Workshops
• Continued Agency Support

Communications
• New Contact Management Process
• Feedback via Surveys
• Working to Keep Website Up-to-date with handouts, presentations and updates

Note: Despite logos all examples use Department of Administration data
Components of BI

“A set of techniques and tools for the acquisition and transformation of raw data into meaningful and useful information for business analysis purposes“

- Wikipedia
Enterprise Information Management

Guidelines for how we gather, structure, cleanse, validate and manage the data that we have
Using available tools to give you the information that you need, when you need it and in the format that you need it in with relative ease and flexibility.
Analytics

Proactively engaging your data
Reasons for EIM and Business Intelligence

Better Business Decisions

- Large (summary) to Small (detail)
- On Demand Information
- Fact-based Decisions/Remove Guesswork
- Un-Touched by Human Hands - Remove that Error
- Improve data quality
- More dynamic and responsive information
- More Secure
- Efficiencies and Best Practices
- Ad hoc Analysis
- A More Empowered User/Bottom up, rather than top down
- More Data Sources to Develop a More complete Picture
How You Make Decisions Is More Important Than What you Decide

Professional development is enhanced

All employees will be able to contribute more effectively

Save time and better use of resources

Employee satisfaction and engagement will improve

People will accomplish more faster

Delegation will be easier and more effective

People will make fewer mistakes

Better Decisions

Employees will make fewer mistakes

Commitment will be stronger

Introverts can stop waiting for Godot

Employees will be able to let go and focus

Employees will feel a stronger sense of ownership

The Reporting Process

Steps

1. Needs
   • What are the questions that I’m trying to answer?
   • How can I improve the current state?
   • What data elements am I going to need?

2. Data
   • Is there a single source that has all the data elements that I need that will answer all of my questions? Can we get to it?
   • Where is the Data? In SCEIS?
   • How is it structured?

3. Tools
   • Knowing my needs and the data available, what tool(s) should I use?
   • After determining the tool, how can I best use it?

4. Process
   • How can I create a sustainable process to minimize future effort?
   • If requirements or cost accounts change, have I planned so that minor tweaks can accommodate that?
   • How can this solution make the most impact to my organization?
Simplifying Your Information

Filter, Link & Control

Hide Nonessential Information

Highlight Essential Information

Use Templates

Build it Right the First Time
1. 2 data sources (BEx Queries) and 2 tables of information - Current Contracts & PO's by Contract in 1 report

2. Create 2 tables (one for contract overview and one for PO's view)

3. Highlight contracts with less than 5% remaining using conditional formatting

4. Link Contract Info source to PO's by Contract source using element linking by choosing one contract.

5. Choose other layouts on other tabs
## Simplifying Your Data

### Layout 1 - with PO Line Item#:

<table>
<thead>
<tr>
<th>PO #</th>
<th>PO Line Item #</th>
<th>PO Line Item Description</th>
<th>PO Created on</th>
<th>Unit Price</th>
<th>Order Quantity</th>
<th>PO Amount (Total Released Value)</th>
<th>Net Invoiced Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>4400013680-4000483032</td>
<td>1</td>
<td>OCEAN AIRE WATER SOURCE COOLERS - 18K BTU</td>
<td>5/24/11</td>
<td>$3,581.10</td>
<td>0</td>
<td>$21,460.90</td>
<td>$21,460.90</td>
</tr>
<tr>
<td>4400013680</td>
<td>2</td>
<td>OCEAN AIRE WATER SOURCE COOLERS - 18K BTU</td>
<td>5/24/11</td>
<td>$3,581.10</td>
<td>4</td>
<td>$14,324.04</td>
<td>$14,324.04</td>
</tr>
<tr>
<td>4500456532</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total:** 10 | $35,811.60 | $35,811.60

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Simplifying Your Data

## Layout 2 - without PO Line Item# - Same report, different layout - data summarized by data elements in table.

By duplicating the first tab, and simply removing the line item information, BusinessObjects summarized the information to the PO header level.
Even though plant information isn’t contained in the table, you can still add an input control and filter contracts by associated plants.

**Input Controls**

Use input controls to easily (takes seconds to create) filter one tab, one table or all tabs and tables with information in the reports or not in the report.
<table>
<thead>
<tr>
<th>G/L Account</th>
<th>G/L</th>
<th>Unemployment Compensation (01)</th>
<th>Injury (02)</th>
<th>Nonmajor Enterprise (03)</th>
<th>Total of Columns 01 thru 03 (04)</th>
<th>Internal Service Funds (05)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fund - Balance Sheet - Proprietary</td>
<td>ZFBP</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1,111,055,849.01</td>
<td>1,587,552,982.17</td>
</tr>
<tr>
<td>ASSETS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current assets:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash and cash equivalents</td>
<td>ZFBP18</td>
<td>476,603,214.32</td>
<td>82,773,386.73</td>
<td>33,399,154.93</td>
<td>592,772,756.92</td>
<td>722,674,671.02</td>
</tr>
<tr>
<td>Investments</td>
<td>ZFBP19</td>
<td>9,658,135.12</td>
<td>106,173,358.88</td>
<td>84,111,299</td>
<td>199,942,793</td>
<td>1,216,756.15</td>
</tr>
<tr>
<td>Invested securities lending collateral</td>
<td>ZFBP20</td>
<td>52,578.38</td>
<td>578,002.17</td>
<td>2,908.67</td>
<td>633,489.22</td>
<td>7,826,121.49</td>
</tr>
<tr>
<td>Receivables, net</td>
<td>ZFBP17</td>
<td>100,150,929</td>
<td>387,150.16</td>
<td>3,395,845</td>
<td>103,933,924.16</td>
<td>233,068,497.17</td>
</tr>
<tr>
<td>Due from Federal govt. and other grantors</td>
<td>ZFBP31</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>17,391,995.59</td>
</tr>
<tr>
<td>Due from other funds</td>
<td>ZFBP32</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>10,166,839</td>
</tr>
<tr>
<td>Due from other component units</td>
<td>ZFBP33</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inventories</td>
<td>ZFBP35</td>
<td>2,213,780.06</td>
<td>2,213,780.06</td>
<td>3,108,068.22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Restricted assets</td>
<td>ZFBP36</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Trend Analysis & Projections

Historical Information
- Analysis of Past Patterns

Current Movements
- Analysis of Current State

Future Movements

Complete YTD for Previous FY and through November for Current FY

<table>
<thead>
<tr>
<th>FY</th>
<th>YTD Actual Expense</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>$46,710,258</td>
</tr>
<tr>
<td>2017</td>
<td>$56,386,296</td>
</tr>
<tr>
<td>2018</td>
<td>$23,121,639</td>
</tr>
</tbody>
</table>

YTD (July - November)

<table>
<thead>
<tr>
<th>FY</th>
<th>YTD Actual Expense</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>$18,444,789</td>
</tr>
<tr>
<td>2017</td>
<td>$19,872,466</td>
</tr>
<tr>
<td>2018</td>
<td>$22,095,577</td>
</tr>
</tbody>
</table>

MTD (November)

<table>
<thead>
<tr>
<th>FY</th>
<th>YTD Actual Expense</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>$1,474,560</td>
</tr>
<tr>
<td>2017</td>
<td>$1,882,824</td>
</tr>
<tr>
<td>2018</td>
<td>$3,408,208</td>
</tr>
</tbody>
</table>
South Carolina Department of Administration
Fiscal Year: 2018
Estimated Cash Balances as of 11/30/17

Trend Analysis & Projections

Current Year ACTUALS

PROJECTED expenses (by other operating and personnel services) and revenue based on commitments and actuals by commitment items

Prior Year ACTUALS vs Expected Totals (based on ACTUALS and PROJECTIONS)
Drill into other funds by Cost Center (or other data elements) with bookmarks.
In one report, have trend analysis overviews and current FY (or previous FY) information in table form.
Starting a Project

Interviews
- Who will be using this?
- What are the pain points?
- What data is missing or difficult to access?
- What do you or your stakeholders want to know, but can’t find out?

Drawing Board
- Build a diagram demonstrating workflow.
- Detail or summary information? With the detail, you can always summarize.
- What tools and tool features do I have at my disposal?
- “Inch by Inch, life’s a cinch; yard by yard, life’s hard”

Mock it Up
- With the purpose, data elements, data sources, techniques and end product identified, you can now begin your project.
- Reconcile
- Backup
- Improve
Mockup Example
## Distribute

### Guides on SCEIS Website

<table>
<thead>
<tr>
<th>Scheduled Reports</th>
<th>Publications</th>
<th>Send Reports to BI Inbox</th>
</tr>
</thead>
</table>
| • Set reports to run automatically daily, weekly, monthly, etc.  
  • Send 1 reports to users inbox as PDF, Excel or CSV files | • Send 1 or more reports to users inbox as PDF, Excel or CSV files  
  • Create distribution lists in Excel and restrict which users see what information | • Send actual reports for other users to run  
  • Great for collaboration |
Create simple distribution lists in Excel with names and emails along with information to filter the report. For example, create one report with many Cost Centers, and send information to staff for only their Responsible Cost Centers.
Merging Non-SCEIS with SCEIS (Excel)

Compare Internal Data with SCEIS Data using a Spreadsheet

Spreadsheet values compared to SCEIS Actuals

SCEIS Data

SCEIS Data
EIM – Other Data Sources
Questions or Comments?

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