Data Visualization for Mobile Devices with OBI 11g

Collaborate 14

Session 711

Chris Claterbos & Tim Vlamis

Vlamis Software Solutions
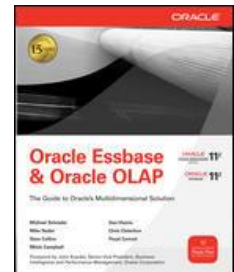
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http://www.vlamis.com

Vlamis Software Solutions

- Vlamis Software founded in 1992 in Kansas City, Missouri
- Oracle Gold Partner
- Developed more than 200 Oracle Business Analytics systems
- Specialize in ORACLE-based:
  - Business Analytics and Business Intelligence
  - Oracle Advanced Analytics (Oracle Data Mining and Oracle R Enterprise)
  - Data Warehousing
  - Oracle OLAP, Oracle Spatial, OBIEE
- Expert presenters at major Oracle conferences
- www.vlamis.com (blog, papers, newsletters, services)
- Co-author of book "Oracle Essbase & Oracle OLAP"
- Beta tester for OBIEE 11g, Oracle 12c (in-memory)
- Oracle University Partner
- Oracle Database 11g: Oracle Data Mining Techniques Instructors

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Chris Claterbos

- ## Chris Claterbos, Technical Director
  - Technical Director for Vlamis Software Solutions, Inc. working with Vlamis Software Solutions for 15 years.
  - DBA and applications developer for Oracle products, since 1981.
  - Beta tester and early adopter of - including OBIEE11g, Oracle 8i, 9i, 10g,11g and 12c, and Jdeveloper, Oracle OLAP, Data Warehouse Builder
  - Speaker and author of several books.
  - Previous IOUG Focus Area Manager for Data Warehousing and BI

Tim Vlamis Bio

- 25+ years experience in business modeling and valuation, forecasting, and scenario analyses
- Joined Vlamis Software in 2007
- Expert in principles and elements of design
- Instructor for OBIEE, Oracle Advanced Analytics (Oracle Data Mining and Oracle R Enterprise)
- Professional Certified Marketer (PCM) from AMA
- Active Member of NICO (Northwestern Institute on Complex Systems)
- Adjunct Professor of Business Benedictine College
- MBA Kellogg School of Management (Northwestern Univ.)
- BA Economics Yale University

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Mobile BI Considerations

- Target Audience
  - Executives | Managers | Workers
- User Experience
  - View | Analyze | Take Action
  - Disconnected?
- Security
  - Access | Data
- Development Effort
  - Low | Medium | High
- Architecture
  - App | Browser | Hybrid

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Target Audience

- Who are the target audience?
  - Executives
  - Managers
  - Workers
- Which mobile BI functionality do they need?
  - Query Dashboards and Reports
  - Receive Alerts
  - Create or modify Reports
  - Save locally
- What do they desire of the system?
  - Speed
  - Simple to use
  - Same Reports as Non-Mobile

User Experience

- How will users interact with the system?
  - View Only
  - Perform Analysis
  - Take Action
- Which mobile devices will they use?
  - Only one type
  - Multiple types (smart phones and tablets)
- Which Platform?
  - Single (Apple **or** Android)
  - Multiple (Apple **and** Android)

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Security

- What credentials will the user need to access the system?
  - Web SSO
  - VPN
  - Other
  - None
- Is the required security supported by Device?
  - Web based is generally easier
  - App Based can be difficult

Architecture

- Which architecture to choose?
    - Native Application
    - Browser
    - Hybrid
- What are pros and cons of the choice?
    - Scalability
    - Manageability
    - Development effort

Development Effort

- What's the level of effort required to?
    - Develop new content
    - Enable existing content
- Are skills and tools required for mobile vs. web development?
    - Same
    - Different
- Is there any BI content available out-of-the-box?
    - Build
    - Buy

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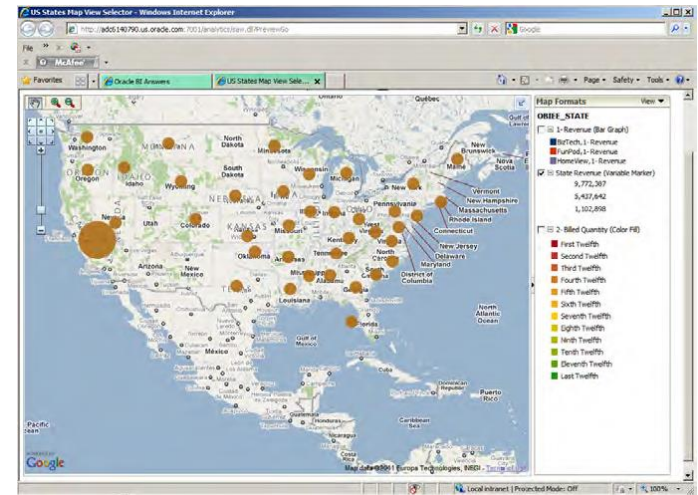SOFTWARE SOLUTIONS

Oracle's Solution

Oracle Business Intelligence Mobile

- Built on OBIEE 11*g*
- Optimized for smartphone and tablets
- Apple iPhone, iPad and iPod
- Zero training to interact with data on mobile devices
- OBIEE Security Model
  - SSL, SSO,VPN

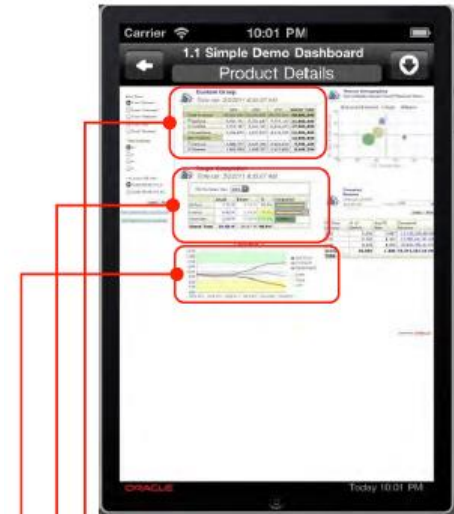# Lower TCO through Content Reuse

- Reuse of OBIEE content
  - Dashboards
  - Analyses
  - BI Publisher Reports
  - Actions
  - Agents
  - Guided Navigation
    and more

Enhanced for Smartphones and Tablets

- Gestural interactions

- Orientation Recognition

- Optimized Layouts

Oracle BI Mobile Functionality

- Recent History

- List of Dashboards

- Favorites

- Local off-site saving

- Email of content supported

- Printing

- Search

Oracle BI Mobile App Designer

- Stand alone application for developing "touch-optimized" presentations of data.
- HTML 5 – dynamic and highly interactive
- Drag and Drop dashboard components
- Publish finished apps to BI Apps Library
- Enterprise level integrated security
- Any device, any screen

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Data Visualization Tips for Mobile Apps

- Limit use of large tables
- Prefer use of Performance Tile views
  - Think through consistent use of conditional formatting
    - Color choices
    - Font choices
  - Enable and plan master detail linking options
  - Anticipate navigation options
- Prefer use of graphs
  - Line graphs with time on X axis
  - Bar charts for comparison
  - Avoid dials and gauges
- Critical importance of visual standards

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Keys to Effective Tables

- Eliminate unnecessary gridlines
- Enable column and row sorting
- Avoid scrolling (if possible)
- Display significant figures
- Judiciously use conditional formatting
- Avoid putting text in color
- Left justify text cells and Right justify numerical cells
- Align the decimal point for numerical cells
- Prefer smaller tables
- Write informative titles for tables and column head descriptions
- Be transparent about data selection
- Enable roll overs for meta data for commonly used tables

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Tables

- Tables can present data from at drastically different scales.
- Tables can present very different data types simultaneously.
- Tables can repeat and include multiple sets of the same data values.
- Tables are extraordinarily dense and include numerous data relationships without direct distortion of the data itself.

Keys to Effective Graphs

- Do not use 3-D effects.

- Avoid "stop light" color palette.

- Prefer pastel color palettes.

- Avoid bright colors.

- Do not use round gauges or dials.

- Eliminate gridlines, drop shadows, and other graphics.

- Enable interaction for "exploration" graphs

- Prioritize a single message for "explanation" graphs

- Alignment, proximity, contrast.

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Basic Graphs

- Types of graphs when to use them
- Using titles, axis descriptions, and scales effectively
- Color choices in graphs
- Making graphs interactive
- Sliders and graphs in motion
- Editing and formatting graphs
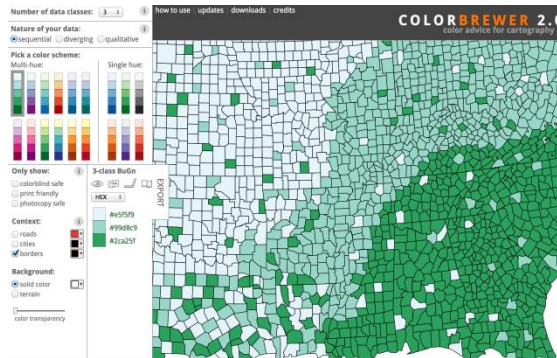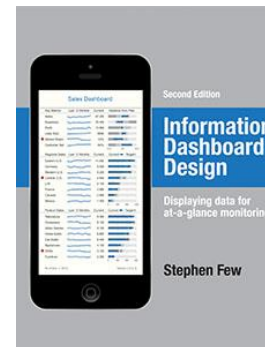- Zooming and scrolling in graphs

Maps

- Types of maps
- Map best practices
- Making meaningful maps
- Built-in data sets
- NAVTEQ data sets and POI data
- Sources for additional data sets

Resources

- www.colorbrewer2.org

- www.perceptualedge.com

- www.smashingmagazine.com

Oracle BI HD Demo

Oracle Test Drive

- Free to try out OBI, OAA and Big Data

- Go to www.vlamis.com/td

- Runs on Amazon AWS

- Test Drives for:
  - OBIEE
  - Map Views in OBIEE
  - Microsoft Excel against Oracle OLAP
  - OAA/Oracle Data Mining
  - OAA/Oracle R Enterprise
  - Big Data

- Available now

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Vlamis Collaborate Presentations

Presenter	Session	Time	Location	Title
Tim Vlamis	IOUG	Tues 4:15 – 5:15 PM	Level 3, Toscana 3710	Managing the Social Responsibility Challenges of Analytics in 21st Century Organizations
Tim Vlamis	OAUG	Tues 5:30 – 6:30 PM	Level 3, San Polo – 3504	14787 Dashboard and Visualization Best Practices for Oracle BI Applications
Dan Vlamis	IOUG	Wed 8:30 – 9:30 AM	Level 3, San Polo – 3405	711 Data Visualization for Mobile Devices with OBI 11g
Chris Claterbos	IOUG	Thurs 3:00 – 4:00 PM	Level 3, San Polo – 3405	765 Making Your Data Warehouse FASTER

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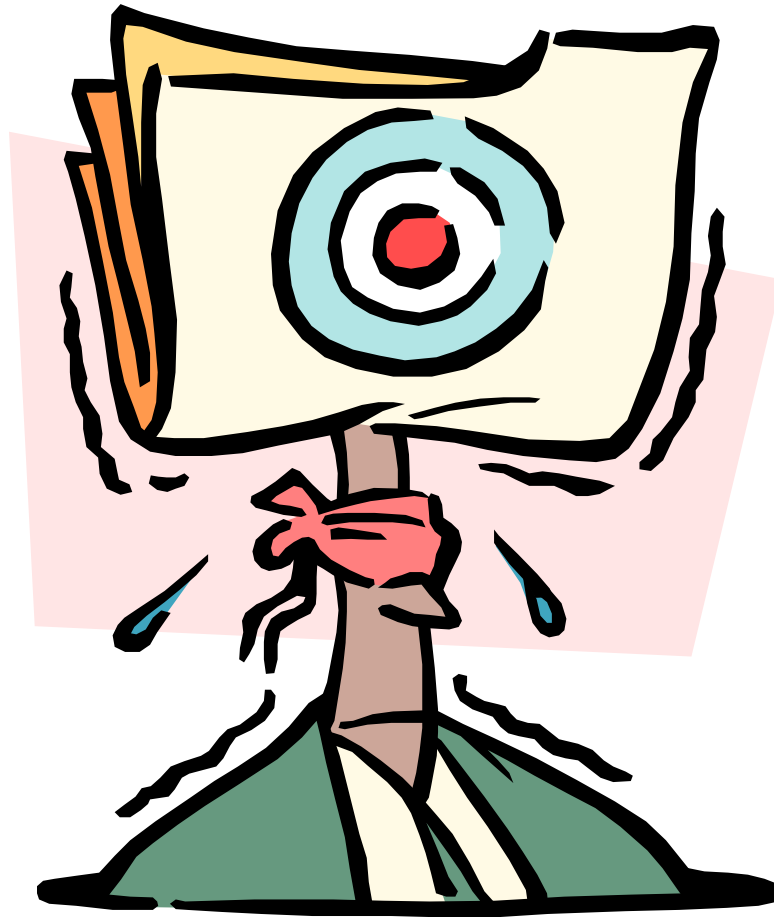*Mark Your Calendars <u>Now</u>!*

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Oracle HQ Conference Center

Accepting Abstracts NOW!

Business Intelligence, Warehousing and Analytics
IOUG Special Interest Group

www.biwasummit.com

Thank You!

Thank You for Attending Session 711 **Data Visualization for Mobile Devices with OBI 11g**

Presenter Information

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