STAR System Training

Reporting III

EvDRE
Getting Help

• Quick Reference Guide in your folders

• Online Help in STAR

• STAR Website: http://cfo.asu.edu/budget-star

• Technical questions:
  – STAR administrators (Susan Belhassen and Tod Kemper): STARadmin@asu.edu
    or 480-727-0669
Today’s Training Objectives

1. STAR Review
   - Terminology/ Navigation
   - Types of reports

2. EvDRE reporting
   - Intro: Definition, Components
   - Creation
   - Parameters, Exploration
   - Class Exercise
   - Customization
STAR Review
STAR Reports

• STAR Web reports (internal or “canned”)
  – Covered in Reporting I (Basic) class

• Dynamic template (i.e. Any-by-Any wizard)
  – Introduced in Reporting I (Basic) class
  – Continued in Reporting II (Advanced Any-by-Any) class

• Evdre (non-dynamic wizard)
  – Introduced in Reporting II (Advanced Any-by-Any) class
  – Continued in Reporting III (Evdre building) class
And... Action!

STAR’s Action Pane

Action Pane with Current View collapsed

Action Pane with Current View expanded

Session Information
- Logon: sbelhass - STARappset
- CV: FINANCIAL - ALL_CAMPUS - ACTUAL_REV_EXP - ALL_DATA_SOURCES - 1RPR00 - ALL_FUNDS_BY_NUMBER
- RevenueAndExpense-2011.total
- Periodic

Getting Started - BPC for Excel

BPC Tasks
STAR Dimensions

- Exist in all Applications – some are shared across applications (such as Campus or Entity)
- Units within each dimension are called Members
- Dimensional/ Member intersections determine the facts/ data

But...

Application isn’t a dimension. What is an application in STAR? What are STAR’s applications?
Dimension Member Lists
(Dimension Member Selector Dialog Box)

Remember:
To open up the Member List, click on the Dimension Name; it is an actionable object.
STAR Dimensions

- All dimensions work together, but these dimensions are the biggest drivers:
  - **Category** (actual_rev_exp, original_budget, etc.)
  - **Entity** (Advantage agency+org account numbers and rollups)
  - **Object_Financial** (Revenue and Expense coding from appropriation unit level to sub-object level: i.e. A to 731010)
  - **Fund** (State, Local, Sponsored, etc. i.e. 11XX, 5XXX, 3XXX)
  - **Time** (and **Measures** which works with it if looking at a specific month):
    - 2012.**Total** and no diff between **Periodic** and **YTD**
    - 2012.**Oct** and **Periodic** = only numbers for Oct 2012
    - 2012.**Oct** and **YTD** = numbers for Jul 2012 – Oct 2012
Expand & Refresh

Buttons located on the Add-Ins tab of the ribbon →

Expand

• Draws the rows and columns based on your settings
• **Overwrites** everything that was already in the rows & columns before expanding (larger process than refreshing)
• Looks at the database to find all the members that your Current View settings ask for (will find members that are new since the last time you Expanded)

Refresh

• Updates the data for the existing row and column members (does not look for new members – smaller process than expanding).

Note: If a cell shows “#RFR,” it means you need to refresh.
STAR EvDRE Report
Intro
What is an EvDRE report?

• EvDRE is another reporting tool (Everest Data Range Exchange) within STAR Excel.
• It uses Excel’s named range formulas.
• It processes a little faster than the Any-by-Any.
• It is not dynamic like the Any-by-Any, so requires a greater level of manual intervention from the end-user, but that also means that there’s more user control.
• Most of STAR’s Internal web reports (the “canned” reports) are EvDRE reports.
• EvDREs can display multi-dimensionally while Any-by-Any reports only display two dimensions.
Introduction to EvDRE

Most of the STAR Internal Web reports are built upon EvDREs. Let’s look at the Monthly Year-end Forecast Report:
Introduction to EvDRE

To ensure the report is functioning properly to begin with, follow instructions for the report and select a month in the Time dimension (any Entity/Month can be chosen for this demonstration):

Before:
(Warning message appears.)

After:
(Warning message is gone and report is populated.)
Introduction to EvDRE

Ungroup and unhide the hidden columns and rows until you can see cell A1 (use your Excel know-how for this task).
STAR Reporting III
Thinking Ahead…

Before you begin your EvDRE, think about the data that you want to see. How would data be structured in your spreadsheet? What would you put in rows? What would you put in columns?

Which STAR dimensions correspond to those rows and columns? Which dimensions wouldn’t be shown in the report, but would contribute to your dataset via Current View setting?

Food for thought:

Which reports (manually or in STAR) do you use right now?

• If you prepare a manual report, which STAR dimensions might correspond to the rows and columns? Which dimensions would be assumed from Current View?

• If it’s a STAR Report that you use, open it and try to determine which dimensions make up rows, which make up columns and which might be assumed from the Current View.
The EvDRE Function

• Report is made by opening a new spreadsheet, typing =EVDRE() into any blank cell, and then clicking the Refresh button to start a wizard (cell A1 is a good place to start).

• Dimensions for Columns and Rows are selected in the wizard. You can choose beyond the default settings. Unlike the Any-by-Any, they are difficult to change later.

• After the wizard runs, the () are filled with parameters: =EvDRE(“APPLICATION”, ”Key Range”, ”Expansions”) and it shows “EvDRE: OK”.

Exercise: Following the instructions above, build an EvDRE report with your current Current View settings and use the default columns and row settings in the EvDRE wizard.
The EvDRE Function Parameters

There are three Parameters of EVDRE():
1) Application  2) Key Range  3) Expand Range

This example shows Evdre ($I$2,A4:B11, A14:C20)
Primary Key Ranges

Three types of Key Ranges: PageKeyRange, ColKeyRange, RowKeyRange

HINT: use of “F2” key …
1. Click in cell and hit F2 to see the area that is being reference by the EVRNG function;
2. The target range can be adjusted by dragging from the corners of the outline.
The list of members in the PageKeyRange defines your data set (“query filters”).

Each cell in the PageKeyRange contains a formula that points to your Current View (EvCVW()).

If you want to hard-code the members, simply type over the EvCVW formula the member you want (type in the exact ID).

Best Practice:
- Remove members that are specified in your row and col key ranges
- Format members that are “hard-coded” in bold
Customizing Page Key Range

You can choose multiple members in the Page Key by typing them in manually (hard-coding) over Current View.

- For example, Fund set to **Fund_1140,Fund_1150** in the page key range will produce numbers that sum data from both of those Downtown and Tempe State funds:

  ![Table Example]

  **Note:** #NODATA is not an error in the member description; it’s okay.

- Title your report accordingly since it will no longer reflect the Current View (**what else should you do?**).

- You can only do this with dimensions that are **NOT** already in your Rows or Columns.
Ranges and Expansion

The Column Key Range and Row Key Range (ColKeyRange, RowKeyRange) work with the third EvDRE parameter, Expand Range.

- The row and column key ranges control *where* the columns and rows are located in the report.
- The expand range controls *what* the data content is that populates the report.
- Once the EvDRE is built, the expand range is optional. Thus, you can ‘turn off’ expansion by deleting the expand range from the EvDRE Parameters.
Row and Column Key Ranges: Hints & Suggestions

• Most common error in EvDRE: *column or row key range* formulas don’t point correctly. If the report is broken, check them—twice! Use F2 to outline/update range.

![#ERR: RowKeyRange must be made of at least 2 rows, wks:Sheet1]

Row and Column Key Ranges:

• Each row and column key range must consist of *at least* 2 rows.
• Auto-hiding: The EvDRE report will auto-hide empty rows or columns *of the key range*. Thus, if you only see one row or column key, the other one is hidden. If there is no data at all, then both column and row keys will be hidden.

(Hint: You can use your Excel knowledge to highlight and un-hide the columns/rows if you want to see them.)
Defining the **MemberSet**

The **MemberSet** shows which **Dimension** members you’d like to see in your **Columns** and **Rows**.

<table>
<thead>
<tr>
<th></th>
<th>PARAMETER</th>
<th>EXPANSION 1</th>
<th>EXPANSION 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>Expandln</td>
<td>COL</td>
<td>ROW</td>
</tr>
<tr>
<td>15</td>
<td>Dimension</td>
<td>TIME</td>
<td>OBJECT FINANCIAL</td>
</tr>
<tr>
<td>16</td>
<td>MemberSet</td>
<td>self,dep</td>
<td>self,dep</td>
</tr>
<tr>
<td>17</td>
<td>BeforeRange</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>AfterRange</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Suppress</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Insert</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Defining (Customizing) the MemberSet

The MemberSet can be a single, plural or combination of:

- Expansion Functions such as the design default: SELF, DEP (or any others on the list in the following slides)
- Comma delimited list of members. This constitutes a “hard-coded” list: actual_rev_exp, current_budget, original_budget
- Filters. Filters work on properties: ACCTSTATUS="A"
- Example of combinations of the above:
  - … DEP AND ACCTSTATUS="A"
  - … DEP(1RPVP30),1RPVP30
Member Set Expansion Functions

• Functions refer to the member specified in Current View or PageKeyRange member by default. It can be changed if desired.

• A relative MemberSet works from the member you specify, regardless of what is in your Current View or PageKeyRange:
  - DEP(1RPVP30) → All dependents of 1RPVP30
  - BAS(11XX) → All base members under Fund 11XX

Select from drop-down menu for one selection only.

OR

Type in multiple entries separated by commas.
# MemberSet Expansion Function Keywords

<table>
<thead>
<tr>
<th>MemberSet</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>SELF</td>
<td>Only the current member*</td>
</tr>
<tr>
<td>BAS</td>
<td>Base members under current member* (be alert!)</td>
</tr>
<tr>
<td>DEP</td>
<td>Children of current member* (1 level down)</td>
</tr>
<tr>
<td>LDEP(n) **</td>
<td>All descendants down “n” levels from current member*</td>
</tr>
<tr>
<td>LDEP(n,MemberID,Y) **</td>
<td>Descendants “n” levels down from MemberID, not including interim levels in the hierarchy. For example, LDEP(2,RevenueAndExpense,Y) lists only the Appropriation Units (two levels down from RevenueAndExpense)</td>
</tr>
<tr>
<td>ALL</td>
<td>All descendants of current member* (beware!)</td>
</tr>
<tr>
<td>BASMEMBERS</td>
<td>All base members in the dimension (beware!)</td>
</tr>
<tr>
<td>MEMBERS</td>
<td>All members in the dimension (beware!)</td>
</tr>
<tr>
<td>NOEXPAND</td>
<td>Disables expansion for this dimension</td>
</tr>
</tbody>
</table>

* “Current member” means member specified in Current View or Page Key Range

** “LDEP..” functions are very useful but must be typed in.
Guiding Exercise

Scenario: You would like to see both FY11 and FY12 actuals to budget, revenues and expenses for the your rollup, 1RP4DAA.

Exercise: Create an EvDRE report to show the data.

Process:
1) Set Current View
2) Create EvDRE
3) Choose row and column dimensions
4) Make adjustments in Control Panel and Row or Column Key Ranges
Step 1. Set Current View

Unlike the Any-by-Any report, the EvDRE is not dynamic and thus does not expand each time you change a setting in the Current View. With EvDRE, you must remember to manually re-expand each time you’re ready to see the results of changes you have made.

As such, presetting the Current View isn’t as important for EvDRE. However, it’s a good habit to get into as it saves steps later; the sooner you can get your data, the better.
Template Exercise: Set Current View

Which members to select for Current View?

**Scenario:**
You would like to see your FY11 and FY12 actuals to budget, revenues and expenses for your rollup, 1RP4DAA.

- **Application:** Financial
- **Campus:** All_Campuses
- **Category:** All_Actuals
- **DataSrc:** All_Data_Sources
- **Entity:** 1RP4DAA
- **Fund:** All_Funds_By_Number
- **Object_Financial:** RevenuesAndExpense
- **Time:** 2012.Total
- **Measures:** Periodic
Template Exercise: Set Current View

Please select these members for each dimension in your current view:

Application: FINANCIAL
Campus: ALL_CAMPUSES
Category: ALL_ACTUALS
DataSrc: ALL_DATA_SOURCES
Entity: 1RP4DAA
Fund: ALL_FUNDS_BY_NUMBER
Object_Financial: RevenueAndExpense
Time: 2012.TOTAL
Measures: PERIODIC
Create EvDRE In A Blank Spreadsheet

**Remember:**
Use “Home” and “Back” if Action Pane doesn’t show “Reporting & Analysis” below.

**Step 1:** Click “Reporting & Analysis”

Step 2: Click “Open a blank workbook”

**Hint:** The keyboard shortcut for a new sheet is Ctrl+N.
Start the EvDRE Wizard (Learn the Two-Step)

**Step 1:**
Click on any blank cell (such as A1) and type the formula:

```
=EVDRE()
```
And then press ‘Enter.’

**Step 2:**
Follow instructions and click the “Refresh” button on the Add-ins Ribbon (or right-click and select Refresh Workbook).
Use the EvDRE Wizard

1. EvDRE Builder wizard opens with default settings.

2. Set the dimensions in columns and rows. Order matters.

3. Select additional options now.

4. Click OK and wait for report to be built.
... your first “EvDRE” report!
Open the Control Panel

Use Excel’s Grouping symbol (+) to unhide the control panel columns.

<table>
<thead>
<tr>
<th></th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>App</strong></td>
<td><strong>Financial Application</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td><strong>CAMPUS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>all_Actuals</td>
<td>All ASU Campuses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>all_Actuals</td>
<td>All Actuals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>all_Actuals</td>
<td>All Data Sources</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>all_Actuals</td>
<td>DEAN: FACILITIES &amp; MGMT(FDM)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>all_Actuals</td>
<td>ALL FUNDS</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>8</td>
<td>all_Actuals</td>
<td>Periodic</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>9</td>
<td>all_Actuals</td>
<td>All Revenue and Expense Objects</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>all_Actuals</td>
<td>2012 Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>RevenueAndExpense</td>
<td>All Revenue and Expense Objects</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>REVENUE</td>
<td>All Revenue Objects</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>EXPENSE</td>
<td>All Expense Objects</td>
<td></td>
<td></td>
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<tr>
<td>15</td>
<td></td>
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<td>16</td>
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<td>17</td>
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<td></td>
</tr>
</tbody>
</table>
Flashback: Guiding Exercise

_scenario:_ You would like to see your FY11 and FY12 actuals to budget, revenues and expenses for your rollup, 1RP4DAA.

_exercise:_ Create an EvDRE report to show the data.

_process:_  ✔  1) Set Current View
            ✔  2) Start EvDRE
            ✔  3) Choose row and column dimensions
            ✔  4) Make customization adjustments in Control Panel and Row or Column Key Ranges
                » Specify Membersets for Time, Category & Object_Financial dimensions
                » Suppress Zero Rows
Custom Member Set
Column and Row Expansions

1. Custom Column Expansion: Show actuals and budget
   In your Column Expansion, where you have Category, specify the members:
   All_Actuals, Original_Budget

2. Custom Row Expansion: Show more hierarchal levels down other than just one. Try showing 4 levels.
   In your Row Expansion, where you have Object_Financial, specify the top level (SELF) and four levels down the RevenueAndExpense hierarchy:
   SELF, LDEP(4)

3. Re-Expand your report.
Suppression of Blank Rows or Columns

- Enter Y in the Suppress row of the Expand Range for the dimension upon which you want to suppress blanks.

![Suppression Table]

Re-Expand your report.

Finishing Touches: What else could you do to improve the appearance of your report?
What to do with the Report?

Close Template without saving changes.

OR

Save as a live STAR Excel file on your computer/network drive (next slide).

OR

Park N Go and then Save as a macro-enabled Excel file on your computer/network drive.

Park N Go Settings

Park N Go is a feature that allows you to lock down the current view, or both the current view and data.

Current setting:
Set to live data and live current view

Select an option:
Set to live data and static current view
Set to static data and static current view
Set to offline (no connectivity)
Saving a STAR Report

Save as a live report on your computer/network drive:

1. From the **Microsoft Office** menu button, choose **Save As**.
2. On the left side, click on the icon called “My Network Places.”
3. Next, where it says File name, type in: `\Client\X$` (in place of ‘X’, substitute the letter of your network drive or drive to which you want to save and press Enter.
4. Your drive directory will appear. Navigate to the desired location, name your file and Save (click **Save** when done).

Remember:
- This is not your “Desktop.”
- This is not your “My Documents.”
- This is not your “My Computer.”

You must type in your path first, and then navigate through your Windows (or Mac) directories.
In conclusion…

• **DO NOT FEAR** – Just try different things! Explore… And be patient.

• You can’t really hurt anything – if you really mess up a report, just close it and try again!

• What you can do in Excel, you can do in STAR.

• Feel free to call STAR Admin if it’s something we can walk you through on the phone.

• You can do it!!!
Completed Training Objectives

1. STAR Review
   - Terminology/Navigation
   - Types of reports

2. EvDRE reporting
   - Components
   - Creation
   - Functions
STAR EvDRE
Bonus Tips
MemberSet Filtering with Properties

- Right-click MemberSet cell in expansion and choose “EvDRE: Build filter …
- Select Property and Property Values
- Click “Apply” to generate build formula
- You do not have to use the “Filter builder” (you can type the filter directly if you know the correct syntax)
- It may be easier to build the filter using wizard and then modify as needed
“Combo” Member Sets

- Comma-delimited list of members
- List of expansions
“Combo” Member Sets

• Combination of Expansions and List

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>EXPANSION 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>ExpandIn</td>
<td>ROW</td>
</tr>
<tr>
<td>Dimension</td>
<td>ENTITY</td>
</tr>
<tr>
<td>MemberSet</td>
<td>dep(1RPVP40),1RPVP40,dep(1RPVP25),1RPVP25</td>
</tr>
<tr>
<td>BeforeRange</td>
<td></td>
</tr>
<tr>
<td>AfterRange</td>
<td></td>
</tr>
<tr>
<td>Suppress</td>
<td>Y</td>
</tr>
<tr>
<td>Insert</td>
<td></td>
</tr>
</tbody>
</table>

• Combination of Expansions and Filter

<table>
<thead>
<tr>
<th>EXPANSION 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROW</td>
</tr>
<tr>
<td>ENTITY</td>
</tr>
<tr>
<td>dep and CASHBASIS&lt;&gt;&quot;R&quot;, self</td>
</tr>
<tr>
<td>Sheet1!$H$1:$J$2</td>
</tr>
</tbody>
</table>