The next generation CONTROL®

version 10.3

Release Announcement

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CONTROL® 10.3 – Overview

CONTROL[®] 10.3 is all about putting more power to analyze, model, and present CONTROL[®] data into the hands of any Excel user.

With the introduction of Flex views, you can insert rows, columns and cells, add calculations, copy and paste, and format your view any way you like - all the while retaining the connection of the data on your worksheet to the underlying CONTROL[®] data and meta-data.

In addition to Flex views, there are a number of improvements and enhancements to the Information Navigator, and several refinements in object views and edit books to help make the job of the administrator easier.

Enhancements for the Information Navigator

Flex views

With decades of usage by thousands of users in a broad spectrum of industries, it is fascinating to observe the creative ways that CONTROL[®] data is used for business models, analyses, input templates, reports, and presentations. This is a crucial element in the value equation that CONTROL[®] brings to its customers.

Flex views are the next advance in empowering Excel users to access and manipulate CONTROL[®] data for any purpose they can imagine – with the same security, data integrity, and scope of applications that are the hallmark of CONTROL[®].

In previous releases, we introduced scratchpads and Control Reference Functions (CRF) which delivered additional functionality in this area. While these features have been used successfully by many customers, they have limitations that restricted their use. Both features also require a deeper knowledge of CONTROL[®] than a typical Excel user would have.

Flex views are designed to overcome these limitations.

The goal of this feature is to marry the richness and power of the CONTROL[®] architecture to the familiarity, flexibility, and simplicity of Excel.

Here is just one example of a report that you can quickly create that references data from multiple models using this new functionality:



| Di Antonio Mante | Scenario Budget 20 Adjustment Origina | | I Product :: Time P | eriod Year 2018 | | | | | | | | | |
|---------------------------|--|--|---------------------|-------------------|------------------------|-------------|---------------|---|------------|------------|------------|--------------|------------|
| D Amounts not Scaled | | | Davan | ue Summary | | | | 1 | | Evne | nse Sumr | | |
| | Units | Price | Gross Sales | % of Total | Revenue Adjustments | Net Revenue | % of Total | | Q1-18 | Q2-18 | Q3-18 | Q4-18 | Year 2018 |
| tal Customer | 13,131,053 | 2.84 | 37,266,646 | 100% | (2,976,953) | 34,289,693 | 100% | Total Company | 14,309,744 | 13,503,466 | 13,780,813 | 14,165,240 | 55,759,263 |
| Canada | 520,510 | 5.81 | 3,023,510 | 8% | (235,929) | 2,787,581 | 8% | Canada | 6,223,557 | 6,049,227 | 5,744,297 | 5,952,262 | 23,969,343 |
| Spain | 1,451,119 | 3.60 | 5,224,883 | 14% | (416,580) | 4,808,303 | 14% | Spain | | de ales | als of the | -treaters | |
| France | 1,545,758 | 3.75 | 5,796,707 | 16% | (453,594) | 5,343,113 | 16% | France | | | | | |
| Italy | 1,522,098 | 3.71 | 5,653,751 | 15% | (444,341) | 5,209,410 | 15% | Italy | 3,609,048 | 3,442,048 | 3,000,685 | 3,353,876 | 13,405,657 |
| Japan | 1,427,460 | 0.04 | 55,802 | 0% | (4,473) | 51,329 | 0% | Japan | 38,961 | 36,640 | 37,434 | 35,043 | 148,078 |
| Thailand | 1,474,779 | 0.15 | 218,982 | 1% | (17,372) | 201,610 | 1% | Thailand | 1.325(13) | 123060 | 0.895.00 | | |
| Taiwan, Province of China | 1,498,438 | 0.15 | 227,329 | 1% | (17,948) | 209,381 | 1% | Taiwan, Province of China | | | | | |
| United States | 3,690,891 | 4.62 | 17,065,681 | 46% | (1,386,716) | 15,678,966 | 46% | United States | 4,438,178 | 3,975,551 | 4,998,397 | 4,824,058 | 18,236,184 |
| | Taiwan, Province | Thailand Japan Italy France Spein | Net Rev | | | | | 30,000,000 25,000,000 30,000,000 10,000,000 5,000,000 0 Canada Sopi | n France | | Japan Th | ailand Taiwa | in, Unted |
| | | Canada | | | | | | Carleon April | reariae | runy | Julian In | Province | |

For a comprehensive review of Flex views, see the Flex Views document.

User navigation pane

After introducing the Object Navigation task pane in version 10.0, we received a lot of feedback on how easy it is to find and edit various CONTROL[®] objects. In fact, it became the preferred mechanism for administrators to choose and open books, views, and forms.

With 10.3, we are bringing the same convenience to Information Navigator users. The User Navigation task pane allows you to quickly browse and navigate to the same kinds of objects you can open from the CONTROL[®] Navigator ribbon.

The User Navigation pane shares the left-hand side of your screen with the Application Menu and the Object Navigation pane:



| File H | lome Insert | Page Layout | Formulas | Data Reviev | w View |
|-------------|----------------------|------------------|-------------------------|--------------------|---------------|
| Login | | | 🕽 🕽 Refresh | • 🖻 🕯 | |
| Logout | Exchange Rate | Books View | 📍 í Regenera | ite - Select F | ile Forms |
| CONTROL | 8 Model * | * * | Solve 🔹 | | ita • • |
| Login | Model | Books | Viev | VS. | G Forms |
| 10 | * : × | √ f _x | | | |
| → U U | ser Navigation - Ma | vericks.Clean103 | Test | - | × « 🔺 |
| Туре | Category | | | | 1 |
| | | | | | 2 |
| Object Ty | pes | Viev | V | | 3 |
| ⊿ 🛅 Struct | ure | ^ Searc | h | | <u>م</u> 5 |
| ⊳ 📴 Da | atasource | DS | - CRF - Flex Vie | w conversion (Fle | exed) 6 |
| Þ 🧊 M | odel | | | e Report (ID: SCA_ | _OH_V 7 |
| 🔺 🚞 Interfa | ace | | | e Report (ID: SCA_ | |
| Þ 🌍 Bo | ook | | A - Original Flex | (View JS | 9 |
| Þ 🗮 Fo | rm | | 2 Input Budget | | 10 |
| Þ 🇌 Sh | eet | | 2 Input Budget 0 REV | | 11 |
| 🔺 🔯 Vi | ew | | 0_NEV 0 Net Margin | | 12 |
| Co | omputational | | 1 Standard Rep | orts | 13 |
| Sc | ource Data | | 3 Input Forecast | | 14 |
| Bi | ll of Materials | | 0 Maintenance | | 15 |
| | bject | ▶ 80 | 0 Public | | 16 |
| | dministrative | Þ 85 | 0 Security | | 17 |
| _ | ower Pivot | ▶ 87 | 5 System | | 19 |
| ▲ Proces | | ▶ 90 | 0 Development | | 20 |
| ⊳ 👸 Sc | | ↓ 4 | 0 Best Practice | | 21 |
| Favorite | Objects | | 9 Obsolete | | 22 |
| | Objects | | oject Templates | | 23 |
| Recent \ | /iews | | | | 24 |
| 🔍 EXMP - | Financial Statemer | nts - R | | | 25 |
| 阈 EXMP - | Financial Statemen | ts - SC | | | 26 |
| 阈 EXMP - | Financial Statemen | ts - SC | | | 27 |
| 阈 EXMP - | Financial Statemen | ts - SC | | | 28 |
| 阈 EXMP - | Financial Statemen | ts - SC ≡ | | | 29 |
| 阈 Global R | ates - Flex View | | | | 31 |
| 阈 EXMP - | Financial Statemen | ts - SC | | | 32 |
| 🔍 EXMP - | Financial Statemen | ts - SC | | | 33 |
| 🔍 Revenue | e - RP - SCA - Perfo | rmanc | | | 34 |
| 🔍 EXMP - | Financial Statemen | ts - SC | | | 35 |
| 🔍 EXMP - | Financial Statemen | ts - SC | | | 36 |
| 🔍 EXMP - | Financial Statemen | ts - SC | | | 37 |
| - | Object Properties - | | | | 38 |
| < | | > < | | | > 20 |

You select the class of object (view, book, etc.) and optionally the sub-class (computational, source data, etc.) on the left, then choose a specific object of that class on the right side of the pane or pick from the recent or favorite lists at the bottom.



Double clicking executes the default action – opening a view, book, form or sheet; or running a script or transform. Double clicking on a model or data source will open a new view on that object.

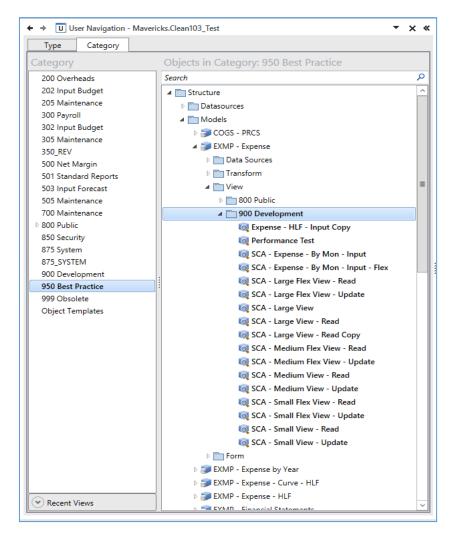
Each object has additional actions, which vary by object class. These actions are found by right-clicking on the object. For a view, the options are:

| ✓ Q View Computational Source Data Bill of Materials Object Administrative Power Pivot ✓ Process ✓ Script ✓ Transform | Rev - 9 Rev - 4 | Flex - Kai - Add another Relative % of Rev Analytical Analytical - Copy - Mugil Open Open Read Only Open With Review Edit View Scopes New Copy Edit Delete Universe Properties | 12 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 |
|--|--------------------|---|--|
| Favorite Objects | R(R∟ | Add to Favorite Objects Basic test nested rows INPUT bug | 28 29 30 |

A tool tip explaining the action appears when you hover over the action name.

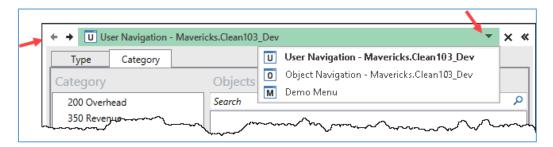
The User Navigation pane offers a second organization of the components of your application on the **Category** tab:





This tab lets you pick a category on the left, and then navigate to a model, the data sources mapped to or from the model, the views and forms used with the model, and so on. This is a more natural structure for exploring unfamiliar applications.

To switch between the **User Navigation** pane, the **Application Menu**, and the **Object Navigation** pane (if you are an administrator), use the drop-down list or right and left arrow buttons at the top of the pane:





Your administrator determines which panes you can see and your default pane by setting the **User Experience** and **Default Navigation** properties of your user object:

| K Properties for User The Chief A | Administrator | Х |
|--------------------------------------|-------------------------------|----|
| E LA Search | X | |
| Class | User | ^ |
| Group | (None) | d. |
| Description | The Head Fromage AGAIN | |
| Privileges | | |
| Allow Authenticated | EitherAuthentication ~ | |
| Create Private Objects | \checkmark | |
| Create Public Objects | √ | 1 |
| Default Object Categ | Development (ID: DEVELOPMENT) | |
| Max View Size | 0 | |
| New Password Requir | | |
| Password | ***** | |
| User Type | ObjectManager ~ | |
| User Experience | Super Administrator ~ | |
| Default Navigation 🛛 🔴 | User Navigation Pane 🔹 🗸 | V |
| Default Navigation | Application Menu | |
| Select what this user will see in th | Object Navigation Pane | |
| | User Navigation Pane | |
| | OK Cancel | |

New object browsers

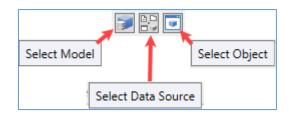
For users accustomed to navigating via the ribbon, the object browser dialogs have been redesigned to have a simpler yet more functional interface.

The differences are most visible in the **Open View** dialog:



| ка - | Open a View | | x |
|--------------|------------------------------------|---|---|
| Revenue - RP | | Search | م |
| | Rev - % of Rev Rev - Analytical | ID EXMP_REV IN_REVYEARLYTARGET REV_OFREV EXMP_REV_ANALYTICAL EXMP_REV_BASIC REV_DAILYSALESB REV_DAILYSALESBYPRODUCT EXMP_REV_GLBINPUT REV_POWERBIREPORT EXMP_REV_RANKED_ONE_SCN EXMP_REV_RANKED_ONE_SCN EXMP_REV_RANKED_ONE EXMP_REV_RANKED_VAR REV_SCRATCHPADVIEW REV_SVA_EXPLAINED EXMP_REV_VAR REV_SNA_EXPLAINED EXMP_REV_VAR REV_XRATE_FCST REVENUE_ACTUALINPUT REVENUE_FORECAST_INPUT | Description Prototype view used a Prototype |
| Object Name | < | Comput | ational 🔻 |
| | | | OK 👻 Cancel |

• The icons in the upper left corner let you select a model, data source, or object context by launching an appropriate sub-dialog.



• The search functionality now allows you to search through all the listed objects and locate only the objects that match the ID or name you enter. The search can be done on all the objects independent of category or can be limited to the selected category.

| Revenue - RP | | | | | Revenue | |
|---|-----|----------------------|---|----------|---------|--|
| Recents | | Found Objects: (3) | | | | |
| 🔯 Revenue - RP - Rev - Flex - LT- 01 | 1 | Name | łd | Category | | |
| Revenue - RP - Rev - Flex - Kai - List ID EXMP - Financial Statements - SCA - Worksheet 6 EXMP - Financial Statements - SCA - View Specifier - Works EXMP - Financial Statements - SCA - Worksheet 1 | s 2 | 196 200 | REVENUE_ACTUALINPL REVENUE_FORECAST_I SCA_REVENUE | | | |



- The **Recents** list now includes entries for all CONTROL[®] actions, including **New**, **Edit**, **Open**, **Run**, **Test**, and **Schedule**.
- You can click on the **Recents** header to sort your pinned objects.
- When typing into the **Object Name** box, auto-completion logic will list valid options for you.

| Object Name | rev | | |
|-------------|-------------------------------|---|---|
| | Rev - % of Rev | ^ | |
| | Rev - Analytical | = | |
| | Rev - Basic | | |
| | Rev - Basic Copy | | |
| | Rev - Basic Copy | | |
| | Rev - Daily Sales | | |
| | Rev - Daily Sales by Customer | ~ | _ |
| | | | - |

New drill to data

There is a new drill option that opens a view window on a new worksheet to help you explore any part of a Computational or Flex view in greater depth.

The new window is looking at the <u>same</u> data as the original view but reorganized in a way that provides greater detail without changing the configuration of the original view.

Here is an example of looking at Gross Sales in a 6-dimensional view:



| Filters: | Scenario (Actuals) | | | |
|--|------------------------------|----------------------------|---|---|
| Pages: | Customer (Total Customer) | Product (Total Product) | Adjustment (Total Adjustme) | |
| COMPANY NAME NOTRANSLATION Amounts not Scal | | | tal Product :: Adjustment Total Adju | stment |
| ACTION ASSATION FAIleduits not sca | Time Period | | | |
| Revenue Account | Jan-18 | Feb-18 | N Segoe U - 10 - A A S - | rtial Total For -Partial Total For % , 🔤 Total |
| 300 UNITS Units | 659,340 | 672,527 | B I ≣ 🆄 • A • 🖂 • 5 | |
| 4000_PRICE Price | 4.76 | 4.72 | | 4.80 |
| 4000 Gross Sales | 3,141,254.79 | 3,173,638.86 | 3 020 10200 0 0 000 00 | ~ 553,300.65 9,553,300.65 |
| 4500 Sales Discount | 113,683.25 | 114,855.25 | 🖌 Cu <u>t</u> | 45,737.73 345,737.73 |
| 1400 Sales Returns and Allowances | 91,980.45 | 92,928.70 | <u>С</u> ору | 279,734.35 279,734.35 |
| 4300 Shipping Charges | 48,526.76 | 49,027.04 | Copy Control Reference | 47,581.38 147,581.38 |
| 4600 Other Incomes | 45,645.72 | 46,116.29 | Paste Options: | 38,819.45 138,819.45 |
| 400 REV Net Revenue | 2,932,710.05 | 2,962,944.17 | 3. | 19,066.63 8,919,066.63 |
| | | | Paste Special Insert Delete Clear Contents Filter Sort insert Comment Format Cells Pick From Drop-down List Define Name Wyperlink | ····· |
| | | | Drill | Down |
| | | | Undrill | To Data |
| | | | Compress | To Scratchpad |
| | | | | |
| | | | Expand | To Subaccount |

Like every other drill operation, highlight the cell or cells you are interested in, right click, and select **Drill** > **To Data**:

| Pages: | Revenue Account (4000 Gross Sales | | d Adjustm (Total Adju | |
|--------------------------------|--|------------------------|--------------------------|-------------------|
| COMPANY NAME Company Stogan | Revenue - RP Ac Scenario Actuals Revenue Account | | e Period Mar-18 :: . | Adiustment Tota |
| OTRANSLATION A | | | | , |
| Customer | +Product Group 0001 | +Product Group 0002 | +Product Group 0003 | -Total Product |
| Asia | 519,120.00 | 296,010.00 | 274,095.00 | 1,089,225.00 |
| urope | 549,270.00 | 304,335.00 | 284,400.00 | 1,138,005.00 |
| lorth America | 470,880.00 | 282,690.00 | 257,607.00 | 1,011,177.00 |
| Total Customer | 1,539,270.00 | 883,035.00 | 816,102.00 | 3,238,407.00 |

A new worksheet is opened which presents the selected data in greater detail. You can:

- Navigate the view further on this worksheet expand, show, rotate, etc.
- Enter data or perform solves the original view will immediately reflect your updates.



- Perform **Drill** > **To Data** (or other drill operations) from this worksheet.
- Close the drilled view window without altering your original presentation.
- Return to your original view and select **Drill** > **To Data** on other information, you wish to explore.

Note: In previous releases, the option **Drill** > **Data** referred to drilling on an item in the view and replacing the contents of the current worksheet with the drilled data. In release 10.3, this option is now **Drill** > **Down**.

Ranking and bucketing in analytic custom dimensions

You can now easily see the numeric rank of dimension members in a computational view as compared to their peers - i.e. best store for sales, most profitable region, highest yielding investment, etc. (This feature was released on a limited basis in version 10.2 and is now generally available.)

Bucketing is very similar to ranking except that it divides the members into a specified number of groups. For example, it is common to group in quartiles (4 buckets) or quintiles (5 buckets).

In the context of hierarchical CONTROL[®] data, it is important to be able to distinguish rank and bucketing based on a level of detail. You typically would not want to compare the sales within a territory or a region to the sales within a single store, but you would want to compare a territory to other territories or a store to other stores. Ranking and bucketing allows you to define the appropriate logic.

In support of this enhancement, analytic custom dimensions now support the following new functions:

- **Rank**, **RankUp**, and **RankDown**. Rank is the same as RankDown, where a rank of 1 is assigned to the highest data value.
- Average, Median, Min and Max
- **Quartile**, **Quintile**, and **Decile**. The largest numeric values are in the lowest numbered grouping.
- **Bucket, BucketUp**, and **BucketDown**. Bucket is the same as BucketDown, and these functions are like Quartile except that they allow the specification of the number of buckets. (Quartile has 4 buckets, Quintile 5, Decile 10)

The general format of these functions is:

rankingFunction[{member} %groupingOption On dimensionID] {In nBuckets}



If the member is omitted, the Base member of the analytic dimension is used.

For example:

Rank[%WithinGroup On Product]

The grouping options are:

- **%Overall** all data in the dimension is included in a single ranking. •
- **%WithinGroup** data within a parent-child group is ranked.
- **%WithinLevel** data within the same level is ranked, independent of parentage.
- For consistency with other analytic functions, %Total is the same as %Overall and • %Group is the same as %WithinGroup.

The dimensional specification options are identical to those currently supported for all other functions in analytic custom dimensions. The dimensionID can be a valid dimension ID, a subclass name (Variable, Organization, Scenario, or Time), or Organization_n to select the *n*th organization dimension-branch included in the view.

Here is a sample analytic custom dimension:

| - | | | |
|--------------------------|-----------------------------------|----------------------|--|
| + 🗋 🗙 🔺 💌 🖾 Expa | | | |
| f_x RankDown[%Within | Level on Organization] | | |
| ID: Name | | KCIMagicDimension | Formula |
| BASE: Base Data | | Base Data (ID: BASE) | |
| PERCENTOFYEAR: PercentC |)f Year | | PercentOf[%Total on Time] |
| PERCENTOFORGGROUP: Pe | ercent of Org Group | | PercentOf[%Group on Organization] |
| PERCENTOFTOTALEXP: Per | cent of Total Exp | | PercentOf[TOTAL on Variable] |
| PERCENTOFTOTALTOTAL: F | Percent of Total Total | | PercentOf[TOTAL ON Variable] IN [%Total on Time] |
| CHANGETOPRIOR: Change | to Prior | | Delta[%Prior on Time] |
| PERCENTCHANGETOPRIOR | Percent Change to Prior | | PercentDelta[%Prior on Time] |
| BWPRIOR: BW Prior | | | BWDelta[%Prior on Time] |
| BWPERCENTDELTA: BWPer | centDelta | | BWPercentDelta[%Prior on Time] |
| RANKDOWNOVERALL: Ran | kDownOverall | | RankDown[%Overall on Organization] |
| RANKUPOVERALL: RankUp | Overall | | RankUp[%Overall on Organization] |
| RANKDOWNWITHINGROU | P: RankDownWithinGroup | | RankDown[%WithinGroup on Organization] |
| RANKDOWNWITHINLEVEL | RankDownWithinLevel | | RankDown[%WithinLevel on Organization] |
| AVERAGEWITHINGROUP: A | werageWithinGroup | | Average[%WithinGroup on Organization] |
| MEDIANWITHINLEVEL: Med | dianWithinLevel | | Median[%WithinLevel on Organization] |
| MINWITHINLEVEL: MinWith | ninLevel | | Min[%WithinLevel on Organization] |
| MAXWITHINLEVEL: MaxWit | thinLevel | | Max[%WithinLevel on Organization] |
| QUARTILEOVERALL: Quartil | leOverall | | Quartile[%Overall on Organization] |
| BUCKET3WITHINLEVEL: Bud | cket3WithinLevel | | Bucket[%WithinLevel On Organization] In 3 |
| Properties | | | |
| E A Search | | | |
| Description | | | |
| Key | 107265 | | |
| Definition | | | |
| Formula | f_x RankDown[%WithinLevel on Or | ganization] | |
| Model Override | (None) | | |
| Read Only | V | | |
| KCI_MagicDimension | | | |
| 4 Currency | | | |
| | | | Update |
| | | | |



Here is the view using this dimension:

| | Analytic Compare | | | | | | | | | | | | |
|-------------------------------|------------------|--------------------------------------|-------------------------------------|----------------------------------|----------------------------------|---------------------------------|--------------------------------|--|--------------------------------------|--|--------------------------------------|----------------------------------|--------------------------------------|
| Customer | Base Data | -Average Within Group Customer | -Median Within Level Customer | -Min Within Level Customer | -Max Within Level Customer | -Rank Up Overall Customer | -Rank Down Overall Customer | -Rank Down Within Group Customer | -Rank Up Within Group Customer | -Rank Down Within Level Customer | -Rank Up Within Level Customer | -Quartile Overall Customer | -Bucket3 Within Level Customer |
| Customer 0008 | 23.628 | 23,166 | 24.420 | 22,704 | 26.136 | 8 | 29 | 1 | 8 | 20 | 8 | 4 | |
| ustomer 0007 | 23,496 | 23,166 | 24,420 | 22,704 | 26,136 | 7 | 30 | 2 | 7 | 21 | 7 | 4 | |
| ustomer 0006 | 23,364 | 23.166 | 24.420 | 22,704 | 26.136 | 6 | 31 | 3 | 6 | 22 | 6 | 4 | |
| ustomer 0005 | 23,232 | 23,166 | 24,420 | 22,704 | 26,136 | 5 | 32 | 4 | 5 | 23 | 5 | 4 | |
| ustomer 0004 | 23,100 | 23,166 | 24,420 | 22,704 | 26,136 | 4 | 33 | 5 | 4 | 24 | 4 | 4 | |
| ustomer 0003 | 22,968 | 23.166 | 24,420 | 22,704 | 26.136 | 3 | 34 | 6 | 3 | 25 | 3 | 4 | |
| ustomer 0002 | 22,836 | 23,166 | 24,420 | 22,704 | 26,136 | 2 | 35 | 7 | 2 | 26 | 2 | 4 | |
| ustomer 0001 | 22,704 | 23,166 | 24,420 | 22,704 | 26,136 | 1 | 36 | 8 | 1 | 27 | 1 | 4 | |
| -USA United States | 185,328 | 82,418 | 74,646 | 26,136 | 185,328 | 35 | 2 | 1 | 8 | 1 | 8 | 1 | |
| ustomer 0026 | 26,004 | 25,872 | 24,420 | 22,704 | 26,136 | 26 | 11 | 1 | 3 | 2 | 26 | 2 | |
| ustomer 0025 | 25,872 | 25,872 | 24,420 | 22,704 | 26,136 | 25 | 12 | 2 | 2 | 3 | 25 | 2 | |
| ustomer 0024 | 25,740 | 25,872 | 24,420 | 22,704 | 26,136 | 24 | 13 | 3 | 1 | 4 | 24 | 2 | |
| FRA France | 77,616 | 82,418 | 74,646 | 26,136 | 185,328 | 34 | 3 | 2 | 7 | 2 | 7 | 1 | |
| ustomer 0023 | 25,608 | 25,476 | 24,420 | 22,704 | 26,136 | 23 | 14 | 1 | 3 | 5 | 23 | 2 | |
| ustomer 0022 | 25,476 | 25,476 | 24,420 | 22,704 | 26,136 | 22 | 15 | 2 | 2 | 6 | 22 | 2 | |
| ustomer 0021 | 25,344 | 25,476 | 24,420 | 22,704 | 26,136 | 21 | 16 | 3 | 1 | 7 | 21 | 2 | |
| -ITA Italy | 76,428 | 82,418 | 74,646 | 26,136 | 185,328 | 33 | 4 | 3 | 6 | 3 | 6 | 1 | |
| ustomer 0020 | 25,212 | 25,080 | 24,420 | 22,704 | 26,136 | 20 | 17 | 1 | 3 | 8 | 20 | 2 | |
| ustomer 0019 | 25,080 | 25,080 | 24,420 | 22,704 | 26,136 | 19 | 18 | 2 | 2 | 9 | 19 | 2 | |
| ustomer 0018 | 24,948 | 25,080 | 24,420 | 22,704 | 26,136 | 18 | 19 | 3 | 1 | 10 | 18 | 3 | |
| TWN Taiwan, Province of China | 75,240 | 82,418 | 74,646 | 26,136 | 185,328 | 32 | 5 | 4 | 5 | 4 | 5 | 1 | |
| ustomer 0017 | 24,816 | 24,684 | 24,420 | 22,704 | 26,136 | 17 | 20 | 1 | 3 | 11 | 17 | 3 | - |
| ustomer 0016 | 24,684 | 24,684 | 24,420 | 22,704 | 26,136 | 16 | 21 | 2 | 2 | 12 | 16 | 3 | |
| ustomer 0015 | 24,552 | 24,684 | 24,420 | 22,704 | 26,136 | 15 | 22 | 3 | 1 | 13 | 15 | 3 | |
| THA Thailand | 74,052 | 82,418 | 74,646 | 26,136 | 185,328 | 31 | 6 | 5 | 4 | 5 | 4 | 1 | |
| ustomer 0014 | 24,420 | 24,288 | 24,420 | 22,704 | 26,136 | 14 | 23 | 1 | 3 | 14 | 14 | 3 | |
| ustomer 0013 | 24,288 | 24,288 | 24,420 | 22,704 | 26,136 | 13 | 24 | 2 | 2 | 15 | 13 | 3 | |
| ustomer 0012 | 24,156 | 24,288 | 24,420 | 22,704 | 26,136 | 12 | 25 | 3 | 1 | 16 | 12 | 3 | |
| ESP Spain | 72,864 | 82,418 | 74,646 | 26,136 | 185,328 | 30 | 7 | 6 | 3 | 6 | 3 | 1 | |
| ustomer 0011 | 24,024 | 23,892 | 24,420 | 22,704 | 26,136 | 11 | 26 | 1 | 3 | 17 | 11 | 3 | |
| ustomer 0010 | 23,892 | 23,892 | 24,420 | 22,704 | 26,136 | 10 | 27 | 2 | 2 | 18 | 10 | 3 | |
| ustomer 0009 | 23,760 | 23,892 | 24,420 | 22,704 | 26,136 | 9 | 28 | 3 | 1 | 19 | 9 | 4 | |
| JPN Japan | 71,676 | 82,418 | 74,646 | 26,136 | 185,328 | 29 | 8 | 7 | 2 | 7 | 2 | 1 | |
| ustomer 0027 | 26,136 | 26,136 | 24,420 | 22,704 | 26,136 | 27 | 9 | 1 | 1 | 1 | 27 | 1 | |
| CAN Canada | 26,136 | 82,418 | 74,646 | 26,136 | 185,328 | 27 | 9 | 8 | 1 | 8 | 1 | 2 | |
| -Total Customer | 659.340 | 659,340 | 659.340 | 659.340 | 659,340 | 36 | 1 | 1 | 1 | 1 | 1 | 1 | - |

Some important details:

- As with other analytic functions, keywords may be used and will be evaluated in the model scope of the view.
- The ranking values are based on the data in the view and are not dependent on the orientation of the view.
- Data is ranked without taking an absolute value, so negative values will get a higherranking number in RankDown and a lower ranking number in RankUp.
- Two members with identical data values will get the same ranking, and the member • with the next highest or lowest value will get a ranking 2 greater than the tied value.
- By default, data which is identically zero is NOT ranked, as this can cause the memory • used to generate the view to grow dramatically. If you do need to have 0 values included, use %WithinGroupZeros, %WithinLevelZeros, or %OverallZeros as a grouping option.
- The Bucket functions require a suffix of **In** *nnn*, where *nnn* is the number of buckets. • For example, BucketDown[%WithinGroup On Product] In 3 will divide the members of the product dimension into 3 buckets – high, medium, low.



Comments and hyperlinks in analytic custom dimensions

This enhancement lets you show comments and hyperlinks in the body of your view, and use standard navigation operations like expand, compress, rotate, and drill to present commentary and data any way you like.

This new mechanism is an extension of analytic custom dimensions that were introduced in version 10.2.

Analytic custom dimension may contain one or more members whose formula is either:

- Comments[baseMemberID]
- Hyperlinks[baseMemberID]

You can omit the baseMemberID if there is a member with the ID of **BASE**:

| Dimension - Test Comment | | | | x » |
|---------------------------------------|---------------------------|----------------------|----------------|-----|
| Dimensions | | v (Read Only) Find | | Q |
| | f _x Hyperlinks | | | |
| - | ID: Name | KCIMagicDimension | Formula | |
| KCI_Magic | BASE: Base Data | Base Data (ID: BASE) | | |
| | COMMENT: Comments | | Comments[BASE] | |
| | HYPERLINK: Hyperlinks | | Hyperlinks | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| Hierarchies Filters | | | | |
| Hierarchy Branch | | | | |
| KCI_MagicDimensic Y KCI_MagicDimens 🔻 | | | | |
| 📜 🗄 Find 🔎 | | | | |
| ID: Name | | | | |
| BASE: Base Data | | | | |
| | | | | |

When you open the view with these members included, the comments and/or hyperlinks display in the rows and columns of the data area. In the example below, the view includes **Comments**.

| | Time Period | Analytic Compare | | | | | | |
|-----------------------------------|-------------|------------------|-----------|------------------------|-----------|----------------------------------|------------------------------|-----------|
| Revenue Account | | Jan-18 | Feb-18 | | Mar-18 | | -Partial Total For Year 2018 | |
| | Base Data | -Comments | Base Data | -Comments | Base Data | -Comments | Base Data | -Comments |
| 300_UNITS Units | 1,090 | | 1,112 | | 1,090 | | 3,292 | |
| 4000_PRICE Price | 9.10 | | 9.01 | | 9.38 | | 9.16 | |
| | | | | | | [daves]New Product Line started | | |
| | | | | | | this month | | |
| | | | | | | [Administrative User]New Product | | |
| 4000 Gross Sales | 9,918.25 | | 10,020.50 | | 10,225.00 | SKU started in March | 30,163.75 | |
| 4500 Sales Discount | 793.46 | | 801.64 | [daves]Increase by 15% | 818.00 | | 2,413.10 | |
| 1400 Sales Returns and Allowances | 595.10 | | 601.23 | | 613.50 | | 1,809.83 | |
| 1300 Shipping Charges | 396.73 | | 400.82 | | 409.00 | [daves]Increase in gas prices | 1,206.55 | |
| 4600 Other Incomes | 198.37 | | 200.41 | [| 204.50 | | 603.28 | |
| 400_REV Net Revenue | 8,331.33 | | 8,417.22 | | 8,589.00 | | 25,337.55 | |

A few important implementation notes:



- The ReadOnly property of the custom member will determine whether the comment or hyperlink text can be updated
- The view scope's Comment Content property determines how the comments will be presented:
 - All will show all comments with the user name in brackets preceding the comment.
 - Last will show the most recent comment with the user name in brackets.
 - Anonymous will show the most recent comment without user identification.
- Partially unanchored comments cannot be shown in the body of the view
- Cell comments may be turned on, but should be used with caution when the comments are updateable, as updates to the cell comments will generally override the comments that appear as data

Lookups in custom dimensions

Custom members can translate distinct values to text strings using the new Lookup Level property of a custom member:

| Dimension - Expense - H | ILF Input | × | : » | | |
|---|--|-------------------------------------|---------------|----|--------------------------------------|
| | | | * | | |
| Dimensic 🔢 💷 | Hierarchies Filters | | | | |
| - | Hierarchy Branc | h | | | |
| I | Scenario 🔻 Scenar | io | - | | |
| Scenario | | I. IE Find | Q | | |
| _ | ID: Name | | | | |
| - | ACT: Actuals | | ^ | | |
| Time Period | FCST: Forecast | | | | |
| | PLAN: Plan | | $\overline{}$ | | |
| Members | | | 0 | | |
| | Expanded view (Read Only) Find | | ¢ Q | | |
| | Expanded view (Read Only) Find | | ~ | | |
| ID: Name | Scenario | Period | | | |
| | | Hoc(YR &PRIOR YEAR) | ^ | | |
| | | Hoc(YR &CURRENT_YEAR) | | | |
| Fcst Adj &MemberN | lame(Leve | | | | |
| Curve | | Hoc(YR &CURRENT_YEAR) | _ | | |
| | lame(Leve Ad Hoc(SCENARIO FCST) Ad | Hoc(YR &CURRENT_YEAR) | - | | |
| Fcst Tgt vs PY Act Fcst Tgt vs PY Act% | | | | | |
| | e(Level(YF Ad Hoc(SCENARIO &SLCT SCN CY BU Ad | Hoc(YR &CURRENT YEAR) | | | |
| Fcst Tgt vs CY Bud | | _ , | | | |
| Fcst Tgt vs CY Bud% | | | \sim | | |
| Properties | **** | | × | | |
| E LA Search | | | × | A | B C D E F |
| Model Override | EXMP - Expense - Curve - HLF (ID: EXMP_EXP | ENSE_CURVE_HLF) | • ^ | 2 | Curve (Level) |
| Read Only | | | | 3 | Prototype object view (Dynamic) View |
| Lookup Level | Curve (ID: HLF_CURVE) | | - | 4 | Updating: Clear and Insert Filter: |
| Scenario Filter | Ad Hoc(SCENARIO FCST) | · | • | 6 | ID Name Description |
| TIMEPERIOD: Time F | Pe Ad Hoc(YR &CURRENT_YEAR) | 、 | • ~ | 8 | 20 4-4-5 |
| Lookup Level | | | | 10 | |
| If this member's data val | ues should be translated to character strings, specify the | numeric level or attribute which wi | ill c | | |
| Immediate update | | Update Maximi | ize | | |



The view displays the data the same way as a lookup level value for a variable.

| Pages: | Department (CAN Canada) | | | | | | | | |
|-----------------------------|---|-------------------|------------------------|---------------|-----------------------|--|--|--|--|
| USD Amounts not Scaled | EXMP - Expense Expense - HLF - Input Department Canada | | | | | | | | |
| | HLF Input | | | | F | | | | |
| FS - Account | Act Year 2017 | Fcst Year 2018 | -Fcst Adj Year 2018 | Curve | Fcst Tgt Year 2018 | | | | |
| Full Time Equivalent | 425 | 453 | | | 453 | | | | |
| Total Employee Compensation | 58,588,304 | 58,817,787 | (1,817,232) | 4-4-5 | 57,000,555 | | | | |
| Travel & Entertainment | 2,623,357 | 2,633,632 | 0 | 4-4-5 | 2,633,632 | | | | |
| Supplies & Services | 4,481,568 | 4,499,122 | 0 | 4-4-5 | 4,499,122 | | | | |
| Communications & IT | 655,839 | 658,408 | 0 | 4-4-5 | 658,408 | | | | |
| Freight & Shipping | 787,007 | 790,090 | 0 | 4-4-5 | 790,090 | | | | |
| Occupancy | 1,311,678 | 1,316,816 | 0 | 4-4-5 | 1,316,816 | | | | |
| Maintenance | 983,759 | 987,612 | | Even | 987,612 | | | | |
| Insurance | 655,839 | 658,408 | 0 | Even | 658,408 | | | | |
| Utilities | 655,839 | 658,408 | 0 | Even | 658,408 | | | | |
| Depreciation & Amortization | 2,951,277 | 2,962,836 | 0 | Even | 2,962,836 | | | | |
| Other Expenses | 7,345,848 | 7,231,044 | 0 | Even | ₹,231,044 | | | | |
| -Total Overhead Expenses | 81,040,315 | 81,214,163 | (1,817,232) | Even 4-4-5 | ,396,931 | | | | |

Important details:

- The custom member may be updateable, and if so, it must have base dimension definitions that allow posting to updateable (lowest level, write privileged) members of those dimensions.
- If there is a lookup level defined for both a custom dimension and a variable dimension in the view, the custom dimension's lookup level will be used for the custom member.
- If the custom member is expandable, then all the members resulting from the expansion will use the same lookup level.
- As with variables, the lookup level may be a level or an attribute that has a numeric ID.
- The look up value is stored in the model based on the members defined in the view and the members defined by the filter(s) of the custom member. Therefore, you should create a different model to store the look up data value(s), or filter your custom member to select unique members that are specific to your lookup value, so you do not overwrite your model data.

In the example below, the Curve and Fcst Target members have the same filters for scenario and time. Therefore, you need to define the Curve member with a different model (Exmp – Expense – Curve – HLF). If not, then the data for both members would overwrite each other. Alternatively, instead of using a different model, you could filter for a different scenario, for example, Scenario Curve_Data.



| Expense - HL | F Input (Dimension) | | | | |
|--|------------------------|--------------|-----------------|-----------------------|--------------------------|
| Prototype view for Dimension - Custom View | | | | | |
| Updating: Clear and Insert Filter: | | | | | |
| Name | ModelID | Read Only | Lookup Level | SCENARIO Selection | TIMEPERIOD Selection |
| Curve | EXMP_EXPENSE_CURVE_HLF | Ν | HLF_CURVE | Filter(SCENARIO FCST) | Filter(YR &CURRENT_YEAR) |
| Fcst Target | EXMP EXP HLF | Ν | | Filter(SCENARIO FCST) | Filter(YR &CURRENT YEAR) |

This is different from using look ups with variables because you cannot store data for a custom member, but only by the filtered members defined in the custom member.

Solve on calculated members in custom dimensions

Specialized logic for performing Solve on members of a custom dimension which are defined by formulas has been implemented in this release.

When a change in a computed custom member is detected, a one-dimensional solve is performed to allocate the changes to the operands in the member's formula. Any non-computed operand, which is defined to be read only, is implicitly locked, as are any operands defined with a lookup level. The solve process is recursive for any calculated operands.

After solving back to non-calculated custom members, the changes are propagated to the noncustom "sub-views", and the traditional solve logic is executed, respecting any implicit and explicit locks and any solve patterns.

Note: Solve does not work on calculated members of analytic custom dimensions or on calculated members defined with the Better/Worse (BW) function.

Here is an example of solving on the percent change for Bad Debt Expense.

| | Read Only Column | Updatable Column | Calculated Column | Calculated Column |
|--------------------------------|-------------------------|----------------------|---------------------------------|-------------------------------|
| | BUD vs FCST Variance | | | |
| FS - Account | Budget Mar-2018 | Forecast Mar-2018 | -CY FCST vs CY Budget Var | -CY FCST vs CY Budget % |
| Bad Debt Expense | 59,982 | 60,584 | (602) | -1.0% |
| Bank Fees | (8,119) | (5,000) | (3,119) | 38.4% |
| Commissions and Fees Expense | 50,192 | 45,248 | 4,944 | 9.9% |
| Legal and Professional Expense | 48,630 | 42,875 | 5,755 | 11.8% |
| Office Expense | 30,447 | 29,865 | 582 | 1.9% |
| Supplies Expense, Office | 44,516 | 49,653 | (5,137) | -11.5% |
| Training Expense | 70,168 | 69,853 | 315 | 0.4% |
| -Supplies & Services | 295,816 | 293,078 | 2,738 | 0.9% |

• Update **Bad Dept Expense** percent change from -1.0% to 5.0%.



| | Read Only Column | Updatable Column | Calculated Column | Calculated Column |
|--------------------------------|-------------------------|----------------------|---------------------------------|-------------------------------|
| , | BUD vs FCST Variance | | | |
| FS - Account | Budget Mar-2018 | Forecast Mar-2018 | -CY FCST vs CY Budget Var | -CY FCST vs CY Budget % |
| Bad Debt Expense | 59,982 | 60,584 | (602) | 5.0% |
| Bank Fees | (8,119) | (5,000) | (3,119) | 38.4% |
| Commissions and Fees Expense | 50,192 | 45,248 | 4,944 | 9.9% |
| Legal and Professional Expense | 48,630 | 42,875 | 5,755 | 11.8% |
| Office Expense | 30,447 | 29,865 | 582 | 1.9% |
| Supplies Expense, Office | 44,516 | 49,653 | (5,137) | -11.5% |
| Training Expense | 70,168 | 69,853 | 315 | 0.4% |
| -Supplies & Services | 295,816 | 293,078 | 2,738 | 0.9% |

• Click Solve.

| ıt Fo | ormulas | Data | Revie | ew V | ïew | CONTROL | .® Naviga | tor |
|-------|---------|---------|----------------|----------------|-------|------------------|--------------------|-------|
| Views | Solve 🔛 | erate 👻 | Select Page | File Data * | Forms | Sheets Sheets | Scripts Scripts | Tran: |

• Since Budget data is locked only Forecast data is updated.

| | Read Only Column | Updatable Column | Calculated Column | Calculated Column |
|--------------------------------|-------------------------|----------------------|---------------------------------|-------------------------------|
| | BUD vs FCST Variance | | | |
| FS - Account | Budget Mar-2018 | Forecast Mar-2018 | -CY FCST vs CY Budget Var | -CY FCST vs CY Budget % |
| Bad Debt Expense | 59,982 | 56,983 | 2,999 | 5.0% |
| Bank Fees | (8,119) | (5,000) | (3,119) | 38.4% |
| Commissions and Fees Expense | 50,192 | 45,248 | 4,944 | 9.9% |
| Legal and Professional Expense | 48,630 | 42,875 | 5,755 | 11.8% |
| Office Expense | 30,447 | 29,865 | 582 | 1.9% |
| Supplies Expense, Office | 44,516 | 49,653 | (5,137) | -11.5% |
| Training Expense | 70,168 | 69,853 | 315 | 0.4% |
| -Supplies & Services | 295,816 | 289,477 | 6,339 | 2.1% |

New CONTROL® ribbon commands

We added and removed some commands to the CONTROL[®] ribbons to support new functionality.

The CONTROL[®] Navigator ribbon includes a new **Flex Pane** command in the **Show/Hide** group to display the **Flex Pane** to help manage Flex formulas.

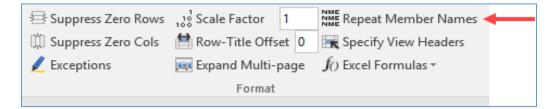


| | | | | Вос | ok1 - CONTROL® | | | | | | Æ | - C | x c |
|--|---|---|--|---|--|--|--------------|---|-------------------|--------------------|-------------------------------|-------------------------------|---------|
| File | Home Insert Page Layout | Formulas Data | Review View | CONTROL® Navi | igator CONTROL® | View CONTRO | L® D | eveloper De | veloper A | Add-ins | ♀ Tell me | Sign in | ₽ Share |
| Login Logou CONT | ut Revenue Books Views | C Refresh ▼ C Regenerate ▼ Solve ▼ Views | Page Data - | | Scripts Transforms | Pane Pane | Flex Pane | - | | Close Actions C | Keywords | Doptions PHelp Doptions | |
| 312 | ▼ : × ✓ f _x | 37266645.605841 | .6 | | | | | | | | | | |
| | A | В | С | D | E | F | A | D View - SCA | - Rev View | | | | × |
| 1 | Filters: Pages: | BUD_2018 | , | 2018 | | | | B12 | | OD p[0], E | p[0], EXMP_CU EXMP_REV_ACC | | |
| | ^ | Revenue - RP SC | - | 2018 | | | | View Specifie | r | * | *** | | - |
| | | Scenario Budget 2 | | | | | | EXMP_ADJ | | EXMP_AD |) p[0] | | |
| 7 | COMPANY NAME Company Slogan | Adjustment Origin | | al Product :: Time P | eriod Year 2018 | | | EXMP CUST | | EXMP_CU | | | |
| 9 | USD Amounts not Scaled | | | | | | | - | | - | | | |
| 5 7 9 10 11 12 13 | | | | | | | | EXMP_PROD | | EXMP_PR | | | |
| | | Gross Sales | Net Revenue | Units | | Sales Returns | | EXMP_REV_AC | | - | V_ACCT c[0] | | |
| 11 | | | | | 3 | nd Allowances | | TIMEPERIOD | | TIMEPERI | | | |
| 12 | Total Customer CAN Canada | 37,266,645.61 3.023.510.17 | 34,289,692.81 | 13,131,053 | 1,629,168.78 | 1,307,534.75 | | | | | *** | | |
| | | | 2,787,580.85 | 520,510 1,451,119 | 126,800.38 226,321.74 | 105,882.66 184,268.52 | : | Reference | e type: | Absolu | te | | • |
| 13 | | E 224 002 00 | | | 220,521.74 | 104,200,32 | | | | - | | | |
| 13 14 | ESP Spain | 5,224,882.90 | 4,808,302.52 | | 244 121 62 | 202 194 20 | 1 | | | | | _ | |
| | ESP Spain FRA France | 5,796,706.83 | 5,343,112.78 | 1,545,758 | 244,131.63 | 203,184.29 | | Source ty | pe: In Us | e | • | Search | Q |
| | ESP Spain FRA France ITA Italy | 5,796,706.83 5,653,750.85 | 5,343,112.78 5,209,410.21 | 1,545,758 1,522,098 | 239,679.16 | 198,455.35 | | | pe: In Us | | ▼ Argument Valu | | م |
| | ESP Spain FRA France | 5,796,706.83 5,653,750.85 55,802.07 | 5,343,112.78 5,209,410.21 51,329.41 | 1,545,758 1,522,098 1,427,460 | 239,679.16 2,436.23 | 198,455.35 1,971.43 | | Source ty | po. | | | | م ا |
| 14 15 16 17 18 | ESP Spain FRA France ITA Italy JPN Japan | 5,796,706.83 5,653,750.85 55,802.07 218,982.49 | 5,343,112.78 5,209,410.21 51,329.41 201,610.49 | 1,545,758 1,522,098 1,427,460 1,474,779 | 239,679.16 2,436.23 9,414.50 | 198,455.35 1,971.43 7,710.20 | 4 | Source ty Name | po. | | | | م ا |
| 14 15 16 17 18 19 | ESP Spain FRA France ITA Italy JPN Japan THA Thailand TWN Taiwan, Province of China | 5,796,706.83 5,653,750.85 55,802.07 | 5,343,112.78 5,209,410.21 51,329.41 | 1,545,758 1,522,098 1,427,460 | 239,679.16 2,436.23 | 198,455.35 1,971.43 | 4 | Source ty Name | po. | | | | م ا |
| 14 15 16 17 18 19 | ESP Spain FRA France ITA Italy JPN Japan THA Thailand TWN Taiwan, Province of China USA United States | 5,796,706.83 5,653,750.85 55,802.07 218,982.49 227,328.79 | 5,343,112.78 5,209,410.21 51,329.41 201,610.49 209,380.77 | 1,545,758 1,522,098 1,427,460 1,474,779 1,498,438 | 239,679.16 2,436.23 9,414.50 9,703.46 | 198,455.35 1,971.43 7,710.20 7,991.51 | * | Source ty Name | po. | | | | م |
| 14 15 16 17 18 19 20 | ESP Spain FRA France ITA Italy JPN Japan THA Thailand TWN Taiwan, Province of China USA United States | 5,796,706.83 5,653,750.85 55,802.07 218,982.49 227,328.79 | 5,343,112.78 5,209,410.21 51,329.41 201,610.49 209,380.77 | 1,545,758 1,522,098 1,427,460 1,474,779 1,498,438 | 239,679.16 2,436.23 9,414.50 9,703.46 | 198,455.35 1,971.43 7,710.20 7,991.51 | * | Source ty Name | po. | | | | |
| 14 15 16 17 18 19 20 | ESP Spain FRA France ITA Italy JPN Japan THA Thailand TWN Taiwan, Province of China USA United States | 5,796,706.83 5,653,750.85 55,802.07 218,982.49 227,328.79 | 5,343,112.78 5,209,410.21 51,329.41 201,610.49 209,380.77 | 1,545,758 1,522,098 1,427,460 1,474,779 1,498,438 | 239,679.16 2,436.23 9,414.50 9,703.46 | 198,455.35 1,971.43 7,710.20 7,991.51 | | Source ty Name | po. | | | | |
| 14 15 16 17 18 19 20 | ESP Spain FRA France ITA Italy JPN Japan THA Thailand TWN Taiwan, Province of China USA United States | 5,796,706.83 5,653,750.85 55,802.07 218,982.49 227,328.79 | 5,343,112.78 5,209,410.21 51,329.41 201,610.49 209,380.77 | 1,545,758 1,522,098 1,427,460 1,474,779 1,498,438 | 239,679.16 2,436.23 9,414.50 9,703.46 | 198,455.35 1,971.43 7,710.20 7,991.51 | | Source ty Name SCA - Re | v View | | | | |
| 14 15 16 17 18 19 20 | ESP Spain FRA France ITA Italy JPN Japan THA Thailand TWN Taiwan, Province of China USA United States | 5,796,706.83 5,653,750.85 55,802.07 218,982.49 227,328.79 | 5,343,112.78 5,209,410.21 51,329.41 201,610.49 209,380.77 | 1,545,758 1,522,098 1,427,460 1,474,779 1,498,438 | 239,679.16 2,436.23 9,414.50 9,703.46 | 198,455.35 1,971.43 7,710.20 7,991.51 | | Source ty Name SCA - Re | v View Resolve | Α | | e | |
| 14 15 16 17 18 19 20 | ESP Spain FRA France ITA Italy JPN Japan THA Thailand TWN Taiwan, Province of China USA United States | 5,796,706.83 5,653,750.85 55,802.07 218,982.49 227,328.79 | 5,343,112.78 5,209,410.21 51,329.41 201,610.49 209,380.77 | 1,545,758 1,522,098 1,427,460 1,474,779 1,498,438 | 239,679.16 2,436.23 9,414.50 9,703.46 | 198,455.35 1,971.43 7,710.20 7,991.51 | | Source ty Name SCA - Re Edit value | v View Resolve | Α | Argument Value | e | |
| 14 15 16 17 18 19 20 21 22 23 24 25 | ESP Spain FRA France ITA Italy JPN Japan THA Thailand TWN Taiwan, Province of China USA United States | 5,796,706.83 5,653,750.85 55,802.07 218,982.49 227,328.79 | 5,343,112.78 5,209,410.21 51,329,41 201,610.49 209,380.77 15,678,965.77 | 1,545,758 1,522,098 1,427,460 1,474,779 1,498,438 | 239,679.16 2,436.23 9,414.50 9,703.46 | 198,455.35 1,971.43 7,710.20 7,991.51 | • | Source ty Name SCA - Re Edit value | Resolve | Α | Argument Value | e | |

The CONTROL® View ribbon includes several new commands. The new Flex View group includes commands to manage Flex views.



In the Format group, we replaced Filter and Page Rows with the Repeat Member Names command.



Users did not use the Filter and Page Rows command enough to warrant its placement on the ribbon. However, users requested the Repeat Member Names command, so they can easily repeat member names with nested dimensions.



| | USD Amounts not Scal | ed | Revenue Account | | | | USD Amounts not Sca | led | Revenue Account | 5 |
|----|------------------------|--------------------------------|-----------------|-------------|---------------|--------|-----------------------|--------------------------------|---------------------------------------|----------------|
| 10 | | Ĩ | | { | | 10 | | Ţ | · · · · · · · · · · · · · · · · · · · | |
| 11 | Product | Customer | Gross Sales | -Net Revenu | | 11 | Product | Customer | Gross Sales | -Net Revel |
| 2 | Product SKU 0001 | -Total Customer | 3,234,254.11 | 2,617,946. | | 12 | Product SKU 0001 | -Total Customer | 3,234,254.11 | 2,617,94 |
| 3 | | *CAN Canada | 240,242.20 | 194,115 | | 13 | Product SKU 0001 | *CAN Canada | 240,242.20 | 194,11 |
| 4 | | *ESP Spain | 452,781.86 | 365,84Z | | 14 | Product SKU 0001 | *ESP Spain | 452,781.86 | 365,847 |
| 5 | | *FRA France | 465,969.68 | 376,503.5 | | 15 | Product SKU 0001 | *FRA France | 465,969.68 | 376,503 |
| 6 | | *ITA Italy | 462,672.73 | 373,839.5 | · · | 16 | Product SKU 0001 | *ITA Italy | 462,672.73 | 373,839 |
| 7 | | *JPN Japan | 4,935.57 | 3,987 | | 17 | Product SKU 0001 | *JPN Japan | 4,935.57 | 3,987 |
| В | | *THA Thailand | 18,605.86 | 15,03 | | 18 | Product SKU 0001 | *THA Thailand | 18,605.86 | 15,033 |
| 9 | | *TWN Taiwan, Province of China | 18,949.96 | 15,31 | | 19 | Product SKU 0001 | *TWN Taiwan, Province of China | 18,949.96 | 15,31 |
|) | | *USA United States | 1,570,096.24 | 1,273,307 | \rightarrow | 20 | Product SKU 0001 | *USA United States | 1,570,096.24 | 1,273,30 |
| 1 | Product SKU 0002 | -Total Customer | 5,101,188.22 | 4,617,052,2 | 1 | 21 | Product SKU 0002 | -Total Customer | 5,101,188.22 | 4,617,052 |
| 2 | | *CAN Canada | 399,952.51 | 362,59 | 1 | 22 | Product SKU 0002 | *CAN Canada | 399,952.51 | 362,59 |
| 3 | | *ESP Spain | 714,779.91 | 648,031 | 1 | 23 | Product SKU 0002 | *ESP Spain | 714,779.91 | 648,031 |
| 4 | | *FRA France | 770,168.76 | 698,236.0 | 1 | 24 | Product SKU 0002 | *FRA France | 770,168.76 | 698,236 |
| 5 | | *ITA Italy | 756,321.55 | 685,684,9 | 1 | 25 | Product SKU 0002 | *ITA Italy | 756,321.55 | 685,684 |
| 6 | | *JPN Japan | 7,696.59 | 6,972 | 1 | 26 | Product SKU 0002 | *JPN Japan | 7,696.59 | 6,977 |
| 7 | | *THA Thailand | 29,724.55 | 26,948. | 1 | 27 | Product SKU 0002 | *THA Thailand | 29,724.55 | 26,94 |
| 3 | | *TWN Taiwan, Province of China | 30,628.21 | 27,767.8 | | 28 | Product SKU 0002 | *TWN Taiwan, Province of China | 30,628.21 | 27,76 |
| 9 | | *USA United States | 2,391,916.13 | 2,160,808 | 1 | 29 | Product SKU 0002 | *USA United States | 2,391,916.13 | 2,160,808 |
| D | Product SKU 0003 | -Total Customer | 3,028,310.61 | 2,798,912 | 3 | 30 | Product SKU 0003 | -Total Customer | 3,028,310.61 | 2,798,912 |
| 1 | | *CAN Canada | 233,474.82 | 215,821 | 3 | 31 | Product SKU 0003 | *CAN Canada | 233,474.82 | 215,82 |
| 2 | | *ESP Spain | 424,208.25 | 392,132 | 3 | 32 | Product SKU 0003 | *ESP Spain | 424,208.25 | 392,132 |
| 3 | | *FRA France | 450,583.89 | 416,514 | 3 | 33 | Product SKU 0003 | *FRA France | 450,583.89 | 416,51 |
| 1 | | *ITALigy | 443,989,98 | | | \sim | ~ duct SKU 0003 | WAIt Marine | | <u>∧_41</u> 20 |

Formatting a book's table of contents

You can now format the **Table of Contents** (**TOC**) template worksheet to have alternating row style formatting.

| | TABLE OF CONTENTS | | | | | | | | |
|---------|---------------------|--------------------|-------------|--|--|--|--|--|--|
| SI. No. | Worksheet | Contents | Description | | | | | | |
| 1] | In - xRate | In - xRate | | | | | | | |
| 2] | <u>SCA - OH Exp</u> | SCA - OH Exp | | | | | | | |
| 3] | SCA - OH Exp Input | SCA - OH Exp Input | | | | | | | |
| 4] | SCA - Rev View | SCA - Rev View | | | | | | | |

Follow these steps to set it up:

1. Open a Template sheet that includes the **TOC** worksheet.

| ß | | | Print Book |
|--------------------------------|-------------------|-------------------|------------|
| COMPANY NAME Company Stogan | | | &BookNam |
| | TABLE OF CONTE | NTS | |
| I. No. Worksheet | Contents | Description | |
| Page1] &Page1WorksheetName | &Page1ContentName | &Page1Description | |
| | | | |
| | | | |
| | | | |
| | | | |
| TOC Banner | | | |

2. Highlight the column header row and the next row below it.



| COMPANY NAME Company Sogan | | | Print Book &BookName |
|-------------------------------|-------------------|-------------------|-------------------------|
| | TABLE OF CONTE | NTS | |
| SI. No. Worksheet | Contents | Description | |
| &Page1] &Page1WorksheetName | &Page1ContentName | &Page1Description | - |

3. From the **Home** tab, click the **Font Settings** dialog launcher to open the **Format Cells** dialog.

| File Home Insert Page Layout Formulas Data F | Sheet1 - CONTROL® eview View CONTROL® Navigator CONTROL® Sheet CONTROL® Developer & Tell me | what |
|--|--|-----------------|
| $\begin{array}{c c} & & & \\ & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & &$ | 🛛 🌮 🔹 Wrap Text General 🔹 📝 Normal 2 N | lorma |
| Paste \checkmark Format Painter B $I \sqcup \checkmark$ $\boxdot \checkmark$ $\bigtriangleup \checkmark$ $\blacktriangle \checkmark$ | E 🖅 🗄 Merge & Center 🔹 \$ 🔹 % 🔹 👘 Conditional Format as Calculation | :hec[|
| Clipboard 🖓 Font 🖓 | Alignment 🖓 Number 🖓 | |
| B9 ▼ : X ✓ f× Sl. No. | Format Cells ? X | Ę |
| » | Number Alignment Font Border Fill Protection | |
| | Eont: Font style: Size: | |
| COMPANY NAME Company Slogan | Segoe UI Tap Script MT Bold | - 5 |
| Company NAME Company Bogan SI. No. Worksheet &Page1] &Page1WorksheetName | Tr Script MT Bold A Regular A 8 A Tr Segoe Print Italic 9 9 9 Tr Segoe Script Bold 10 10 | Ś |
| SI. No. Worksheet | C T Segoe UI Black 10 Dold Italic 11 Bold Italic 12 | $ \rightarrow $ |
| &Page1] &Page1WorksheetName | 🔊 🛱 Segoe UI Emoji 🔍 💛 14 🔍 | |
| Vave | Underline: ⊆olor: ▼ Automatic ▼ | <u> </u> |
| | Effects Preview | |
| igati | Strikethrough | < |
| Na N | Superscript | گر |
| Use I | | ~ > |
| | This font style is imitated for the display. The closest matching style will be used for printing. | ج بر |
| | This fond style is initiated for the display. The closest matching style will be used for printing. | - 5 |
| 10 | | < |
| , Clea | | < |
| Mavericks.Clean103_Test | OK Cancel | Ę |
| | | کر کر |

4. On the **Border** tab, under **Presets**, click **None**.

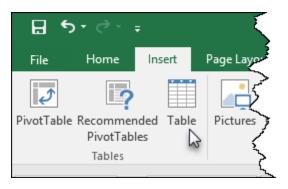
| | | | For | mat Cell | S | | ? | x |
|-----------------------|---|-------|--------|---------------|------------|------------|--------|-----------|
| Number | Alignment | Font | Border | Fill | Protection | | | |
| Line | | Prese | ets | | | | | |
| <u>S</u> tyle: Nor | e | - | | | | | | |
| | ······ ··· ··· | - | None | 0utline | Inside | | | |
| | · - | Bord | er | | | | | |
| | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | | l, | <i>~</i> ~~`ُ | | - <u>`</u> | \sim | للممر الم |



5. On the Fill tab, under Background Color, click No Color.

| | | | For | mat Cell | s | | | ? | x |
|---------|--------------------|------|--------|---|------------|--------|-------------|-----|--------|
| Number | Alignment | Font | Border | Fill | Protection | | | | |
| Backgro | und <u>C</u> olor: | | | P <u>a</u> tte | rn Color: | | | | |
| | No Color | | | | Automat | ic | ~ | | |
| | | | | <u>P</u> atte | rn Style: | | | | |
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| 1.22 | | | | | | | | | |
| \sum | | | ~~~ | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | \sim | \sim | $\sim \sim$ | ~~~ | \sim |

- 6. Click **OK** to save the changes.
- 7. From the **Insert** tab, in the **Tables** group, click **Table**.



8. On the Create Table dialog, select the My table has headers option, and click OK.



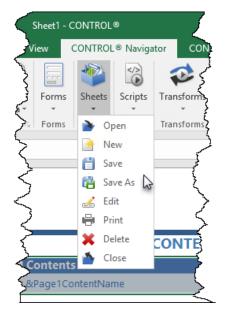
9. You can use the default table style, or from the **Table Tools Design** tab, you can select a different predefined format, or create a new table style.



| 1 1 1 | | Table Tools | | |
|--------------------|---------------|-------------|---|--------|
| CONTR | OL® Developer | Design | ${\mathbb Q}$ Tell me what you want to do | |
| utton | | | | • |
| Ş | | | | * - |
| \leq | | | Table Styles | |

Note: Excel will add generic column names to any columns with no header, so you will need to change the font color to match the fill color for those column headers.

10. After defining the table style, you can either save the active **Template** sheet, or save it as a new **Template** sheet.



When you open a book that includes a table of contents, you will see the alternating row styles.



| COMPANY S | NAME | | | Print Book Exmp - Book with TOC - Alternate |
|-----------|-----------------------|--------------------|-------------|--|
| | | TABLE OF CONTENTS | | |
| SI. No. | Worksheet | Contents | Description | |
| 1] | <u>In - xRate</u> | In - xRate | | |
| 2] | <u>SCA - OH Exp</u> | SCA - OH Exp | | |
| 3] | SCA - OH Exp Input | SCA - OH Exp Input | | |
| 4] | <u>SCA - Rev View</u> | SCA - Rev View | | |

Enhancements for the administrator

Restoring applications using a code

One of the key goals of the re-imagining of the administrative interface in version 10 was to dramatically reduce the amount of time and effort required to build a sophisticated CONTROL[®] application.

KCI has been investing heavily in creating rich application templates for common financial applications – revenue planning, expense analysis, capital budgeting, employee cost projection, and more. We want our customers and prospects to share the benefits of this investment.

The manifest feature supports shipping collections of models, views, mappings, and other objects between CONTROL[®] installations, but each customer will have their own chart of accounts, product lists, and organization structures that needs to be "plugged in" to the application template.

To support the customized replacement of selected objects, we enhanced the manifest **Restore From** > **File** option to allow the substitution of object IDs when you restore them from a manifest. You define the replacement value by specifying a **Code** on the target system as shown below:



| 🗸 Restore Objects - 🛛 | MENSIONS.DCF | | | | > |
|-----------------------|---|--------------------|------------------|----------|--------|
| Selected objects w | ill be restored from | n the selected | source. | | |
| Name | ID. | Class | Subclass | Behavior | |
| Employee - Test | EXMP_EMPLOYEE_T | Dimension | Organization | | |
| | EXMP_PAYROLLEXP | Dimension | Variable | | |
| Employee - Test | EXMP_EMPLOYEE_T | Hierarchy | Organization | | |
| Payroll Expenses - 1 | EXMP_PAYROLLEXP | Hierarchy | Variable | | |
| Restore Item Pro | operties | | | | * |
| Identification | | | | | |
| Name | Davroll F | xpenses - Test | | | |
| ID | 1000-000-000-000-000-000-000-000-000-00 | AVROLLEXP_TEST | | | _ |
| Last Updated | | December 11, 20 | | | - |
| Definition | Tuesday, | becchiber 11, 2 | 10 12:37:30 1 10 | | |
| Object Info | Payroll Ex | (penses - Test (ID | EXMP_PAYROLLEXP | _TEST) | *) v |
| Default Restore B | Sehavior Resto | re From | | | |
| Specified by Object | ✓ ○ Dat | tabase 💿 File | | | |
| | | est File E:\Dim | ansions def | | Browse |
| | | (********** | | | browse |
| | Code | Smart | Replace | | |
| | | | | Restore | Cancel |
| | | | | Nestore | Cancer |

The Code object specifies a list of source (or base) object IDs to be replaced with the matching target object IDs using the **{Object Class Name}Object ID** format as shown below:



| ile | | nsert Page Layout Fo | | chew view con | 1 | | | | | eveloper | CONTROL® Code | | eloper Add | and the state | | đ |
|----------|------------|---|---|-----------------------------------|-------------------|--------------|---------|------|--------|----------|-----------------|----------|------------|---------------|-------|----|
| le | Smart Rep | | B,□ ☐ ⊕ Target Table | | Correspondence Or | ne (Target). | | Prop | erties | 5 | | | | ect Access | 2. | E |
| | SMARTRE | | Base Table | | Is Allocated | | | | | Code | Mappings | Utilit | Stor | | | G |
| e Type | Table To T | | | | | | | | | Pane | | Scripts | | | | 2 |
| | | le Info | | e - Table | | Properties | | | | Show/H | li Construction | Utilitie | es Maint | enance | Displ | Co |
| | A1 | ▼ (* fx | Pages: | | | | | | | | | | | | | |
| - 1 | A | В | | | С | D | E | | A [| D Code - | Smart Replace | | | | | x |
| | Dagaar | | | | | | | | | arcant | Table: [1] | | [1] Base | Table: | | |
| | Pages: | - | | | | | | | | arget | able: [1] | | [I] DdSe | Table: | | |
| 2 | View: | Sample Code View | | | | Page Se | electio | ons: | C | olumn: | | × | Column: | | | |
| 4 | | | | | | | | | Fi | ind | | Q | Find | | | |
| 5 | | Propert | ties | | | | | | | | | 1 | | | | |
| | | C | | | | | | | | | | | | | | |
| 6 | | Target | | Base | | | | | | | | | | | | |
| 7 | | {Dimension}XYZ_EM | PLOYEE_TEST | {Dimension}EXM | P_EMPLOYEE_TEST | | | | | | | | | | | |
| 8 | | {Dimension}XYZ_PAY | | Conservation and Conservation | P_PAYROLLEXP_TES | | | | | | | | | | | |
| 9 | | {Dimension}XYZ_TO | | S | P_TOTAL_EMP_TEST | | | | | | | | : | | | |
| 10 | | {Hierarchy}XYZ_EMP | And the second se | | _EMPLOYEE_TEST | 1 | | | | | | | | | | |
| 11 | | {Hierarchy}XYZ_PAYI | | | _PAYROLLEXP_TEST | | | | | | | | | | | |
| 12 13 | | {Hierarchy}XYZ_TOT. {Level}XYZ_EMPLOYE | | {Hierarchy}EXMP {Level}EXMP_EM | TOTAL_EMP_TEST | 1 | | | | | | | | | | |
| 13 | | {Level}XYZ_EMPLOYE {Level}XYZ_PAYROLL | The second second second | {Level}EXMP_EM {Level}EXMP_PA | | I | | | | | | | | | | |
| 14 | | {Level}XYZ_TOTAL_E | _ | {Level}EXMP_TO | _ | I | | | | | | | | | | |
| 16 | | | | (Level)EXHP_10 | | 1 | | | | | | | | | | |
| 17 | | | | | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | | | | | |
| 200 | | | | | | | | | | Expand | Wildcards | | | | | |
| 19 | | | | | | | | | | pana | | | | | | |
| 19 20 | | | | | | | | | | | | | | | | |

The recommended steps to accomplish the creation and distribution of large-scale applications is:

1. Build the application in a development environment, creating new objects as needed and using existing objects such as variable, scenario, and time dimensions as needed.

EXAMPLE - Revenue Model Built in Development Database Environment:

| Used Dimensions | | ٥ |
|--------------------|------------------|---|
| Scenario | Organization | |
| Scenario | Customer Product | |
| Variable | Time | |
| Revenue Account | Time Period | |
| Dimension Details | | ¥ |



 Identify the objects that need replacing to customize the application for the target environment – such as account, product, or employee dimensions and the related levels. We will call these **Placeholder** objects.

| Used Dimensions | \$ |
|--|------------------|
| Scenario | Organization |
| Scenario | Customer Product |
| Placeholder Objects (Dimensions & Hierachie Variable | es) |
| Revenue Account | Time Period |
| Dimension Details | **** |

EXAMPLE - Revenue model built in development database environment:

3. Create a manifest in the development environment containing all the objects required for the application except the placeholder objects. Store the manifest in a DCF file.

EXAMPLE: For this example, all the replacement objects (Dimensions & Hierarchies) for the Revenue model already exist in the target database environment. The manifest file will only need to contain the Revenue model object to restore into the target database environment. The Code object created in step 4 will take care of identifying the "placeholder" objects (in the development database environment) and the "replacement" objects (in the target database environment)

4. In the target environment, create a Code object that lists the placeholder objects in the **Base** column and their replacement objects in the **Target** column. Create any replacement objects that do not already exist.



EXAMPLE: Code object created in the target database environment

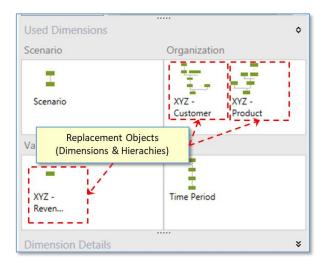
| A | B | C | - A | D Code - RESTOR | RE - Model | | × » |
|----------------------------|-------------------------------------|--------------------------|-----|-----------------|------------|----------|--------|
| 2 | RESTORE - Model (Code) | | | Target Table | 141 | F11 Daga | Tabla |
| 3 | Prototype object view (Dynamic) Vie | w | | Target Table | LU . | [1] Base | Table: |
| 4 | Updating: Clear and Insert Filter: | | | Column: | - | Column: | |
| 5 | Target | Base | | Find | ρ | Find | P |
| | {Dimension}XYZ_CUSTOMER | {Dimension}EXMP_CUST | | ruig | ~ | rung | ~ |
| 1 | {Dimension}XYZ_PRODUCT | {Dimension}EXMP_PROD | | | | | |
| | {Dimension}XYZ_REVEUNEACCOUNT | {Dimension}EXMP_REV_ACCT | | | | | |
|) | {Hierarchy}XYZ_CUSTOMER | {Hierarchy}EXMP_CUST | | | | * | |
| 1 | {Hierarchy}XYZ_PRODUCT | {Hierarchy}EXMP_PROD | | | | | |
| 0 1 2 3 4 5 | {Hierarchy}XYZ_REVEUNEACCOUNT | {Hierarchy}EXMP_REV_ACCT | | · | | | |
| 3 | {Model}XYZ_REVENUE | {Model}EXMP_REV_PRCS | | | | | |
| 4 | | | | | | | |
| | | | | | | | |
| 5 | | | | | | | |
| 7 | | | | | | | |
| В | | | | | | | |
| 9 | | | | Expand Wildcar | ds | | |
| 8 9 0 | | | - | | | | |
| | Code Structure Mappings | (+) : (| • | Immediate upo | late | | Update |

5. Restore the manifest DCF file in the target environment, specifying the Code you created.

| KG | Restore Objects | - 2019-01-15 - | REVENUE MOD | DEL.DCF | × |
|---------------------|---------------------|----------------------|-------------------|-----------------------|--------|
| Selected objects w | ill he restored fro | m the selected s | ource | | |
| Name | ID | Class | Subclass | Behavior | |
| Revenue - PRCS | EXMP REV PRCS | Model | Computation | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| Restore Item Pro | operties | | | | × |
| | sperties | | | | |
| E Search | | | | | × |
| Identification | | | | | ^ |
| Name | | e - PRCS | | | = |
| ID | EXMP_F | REV_PRCS | | | |
| Last Updated | Tuesday | , July 17, 2018 12:5 | 5:47 PM | | |
| Definition | | | | | |
| Object Info | Revenue | e - PRCS (ID: EXMP | _REV_PRCS) | | ▼ ∨ |
| Default Restore | Behavior Resto | ore From | | | |
| Specified by Object | ▼ O Da | atabase 💿 File | | | |
| | Mani | fost File INConst | ltant\Control10\M | anifacts\Pastora fm D | Brown |
| | Iviarii | | | anifests\Restore fm D | browse |
| | Code | RESTO | RE - Model | | |
| | | | | | |
| | | | | Restore | Cancel |
| | | | | | |



EXAMPLE: Revenue model restored into target database environment



Miscellaneous enhancements

Scenario hierarchy object view rollup style

We changed the rollup style of the Scenario hierarchy object view in both the dimension and hierarchy edit books from "Tree" to "Table". This aligns it with the same rollup style used for Organization hierarchies, which improves the administration of multi-level scenario dimensions.

Dynamic hierarchy books

You can create dynamic hierarchy books for both organization and variable hierarchies. These books are very useful for managing hierarchies that include several primary branches. The books include a table of contents, a workbook sheet for instructions, and objects views, which generate automatically, for each branch.

There is an example of a dynamic organization hierarchy book in the **950 Best Practice** category named **EXMP - Customer - Dynamic Hry Book**.

Required objects

Object Views:

Organization hierarchy books: You need object views for both **Branch** and **Root** rollups.

Variable hierarchy books: You need object views for Variable rollups.

In addition, you will need one object view named Full Rollups.



Note: These object views are generic and reference any branch. You do not need to create object views for specific dimension branches.

Example object views: BranchRollups1, BranchRollups2, BranchRollups3, RootRollups1, RootRollups2, RootRollups3, VariableRollups1, VariableRollups2, VariableRollups3, Full Rollups, etc.

Sheet (Template):

The GLB - TOC & Banner - Dynamic Hry Book template.

Note: We will provide you with these objects upon request.

How to create a dynamic hierarchy book

You can create a new dynamic organization or variable hierarchy book by filling out the following book properties in a new book.

- Dynamic Behavior: DefineOnOpen or DefineOnOpenAndRegenerate
- **Dynamic Definition:** FullRollups(Hierarchy(EXMP_CUST))

Note: EXMP_CUST in the Dynamic Definition above represents an Organization Hierarchy ID

• Template Sheet: GLB - TOC & Banner - Dynamic Hry Book



| IE ↓ Search | |
|---------------------------------------|--|
| Identification | |
| Name | EXMP - Customer - Dynamic Hry Book |
| ID | EXMP_CUSTOMR_DYNMCHRYBOOK |
| Class | Book |
| Subclass | Looseleaf |
| Category | (None) |
| Description | Use this for a Looseleaf Book with a Table of Contents |
| Definition | |
| Dynamic Behavior | DefineOnOpen |
| Dynamic Definition | FullRollups(Hierarchy(EXMP_CUST)) |
| Edit Object | (None) |
| Edit Object On File | (None) |
| Is Edit Book | |
| Structure | |
| Book Structure | Binary |
| Is Onfile Scope | True |
| Sheets Are Linked | |
| User Scope | All Users (ID: All Users) |
| Display | |
| Display Contents Sheet | |
| Template Sheet | GLB - TOC & Banner - Dynamic Hry Book (ID: GLB_TOCBANNER_DYNHRYBK) |
| Parameters | |
| Kevword Collection vnamic Behavior | (None) |

Adding a sheet object to a dynamic hierarchy book

You can add your own sheet to a dynamic hierarchy book by editing the dynamic hierarchy book object and adding the sheet to the **Content** of the book. You can determine the position that the sheet appears in the book by filling out the **Property Overrides** property using the following **Transient Property** syntax.

| Syntax | Used to |
|----------------------|--|
| _Position = 1 | Put the Sheet in the first position (assumes origin 1) |
| _Position = Front | Put the Sheet in the First position |
| Position = Front + 1 | Put the Sheet in the second position |
| _Position = Back | Put the Sheet last |
| _Position = Back - 1 | Put the Sheet second from the last |



| Computational Views Search Source Data Views 700 Maintenance Object Views 800 Public Administrative Views 950 Best Practice Forms With Views EXMP - Financial Statement Forms Without Views PRCS - Revenue Sheets EXMP - FS SubAcct - Org EXMP - Instructions Sheets | ts |
|--|----|
| Source Data Views 700 Maintenance Object Views 800 Public Administrative Views 950 Best Practice Forms With Views EXMP - Financial Statement Forms Without Views PRCS - Revenue EXMP - FS SubAcct - Org EXMP - Payroll | ts |
| Object Views Administrative Views Forms With Views Forms Without Views Sheets Content Type Model or Data Source | ts |
| Administrative Views Forms With Views Forms Without Views Sheets Content Administrative Views Forms Without Views Content Administrative Views Forms Without Views Forms Forms Without Views Forms Forms Formation Forms Forms Formation Forms Formation Forms Formation For | |
| Forms With Views Forms Without Views Sheets Content Type Model or Data Source | |
| Forms Without Views PRCS - Revenue EXMP - FS SubAcct - Org EXMP - Payroll EXMP - Payroll Model or Data Source Model or Da | |
| Sheets EXMP - FS SubAcct - Org EXMP - FS SubAcct - Org EXMP - Payroll Content Type Model or Data Source | 4 |
| Content Type Model or Data Source | |
| X A V Content Type Model or Data Source | |
| Content Type Model or Data Source | |
| a entre a l'important de l'important de la composition de la composition de la composition de la composition de | |
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| | |
| Book Item Properties | |
| I A Search | X |
| Definition | |
| Content Type Sheets | |
| Content (i) EXMP - Instructions (ID: EXMP IN | • |
| Auto Open | |
| Object View Compon (None) | • |
| Component Group (None) | • |
| Dont Resolve Keyword | |
| Property Overrides _POSITION = FRONT | ٦ |
| | - |
| Meta Object Info EXMP - Instructions (ID: EXMP_IN | - |

Note: With variable hierarchies, if you have levels with the **Is Sorted** property set to **As Listed**, then you may want to create and add additional object views for those levels. This way the user can add a new account to the level first, in the required position, and then update the hierarchy. You can add these level object views to the dynamic hierarchy book as well, and use the **Property Overrides** property to display these object views before the hierarchy object views. See the example below.



| Book - Variables Hry Update | | | | | ×× |
|--|-----------------|---|--|---------------|----------|
| Selected Content | | | | | * |
| Computational Views | 5 | Search | | | Q |
| Computational Views Comput | | 8110 T29 F ADMIN MA AWARD-str EXPENSE Gemini Adjustr | AINTENAN ructure ob Expense ments evel Repor | ICE ojects | |
| | | ▷ Public | | | |
| X ^ Y | | | | | \$ |
| Content | Туре | | | Model or Data | · · |
| Instructions - Variables Hierarch | | | | Woder of Data | Source |
| Variables | Object \ | lious | | Variables | |
| < Book Item Properties | | | | | > > |
| | | | | | ~ |
| | | | | | |
| Object View Compon | (None) | | | | ~ ^ |
| Component Group | (None) | | | | ~ |
| Dont Resolve Keyword | | | | | |
| Property Overrides | _Position = | Front | | | ~ |
| Property Overrides Optional overrides for any view p [propertyName2=value2] Examples: _Position=Front _Position=Back | roperties, of t | he form [pro | pertyNam | | |
| Immediate update | | | | Update | Maximize |

| Compan | VY NAME y Slogan | | | BOOK: Variables Hry U | | |
|-------------------|---------------------------------|----------------------------------|---|--------------------------------|--|--|
| TABLE OF CONTENTS | | | | | | |
| No. | Worksheet | Contents | Content Description | Model/Object Description | | |
| 1] | Instructions-Dimension Diagrams | Instructions - Variables Hierard | hy | | | |
| 2] | VARIABLES (Level) | Variables | Manage Variables | | | |
| 3] | Expense-3 Levels | VariableRollups1 | Branch Expense-3 Levels | Variables (Standard Hierarchy) | | |
| 4] | Board RPTS-Variable | VariableRollups2 | Branch Board RPTS-Variable | Variables (Standard Hierarchy) | | |
| 5] | Expense Model Old Variabl | VariableRollups3 | Branch Expense Model Old Variables | Variables (Standard Hierarchy) | | |
| 6] | Board RPTS Old Variables | VariableRollups4 | Branch Board RPTS Old Variables | Variables (Standard Hierarchy) | | |
| 7] | Full Hierarchy | Full Rollups | Complete Bottom to Top Hierarchy with all Levels (Read Only) | Variables (Standard Hierarchy) | | |

