# Model Cleanliness

A guide to optimize and clean-up as you build

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PLANNING
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Anaplan

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Anaplan

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# Techniques for Model Cleanliness

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# Benefits of clean model

Performance: Removing unneeded objects for faster startup and calculation

Scalability: Increasing functionality with focused architecture

Maintenance: Facilitating the onboarding and adoption of the model

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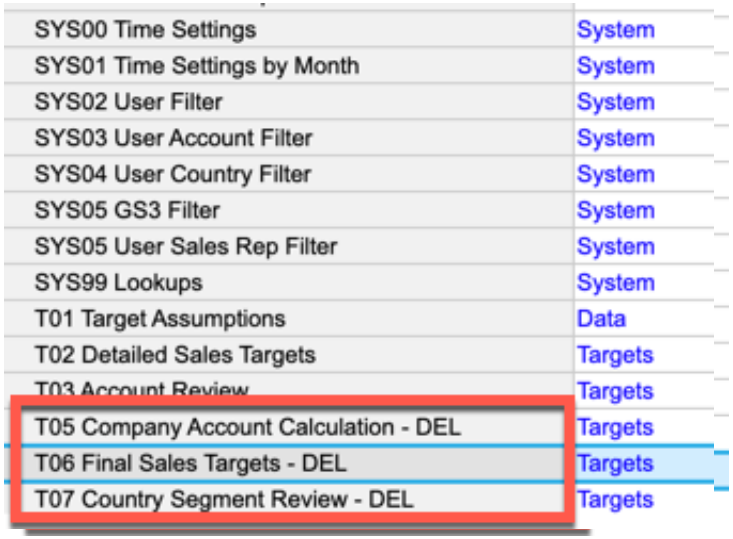
# 4 Golden Rule Rules

- Delete objects that are no longer needed

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# 4 Golden Rule Rules

- Delete objects that are no longer needed

Open | Insert... | Delete... | Reorder... | Export... | Refresh

| | Referenced in Applies To | Referenced as Format |
|---|---|---|
| Length of Service | 'Q04 Length of Service Details', 'Q05 Tenure Calculation' | 'H05 Sales Rep Details'.Length of Service List |
| Role | 'Q02 Quota Assumptions' | 'H05 Sales Rep Details'.Role |
| Tenure | 'Q02 Quota Assumptions', 'Q03 Tenure Thresholds', 'Q05 Tenure Calculation' | 'H05 Sales Rep Details'.Tenure, 'Q05 Tenure Calculation'.Tenure List |
| --- Hierarchies --- | | |
| A1 Accounts | 'AD01 Access Drivers - Accounts', 'H01 Account Details', 'Q06 Account Assignment', 'Q07 Account Ass | 'H04 Account>Product Details'.'A1 Account', 'Q01 Territory Account Details'.Account, 'G4 |
| A2 Account>Product# | 'D01 PY Sales', 'D02 PY Sales - CY', 'H04 Account>Product Details', 'T02 Detailed Sales Targets' | |
| G1 Region | | 'H02 Territory Details'.Region |
| G2 Country | 'D03 Sales Targets', 'SYS04 User Country Filter', 'T01 Target Assumptions', 'T05 Company Account Ca | 'H01 Account Details'.Country, 'H02 Territory Details'.Country, 'H03 Location Flat Details'. |
| G3T Territory | 'H02 Territory Details' | 'Q01 Territory Account Details'.Territory, 'Q06 Account Assignment'.Territory, 'Q07 Accoun |
| G3S Sales Reps# | 'H06 GS3 Sales Rep Details', 'Q08 Sales Rep Target Review', 'Q09 Sales Rep Commissions', 'Q10 Co | 'H05 Sales Rep Details'.'G3S Sales Rep#', 'Q06 Account Assignment'.Sales Rep |
| G4A Territory>Account# | 'Q01 Territory Account Details' | |
| P1 Product Family | 'D03 Sales Targets' | 'H04 Account>Product Details'.'P1 Product Family' |
| P2 Product | | 'H04 Account>Product Details'.'P2 Product' |
| --- Flat Lists --- | | |
| Segment | 'T07 Country Segment Review' | 'H01 Account Details'.Segment, 'Q06 Account Assignment'.Segment, 'SYS02 User Filter'. |
| Country Flat | | |
| Geography Flat | | |
| [illegible] | 'H03 Location Flat Details' | 'H01 Account Details'.Location |
| Product Flat | | 'H04 Account>Product Details'.Product Flat, 'A2 Account>Product#'.Display Name |
| Sales Reps Flat# | 'H05 Sales Rep Details' | 'G3S Sales Reps#'.Display Name |
| --- Subsets --- | | |

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# 4 Golden Rule Rules

- Delete objects that are no longer needed
- Use Section Dividers to break up objects

| | |
|---|---|
| DAT04 US Geo Codes Details from US GEO Codes.csv | Import into 'DAT04 US Geo Codes Details' |
| Product Sale Transactions from transaction_final_us.csv*** | Import into Product Sale Transactions |
| Product Sales Transaction Stag from transaction_final_us.csv | Import into 'DAT01 Product Sales Transaction Stagir |
| ---GEO Hierachy--- | Import into Headliner |
| L1 Super Territory from Data HUB - DEV / 'DAT04 US Geo Codes | |
| L2 Global/Terr Desc from Data HUB - DEV / 'DAT04 US Geo Code | Import into 'L2 Global/Terr Desc' |
| L3 Sub Territory from Data HUB - DEV / 'DAT04 US Geo Codes D | Import into 'L3 Sub Territory' |
| L4 Country from Data HUB - DEV / 'DAT04 US Geo Codes Details | Import into 'L4 Country' |
| L5 State from Data HUB - DEV / 'DAT04 US Geo Codes Details'. | Import into 'L5 State' |
| L6 Postal Prefix from Data HUB - DEV / 'DAT04 US Geo Codes D | Import into 'L6 Postal Prefix' |
| ---Geo Hierarchy v2--- | Import into Headliner |
| Finance Geo Code flat from Finance and Geo Codes Combined.cs | Import into Finance Geo Code flat |
| Country Flat List from Finance and Geo Codes Combined.csv | Import into Country Flat List |
| State Flat from Data HUB - DEV / 'DAT04 v2 Geo Code Details' | Import into State Flat |
| DAT04 v2 Geo Code Details from Finance and Geo Codes Combine | Import into 'DAT04 v2 Geo Code Details' |

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# 4 Golden Rule Rules

- Delete objects that are no longer needed
- Use Section Dividers to break up objects
- Use Notes to document that object

| | Action | Notes |
|---|---|---|
| **Processes** | | |
| **Imports** | | |
| Load Trans Data List | Import into Trans Data | Load Trans Data List from Contact_Events_UniqueID_Properties.csv |
| Load Trans Data module | Import into 'DATA: Trans Data' | Load Trans Data Module from Contact_Events_UniqueID_Properties.csv |
| Load Cost Center Flat | Import into Cost Center Flat | Load Cost Center Flat list from Cost Center Flat.csv |
| Update ss Servicing CC (v) | Import into Cost Center Flat | Update ss Servicing CC subset from SYS: Trans Data Properties.Update CC Subset |
| Build L1 Company | Import into 'L1 Company' | Build L1 Company from view SYS: Trans Data Properties.Build L1 Company |
| Build L2 Credit | Import into 'L2 Credit' | Build L2 Credit from SYS: Trans Data Properties.Build L2 Credit |
| Build L3 DQ | Import into 'L3 DQ' | Build L3 DQ from SYS: Trans Data Properties.Build L3 DQ |
| Build L4 FICO | Import into 'L4 FICO' | Build L4 FICO from SYS: Trans Data Properties.Build L4 FICO |
| Build L5 Method | Import into 'L5 Method' | Build L5 Method from SYS: Trans Data Properties.Build L5 Method |
| Build L6 Result | Import into 'L6 Result' | Build L6 Result from SYS: Trans Data Properties.Build L6 Result |

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# 4 Golden Rule Rules

- Delete objects that are no longer needed
- Use Section Dividers to break up objects
- Use Notes to document that object
- Develop a Naming Convention for:
  - Actions (Build vs Load)
  - Modules (shorter the better)
  - Line Items (Text vs. List vs Boolean)
  - Best Practice article: https://help.anaplan.com/anapedia/Content/Modeling/Good_Practice/Good_Practice_Naming_Conventions.html

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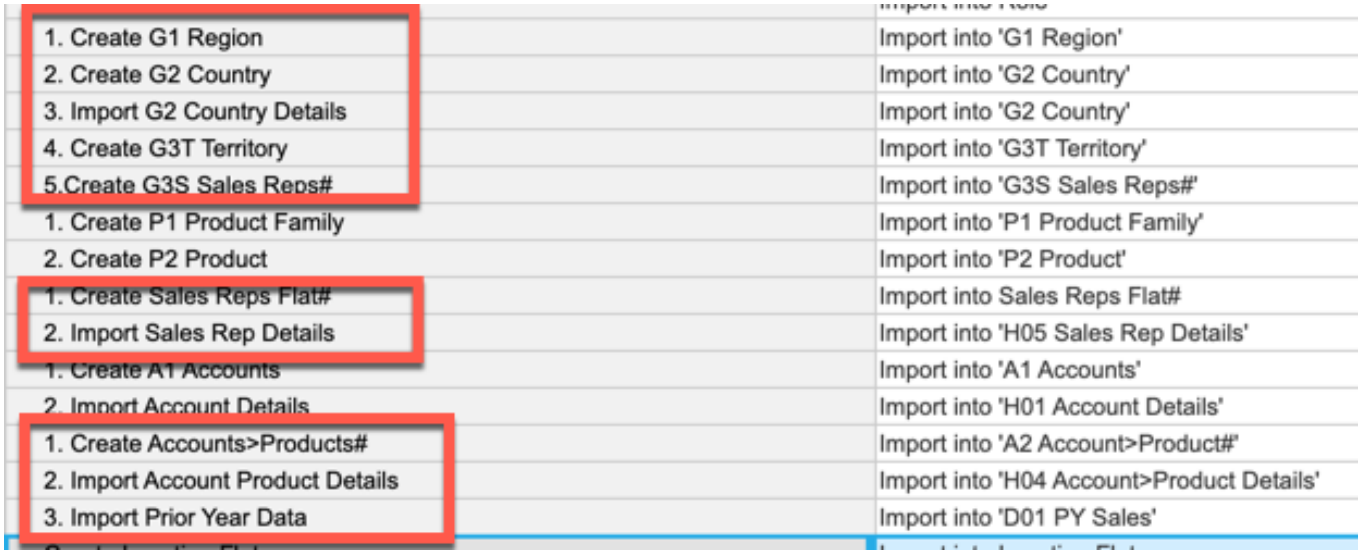
# Actions

- Group Actions of a process together



| | |
|---|---|
| 1. Create G1 Region | Import into 'G1 Region' |
| 2. Create G2 Country | Import into 'G2 Country' |
| 3. Import G2 Country Details | Import into 'G2 Country' |
| 4. Create G3T Territory | Import into 'G3T Territory' |
| 5.Create G3S Sales Reps# | Import into 'G3S Sales Reps#' |
| 1. Create P1 Product Family | Import into 'P1 Product Family' |
| 2. Create P2 Product | Import into 'P2 Product' |
| 1. Create Sales Reps Flat# | Import into Sales Reps Flat# |
| 2. Import Sales Rep Details | Import into 'H05 Sales Rep Details' |
| 1. Create A1 Accounts | Import into 'A1 Accounts' |
| 2. Import Account Details | Import into 'H01 Account Details' |
| 1. Create Accounts>Products# | Import into 'A2 Account>Product#' |
| 2. Import Account Product Details | Import into 'H04 Account>Product Details' |
| 3. Import Prior Year Data | Import into 'D01 PY Sales' |

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# Actions

- Group Actions of a process together
- Source should be View or File

Actions

Actions | **Imports** | Import Data Sources

View | Run... | Edit... | Delete... | Reorder... | Refresh

| | Source Label | Source Object | Source Type | Target Object | Target Type | Prod |
|---|---|---|---|---|---|---|
| Load Trans Data List | Contact_Events_UniqueID_Pr | - | FILE | Trans Data | LIST | |
| Load Trans Data module | Trans Data.csv | - | FILE | DATA: Trans Data | MODULE | |
| Load Cost Center Flat | Cost Center Flat.csv | - | FILE | Cost Center Flat | LIST | |
| Update ss Servicing CC (v) | Update CC Subset | Filter Trans Data by Users / ' | SAVED VIEW | Cost Center Flat | LIST | |
| Build L1 Company | SYS: Trans Data Properties."E | Filter Trans Data by Users / ' | SAVED VIEW | L1 Company | LIST | |
| Build L2 Credit | SYS: Trans Data Properties.'B | Filter Trans Data by Users / ' | SAVED VIEW | L2 Credit | LIST | |
| Build L3 DQ | SYS: Trans Data Properties.'B | Filter Trans Data by Users / ' | SAVED VIEW | L3 DQ | LIST | |
| Build L4 FICO | SYS: Trans Data Properties.'B | Filter Trans Data by Users / ' | SAVED VIEW | L4 FICO | LIST | |
| Build L5 Method | SYS: Trans Data Properties.'B | Filter Trans Data by Users / ' | SAVED VIEW | L5 Method | LIST | |
| Build L6 Result | SYS: Trans Data Properties.'B | Filter Trans Data by Users / ' | SAVED VIEW | L6 Result | LIST | |

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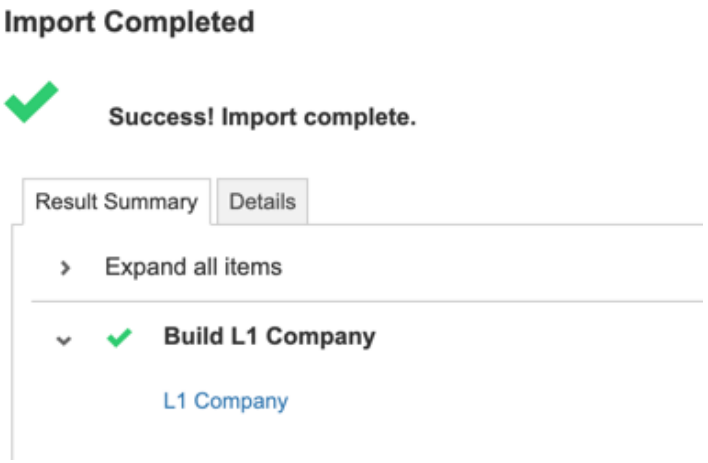
# Actions

- Group Actions of a process together
- Source should be View or File
- Green Checks

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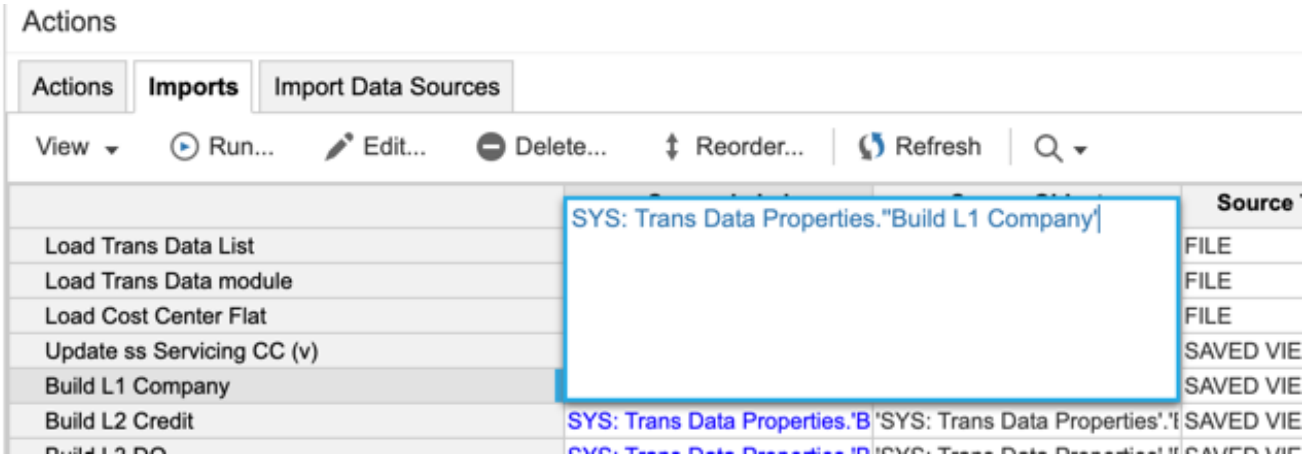
# Imports

- Clean up Source Label description

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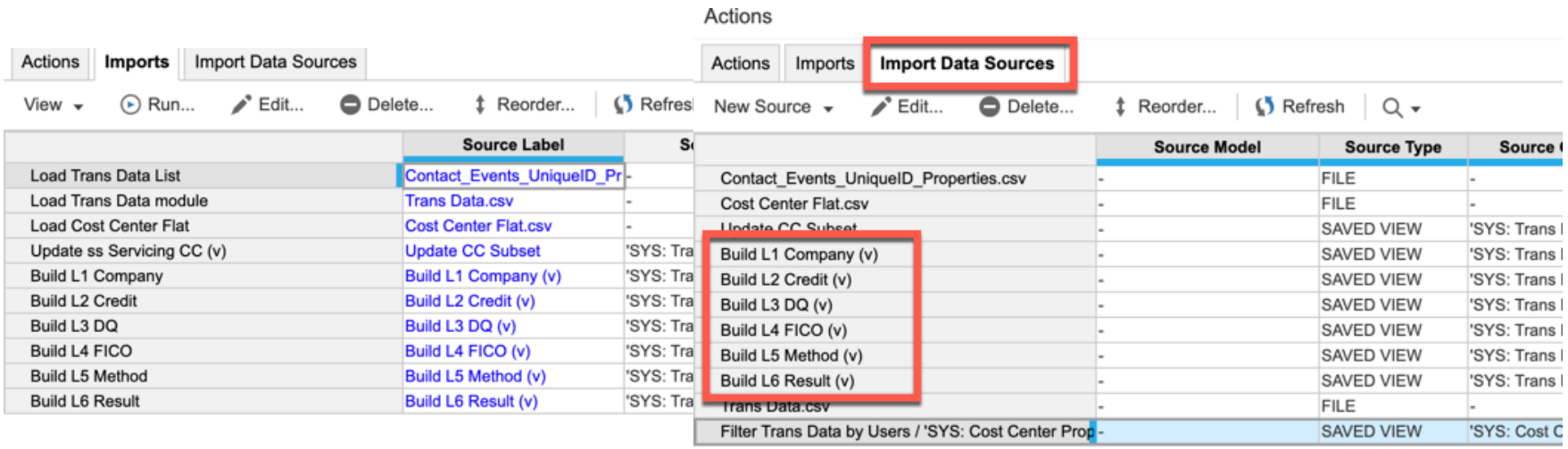
# Imports

- Clean up Source Label description

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# Imports

- Clean up Source Label description
- Create views with only the line items needed

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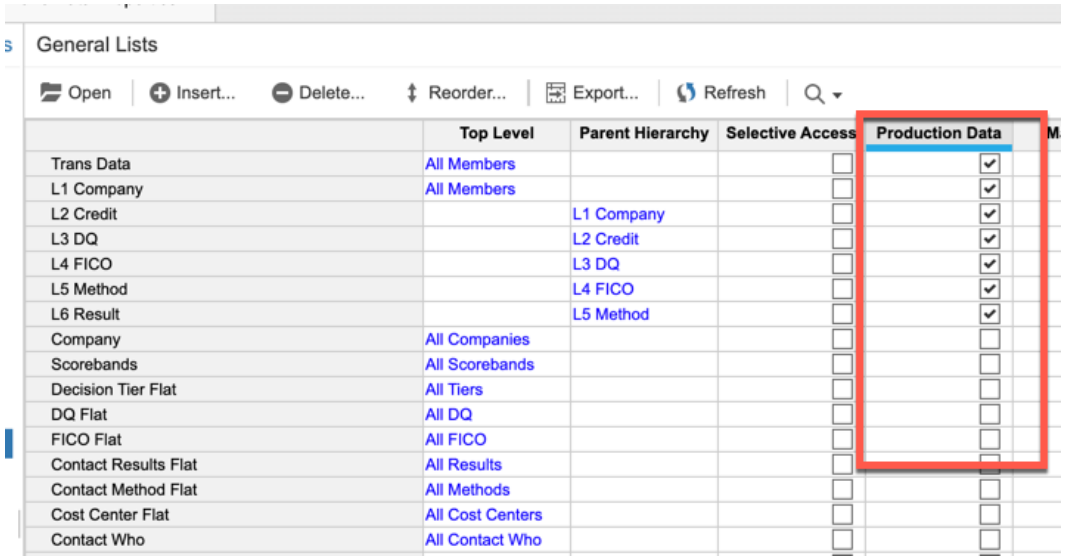
# Lists

- Production Data vs. Non-Production Data




| | Top Level | Parent Hierarchy | Selective Access | Production Data |
|---|---|---|---|---|
| Trans Data | All Members | | ☐ | ☑ |
| L1 Company | All Members | | ☐ | ☑ |
| L2 Credit | | L1 Company | ☐ | ☑ |
| L3 DQ | | L2 Credit | ☐ | ☑ |
| L4 FICO | | L3 DQ | ☐ | ☑ |
| L5 Method | | L4 FICO | ☐ | ☑ |
| L6 Result | | L5 Method | ☐ | ☑ |
| Company | All Companies | | ☐ | ☐ |
| Scorebands | All Scorebands | | ☐ | ☐ |
| Decision Tier Flat | All Tiers | | ☐ | ☐ |
| DQ Flat | All DQ | | ☐ | ☐ |
| FICO Flat | All FICO | | ☐ | ☐ |
| Contact Results Flat | All Results | | ☐ | ☐ |
| Contact Method Flat | All Methods | | ☐ | ☐ |
| Cost Center Flat | All Cost Centers | | ☐ | ☐ |
| Contact Who | All Contact Who | | ☐ | ☐ |

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# Lists

- Production Data vs. Non-Production Data
- Is ‘Time’ part of the key/list member?

| List | # of Records Original | After | % Reduction |
|---|---|---|---|
| **Revenue Actuals** | 168,198 | 636 | 99.6% |
| **TE Actuals** | 110,941 | 6,170 | 94% |
| **Actual Total Cost** | 119,242 | 32,036 | 73% |
| **Total Model Size (mb)** | 607 | 43.9 | 93% |
| **Total cells (milion)** | 56 | 3.1 | 94% |
| **Model Open Time** | 1.193 | 0.667 | 44% |
| **Memory Size (GB)** | 0.71 | 0.05 | 93% |
| **String References** | 6,831,739 | 257,010 | 96% |

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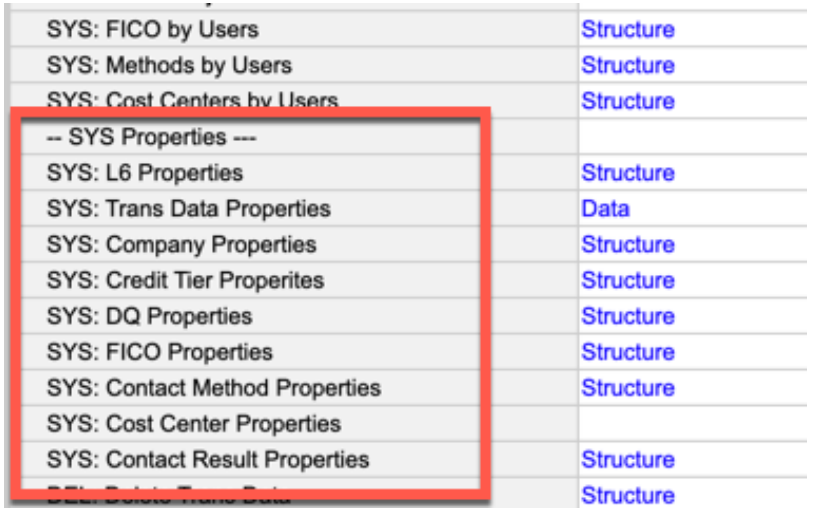
# Lists

- Production Data vs. Non-Production Data
- Is ‘Time’ part of the key/list member?
- Does the list have Properties?



| | |
|---|---|
| SYS: FICO by Users | Structure |
| SYS: Methods by Users | Structure |
| SYS: Cost Centers by Users | Structure |
| -- SYS Properties --- | |
| SYS: L6 Properties | Structure |
| SYS: Trans Data Properties | Data |
| SYS: Company Properties | Structure |
| SYS: Credit Tier Properites | Structure |
| SYS: DQ Properties | Structure |
| SYS: FICO Properties | Structure |
| SYS: Contact Method Properties | Structure |
| SYS: Cost Center Properties | |
| SYS: Contact Result Properties | Structure |
| | Structure |

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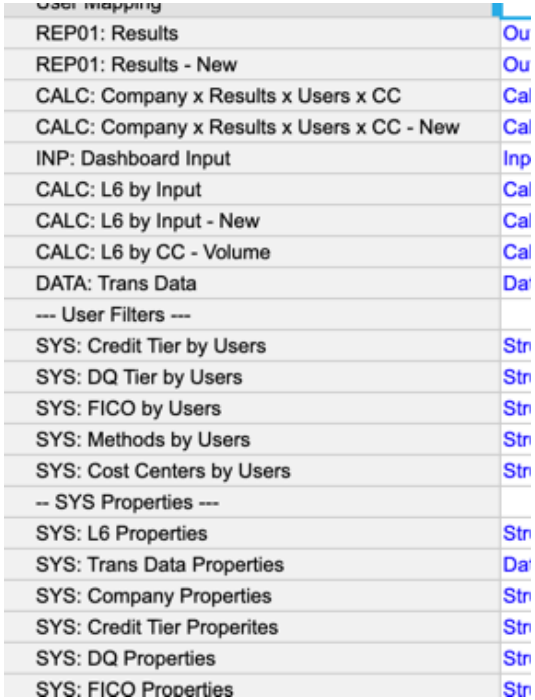
# Modules

- Name the modules with the correct prefix: SYS, DAT, CALC, REP, etc.

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# Modules

- Name the modules with the correct prefix: SYS, DAT, CALC, REP, etc.
- Find the largest modules and review the line items

| Users List | Cell Count |
|---|---|
| Show All Users: On | 28 |
| Show All Users: On | 43,316 |
| Show All Users: On | 43,316 |
| Show All Users: On | 2,685,592 |
| Show All Users: On | 2,685,592 |
| Show All Users: On | 15 |
| Show All Users: On | 1,676,700 |
| Show All Users: On | [illegible] |
| Show All Users: On | 204,557,400 |
| Show All Users: On | [illegible] |
| Show All Users: On | 0 |
| Show All Users: On | 67 |
| Show All Users: On | 60 |

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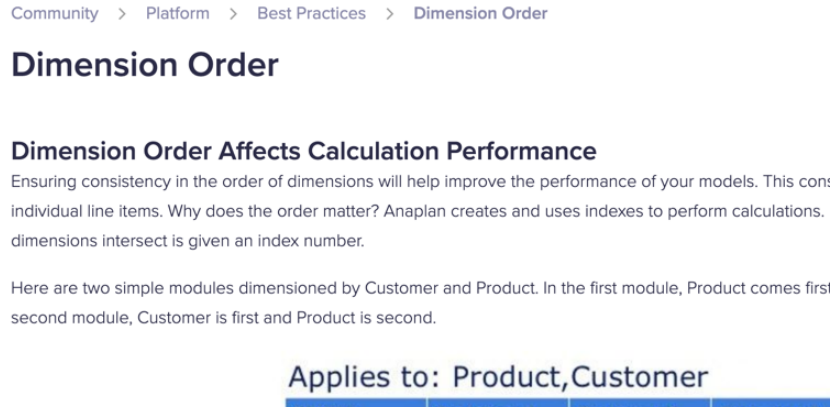
# Modules

- Name the modules with the correct prefix: SYS, DAT, CALC, REP, etc.
- Find the largest modules and review the line items
- Set up a consistent order in the Applies To
  - https://community.anaplan.com/t5/Best-Practices/Dimension-Order/ta-p/32934

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# Line Items

- Create Dividers (formatted as No Data) for different sections

| | Formula | Parent | Is Summary | Format | |
|---|---|---|---|---|---|
| Repo Ind | FINDITEM(Repo ID, Repo Ind Code) | | | Repo ID | - |
| **Anaplan Calc** | | | | No Data | - |
| Link to L6 Results | FINDITEM('L6 Result', 'Code for L6') | | | L6 Result | - |
| List Item Name | NAME(ITEM(Trans Data)) | | | Text | - |
| **Text Strings** | | | | No Data | - |
| Channel Code | LEFT(List Item Name, '1st Group' - 1) | | | Text | - |
| Score Band Code | RIGHT(LEFT(List Item Name, '2nd Group' - 1), '2nd Group' - '1st Group' - 1) | | | Text | - |
| Credit Tier Code | RIGHT(LEFT(List Item Name, '3rd Group' - 1), '3rd Group' - '2nd Group' - 1) | | | Text | - |
| DQ Bucket Code | RIGHT(LEFT(List Item Name, '4th Group' - 1), '4th Group' - '3rd Group' - 1) | | | Text | - |
| Fico Bucket Code | RIGHT(LEFT(List Item Name, '5th Group' - 1), '5th Group' - '4th Group' - 1) | | | Text | - |
| Result Code | RIGHT(LEFT(List Item Name, '6th Group' - 1), '6th Group' - '5th Group' - 1) | | | Text | - |
| Method Code | RIGHT(LEFT(List Item Name, '7th Group' - 1), '7th Group' - '6th Group' - 1) | | | Text | - |
| Cost Center Code | RIGHT(LEFT(List Item Name, '8th Group' - 1), '8th Group' - '7th Group' - 1) | | | Text | - |
| Who Code | RIGHT(LEFT(List Item Name, '9th Group' - 1), '9th Group' - '8th Group' - 1) | | | Text | - |
| Loc Code | RIGHT(LEFT(List Item Name, '10th Group' - 1), '10th Group' - '9th Group' - 1) | | | Text | - |
| Bankrupt Ind Code | RIGHT(LEFT(List Item Name, '11th Group' - 1), '11th Group' - '10th Group' - 1) | | | Text | - |
| Repo Ind Code | RIGHT(List Item Name, '12th Group' - '11th Group') | | | Text | - |
| **Traversing the Key** | | | | No Data | - |
| 1st Group | FIND("_", List Item Name) | | | Number | - |
| 2nd Group | FIND("_", List Item Name, '1st Group' + 1) | | | Number | - |

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# Line Items

- Create Dividers (formatted as No Data) for different sections
- Repetition of functions?

| Text Strings | |
|---|---|
| Channel Code | LEFT(NAME(ITEM(Trans Data)), '1st Group' - 1) |
| Score Band Code | RIGHT(LEFT(NAME(ITEM(Trans Data)), '2nd Group' - 1), '2nd Group' - '1st Group |
| Credit Tier Code | RIGHT(LEFT(NAME(ITEM(Trans Data)), '3rd Group' - 1), '3rd Group' - '2nd Group |
| DQ Bucket Code | RIGHT(LEFT(NAME(ITEM(Trans Data)), '4th Group' - 1), '4th Group' - '3rd Group' |
| Fico Bucket Code | RIGHT(LEFT(NAME(ITEM(Trans Data)), '5th Group' - 1), '5th Group' - '4th Group' |
| Result Code | RIGHT(LEFT(NAME(ITEM(Trans Data)), '6th Group' - 1), '6th Group' - '5th Group' |
| Method Code | RIGHT(LEFT(NAME(ITEM(Trans Data)), '7th Group' - 1), '7th Group' - '6th Group' |
| Cost Center Code | RIGHT(LEFT(NAME(ITEM(Trans Data)), '8th Group' - 1), '8th Group' - '7th Group' |
| Who Code | RIGHT(LEFT(NAME(ITEM(Trans Data)), '9th Group' - 1), '9th Group' - '8th Group' |
| Loc Code | RIGHT(LEFT(NAME(ITEM(Trans Data)), '10th Group' - 1), '10th Group' - '9th Grou |
| Bankrupt Ind Code | RIGHT(LEFT(NAME(ITEM(Trans Data)), '11th Group' - 1), '11th Group' - '10th Grc |
| Repo Ind Code | RIGHT(NAME(ITEM(Trans Data)), '12th Group' - '11th Group') |

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# Line Items

- Create Dividers (formatted as No Data) for different sections
- Repetition of functions?

| | |
|---|---|
| List Item Name | NAME(ITEM(Trans Data)) |
| **Text Strings** | |
| Channel Code | LEFT(List Item Name, '1st Group' - 1) |
| Score Band Code | RIGHT(LEFT(List Item Name, '2nd Group' - 1), '2nd Group' - '1st Group' - 1) |
| Credit Tier Code | RIGHT(LEFT(List Item Name, '3rd Group' - 1), '3rd Group' - '2nd Group' - 1) |
| DQ Bucket Code | RIGHT(LEFT(List Item Name, '4th Group' - 1), '4th Group' - '3rd Group' - 1) |
| Fico Bucket Code | RIGHT(LEFT(List Item Name, '5th Group' - 1), '5th Group' - '4th Group' - 1) |
| Result Code | RIGHT(LEFT(List Item Name, '6th Group' - 1), '6th Group' - '5th Group' - 1) |
| Method Code | RIGHT(LEFT(List Item Name, '7th Group' - 1), '7th Group' - '6th Group' - 1) |
| Cost Center Code | RIGHT(LEFT(List Item Name, '8th Group' - 1), '8th Group' - '7th Group' - 1) |
| Who Code | RIGHT(LEFT(List Item Name, '9th Group' - 1), '9th Group' - '8th Group' - 1) |
| Loc Code | RIGHT(LEFT(List Item Name, '10th Group' - 1), '10th Group' - '9th Group' - 1) |
| Bankrupt Ind Code | RIGHT(LEFT(List Item Name, '11th Group' - 1), '11th Group' - '10th Group' - 1) |
| Repo Ind Code | RIGHT(List Item Name, '12th Group' - '11th Group') |

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# Line Items

- Create Dividers (formatted as No Data) for different sections
- Repetition of functions?
- Subsidiary views usually equals new module!

| | Formula | Parent | Is Summary | Format | Applies To |
|---|---|---|---|---|---|
| CALC: L6 by Input - New | | | | | L6 Result, Fake Users |
| Credit? | IF NOT 'SYS: Credit Tier by Users'.'Select one or Multiple'[SELECT: Decision Tier | | | Boolean | |
| DQ? | 'SYS: DQ Tier by Users'.Member Selected[LOOKUP: 'SYS: L6 Properties'.DQ] = ' | | | Boolean | - |
| FICO? | 'SYS: FICO by Users'.Member Selected[LOOKUP: 'SYS: L6 Properties'.FICO] = 'S | | | Boolean | - |
| Method? | 'SYS: Methods by Users'.Member Selected[LOOKUP: 'SYS: L6 Properties'.Metho | | | Boolean | - |
| Final Result | IF Credit? AND DQ? AND FICO? AND Method? THEN 'L6 Result'.Display Name E | | | Contact Results | - |
| Anaplan Calcs | | | | No Data | |
| L5 Member | PARENT(ITEM('L6 Result')) | | | L5 Method | L6 Result |
| L4 Member | PARENT('L5 Member') | | | L4 FICO | L6 Result |
| L3 Member | PARENT('L4 Member') | | | L3 DQ | L6 Result |
| L2 Member | PARENT('L3 Member') | | | L2 Credit | L6 Result |
| L1 Member | PARENT('L2 Member') | | | L1 Company | L6 Result |

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# Line Items

- Create Dividers (formatted as No Data) for different sections
- Repetition of functions?
- Subsidiary views usually equals new module!
- Can the formulas be improved?
  - SUM/Lookup combination
  - Early Exits
  - No hardcoding
- Summary Settings – set to None if you can

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# Continuous improvement

- When should this be done?
- Download the guide!

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# Thank you!

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