Proposal:

Time Structure Model

UX Goals

1. Simplify terminology

i.e. 'Last 5 years' instead of 'Consecutive Period: 5 years'

2. Use visual controls (affordance)

i.e. time span slider w/zero point replaces form fields and text descriptions

3. Group time navigation options

i.e. add granularity setting instead of 'show weeks' for consumer

4. Expose options to consumer

i.e. change granularity, change range

Level 1: Time Structure Settings

- Define time hierarchy—turn on/off levels 1
- Default granularity—select level 2
- Select range or unit—span of time 3
- Define offset—offset from zero point (today)
- Define step navigation—behavior for step forward/back buttons

Level 2: Dial Time Settings

- Time hierarchy—inherited from associated time structure and limited by available data
- Granularity—inherits from associated time structure, can be overriden by dial settings, also can be overridden by global and dial time navigation options
- Range—inherits from associated time structure, can be overridden by dial 3 settings, also can be overridden by global and dial time navigation options, plus option to limit override 3
- Offset—based on 'today', inherits from associated time structure, can be overridden by dial settings
- Define offset thresholds—(i.e. show last month until a certain day of the month, then show current month)
- Define step navigation—inherits from associated time structure, can be overridden by dial settings 6

Level 3: Global Time Navigation

- Time hierarchy—admin can turn on/off levels appropriate to use
- Default granularity—set by administrator, can be overriden by personal settings
- Default offset—based on today, set by administrator, can be overridden by personal settings
- Change granularity 4, 5
- Change unit selection 5
- Change span 4
- Save default (?)—save as.. or define granularity and offset in personal profile
- *identify empty data sets

Level 4: Dial Time Navigation

- Step forward/back 6
- Change granularity 4, 5
- Change range 4
- Turn on/off range 4, 5
- *identify empty data sets

- 1 Time Hierarchy (turn on/off levels)
 - ✓ Year✓ Quarter✓ MonthWeekDayHour
- 2 Default Granularity (dropdown menu)
 - Month
- Range/Unit Slider (w/zero offset)



4 Range Slider (consumer view)



5 Unit Slider (consumer view)



- 6 Step Forward/Back & Reset
 - 2014 2016 🗸

Time Structure Settings

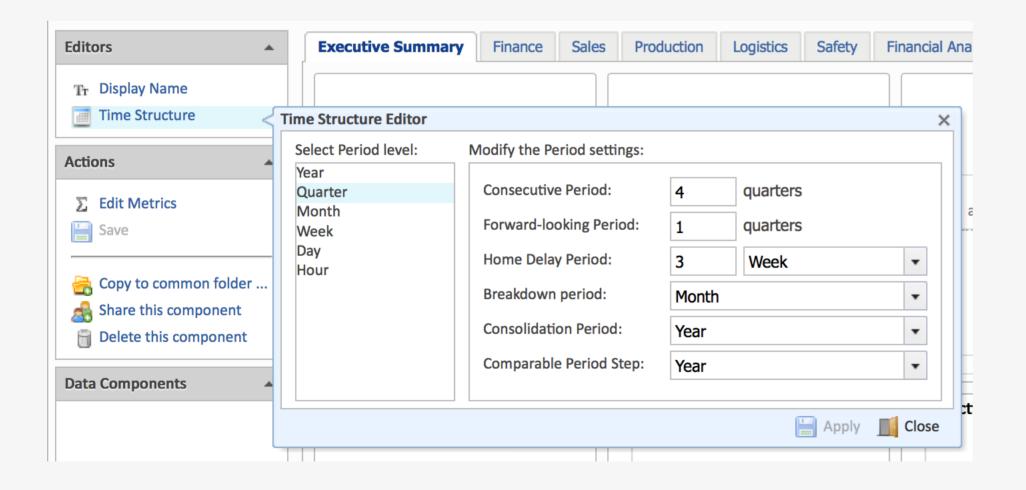
Current Model

For each granularity level, user defines..

- Consecutive period (x6)
- Forward-looking period (x6)
- Home delay period (x6)
- Breakdown period (x5)
- Consolidation period (x5)
- Comparable period step (x5)

Other Options

- Rename
- Copy
- Share
- Delete



35 settings \rightarrow 10 settings

New Model Options

1. Simplify Terminology

- Range
 - Previous x periods (Consecutive period)
 - Next x periods (Forward-looking period)
- Offset (Home delay period)
- Breakdown level (Breakdown period)
- Roll up level (Consolidation period)
- Step by x ..growth comparison (Comparable period step)

2. Consolidate Menus

Instead of having settings in a dialog and other options in the left-hand panel, consolidate settings and options. Move rename, copy, share, delete options into context menu and/or Edit dialog. Then get rid of left-hand option panel.

3. Simplify Creation Experience

Custom models (quick fix)—Create time structures for our customers OR create simple and advanced views for the time structure editor.

Set default view (long-term)—Instead of defining all possible permutations, set the default view and expose interaction options to the end-user. Might need advanced settings for more nuanced options (i.e. toggle setting for all levels vs level-specific).

- 1. Set time hierarchy—turn on/off levels
- 2. Default granularity—select level
- 3. Select range or unit navigation ..one control or on/off switch?
- 4. Define range
- 5. Define offset—offset from zero point (today) ..could set for each level (?)
- 6. Define step navigation—behavior for step forward/back buttons ..optionally, always step by breakdown and let user change while viewing?

 ✓ Year

 ✓ Quarter

 ✓ Month

 Week

 Day

 -5 QTRS

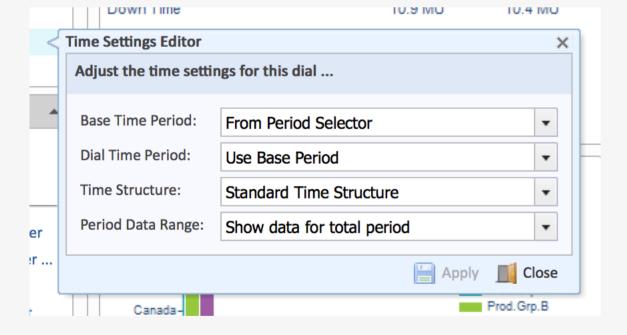
 *nice to have: select and key forward/back

*could also have presets

Dial Time Settings

Current Model

- Base time period
 - From period selector
 - Hour
 - Day
 - Week
 - Month
 - Quarter
 - Year
- Dial time period
 - Use consecutive base periods
 - Use base period
 - Use consecutive breakdown periods
- Time structure
 - (list of available time structures—standard or custom)
- Period data range
 - Show data for total period
 - Show data for period to date



New Model Options

1. Simplify Terminology

- Granularity (Base time period)
 - From period selector (global navigation)
 - Select specific granularity (hour, day, week, month, quarter, or year)
- Range or unit (Dial time period)
 - Use range and granularity from time structure (Use consecutive base periods)
 - Show one unit (Use base period)
 - Use next level down in granularity from time structure (Use consecutive breakdown periods)
- Time structure
 - (list of available time structures—standard or custom)
- Period data range
 - Show data for total period
 - Show data for period to date

2. Simplify Interaction Model

- Reorganize content (consider inheritance with settings—i.e. select time structure first, then define overrides)
- Use visual controls (consistent with time structure controls)

Setting Options

- Time hierarchy—list of levels (inherited from associated time structure, pared by data available)
- Granularity—inherits from associated time structure, can be overridden
- Range—inherits from associated time structure, can be overridden
- Offset—based on 'today', inherits from associated time structure, can be overridden
- Define offset thresholds—(i.e. show last month until a certain day of the month, then show current month)
- **Define step navigation**—inherits from associated time structure, can be overridden



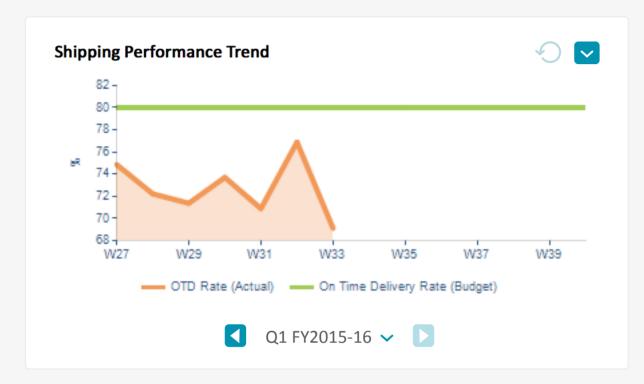
Dial time Navigation

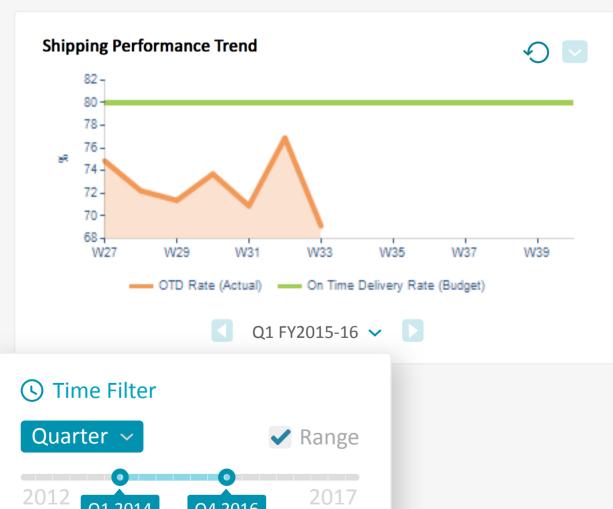
• Change granularity

Q1 2014

Q4 2016

- Change time span (instead of consolidated view)
- Group all time-based controls (instead of two separate places)
- Identify when dial is out of parity with default (allow reset)
- Avoid (indicate) empty data sets





2017

Step Forward/Back & Reset



Unit Slider (consumer view)



Range Slider (consumer view)

