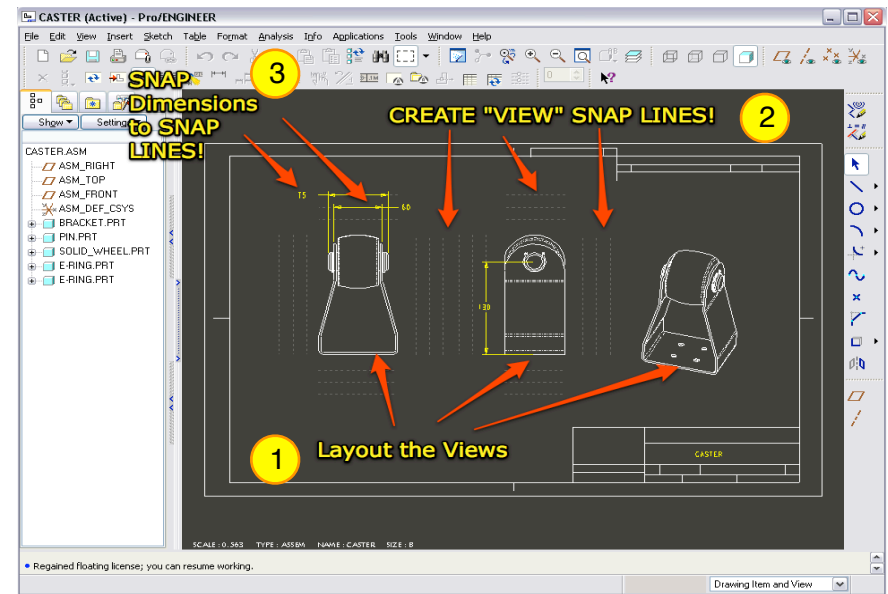


Reference Schematic for Computing DRAWING_SCALE_FACTOR



Step 1: Prep Model(s) for Drawing Automation

- DO 1: Understand the Model size variations and options that need to be shown on the drawing
- DO 2: Create DRAWING_SCALE_FACTOR Parameter in Model (Default it to 1.0 when creating it)
 - This will be automatically be picked up by drawing views to set their scale value
- DO 3: Create DRAWING_SCALE_FACTOR Relation(s)
 - Adding a relation to compute a scale factor based on a view target size on the drawing will ensure that the views will always fit on the drawing even with dramatic size changes of the Model
 - NOTE: If the DRAWING_SCALE_FACTOR was computed based on an assumption of a "Longer" than "Taller" orientation, but the Model could become "Taller" than "Longer", it may need to additional relation(s) to detect this orientation inversion so that the Target "View Size" remains properly computed on the Drawing.
- CONSIDER: Using an Analysis Feature or a Reference Dimension for computing the Model Size
- DO 4: Verify Relations
 - This helps to catch problems quickly, makes sure values are set properly
- DON'T: Use Symbolic Dimensions as a reference for "Model Size"
 - If this gets deleted it will be difficult to understand why problems exist on regeneration.
- DON'T: Create Stack-Up Assembly Relations (dims from models referenced at any level) for understanding "Model Size"
 - Unless the same models ALWAYS exist in the Assembly Model, this approach is unreliable.

TIP: Remember, take advantage of existing Pro/E functionality!

- By Suppressing a Feature in a Part, or a Model in an Assembly, any "Shown" Dimensions on a View related to that will automatically be turned OFF. Those same Dimensions will automatically be SHOWN if the Feature/Model is Resumed. For this to work, Dimensions must be SHOWN FIRST!
- Some company standards require standard view scale values (e.g. 1/4, 1/2, 3/4, 1, 2, etc.) on the drawings. Use a series of IF Statements combined with rounding functions (e.g. FLOOR, CEIL) in relations to satisfy this requirement. However, it may be easier to just change the company standard. ;)
- NEVER Automate Detailing of RADIAL Dimension Patterns (e.g. bolt hole patterns or similar) with LINEAR or ORDINATE Dimensions! This is a waste of time!
- IF a Drawing Pro/PROGRAM is required, ALWAYS REMOVE Things from Display, NEVER SHOW them.

Step 2: Detail the Print

- DO 1: Create the Views as they are to be displayed for the Model on the Drawing.
- DO 2: Create Snap Lines (View-based Snap Lines are more stable than Geometry-based Snap Lines)
 - Snap Lines are very stable references for dimensions that will "float" as the Model/View Geometry changes
- DO 3: SHOW Dimensions and "Snap" them to the "Snap" Lines.
 - Created Dimensions may be used, but this is not recommended. "Shown" dimensions are more directly related to the models geometry and changes that may need to be made (a.k.a. design intent)
- DON'T: Over Dimension the Drawing!
 - The more Dimensions on the drawing = the more effort to manage the drawing automation.
- DON'T: Be afraid of these techniques, they work! ;)