

PTC® Live Global

CUST 239 - Details of Detailing: Maximize your Drawing and Model performance.

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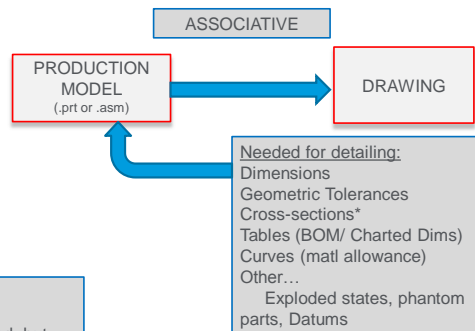
Details of Detailing: Maximize your Drawing and Model performance.

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Typical model-drawing relationship

- Many detailing features are stored in the model
- Consequences? Limitations?

Type of Dimension	Symbol	Where Stored	Intent?
Model/Shown	d#	Model	Design/MFG
Drawing/Created	ad#	Model	MFG
Drawing/Created	add#	Drawing	MFG
Drawing/Draft	dd#	Drawing	??



How data is currently stored in PTC CREO drawings

1. Most data used in the drawing is stored in the model. This may be preferred, but can cause significant performance issues when working with large complex models and assemblies with many components.
2. Config.pro options: Create_Drawing_Dims_Only (no*) defines whether or not Driven (created) dimensions are of type ad# or add#, and where the dimension is stored.
3. Cross-sections are ALWAYS stored in the model whether created in the model or in the drawing.
4. Phantom models/Bills of Material considerations.

A Different Approach: Draw-Assembly Technique

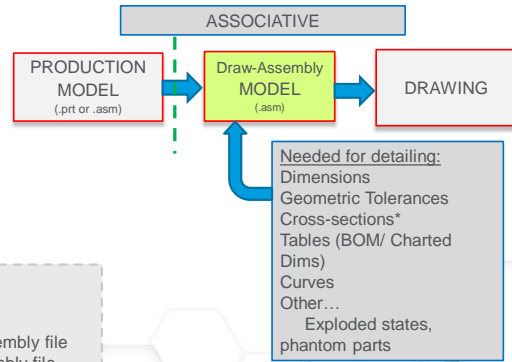
- Desired Goal: keep detailing data separate from production models while keeping associativity

BENEFITS

1. Production models without extraneous drafting features and potential problems.— less failed features, better performance.
2. True concurrent process—separate files=separate access controls, separate storage, one-way updates.
3. Drawing flexibility for phantom models, other BOM items needed for process requirements, add own sections, curves, etc without affecting production model.*
4. Replace models and maintain views/sections
5. Better control of Units...mm or in
6. Failures due to detailing features do not impact design models
7. Simplified Representations independent of design assembly
8. Explode/offset features not in production file

ISSUES

1. Extra file in database.
2. Distinguish Draw-Assembly file from production assembly file. Naming?
3. Drawing with multiple models...
4. Risk of Draw-Assembly file used in production assembly (name)
5. Selective application/all files.



Other considerations for drawing performance

- This technique is not fool-proof
 - Changing Layers
 - “Shown” dimensions (feature dimensions)...creating dimensions in the drawing is preferred.
- Using Geometry Reps
 - Must remove Master Rep
- Layers
 - Compare to Z-Clip
 - Compare to Simplified Representations
 - Search Tool to build/define Layers and Rules
- Section Types
 - Full v Area

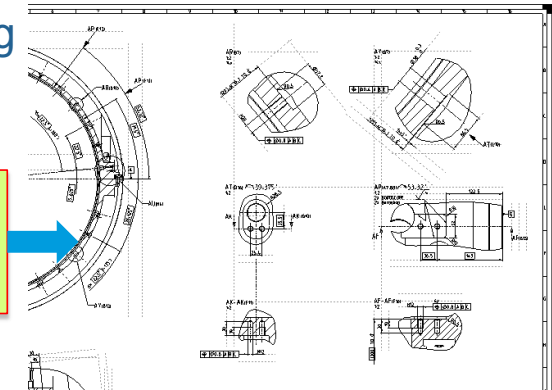
• Config.pro Options

OPTION	SETTING	DESCRIPTION
allow_refs_to_geom_reps_in_drw	yes	Allows the creation of drawing references to geometry representations. These references may become invalid if the referenced geometry changes resulting in geometry representations not updating in the drawing. The drawing display is not automatically repainted when changing windows.
auto_regen_views	no	Silhouette edges, datums and axes are not displayed when creating a view, resulting in faster display.
display_in_adding_view	minimal_wireframe	Silhouette edges are not displayed, improving display time.
display_silhouette_edges	no	Speeds up display when creating a view because the model does not appear until an orientation is chosen from the Orientation dialog box.
disp_trimetric_dwg_mode_view	yes	All views are displayed in wireframe regardless of the display settings.
force_wireframe_in_drawings	0	Reduces plot creation time. There is no complex line checking performed when generating a plot file.
interface_quality	yes	Decreases retrieval time for objects n Pro/ENGINEER memory.
retain_display_memory	yes	System saves display information when saving a drawing. This can improve retrieval time.
save_display	no	Specify whether a drawing should regenerate automatically whenever a layer is changed.
layer_change_regen_drawing	yes	Specifies whether fast hidden line removal is on/off by default.
fastthr		

- Live presentation demonstrating Draw-Assembly technique and benefits



Draw-Assembly
MODEL
(.asm)



- Your feedback is valuable
- Don't miss out on the chance to provide your feedback
- Gain a chance to win an instant prize!
- Complete your session evaluation now

THANK YOU!!

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