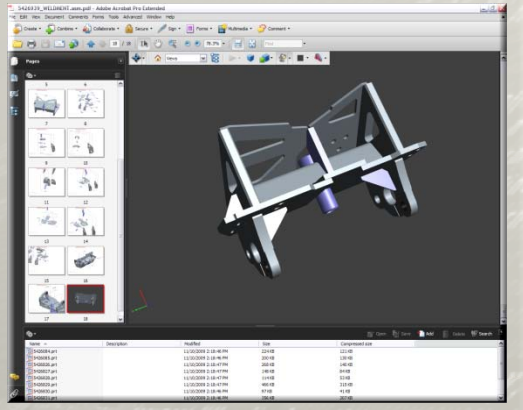
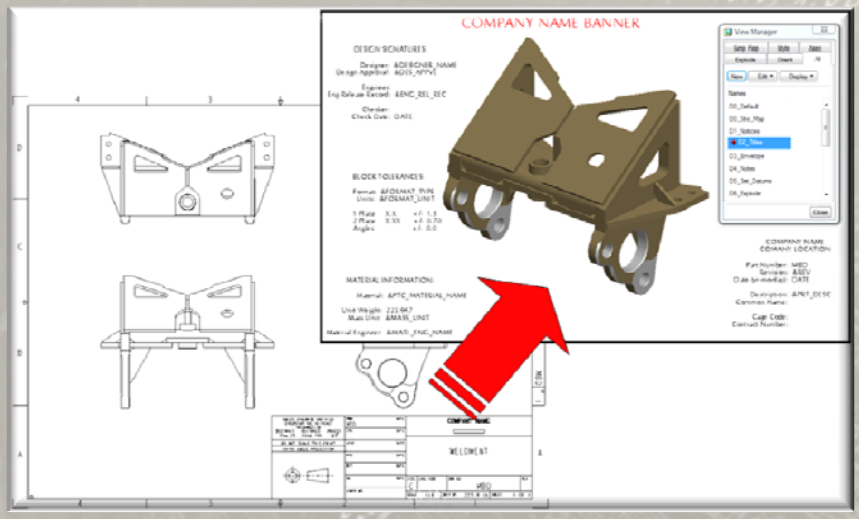
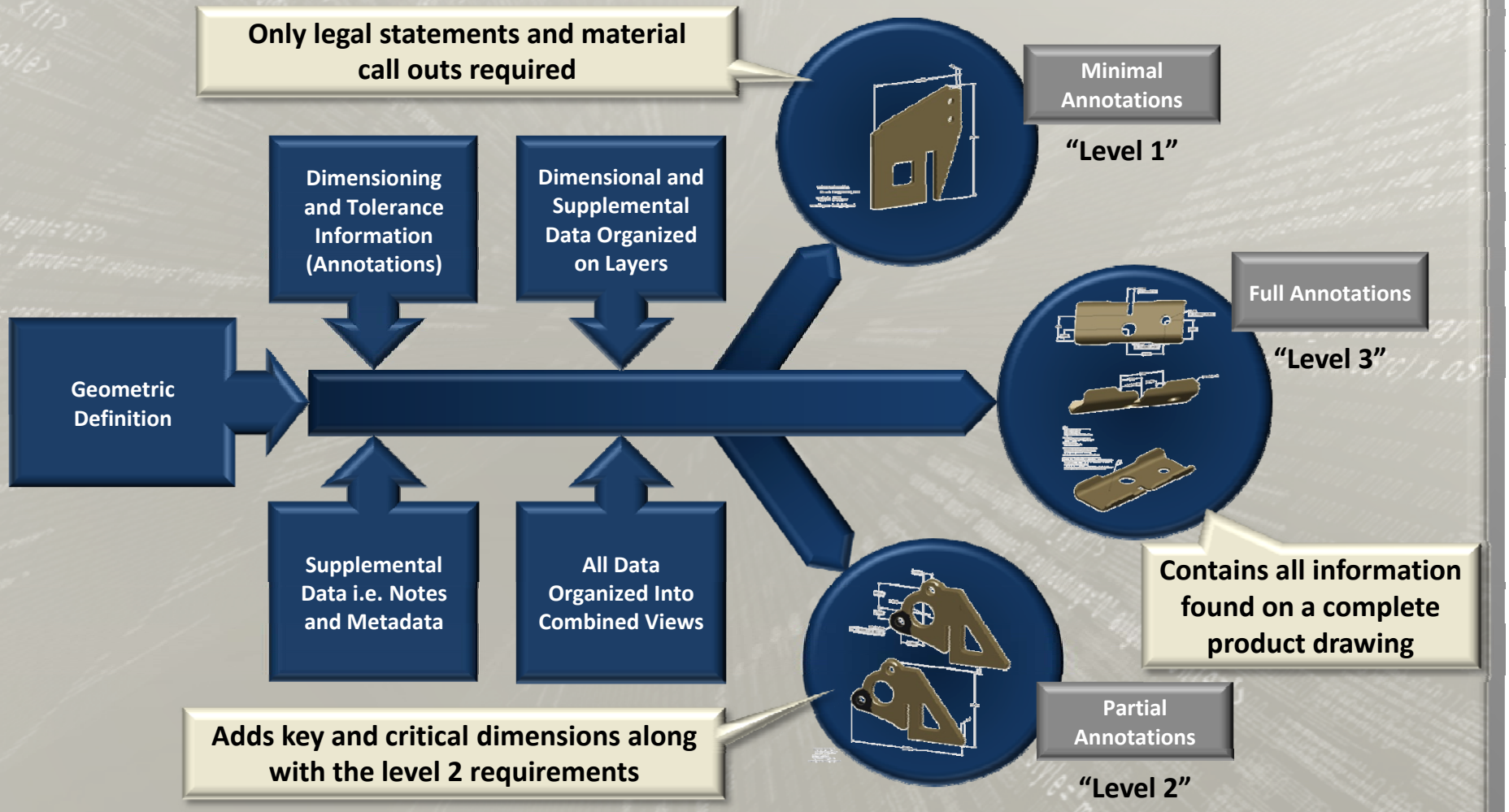
The Purpose of the Schema

- In order for all the downstream users to consume the annotated model in place of a drawing it must be organized in a consistent and intuitive manner
- The Annotation Schema provides this consistency
- Also, it enables much of the information to be programmatically extracted





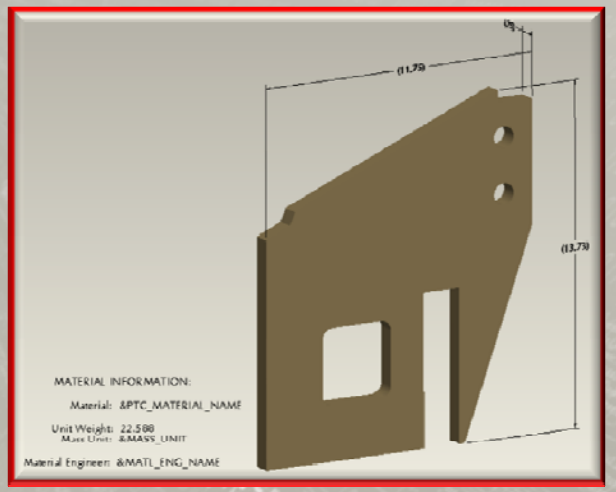
The Framework



Level 1 – Minimal Annotations

This level contains the following:

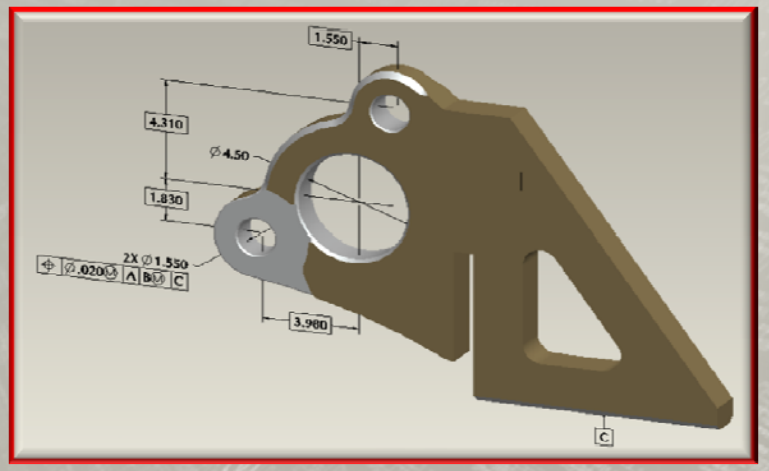
- Envelope Dimensions
  (overall boundary dimensions of the part)
- “Block” or Profile tolerance as applied to the entire part
- Material and Finish Requirements
- Title Block Information



Level 2 – Partial Annotations

This level contains the following:

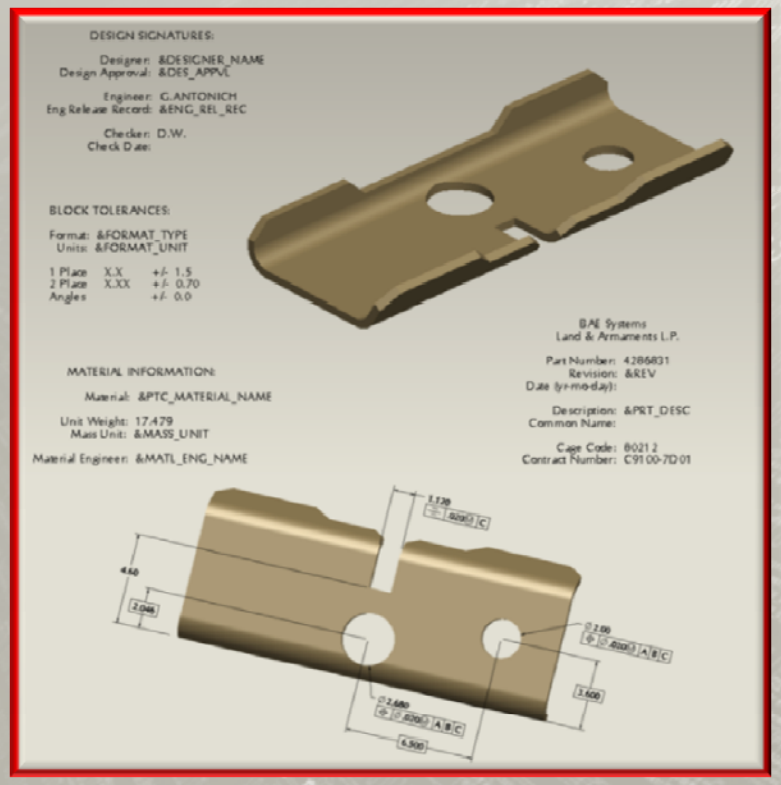
- Envelope Dimensions
- “Block” or Profile Tolerance
- Material and Finish Requirements
- Title Block Information
- Non-Standard Dimensions
- Site Map
- Critical Notes



Level 3 – Full Annotations

This level contains the following:

- Envelope Dimensions
- “Block” or Profile Tolerance
- Material and Finish Requirements
- Title Block Information
- Full Dimensions
- Site Map
- Full Notes
- Auxiliary Views



Model Organization

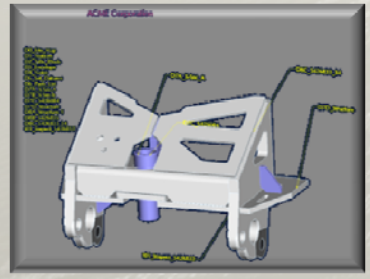
Key for Reuse

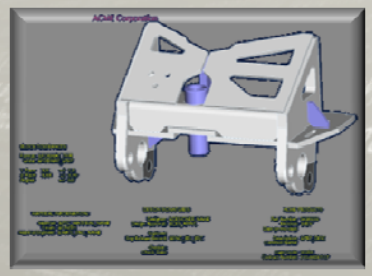
- Brief Overview
- The Annotated Model
- Model Organization
- CAD Agnostic TDP
- Closing

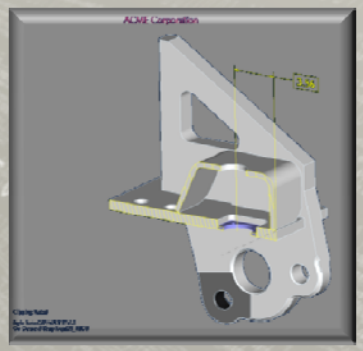
Organizational Components

The following are the key components used by the Annotation Schema

- **Annotations** – are entities created to display model information including both dimensions and supplemental text.
- **Notes** - are used to capture supplemental data related to the model but not directly related to geometry
- **Metadata** - is data that supports the definition, administrative or supplemental data package. Metadata includes all relations, parameters and system information used in a model.
- **Layers** - are used to manage the display and grouping of annotations and notes.
- **Saved Views** - are used to manage the orientation position of the product that best presents the product definition details.
- **Combination Views** – are used to control the display of layers and saved views along with other cosmetic details.

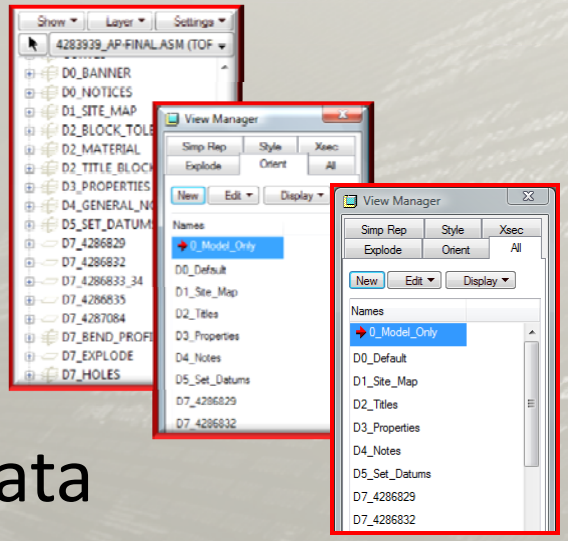






Naming Conventions

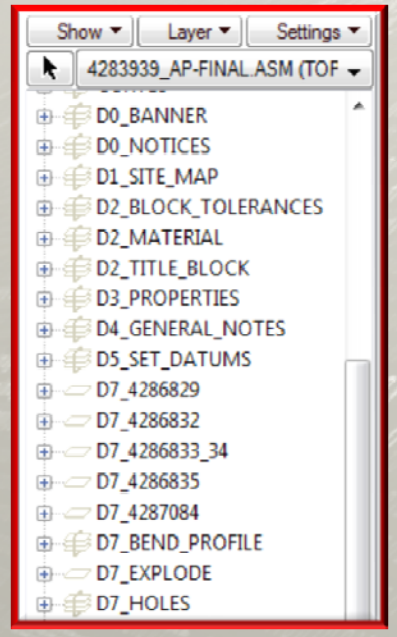
- To aid in both ease of use by downstream customers and programmatic extraction of data each data element must follow a similar naming convention
- They also allow the grouping of data by discipline
- Each element will start with a prefix followed by a descriptor

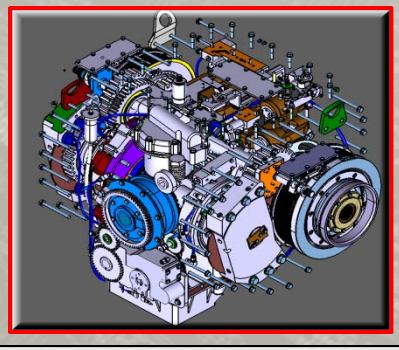


Design	D#_
Manufacturing	M#_
Inspection	I#_
Technical Publications	P#_
Logistics	L#_
Testing	T#_
Others?	?#_

The Function of Layers

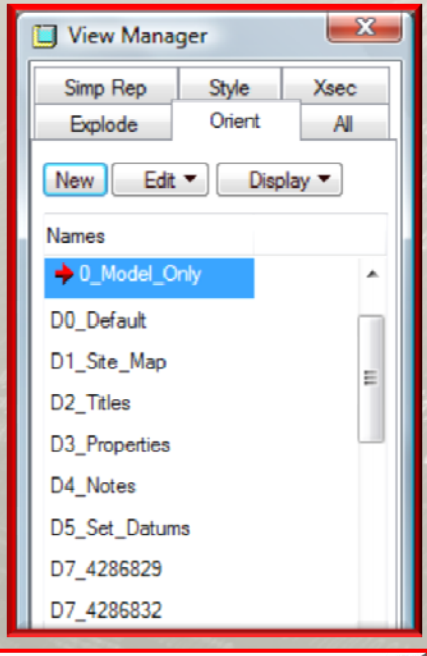
- Layers allow various data elements to be grouped for ease of reuse
- Once grouped the groups can quickly be selected for display in various views and combined views
- They also can be used to allow outside programs like PLM and ERP to programmatically select and extract the data

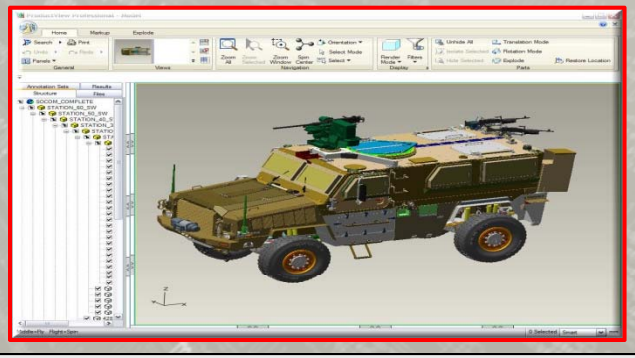




The Functions of Views

- Similarly Saved Views allow the orientation of the model to be saved for reuse
- Much like the views on a drawing these views can be saved to represent various portions of the product or process definition
- These views can be used by combined states to provide a complete definition





The Function of Combined Views

- Combined views allow the display, layers and saved views to be combined into a single definition
- This is the true analogy to a drawing view
- It also allows a user to retrieve a view in a single action
- These can then be exported to light weight viewers to display the product definition for consumption by nonCAD users