



# MBE and the Technical Data Package

Supplier Summit, Letterkenny

Nov 4, 2010



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# Agenda



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



# Brief Overview

What is MBE?



- **Brief Overview**
- The Annotated Model
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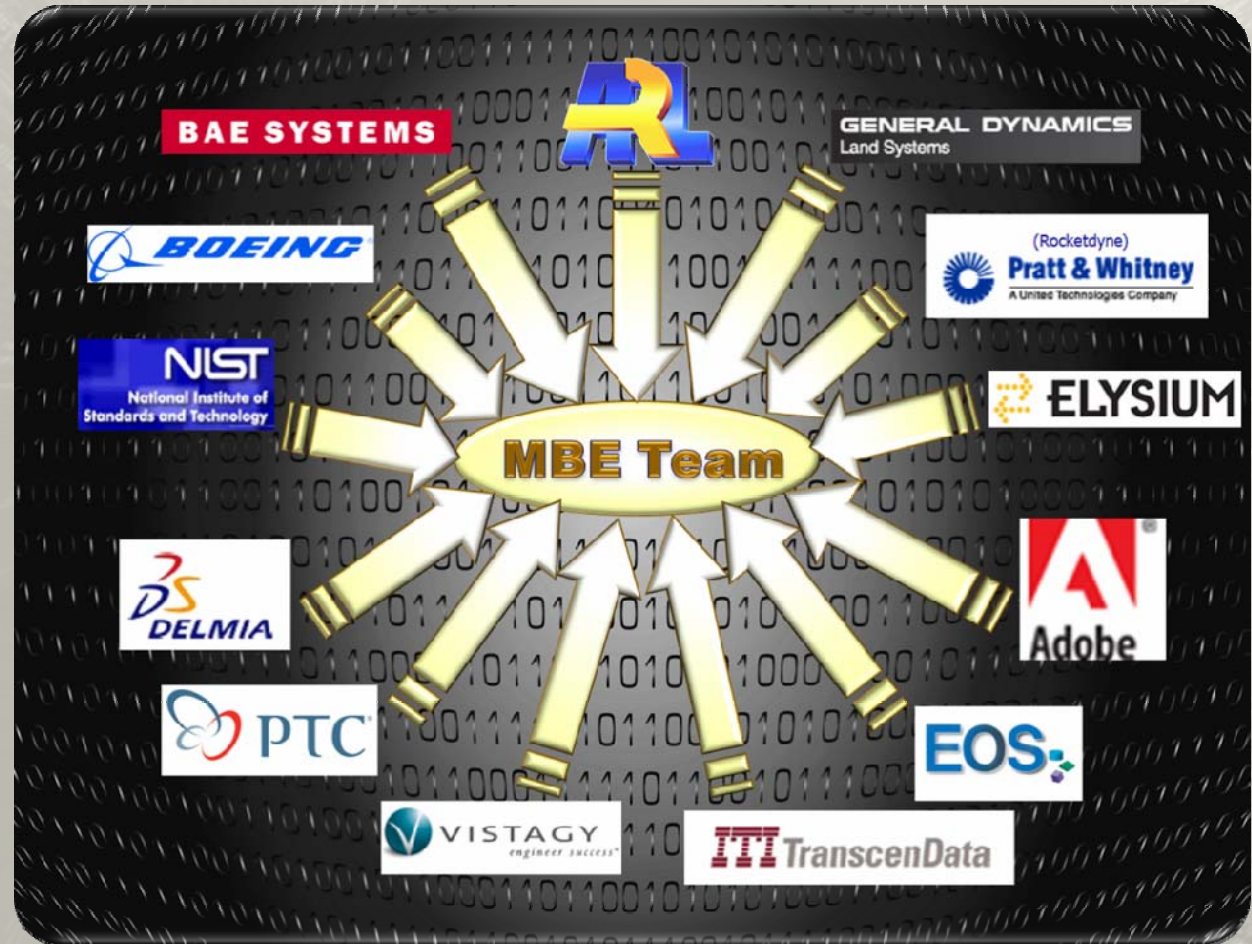


# The MBE Team

**MBE**  
Model Based Enterprise



This slide illustrates the key partners in defining the 3D TDP process discussed in this presentation



# The Journey

**MBE**  
Model Based Enterprise



## Drawing Based

Master 2D Drawing

## Model Centric

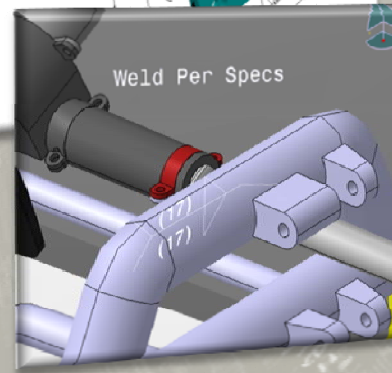
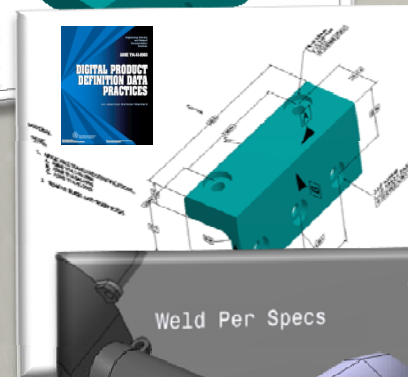
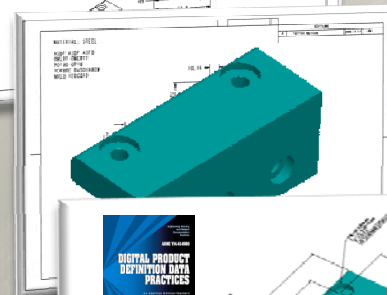
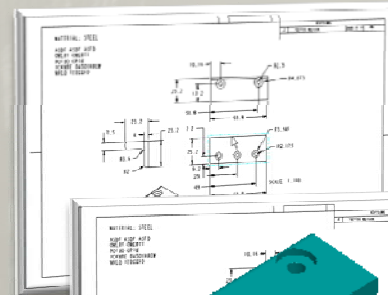
3D CAD Model with  
Master 2D Drawing

## Model Based Definition

Master 3D CAD Model with  
3D Drawing, 2D Drawings by  
exception

## Model Based Enterprise

Master 3D CAD Model with 3D  
Drawing fully leveraged by the  
Supply Chain



# What is MBD & MBE?

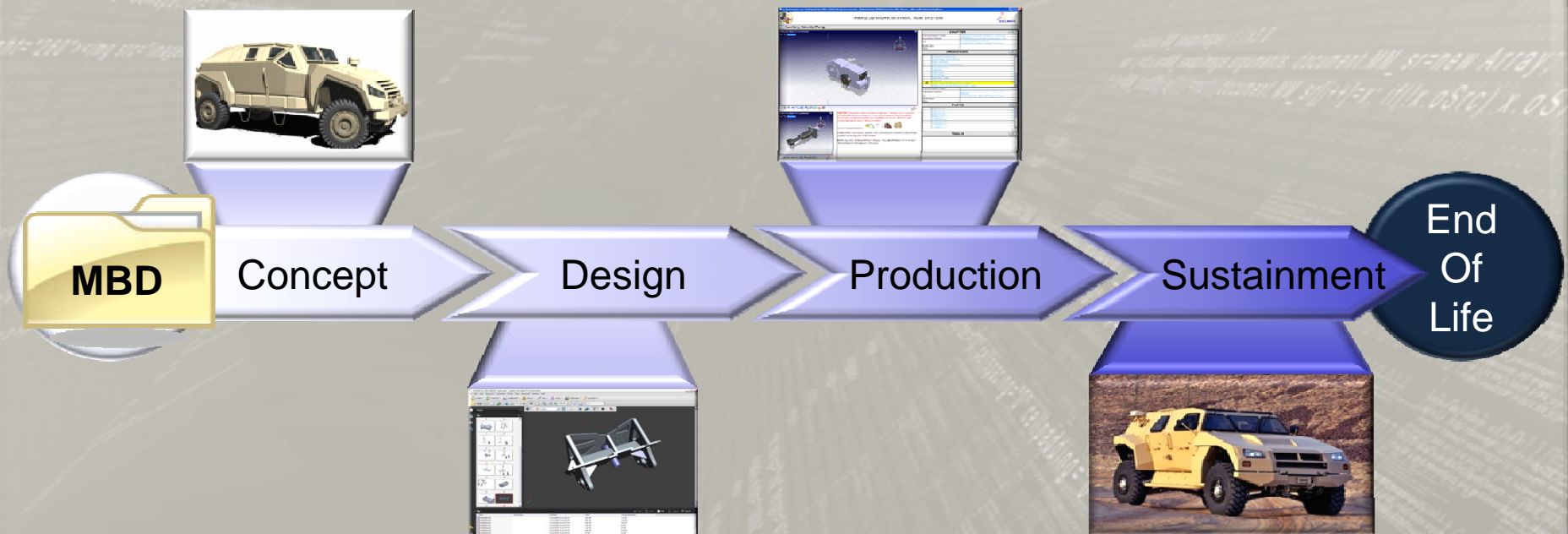


## MBD

A 3D annotated model and its associated data elements that fully define the product definition in a manner that can be used effectively by all downstream customers in place of a traditional drawing

## MBE

A fully integrated and collaborative environment founded on 3D product definition detail and shared across the enterprise; to enable rapid, seamless, and affordable deployment of products from concept to disposal



# Why Are We Doing This?



The main purpose of the 3D TDP is to provide all Downstream users a 3D data set that they can reuse with out re-mastering the data

For suppliers this means they will have the ability to drive their CAM software straight from the model along with numerous other process

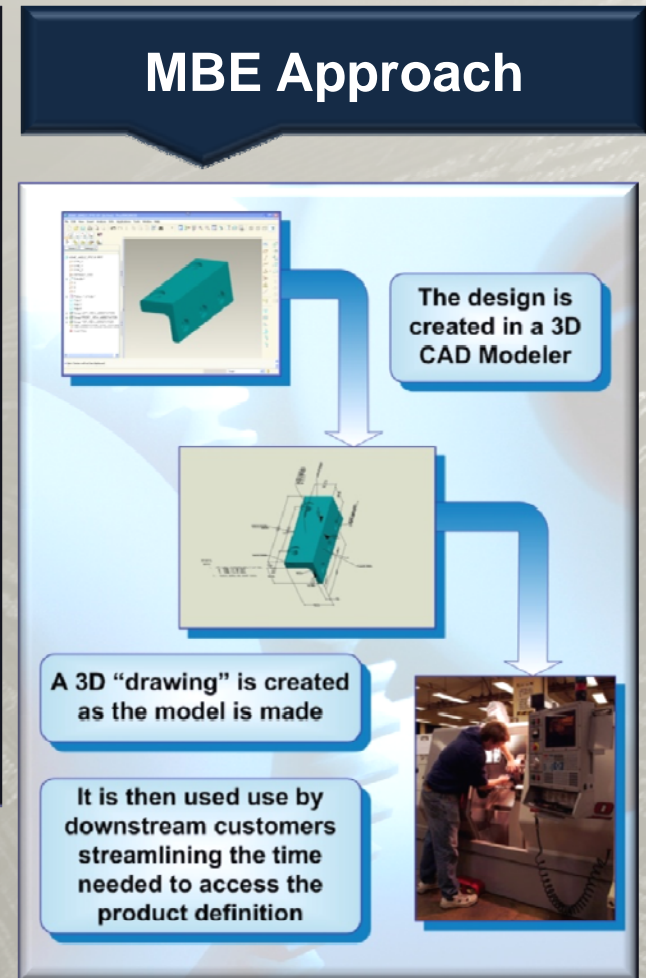
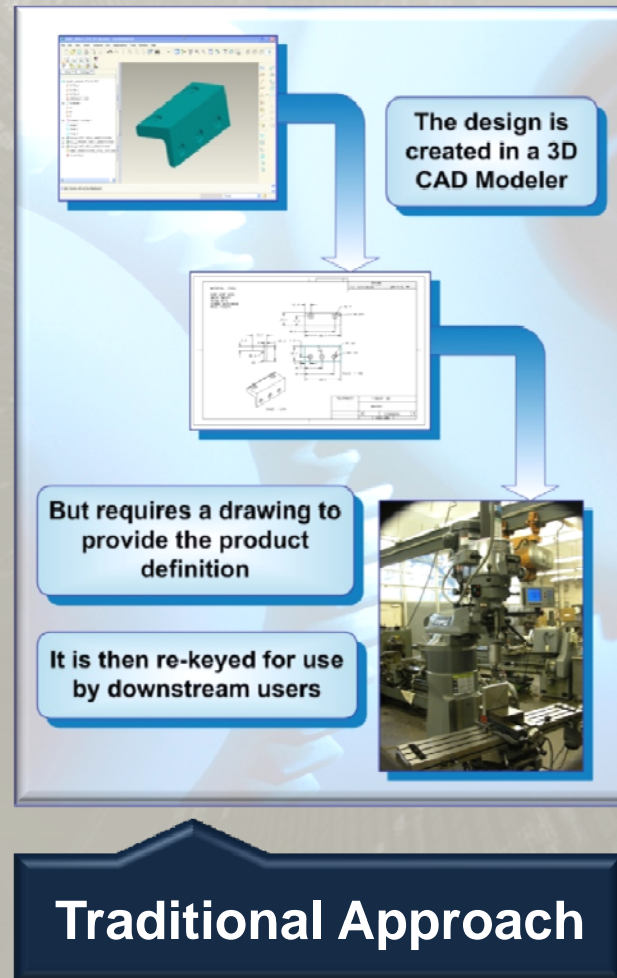
All of this reduces the time to mission for the Warfighter



# Why Should You Care?



- It reduces errors and cost by limiting the number of times an object is re-mastered
- It dramatically cuts the time to mission
- It allows for increased collaboration and less ambiguity
- It is the direction the DoD is heading for TDPs





# MBE Capability Index



## Level 0

- Model Centric Drawings for Design and Manufacturing
- Primary Deliverable: 2D Drawing

## Level 1

- Model Based Manufacturing
- Primary Deliverable: 2D Drawing and Neutral CAD Model

## Level 2

- Native CAD Based Manufacturing
- Primary Deliverable: 2D drawing and Native CAD Model

## Level 3

- Model Based Definition
- Primary Deliverable: 3D Annotated Model and Light Weight viewable

## Level 4

- Model Based Definition With Data Management
- Primary Deliverable: 3D Annotated Model and Light Weight viewable via PLM

## Level 5

- Model Based Definition With Automated Technical Data Package
- Primary Deliverable: Digital Product Definition Package and TDP

## Level 6

- MBD With Automated TDP and On Demand Enterprise Access
- Primary Deliverable: Digital Product Definition Package and TDP via the web



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# The Annotated Model

## The Core of the Product Definition

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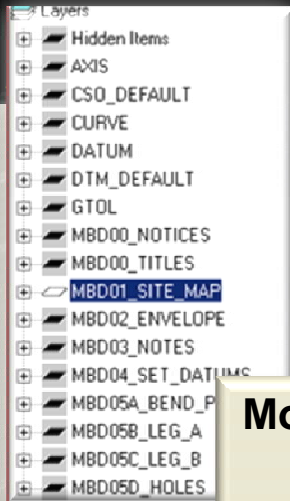
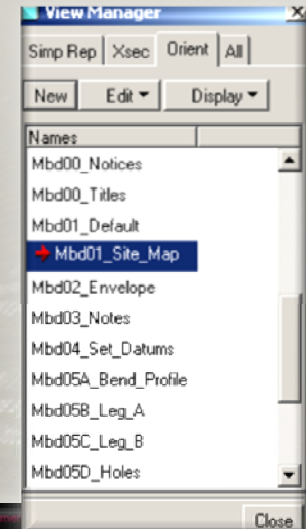
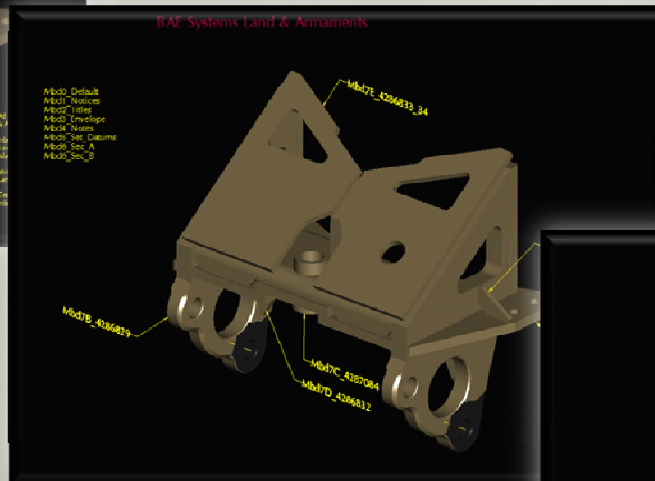
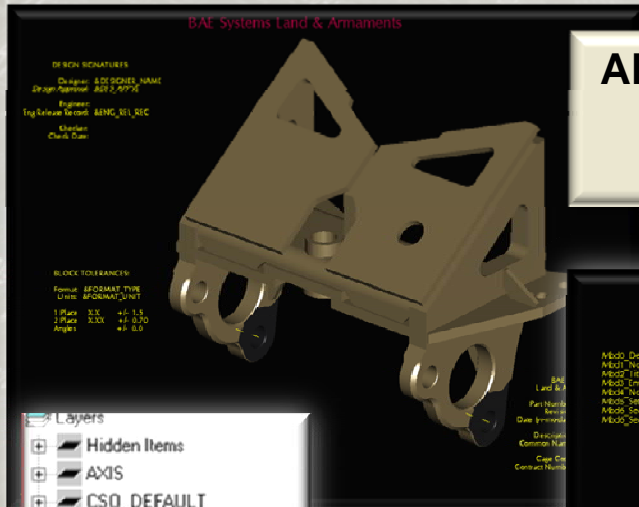
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# What is an Annotated Model?



All data that is normally contained in a drawing is now available in a readable format in CAD



Most CAD systems provide increased organizational abilities through combined views and layers

