

MIL-STD-31000

TDP OPTION SELECTION WORKSHEET			
SYSTEM: HMPT Transmission		DATE PREPARED: 2-14-2013	
A. CONTRACT NO.	B. EXHIBIT/ATTACHMENT NO.	C. CLIN	D. CDRL DATA ITEM NO(s).
1. TDP Level (X and complete as applicable .)			
A. <input type="checkbox"/> CONCEPTUAL LEVEL <input type="checkbox"/> DEVELOPMENTAL LEVEL <input checked="" type="checkbox"/> PRODUCTION LEVEL		B. REMARKS:	
2. TYPE AND FORMAT (X all that apply and complete as applicable .)			
A. <input checked="" type="checkbox"/> TYPE 2D: 2D DRAWINGS <input type="checkbox"/> TYPE 3D: 3D MODELS ONLY <input checked="" type="checkbox"/> TYPE 3D: 3D MODELS WITH ASSOCIATED 2D DRAWINGS		B. <input checked="" type="checkbox"/> NATIVE CAD (SPECIFY TYPE) <u>Pro/E Wildfire 4.0 or 5.0</u> <input checked="" type="checkbox"/> ISO 10303 STEP FORMAT (Specify STEP PROTOCOL AP203, AP 214 etc.) <u>AP 214 or AP 203 (include mass properties, center of gravity, and material properties)</u> <input checked="" type="checkbox"/> ISO 32000 PORTABLE DOCUMENT FORMAT <u>Adobe Acrobat 200 dpi min.</u> <input type="checkbox"/> OTHER ELECTRONIC FORMAT (SPECIFY TYPE) _____ <input type="checkbox"/> HARDCOPY _____ REMARKS : _____	
3. CAGE Code AND DOCUMENT NUMBERS		D. To Be Assigned By: RDTA-EN/CM	
A. <input type="checkbox"/> CONTRACTOR CAGE AND DOCUMENT NUMBERS <input checked="" type="checkbox"/> GOVERNMENT CAGE (COMPLETE 3B & 3C OR 3D)			
B. USE CAGE CODE: 19207		C. USE DOCUMENT NUMBERS:	
4. DRAWING FORMATS (X one and complete as applicable)			
<input type="checkbox"/> CONTRACTOR FORMAT. <input checked="" type="checkbox"/> GOVERNMENT FORMAT. REMARKS: _____			
5. TDP ELEMENTS REQUIRED (X all that apply)			
<input type="checkbox"/> ELEMENTS REQUIRED TO BE DETERMINED BY CONTRACTOR - OR THE FOLLOWING ARE REQUIRED: <ul style="list-style-type: none"> <input type="checkbox"/> CONCEPTUAL DRAWINGS/MODELS AND ASSOCIATED LISTS <input type="checkbox"/> DEVELOPMENTAL DESIGN DRAWINGS/MODELS AND ASSOCIATED LISTS <input checked="" type="checkbox"/> PRODUCT DRAWINGS/MODELS AND ASSOCIATED LISTS <input checked="" type="checkbox"/> COMMERCIAL DRAWINGS/MODELS AND ASSOCIATED LISTS <input checked="" type="checkbox"/> QUALITY ASSURANCE PROVISIONS <input checked="" type="checkbox"/> SPECIAL INSPECTION EQUIPMENT (SIE) DRAWINGS/MODELS AND ASSOCIATED LISTS <input checked="" type="checkbox"/> SPECIAL TOOLING (ST) DRAWINGS/MODELS AND ASSOCIATED LISTS (See BLOCK 8) <input checked="" type="checkbox"/> SPECIFICATIONS <input checked="" type="checkbox"/> SOFTWARE DOCUMENTATION <input checked="" type="checkbox"/> SPECIAL PACKAGING INSTRUCTIONS (SPI) DRAWINGS/MODELS AND ASSOCIATED LISTS 			
6. ASSOCIATED LIST (X and complete as applicable)			
<input checked="" type="checkbox"/> A. PARTS LIST (X ONE)		<input checked="" type="checkbox"/> (1) INTEGRAL <input type="checkbox"/> (2) SEPARATE	
<input type="checkbox"/> B. DATA LISTS (X ONE)		<input checked="" type="checkbox"/> (1) NOT REQUIRED <input type="checkbox"/> (2) REQUIRED (SPECIFY LEVELS OF ASSEMBLY)	
<input type="checkbox"/> C. INDEX LISTS (X ONE)		<input checked="" type="checkbox"/> (1) NOT REQUIRED <input type="checkbox"/> (2) REQUIRED (SPECIFY LEVELS OF ASSEMBLY)	
<input checked="" type="checkbox"/> D. WIRING LISTS (X ONE)		<input type="checkbox"/> (1) NOT REQUIRED <input checked="" type="checkbox"/> (2) REQUIRED (SPECIFY LEVELS OF ASSEMBLY)	
<input checked="" type="checkbox"/> E. INDENTURED DATA LISTS (X ONE)		<input type="checkbox"/> (1) NOT REQUIRED <input checked="" type="checkbox"/> (2) REQUIRED (SPECIFY LEVELS OF ASSEMBLY)	
<input checked="" type="checkbox"/> F. APPLICATION LISTS (X ONE)		<input type="checkbox"/> (1) NOT REQUIRED <input checked="" type="checkbox"/> (2) REQUIRED (SPECIFY LEVELS OF ASSEMBLY)	
7. APPLICABILITY OF STANDARDS. The following Standards apply: (X as applicable)			
<input checked="" type="checkbox"/> ASME Y14.100 ENGINEERING DRAWING PRACTICES WITH APPENDICES: <input checked="" type="checkbox"/> B <input checked="" type="checkbox"/> C <input checked="" type="checkbox"/> D <input checked="" type="checkbox"/> E		<input checked="" type="checkbox"/> ASME Y14.24 TYPES AND APPLICATIONS OF ENGINEERING DRAWINGS <input checked="" type="checkbox"/> ASME Y14.34 ASSOCIATED LIST <input checked="" type="checkbox"/> ASME Y14.35M REVISION OF ENGINEERING DRAWINGS AND ASSOCIATED LIST <input type="checkbox"/> ASME Y14.41 DIGITAL PRODUCT DEFINITION DATA PRACTICES <input checked="" type="checkbox"/> ASME Y14.5 DIMENSIONING AND TOLERANCING	
		<input type="checkbox"/> OTHER STANDARDS APPLY AS DESCRIBED: COMPANY STANDARDS PERMITTED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
8. OTHER TAILORING (Attach additional sheets as necessary) see CONTINUATION SHEET			

8. OTHER TAILORING (CONTINUATION SHEET)

GENERAL. See Contract Statement of Work C.4 and associated Attachments for addition requirements.

Metadata Attributes - All 3D CAD parts and assemblies shall incorporate User-Defined Metadata Attributes (per Attachment 1) for Government configuration and data management requirements. Metadata information shall be available to the Government and discussed in Program Review IPT meetings.

Solid Model Geometric Validation Proprieties (GVP) Checks. Contractor shall conduct geometric validation properties checks on all Government native (fully defined feature based parametric) part and assembly solid models. Disregard manufacturing process models.

The minimum 3-D Component Geometry, Assembly Construction, Validation Checks are:

3-D Component Geometry

- 1) Each model must contain only 1 solid.
- 2) Models are single part files consisting of modeling entities and attributes.
- 3) Models contain drafting entities necessary to present geometrical dimensioning and tolerancing information.
- 4) Models are generated for every part number that is production intent, production related, or to be prototyped.
- 5) No reference geometry models reside within the model.
- 6) Models contain no surface data (non-commercial components).
- 7) Parameters (attributes) are present and contain acceptable values.
- 8) Models contain proper density
- 9) Layers contain correct objects.
- 10) Models contain coordinate system.
- 11) Models that are positioned in more than one location on the vehicle end-item shall be designated at the absolute coordinated system and located in the vehicle end-item position in the assembly. All other models shall be designated in this vehicle position.
- 12) Models are saved in an isometric view.
- 13) Models and views not used are deleted.
- 14) All corner and fillet radii are modeled
- 15) All unnecessary wireframes are deleted.
- 16) Models passed all native CAD system (design software) solid model validation checks.
- 17) Models passed all interference checks (bolt/nut and gasket is ok).
- 18) Models contain no tiny objects or tiny edges.
- 19) Modeling tolerances applied IAW Contractor's geometry and CAD creation standard. A default tolerance value shall be indicated in standard.
- 20) Model does not have any unnecessary parent/child relationships.

3-D Assembly Construction

- 21) Assembly contains CSYS/WCS displayed in absolute zero ($x=0$, $y=0$, $z=0$).
- 22) Assembly in body position.
- 23) Assembly can contain standard parts however, standard parts must be UNMODIFIED from original.
- 24) Assembly is fully constrained.

3-D Component and Assembly in Explicit Non-Parametric Merged Solid Shrink-Wrap Format

- 25) Part and assemblies in merged solid format.
- 26) Complete with sufficient envelope.
- 27) Accurate mounting and mating dimensions (interfaces to Government baseline configuration items).
- 28) Body position in accordance with absolute coordinate system.
- 29) Includes applicable interface characteristics.
- 30) Current mass proprieties, weight, center of gravity and inertia information.
- 31) Incorporation of user-defined product data metadata attributes.
- 32) Quality level at highest reasonable selection.
- 33) Skeletons, quilts, and small surfaces removed.
- 34) Real colors not gray-neutral colors presented.

BLOCK 5. Special Tooling Drawings and Associated Lists. Special tooling (e.g. jigs, dies, fixtures, molds, patterns, and other equipment or manufacturing aids) drawings developed for the Government under contract and required for production, maintenance, and logistics support shall be delivered as part of each EPSI Kit TDP. These models/drawings and associated lists shall permit the Government or a competent manufacturer to produce the special tooling that duplicates the performance characteristics of the original tooling and manufacturing of an acceptable item.