

# Digital Thread Adoption Calculator

Instructions: Place the appropriate score for each section within the corresponding highlighted cell. Once this has been done for each section, your Digital Adoption score will be instantly calculated at the end of the worksheet. When you finish, **email us** your results to request a free one-on-one consultation with specific steps on how your facility can enable the Digital Thread.

Select one score for each section that reflects your current practices



Place your score for each section in the highlighted cell



Product Definition		
3D product geometry defined in CAD tool	1 point	
Product Structure in eBOM in PLM with ECN change controls	2 points	
Light 3D geometry and viewer available for use by downstream applications	3 points	
ECNs flow to downstream systems with impacted and added objects defined	4 points	
Inspection Definition		
GD&T and critical characteristics described with notation on drawings and/or spreadsheets	1 point	
3D model delivered with PMI that clearly identifies critical characteristics to be verified via inspection	2 points	
Inspection requirements defined in PLM and revision controlled for downstream application at suppliers and production	3 points	
Inspection programs developed for automated inspection (CMM, optical, etc.) and cross-referenced to 3D PMI for effective change control	4 points	
As-Inspected Product Unit Records (including supply chain components)		
Supplier only provides certificate of compliance via Supplier Portal. Components quality verified via Receiving Inspection. Supplier develops their own inspection requirements based on design documentation. Receiving inspection data is not integrated to engineering or production systems.	1 point	
Inspection information from Receiving inspection is integrated to engineering and production systems and flows into higher level As-Built records.	2 points	
Inspection results from first level supplier flow up via upload to Supplier Portal into higher level assembly's As-Inspected records.	3 points	
Inspection results flow up from multi-tier suppliers into higher level assembly's As-Inspected records via B2B messages.	4 points	

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Select one score for each section that reflects your current practices



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Production Process Definition		
Word or Powerpoint files for work instructions	1 point	
Database driven work instruction authoring and revision control with picture illustrations	2 points	
3D visuals for work steps based on 3D models. Parts linked to mBOM and eBOM in PLM system	3 points	
3D Bill of Resources and 3D Bill of Processes linked to 3D models	4 points	
As-Built Product Unit Records		
Inspection data collection and signatures on paper forms assembled into book for each product unit	1 point	
Operations completed, inspection data collection and signatures in database records for each product unit. Can print report to PDF for customer.	2 points	
Work performed is recorded in history and tied to engineering specifications. History available online for auditor search and review. As-Built records archived following ISO 32000 PDF/A/E standards	3 points	
All deviations to planned work and specifications are approved online and stored with historical records. Digital As-Built passed along with product to customer following ISO 10303 STEP standards	4 points	
Service Process Definition		
Service Manuals in PDF format. Word or Powerpoint files for task card work instructions.	1 point	
Database driven task card authoring and revision control with picture illustrations linked to PDF manuals.	2 points	
Task card authoring linked to online sections of OEM service manuals (or passed via S1000D standards)	3 points	
3D visuals for work steps based on 3D models in PLM. Parts linked to mBOM and eBOM in PLM.	4 points	
As-Serviced Product Unit Records		
Inspection data collection and signatures on paper forms assembled into book for each product unit	1 point	
Task cards completed, inspection data collection and signatures in database records for each product unit. Can print report to PDF for customer.	2 points	
Work performed is recorded in history and tied to engineering specifications. History available online for auditor search and review. As-Serviced records archived following ISO 32000 PDF/A/E standards	3 points	
All deviations to planned work and specifications are approved online and stored with historical records. Digital As-Serviced passed along with serviced product to customer following ISO 10303 STEP standards	4 points	
	<b>Total:</b>	
	<b>Score (%):</b>	

**Grade Scale:**

**A:** 90-100%   **B:** 80-89%   **C:** 70-79%   **D:** 60-69%   **F:** 0-59%