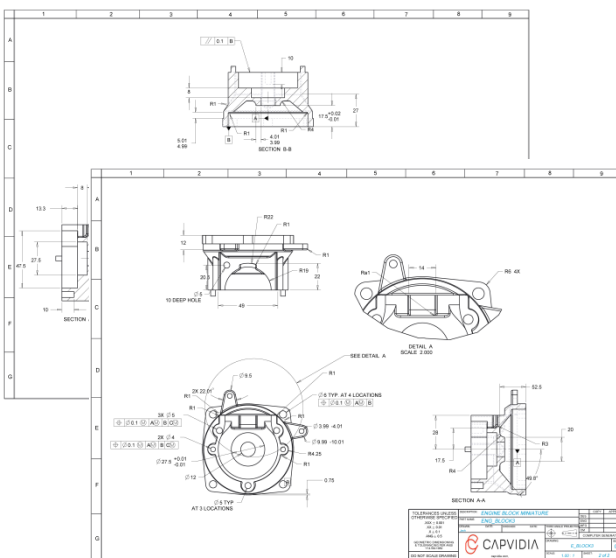


Unlock your PTC Creo data

MBDVidia for PTC Creo is an add-in designed to extend and facilitate creation of 3D MBD-Ready models in PTC Creo. Model Based Definition (MBD) is the next engineering revolution, where annotated 3D models instead of traditional 2D drawings are used as the single source for design, engineering, manufacturing and quality control. If your company is implementing MBD, then you will need to create MBD-Ready models including the Product Manufacturing Information (PMI). To ensure that downstream users can reuse your data, you will need to convert native MBD-Ready models into a neutral data exchange standard such as STEP AP 242 or ANSI QIF (Quality Information Framework).

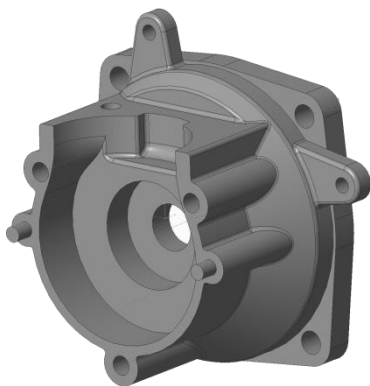
And what if you don't have an MBD-Ready model? Until now, the only way to create fully annotated MBD models was manual transcription of 2D drawings on the 3D model. MBDVidia will speed the process for any company adopting a Model Based Enterprise paradigm, reduce manual work and improve product quality.

From 2D drawings to 3D MBD-Ready models

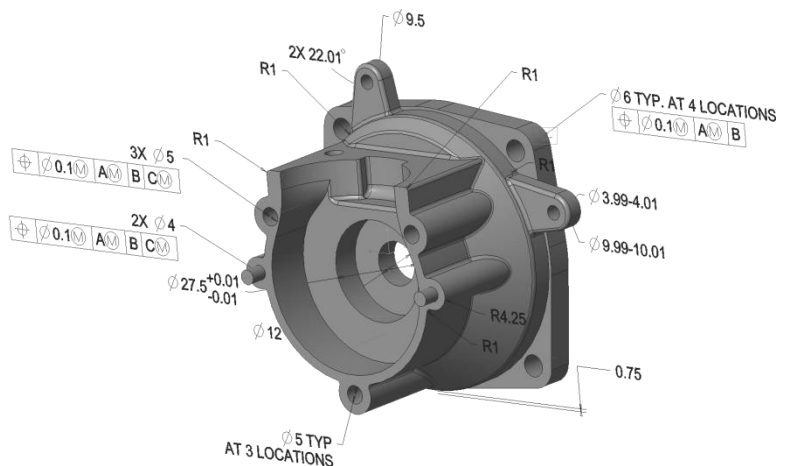


PTC Creo multiple drawing sheets

The PMI information is automatically extracted from 2D drawing(s) and added to the corresponding 3D model. The process works for both parts and assemblies and it completes the job in a fraction of the time that it would take to build manually. You simply open a 2D drawing and check the MBD “readiness” of the associated 3D model. MBDVidia adds annotation from the 2D drawing that is missing on the 3D model. It also corrects and updates incomplete or incorrect annotation on the 3D model. The Creo “Combined States” are automatically generated to organize the MBD data into separate views. Different Combined State schemas can be used for different parts. You may use one template for injection molding part, while using different template for sheet metal part. At any point a specific schema can be applied on existing model using schema retrofit function. If a 2D drawing includes detailed views with cross sections, MBDVidia automatically creates cross-sections on the 3D model with the corresponding annotations. In some cases, the annotations on the 3D model need to be matched with those from an existing legacy drawing. This is possible due to bi-directional synchronization process ensuring full associativity between 3D model and its 2D master drawing.



PTC Creo model before PMI synchronization



PTC Creo model after PMI synchronization

MBDVidia for PTC Creo

Unlock your PTC Creo data



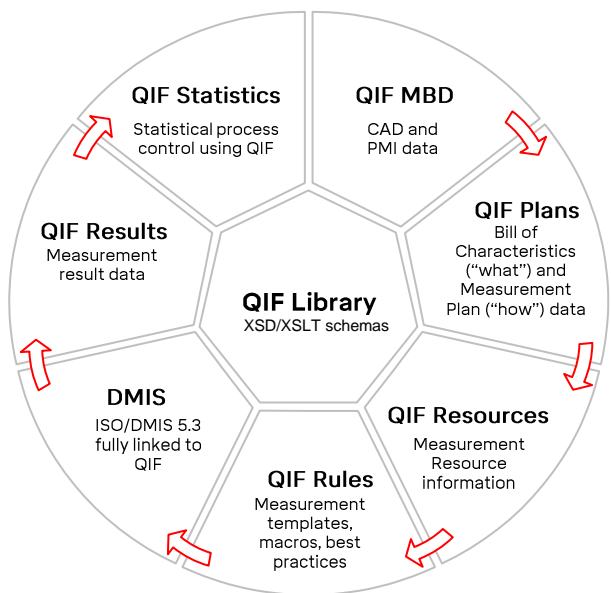
MBD-Ready models for downstream use

MBDVidia extends Creo capability to fully support neutral data exchange standards. It provides smooth and precise transfer of native the MBD-Ready Creo models into STEP AP 242 and ANSI QIF data formats. Now the MBD data can be easily exchanged with downstream processes such as manufacturing and quality control in machine-to-machine readable formats in line with MBE and Industry 4.0 concepts. This is expected to reduce cycle times, costs, avoid duplication of effort, and lower the risk of errors, while increasing part yield and overall quality.

MBDVidia extends PTC Creo to comply with MBD/MBE and Industry 4.0 requirements making the PTC CAD environment the preferred solution for companies evolving into model centric design.

QIF - Quality Information Framework

MBDVidia converts any native Creo model into QIF including all semantic annotations (PMI), notes, metadata, and combined states. It is the first of its kind to provide seamless transfer of complete MBD (Model Based Definition) into the open ANSI QIF standard. Capvidia's unique GD&T feature recognition technology enriches the MBD-Ready model with GD&T metrological features, making it "Quality Inspection-Ready". This enables feature-based metrology, quality measurement planning, first article inspection (FAI), and other downstream applications. Your proprietary CAD data is now open and accessible.



Components of QIF standard

STEP AP 242

MBDVidia for PTC Creo STEP AP 242 support includes semantic annotations, general notes, flat-to-screen annotations, metadata and combined states views. The product provides different annotation presentation methods including polyline, tessellated and character-based. It complies with the latest STEP AP 242 recommended practices and has been validated by recommended tools and NIST reference models.

Your native PTC Creo data is now open for use and re-use in any environment.



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