

# MBDVidia for SIEMENS NX

Unlock your SIEMENS NX MBD data

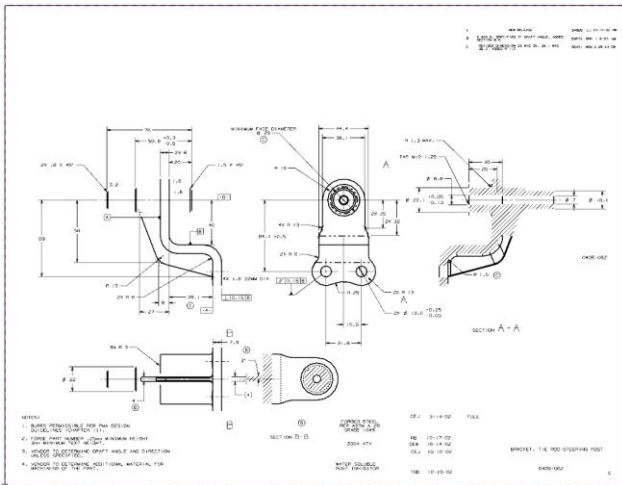


## Overview

MBDVidia for SIEMENS NX is an add-in designed to extend and facilitate creation of 3D MBD-Ready models in SIEMENS NX. 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. Convert to PMI speeds 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 using Convert to PMI

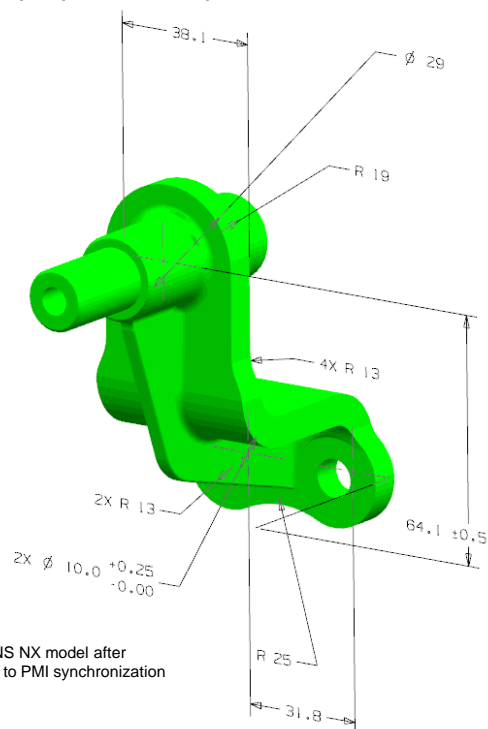


SIEMENS NX drawing sheets

The PMI information is automatically extracted from 2D drawing(s) and added to the corresponding 3D model. You simply open a 2D drawing and check the MBD “readiness” of the associated 3D model. Convert to PMI adds annotation from the 2D drawing that is missing on the 3D model. If a 2D drawing includes detailed views with cross sections, Convert to PMI 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.



SIEMENS NX model before  
Convert to PMI synchronization



SIEMENS NX model after  
Convert to PMI synchronization

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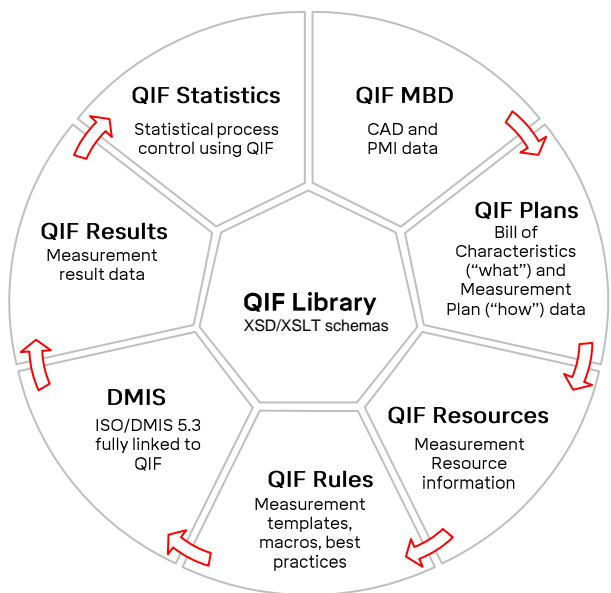
## MBD-Ready models for downstream use

MBDVidia extends SIEMENS NX capability to fully support neutral data exchange standards. It provides smooth and precise transfer of the native MBD-Ready SIEMENS NX 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 SIEMENS NX 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 SIEMENS NX 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 SIEMENS NX 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 SIEMENS NX data is now open for use and re-use in any environment.



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