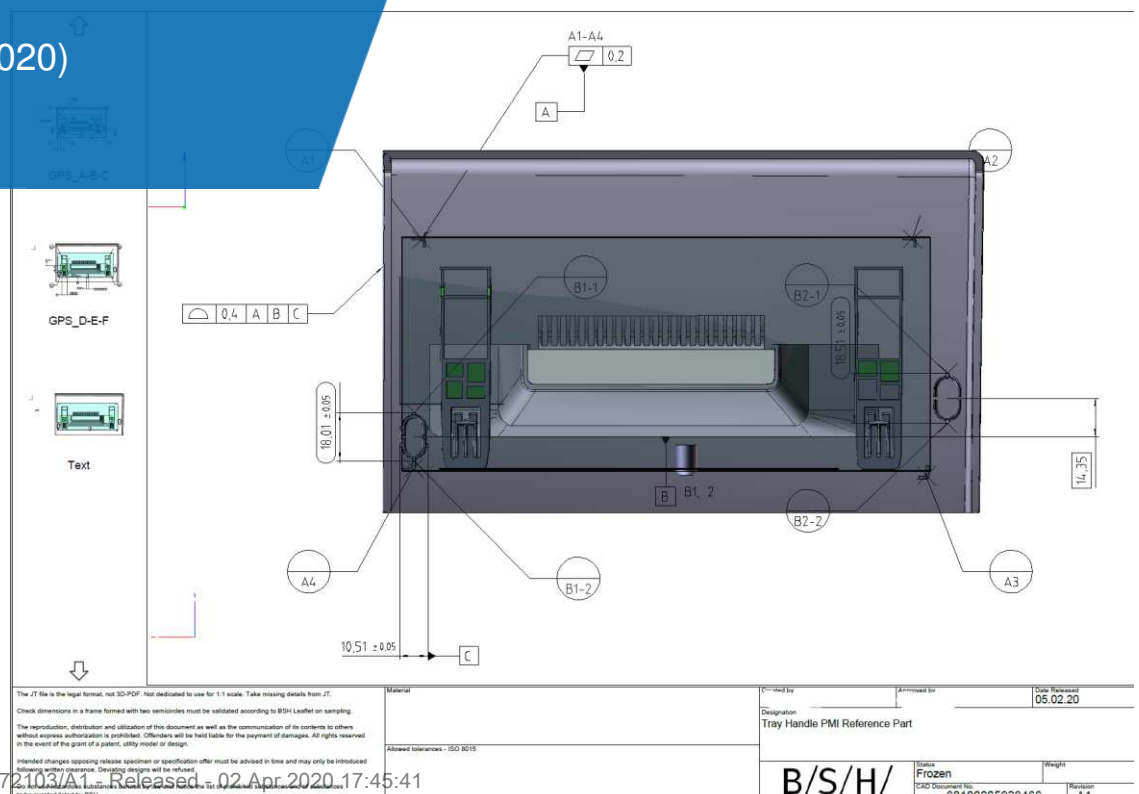
B/S/H/

How to use digital drawings in format 3D_PDF & JT (alternative)

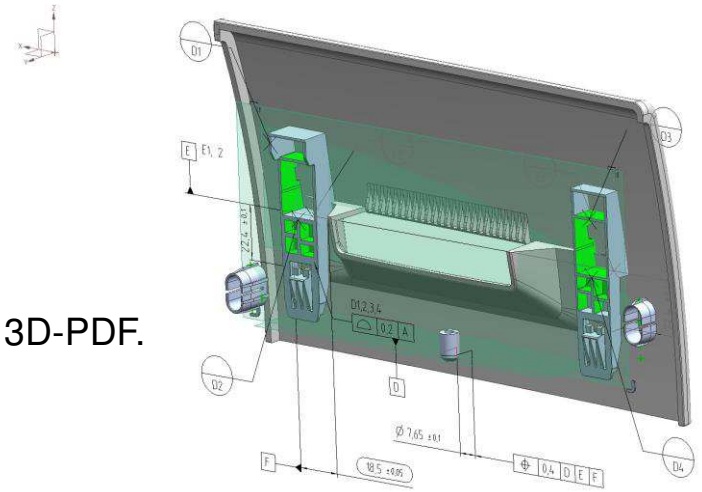
Handout for Supplier of BSH Home Appliances Group (V 25032020)
Responsible Party - BSH GST PLM Processes, Module EDP



Content of this document

Bekanntmachung

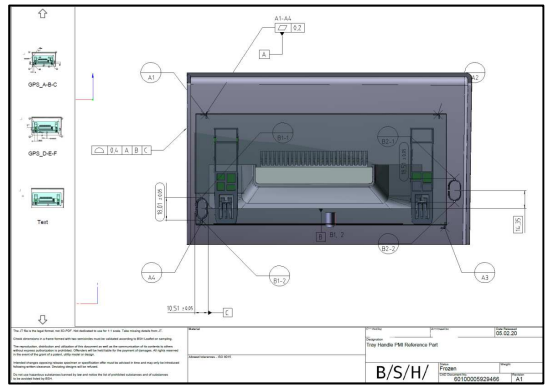
In der BSH Hausgeräte GmbH und deren Tochtergesellschaften werden für neue CAD Konstruktionen, schrittweise ab März 2020 die CAD Methoden zur Bemaßung, der Zeichnungsableitung und die Anzeige-Formate geändert.



Was bedeutet das für die Lieferanten der BSH?

1. Einführung der Product & Manufacturing Information (PMI) Methode →
   a. Geometrische Dimensionierung und Tolerierung am 3D CAD Modell.
   b. Anmerkungen und Texte am 3D Modell.
   c. Oberflächenbeschaffenheit und Materialspezifikationen am 3D Modell.
   d. Anzeige aller Informationen aus a-c in NX (SPLM) und den Export Formaten JT und 3D-PDF.

2. Einführung des Formates 3D_PDF (dynamische Zeichnung mit 3D CAD Modell) →
   a. Ein Zeichnungsblatt je 3D Modell mit einer dynamischen Groß-Ansicht.
   b. Die Groß-Ansicht ermöglicht das Bewegen, Vergrößern, Verkleinern des dargestellten CAD Modells / Baugruppe.
   c. Weitere, definierte Ansichten (Schnitte, Details, etc.) können ausgewählt und in der dynamischen Groß-Ansicht angezeigt werden.



Ablauf

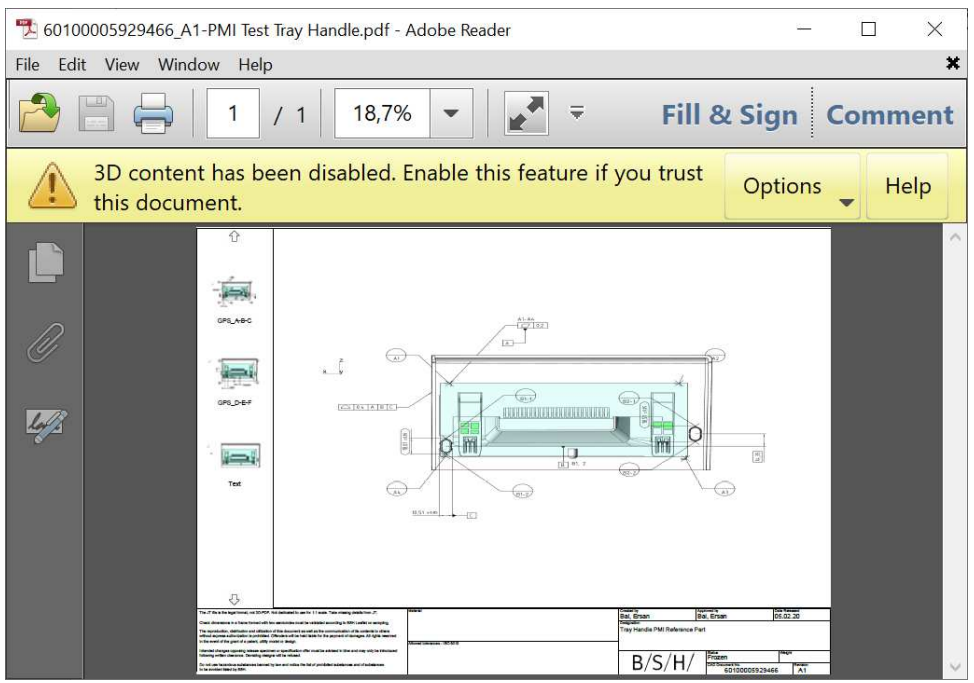
1. Prozesse, die eine Datenexport auslösen: RFE (Request for Export), RFQ (Request for Quotation), RFO (Request for Order)

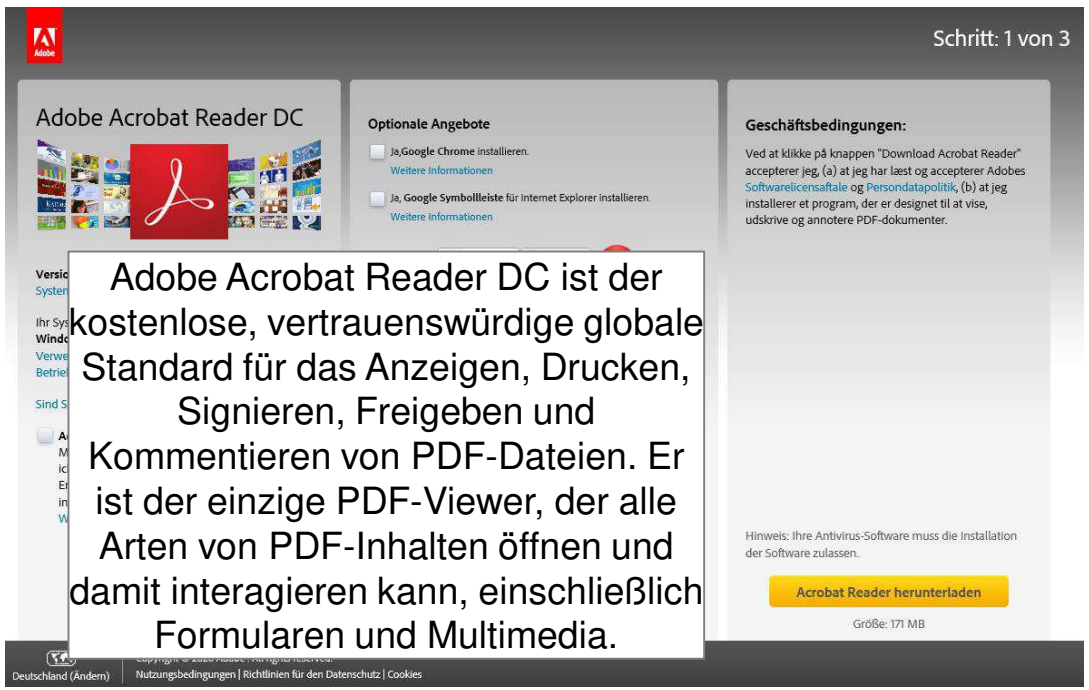
2. Der Lieferant erhält über den BSH-FX Server Daten auf sein Firmen-Postfach (siehe Seite 12).

3. Download des ZIP-File (Inhalte: 3D_PDF, JT, etc.)

4. Öffnen der PDF Datei mit Adobe Acrobat

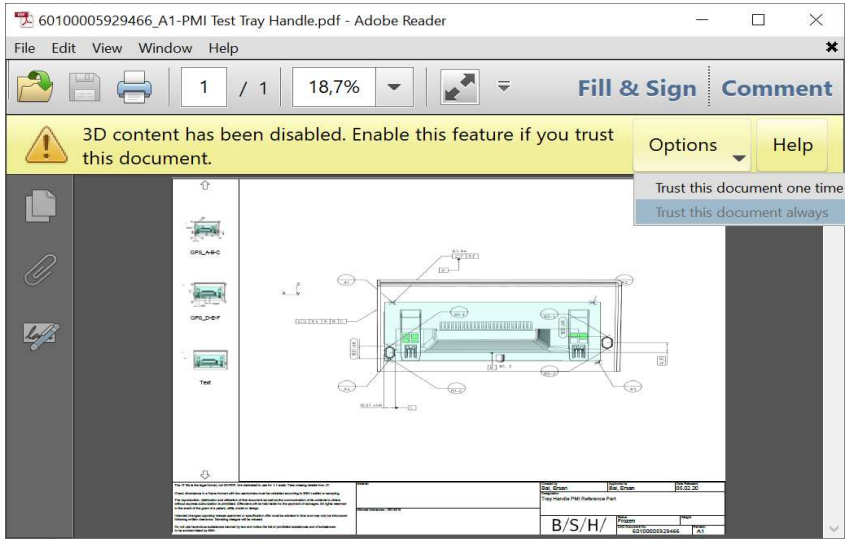
https://get.adobe.com/de/reader/



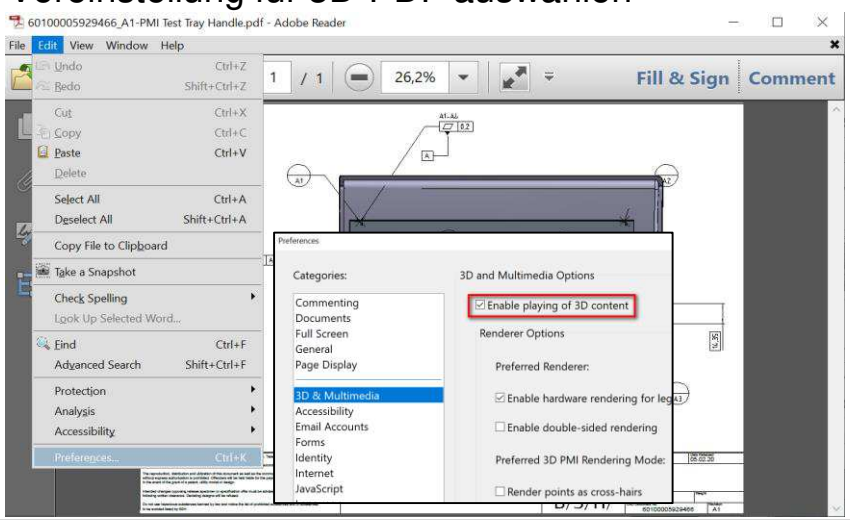


Adobe Acrobat Reader DC ist der kostenlose, vertrauenswürdige globale Standard für das Anzeigen, Drucken, Signieren, Freigeben und Kommentieren von PDF-Dateien. Er ist der einzige PDF-Viewer, der alle Arten von PDF-Inhalten öffnen und damit interagieren kann, einschließlich Formularen und Multimedia.

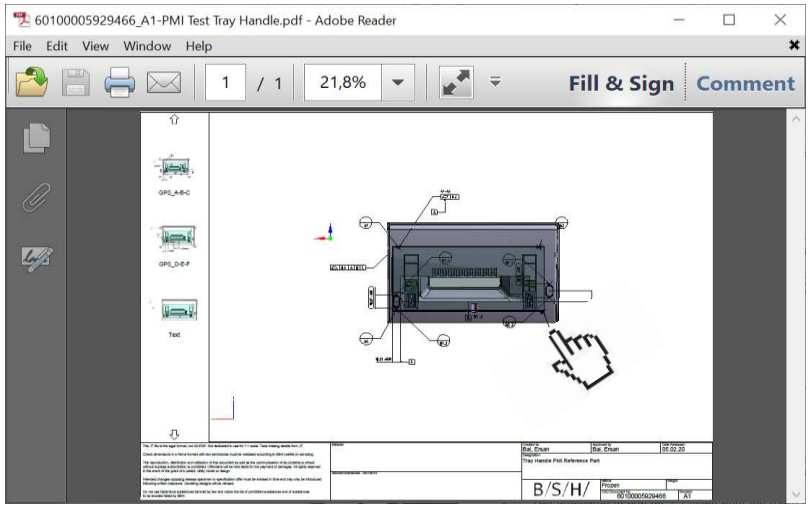
5. Bestätigung, dass die Quelle vertrauenswürdig ist



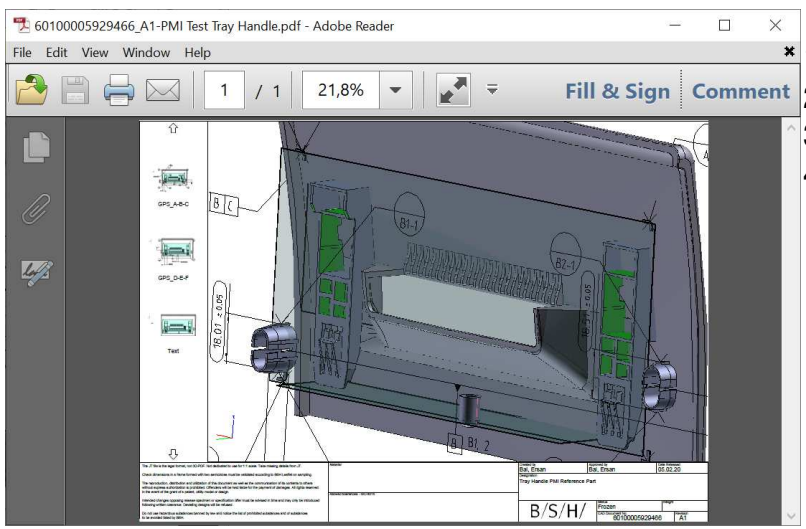
6. Voreinstellung für 3D-PDF auswählen



7. Maus klick in die Groß-Ansicht zur Freigabe der dynamischen Ansicht:

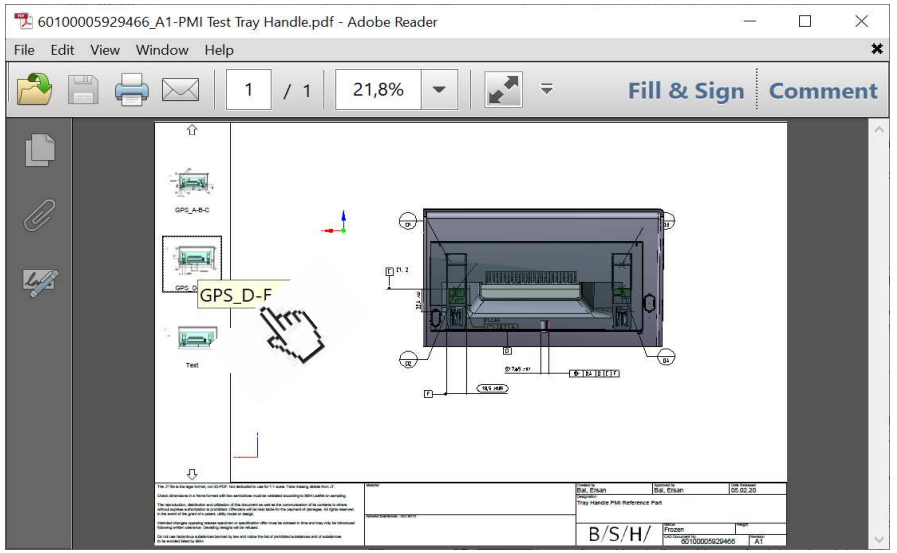


8. Interaktion in der dynamische Groß-Ansicht mit Standard Maus Funktion:

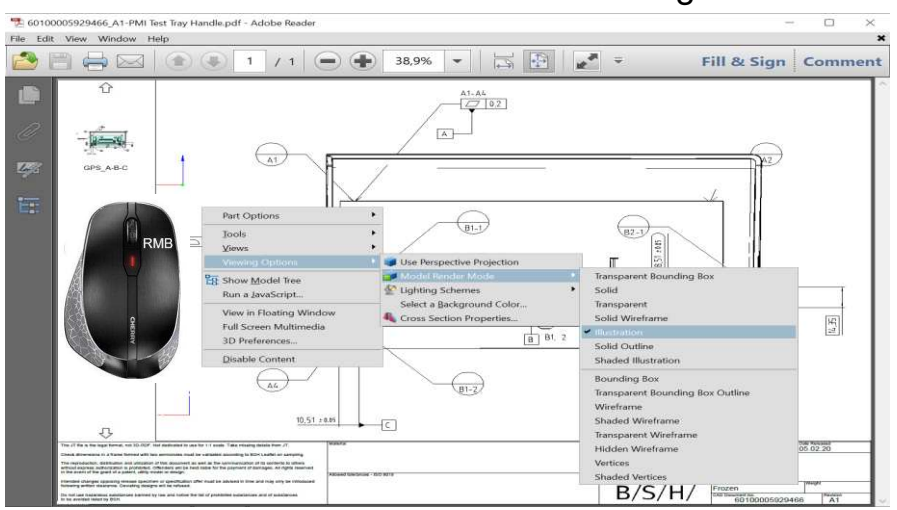


1. LMB: drehen
2. RMB: vergrößern
3. RMB: verkleinern
4. LMB&RMB: verschieben

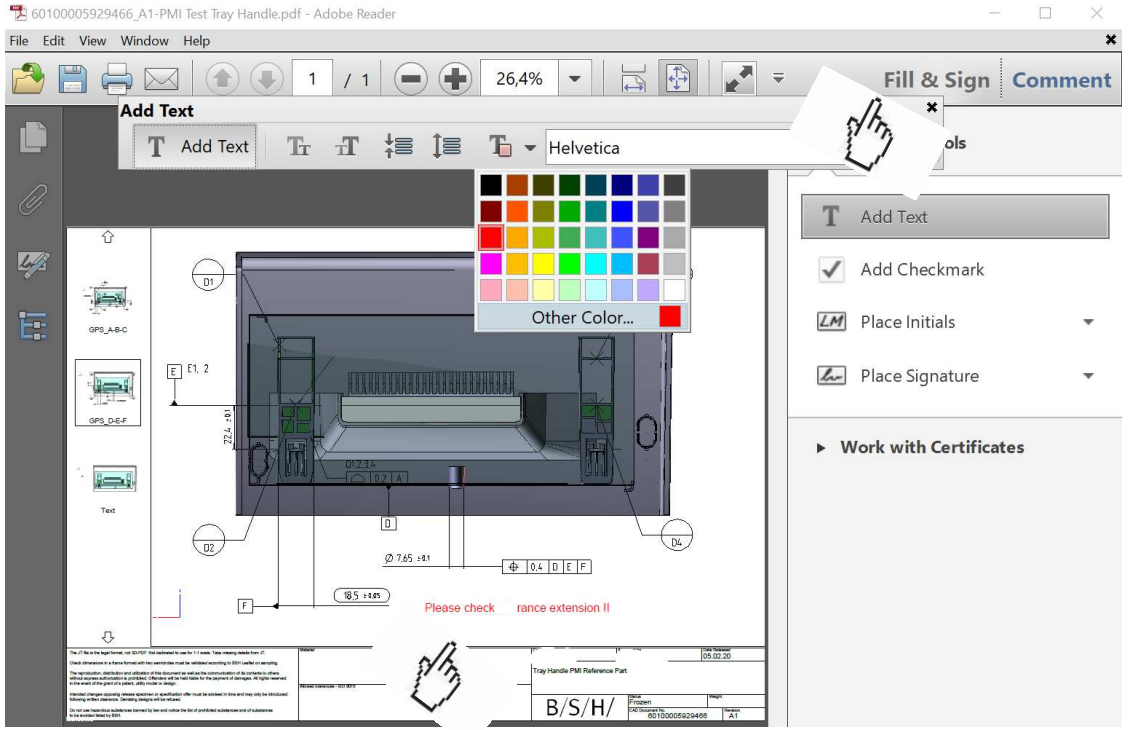
9. Auswahl aus Menü für Groß-Ansicht



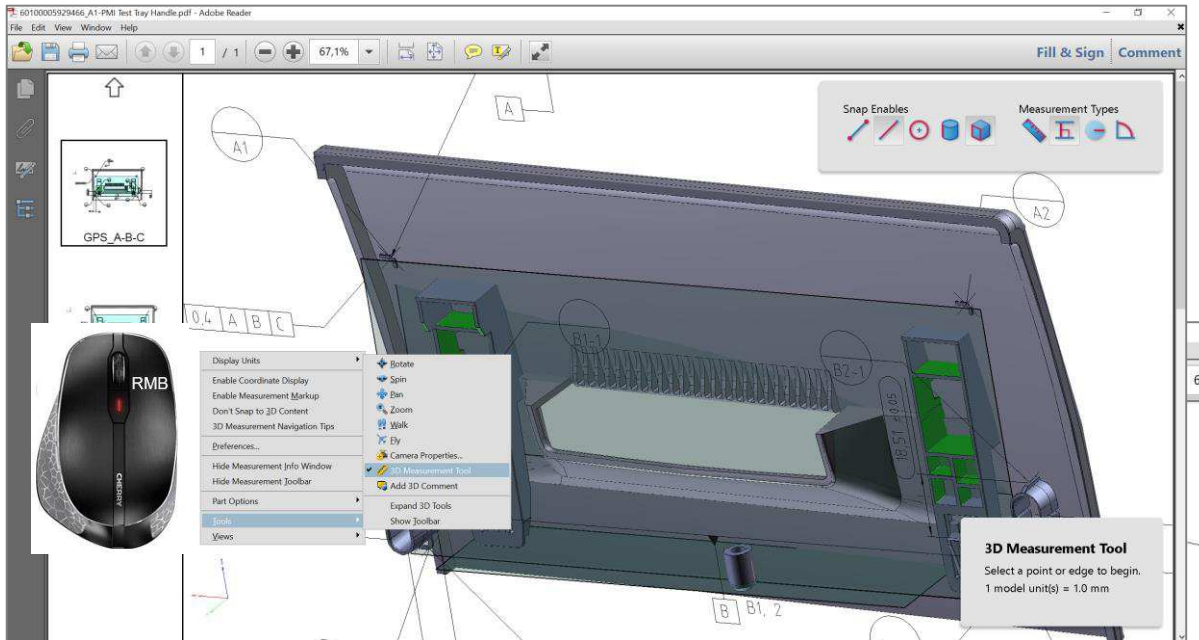
10. Umschalten von 3D auf Draht Darstellung

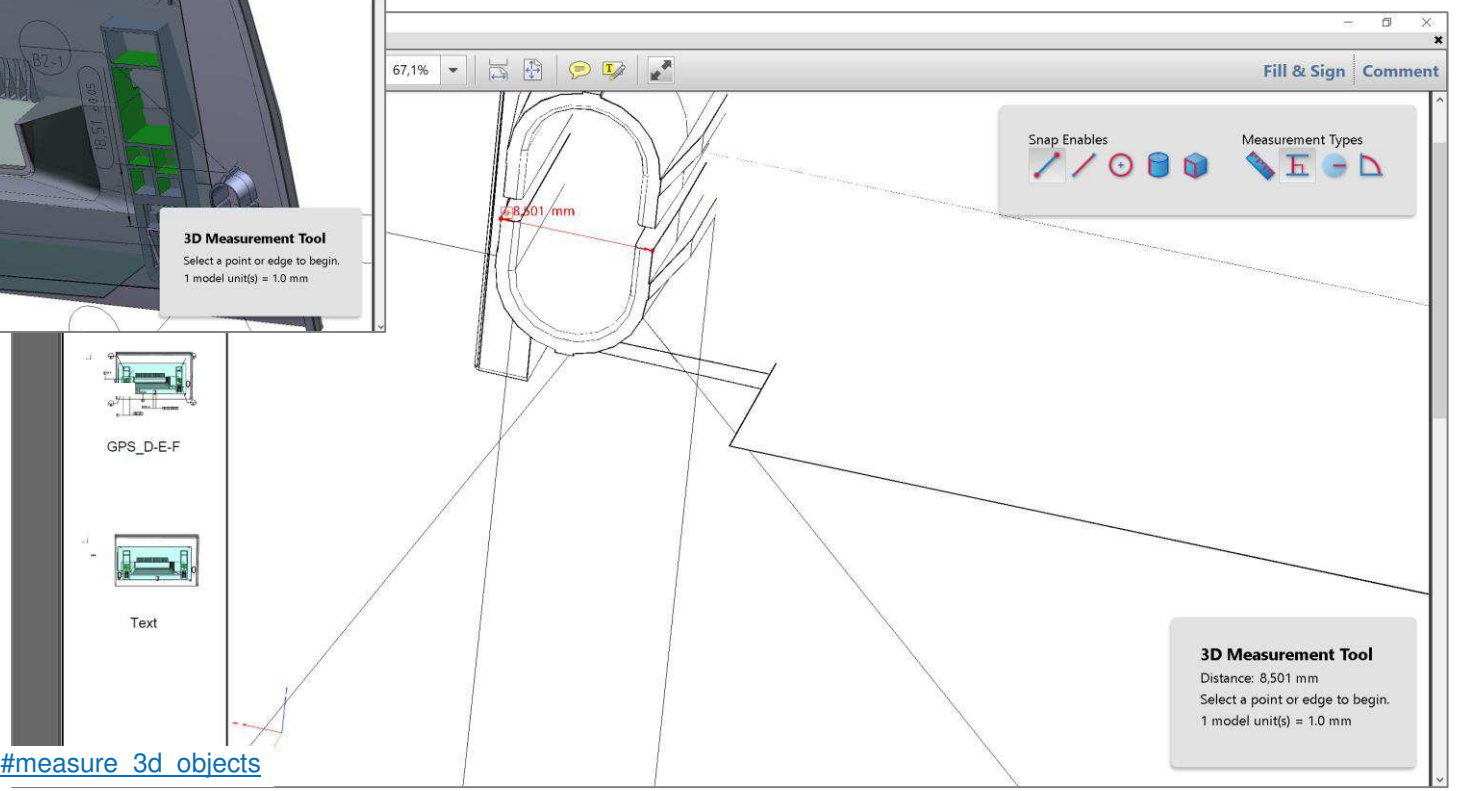


11. Eintragung von Notizen in das PDF Dokument (lokale Kopie)



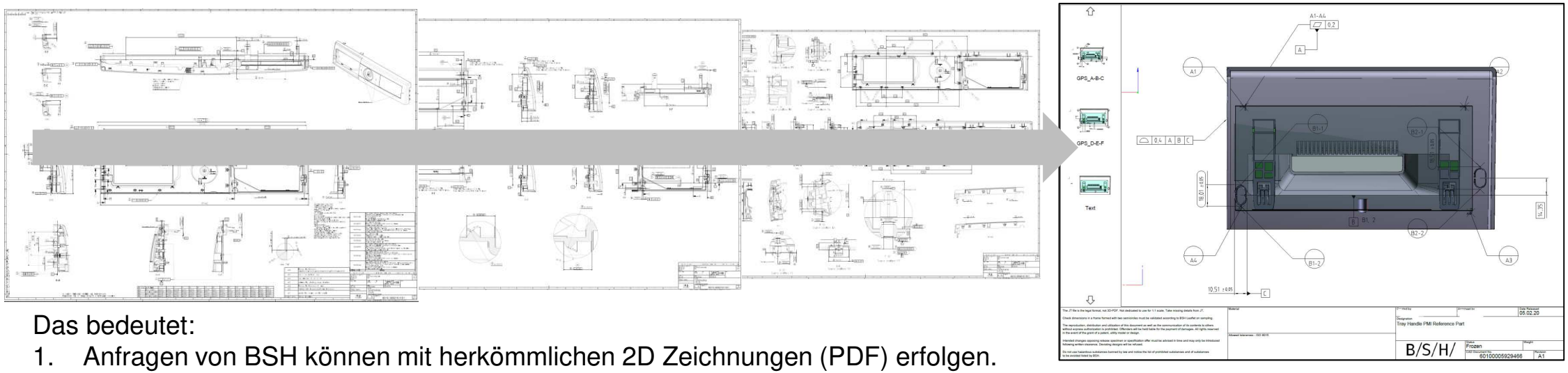
12. Messfunktion im 3D-PDF





https://helpx.adobe.com/acrobat/using/measuring-3d-objects-pdfs.html#measure_3d_objects

Der Umstellungszeitraum von 2D auf 3D Bemaßung (PMI) wird mehrere Jahre in Anspruch nehmen!



Das bedeutet:

1. Anfragen von BSH können mit herkömmlichen 2D Zeichnungen (PDF) erfolgen.
2. In diesem Fall erfolgt die Analyse der 3D Geometrie durch Aufruf des JT Files (Bestandteil des ZIP File in der Mailbox).
3. Anfragen von BSH können ab 03/2020 mit der 3D Bemaßung und dem 3D CAD Modell (3D-PDF) erfolgen.
4. Das ausdrucken von 3D-PDF Files ist prinzipiell möglich aber wenig sinnvoll, da nicht maßstäblich.

Ansprechpartner für das neue Datenformat 3D-PDF (keine technischen, inhaltlichen Fragen zur Konstruktion):
bsh-supplier-contact@bshg.com

Download dieser Schulungsunterlage:
https://ocp.bsh-group.com/en/documents/How to use digital drawings in format 3D_PDF

Ablauf (Alternative Nutzung des Formats JT)

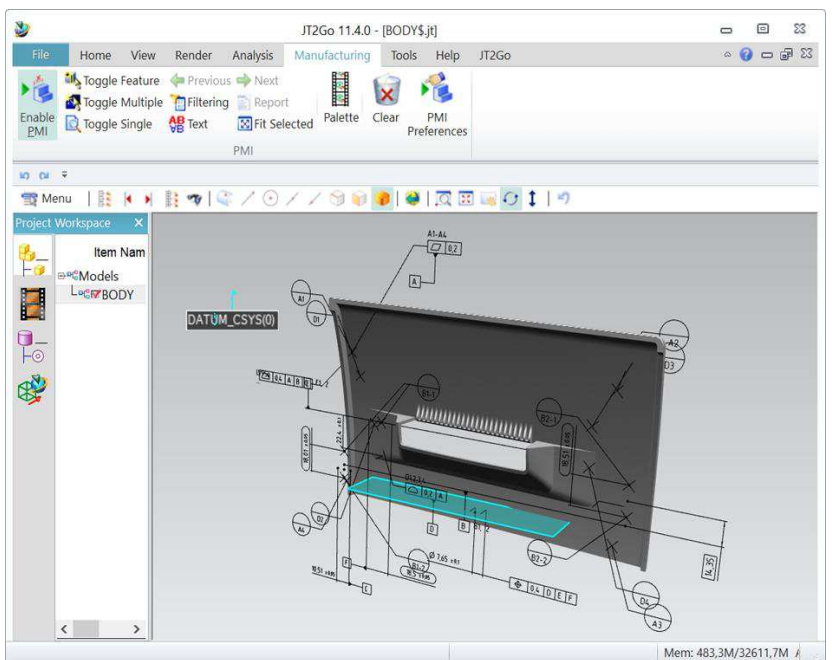
1. Prozesse, die eine Datenexport auslösen: RFE (Request for Export), RFQ (Request for Quotation), RFO (Request for Order)

2. Der Lieferant erhält über den BSH-FX Server Daten auf sein Firmen-Postfach (siehe Seite 12).

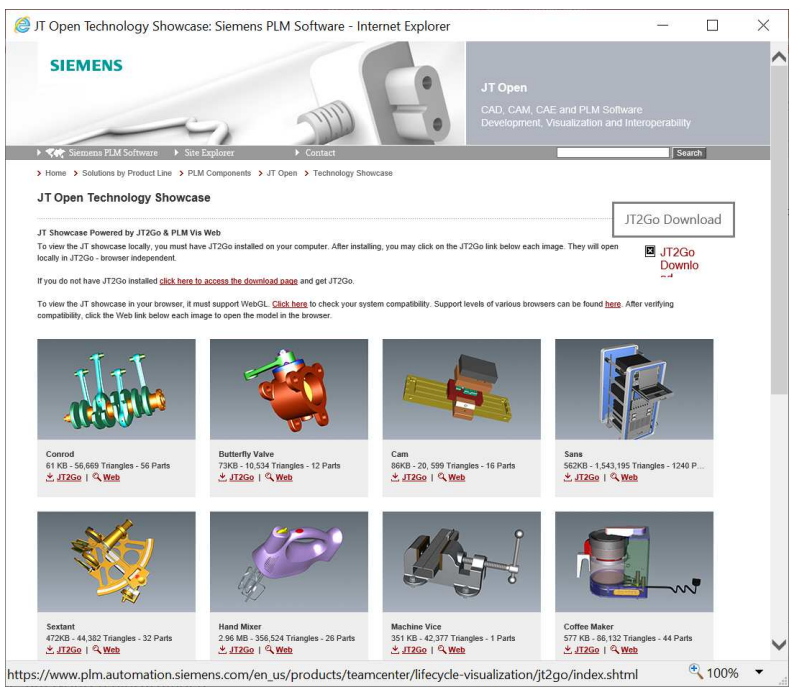
3. Download des ZIP-File (Inhalte: 3D_PDF, JT, etc.)

4. Öffnen der JT Datei mit JT2GO

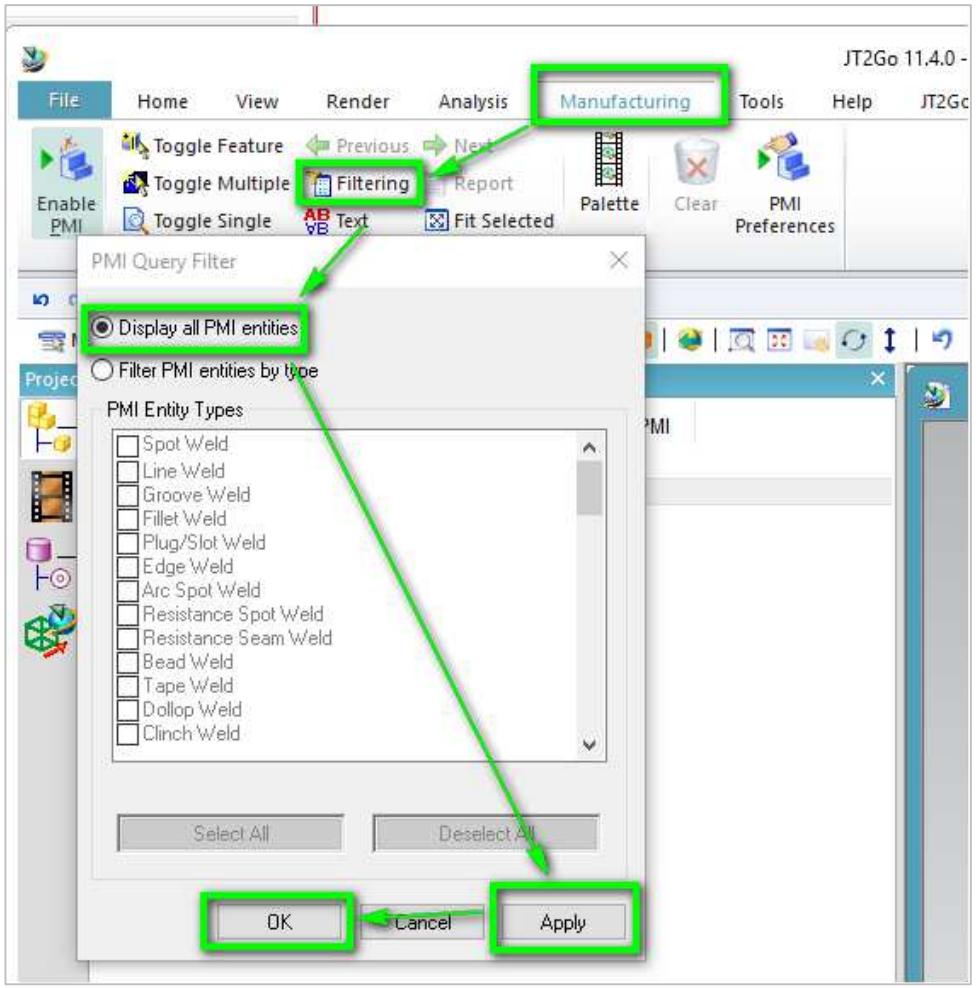
https://http://www.plm.automation.siemens.com/en_us/products/open/jtopen/index.shtml

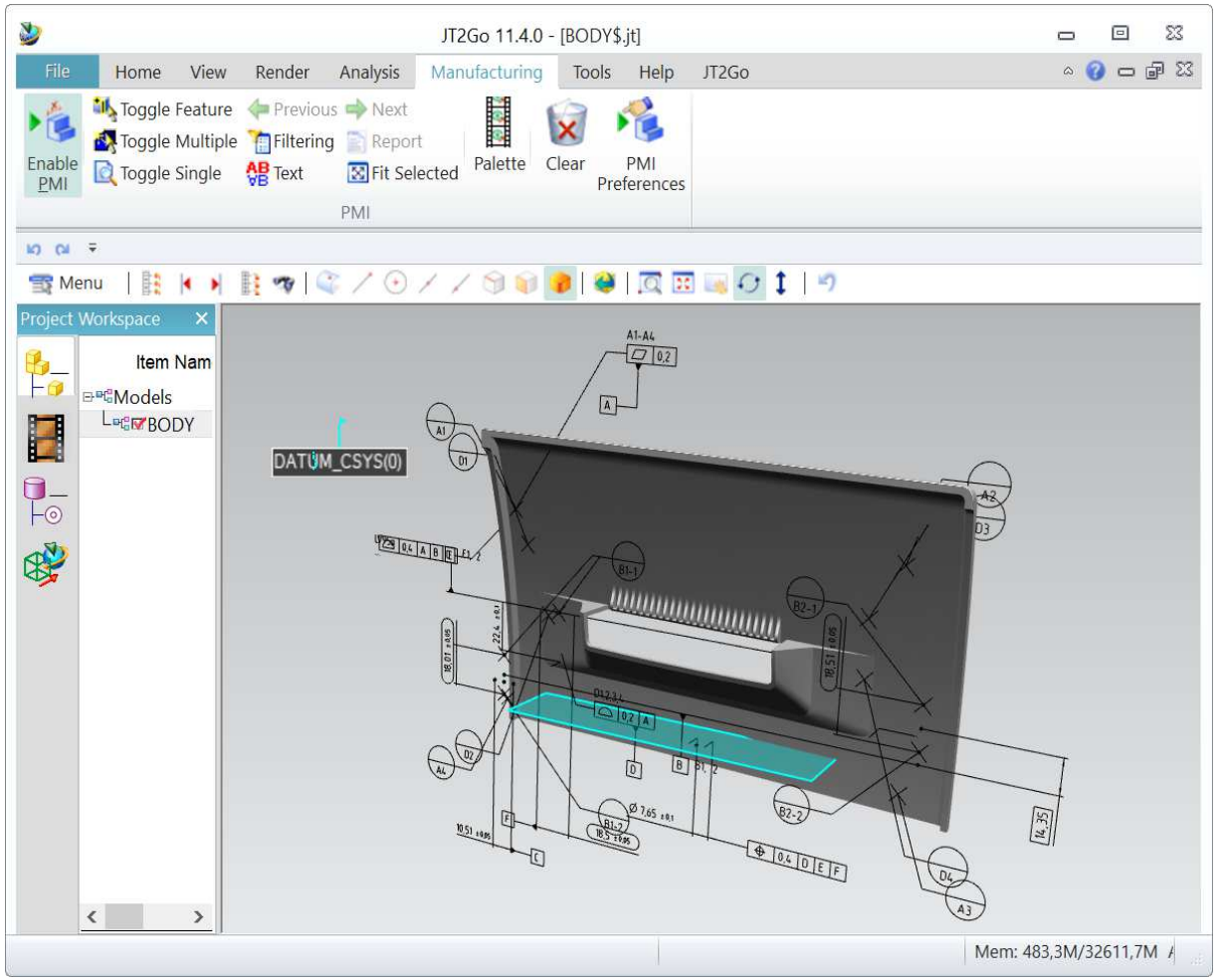


JT ist ein offenes Datenformat, das von Siemens Digital Industries Software entwickelt wurde. JT wurde von der ISO als internationaler Standard für 3D-Visualisierung akzeptiert. Zusätzlich zur Visualisierung verwenden viele JT als Prozessformat für Workflows wie Datenaustausch, Zusammenarbeit mit Lieferanten und langfristige Datenspeicherung

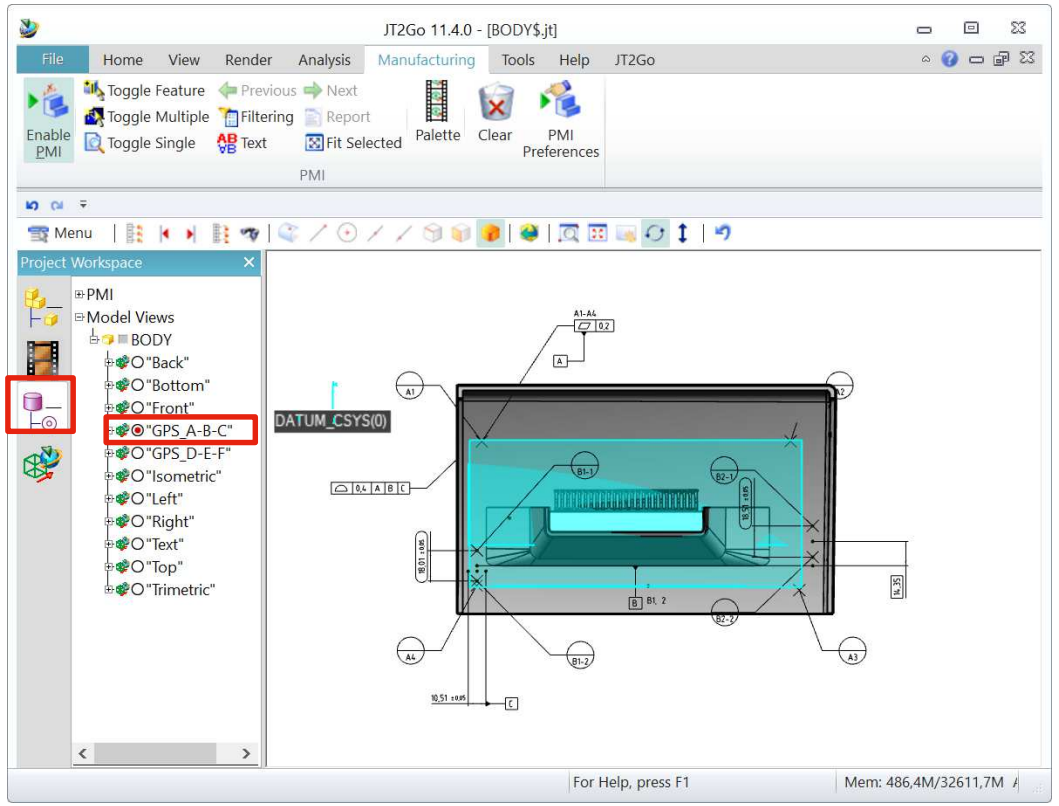


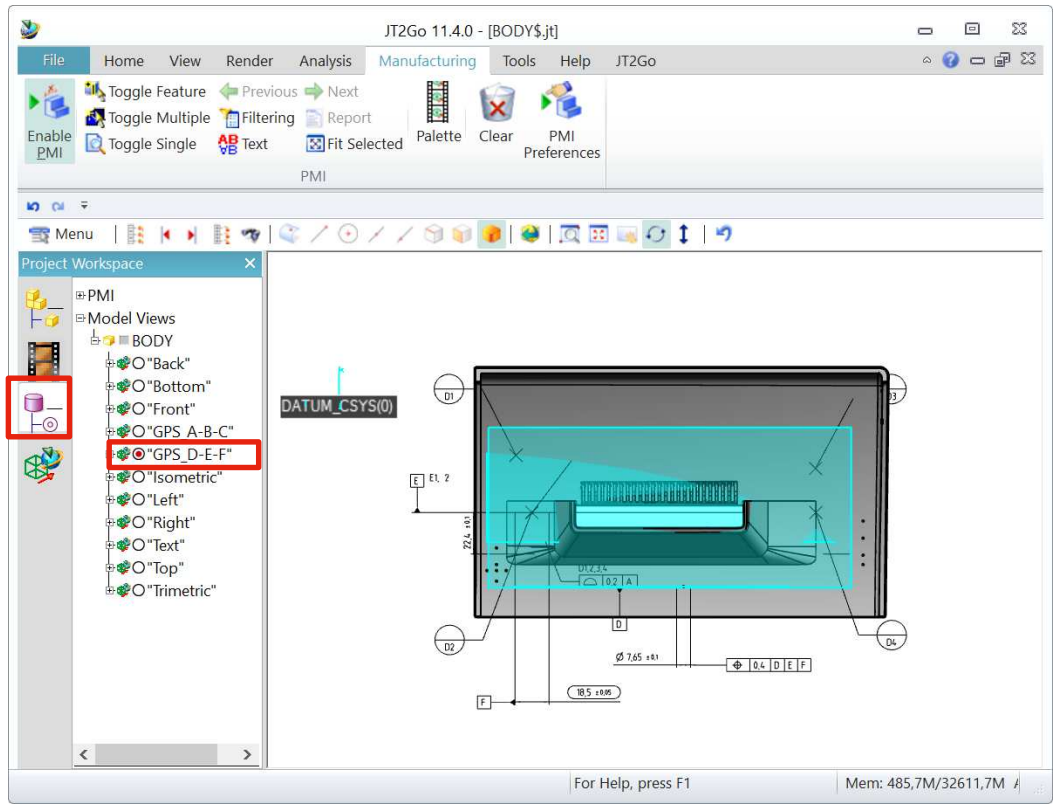
5. Die 3D Bemaßung (PMI) wird über das Menü „Manufacturing“ eingeschaltet



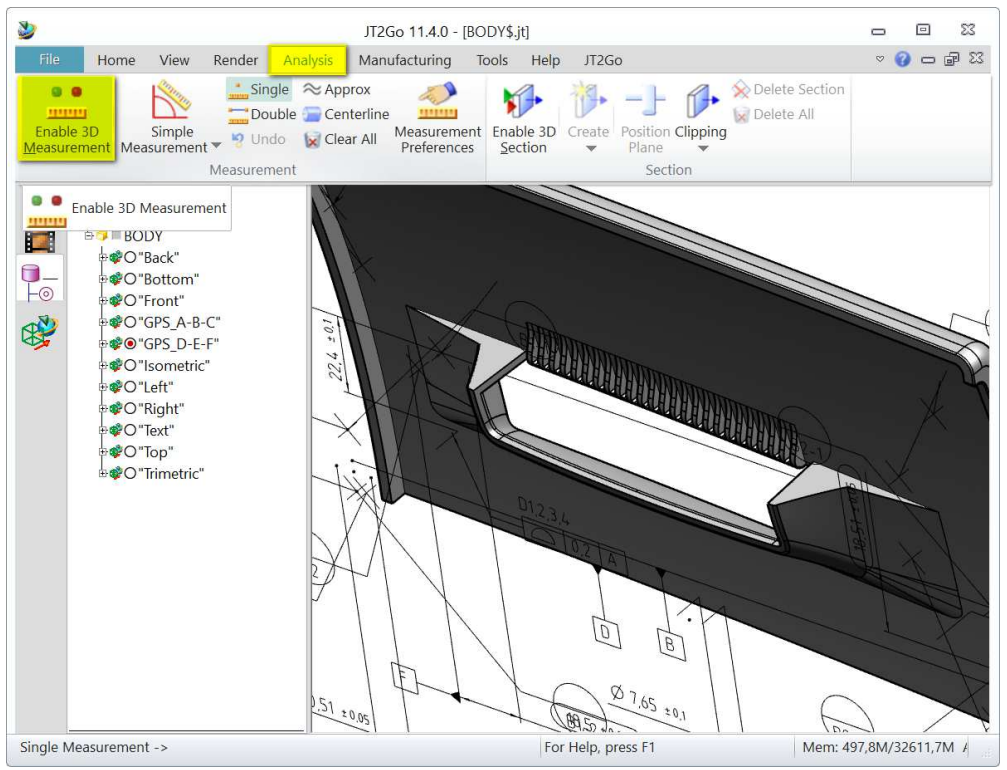


6. Auswahl der verschiedenen PMI Ansichten

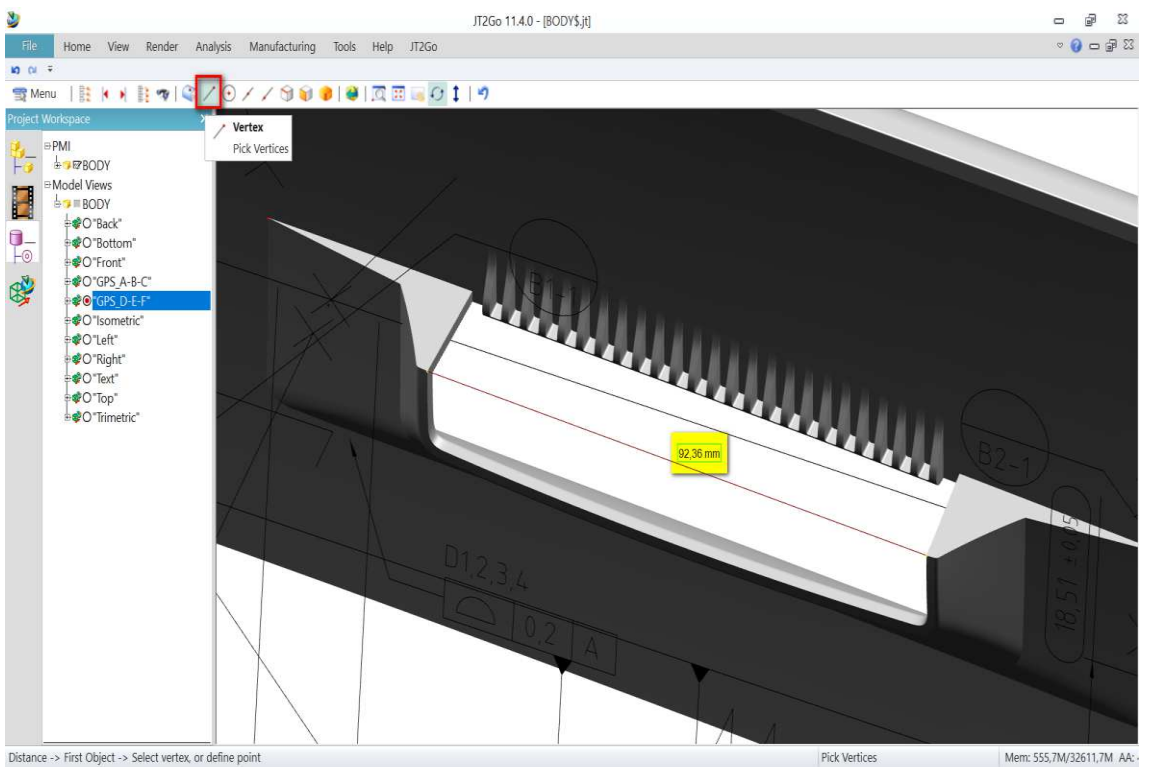




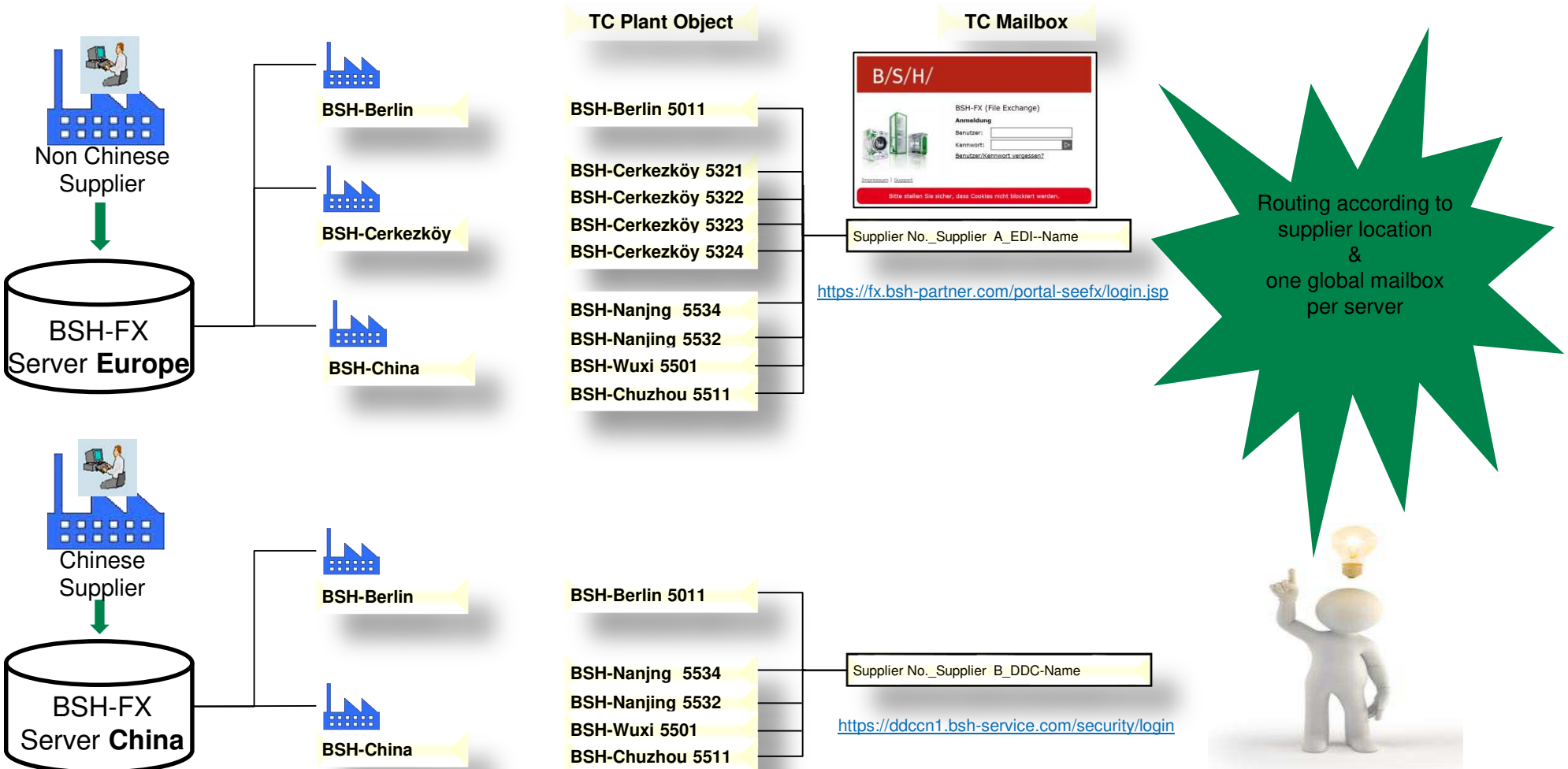
7. Aktivierung der 3D Messfunktionen



8. Auswahl der Körperkannte über die Voreinstellung „Eckpunkte“

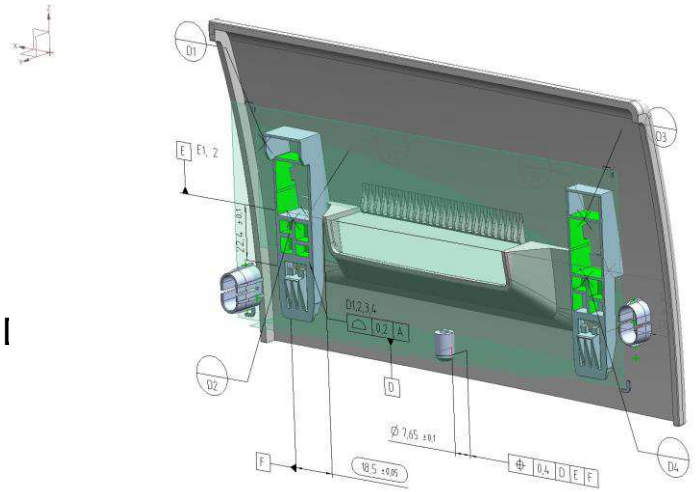


Globales Mailbox Konzept für BSH Lieferanten



Announcement

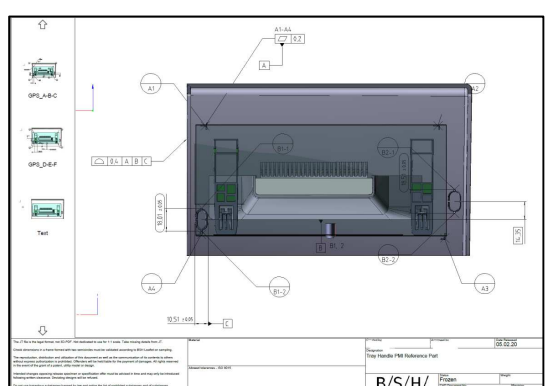
At BSH Hausgeräte GmbH and its subsidiaries, the CAD methods for dimensioning, drawing derivation and display formats will be changed step by step from March 2020 for new CAD designs.



What does this mean for BSH's suppliers?

1. Introduction of the Product & Manufacturing Information (PMI) method →
   a. Geometric dimensioning and tolerance on the 3D CAD model.
   b. Annotations and texts on the 3D model.
   c. Surface finish and material specifications on the 3D model.
   d. Display of all information from a-c in NX (SPLM) and the export formats JT and 3D-PI

2. Introduction of the format 3D_PDF (dynamic drawing with 3D CAD model) →
   a. One drawing sheet per 3D model with a dynamic large view.
   b. The large view allows you to move, zoom in and out of the displayed CAD model / assembly.
   c. Additional, defined views (sections, details, etc.) can be selected and displayed in the dynamic large view.



Procedure

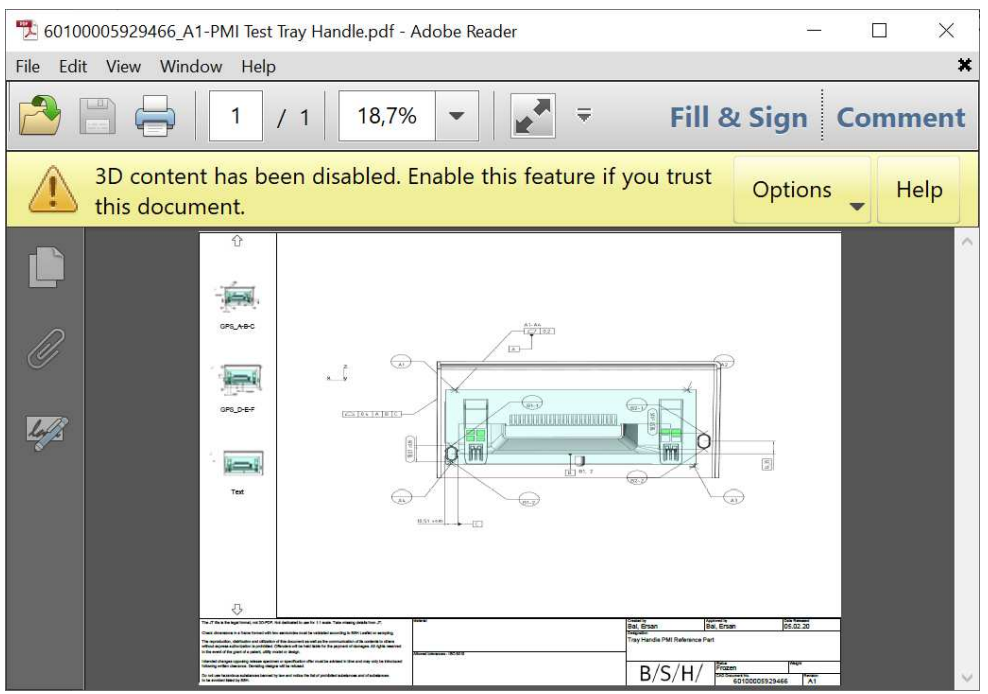
1. Processes that trigger a data export: RFE (Request for Export), RFQ (Request for Quotation), RFO (Request for Order)

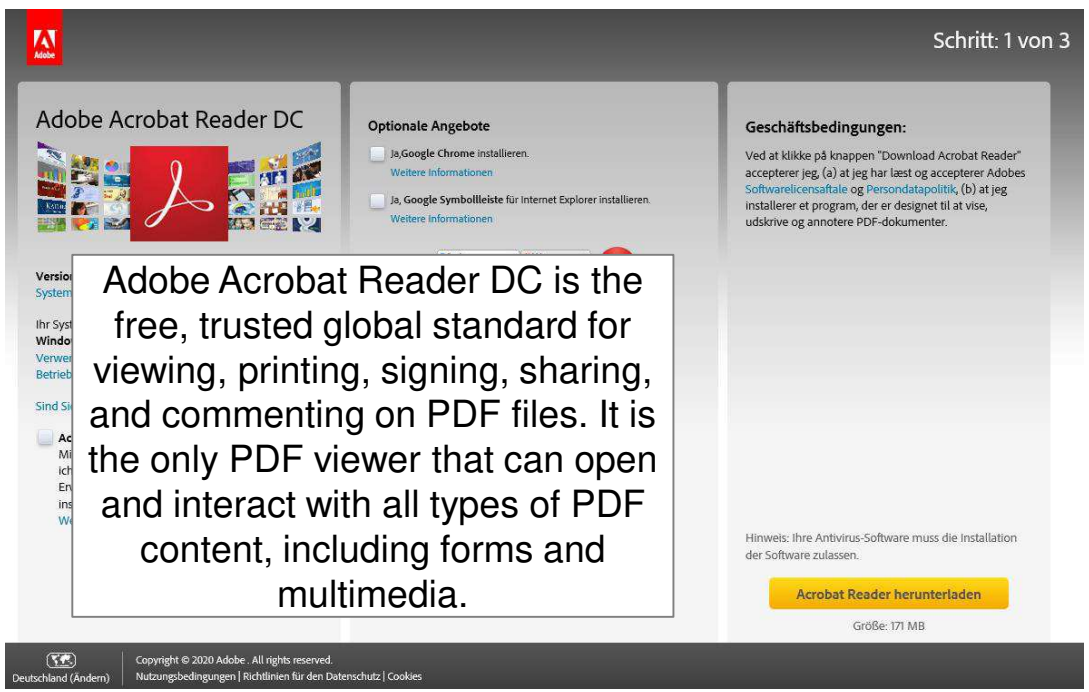
2. The supplier receives data via the BSH-FX server to his company mailbox (see page 23).

3. Download the ZIP file (contents: 3D_PDF, JT, etc.).

4. Opening the PDF file with Adobe Acrobat

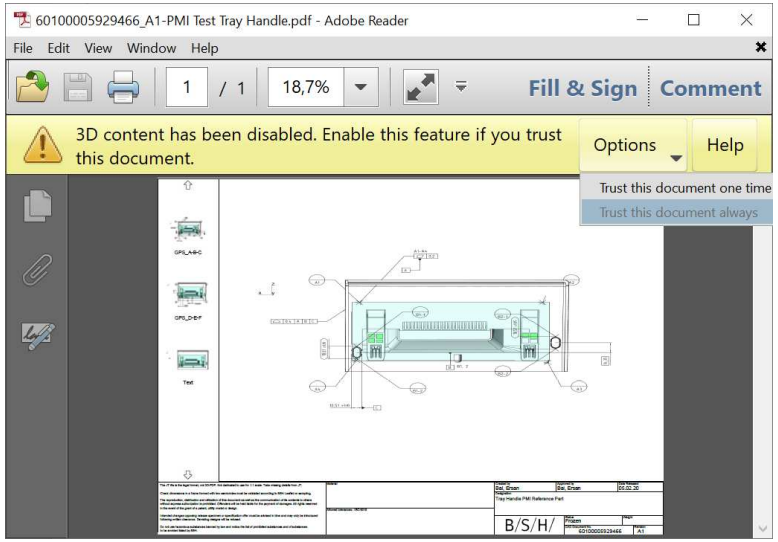
https://get.adobe.com/de/reader/



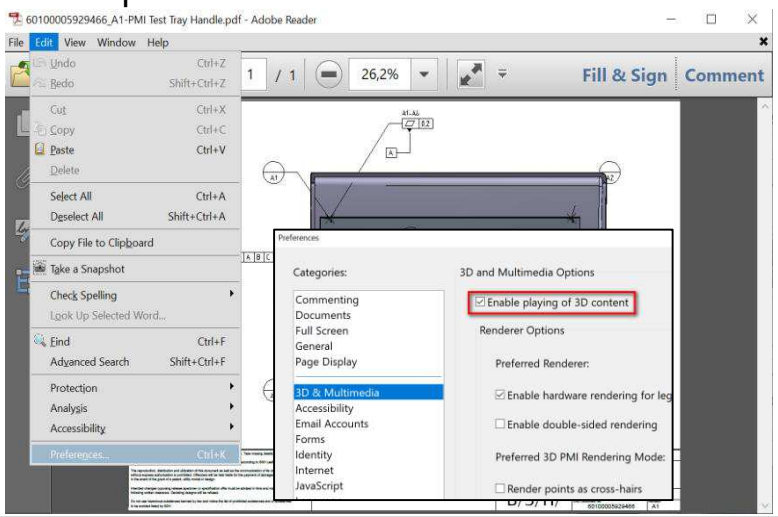


Adobe Acrobat Reader DC is the free, trusted global standard for viewing, printing, signing, sharing, and commenting on PDF files. It is the only PDF viewer that can open and interact with all types of PDF content, including forms and multimedia.

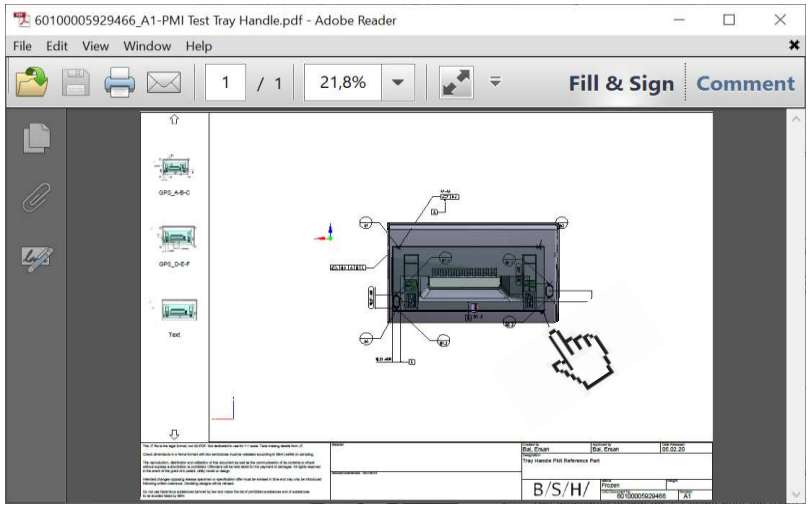
5. Confirmation that the source is trustworthy:



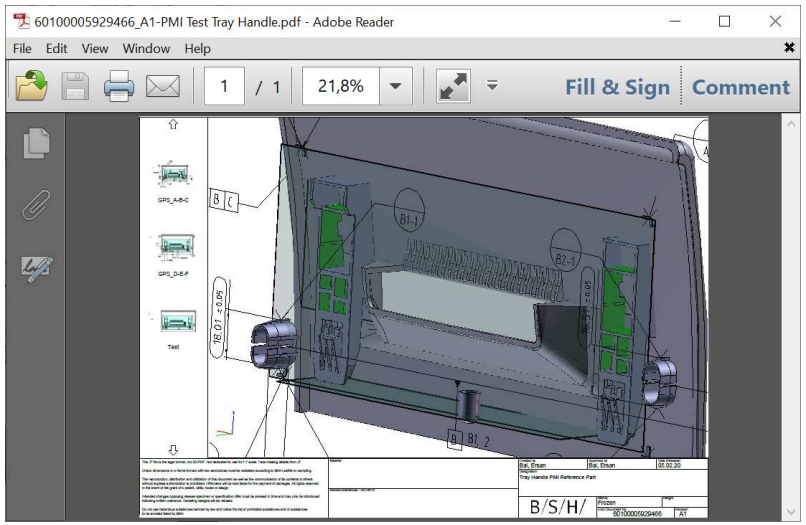
6. Select preset for 3D PDF:



7. Mouse click in the large view to release the dynamic view:

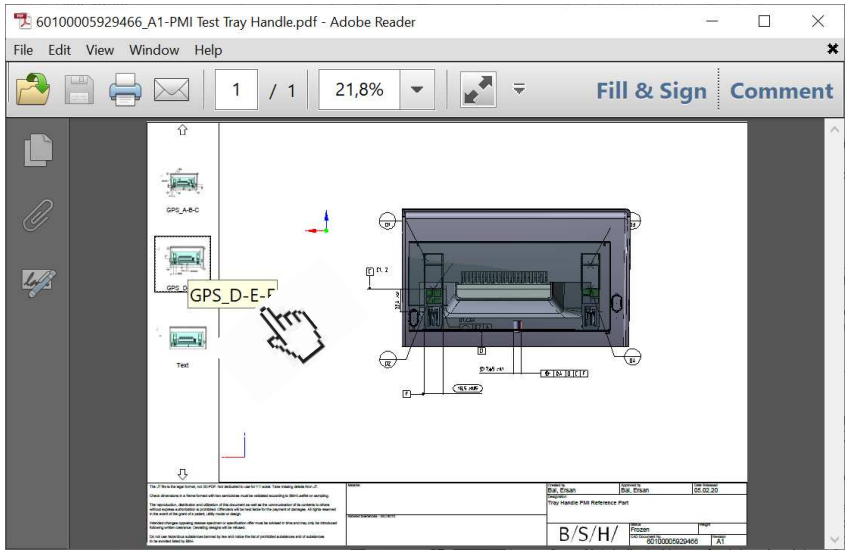


8. Interaction in the dynamic large view with standard mouse function:

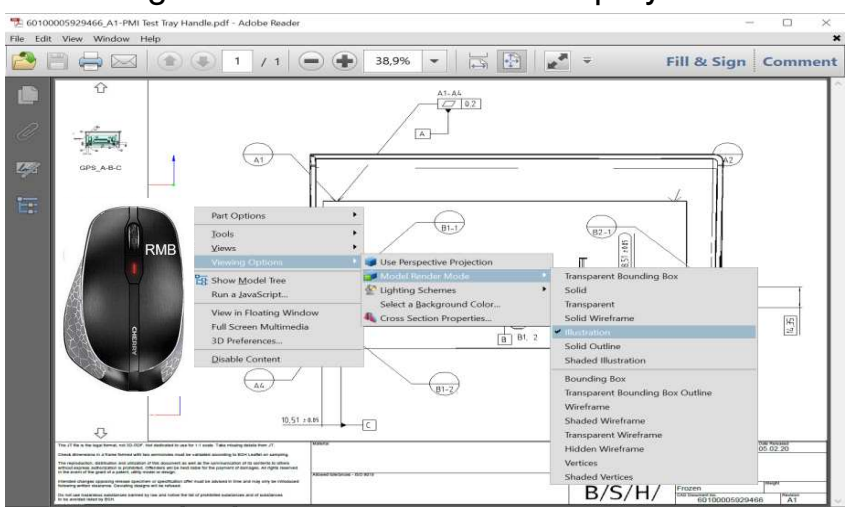


1. LMB: turn
2. RMB: enlarge
3. RMB: reduce
4. LMB&RMB: move

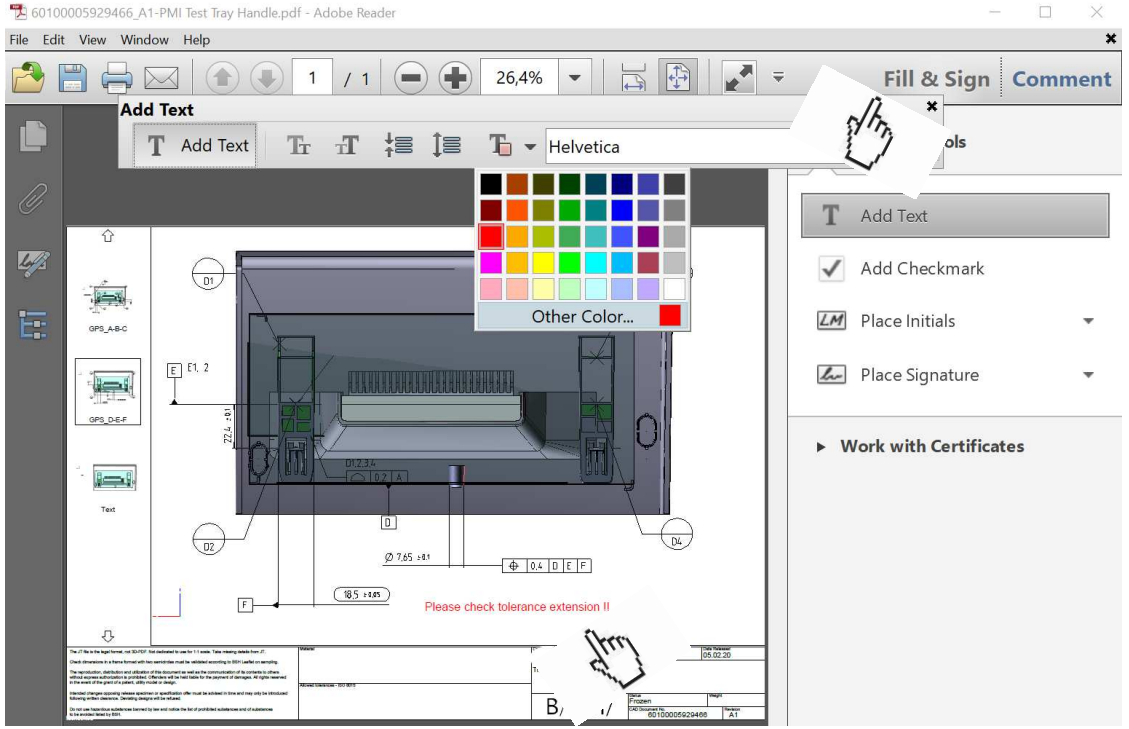
9. Selection from menu for large view:



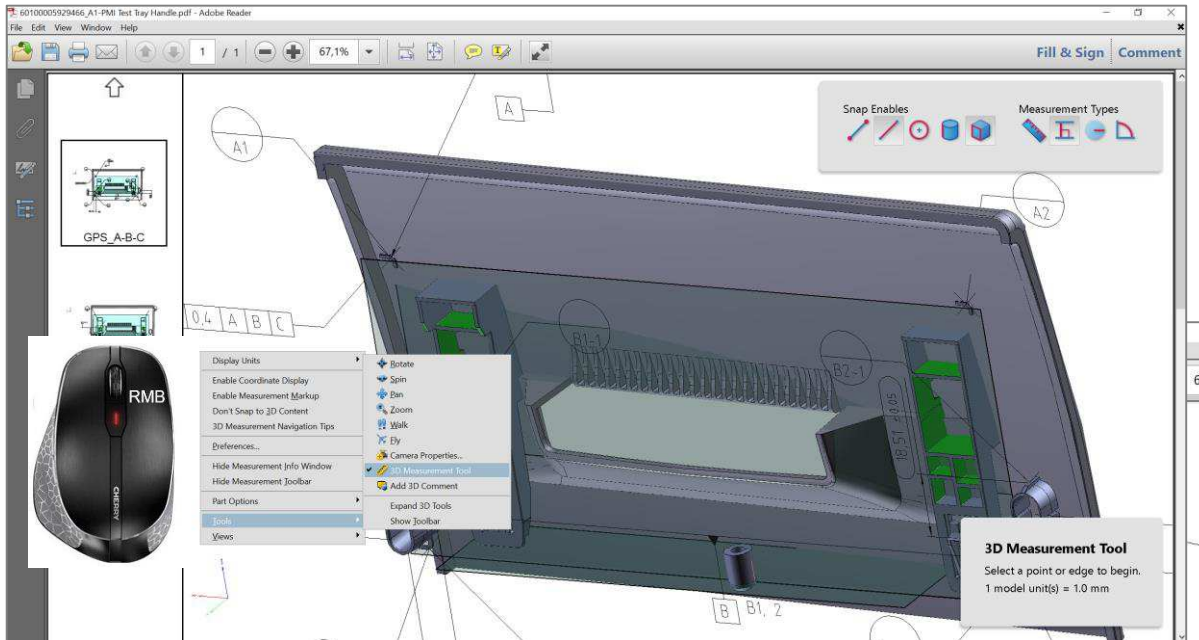
10. Switching from 3D to wire frame display:

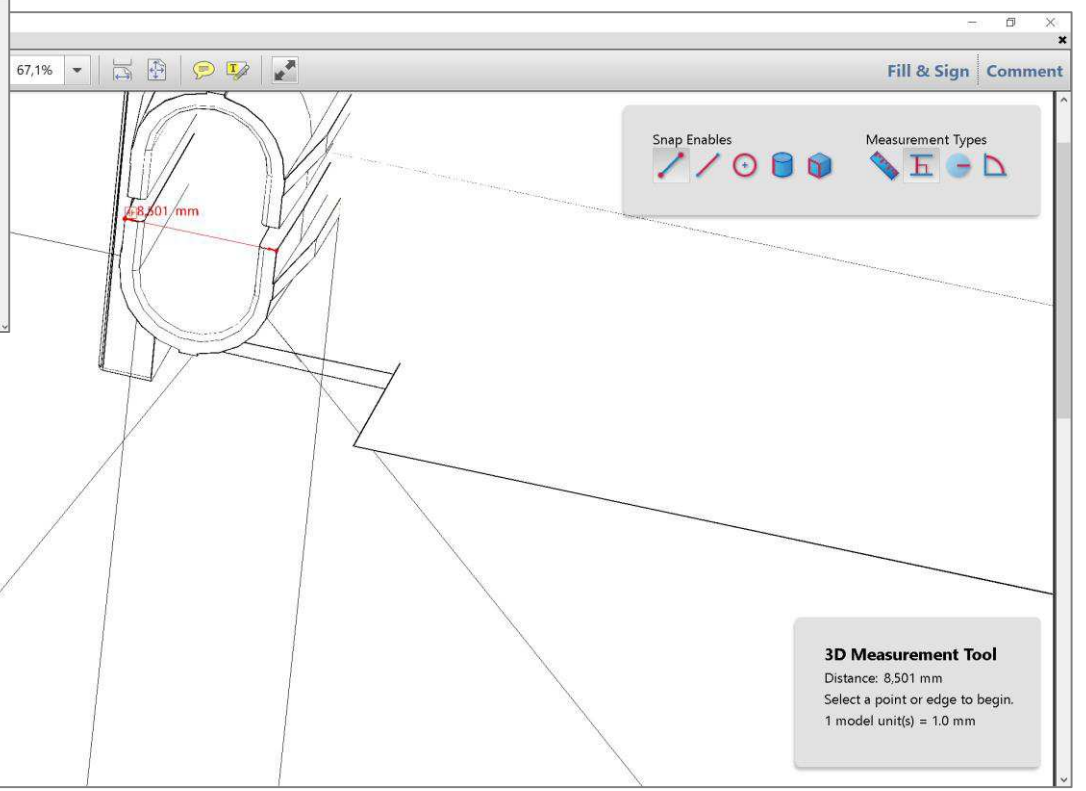


11. Entry of notes in the PDF document (local copy):



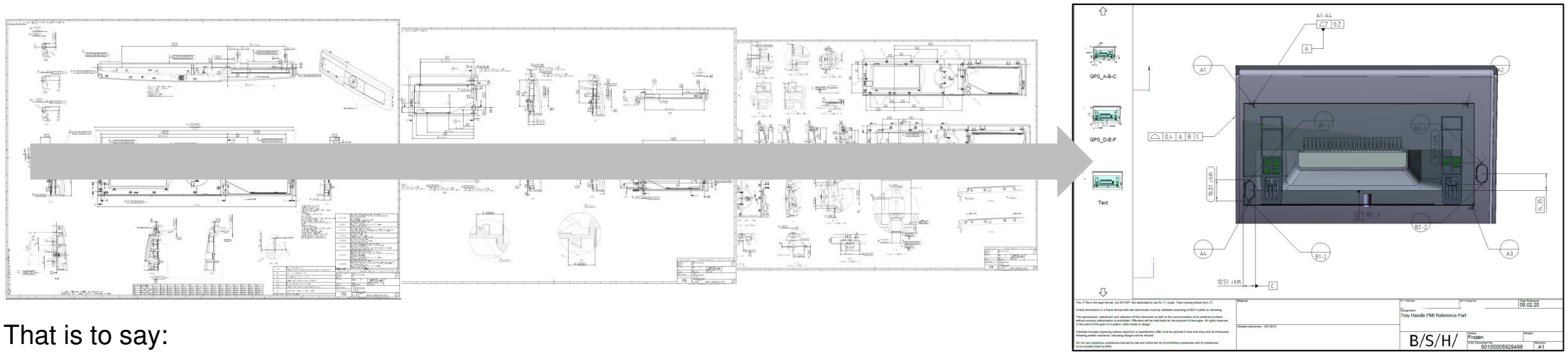
12. Measuring function in 3D-PDF:





https://helpx.adobe.com/acrobat/using/measuring-3d-objects-pdfs.html#measure_3d_objects

The conversion period from 2D to 3D dimensioning (PMI) will take several years!



That is to say:

1. Requests from BSH can be made using conventional 2D drawings (PDF).
2. In this case the analysis of the 3D geometry is done by using the JT file (part of the ZIP file in the mailbox).
3. Inquiries from BSH can be made from 03/2020 onwards using the 3D dimensioning and the 3D CAD model (3D-PDF).
4. Printing 3D-PDF files is possible in principle but not very useful, because they are not to scale.

Contact person for the new data format 3D-PDF (no technical, content-related questions about construction):
bsh-supplier-contact@bshg.com

Download this training document:
https://ocp.bsh-group.com/en/documents/....

Procedure (alternative use of the JT format)

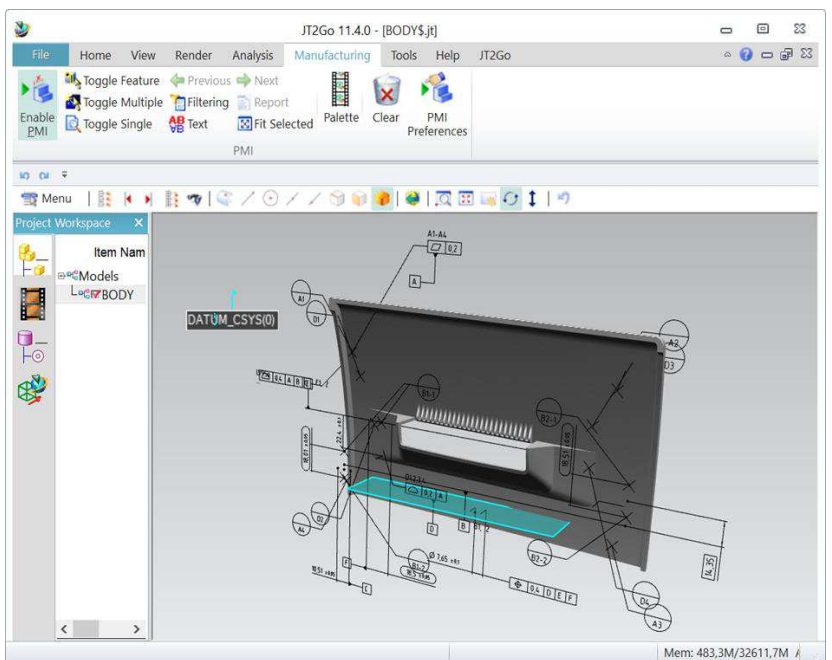
1. Processes that trigger a data export: RFE (Request for Export), RFQ (Request for Quotation), RFO (Request for Order)

2. The supplier receives data via the BSH-FX server to his company mailbox (see page 23).

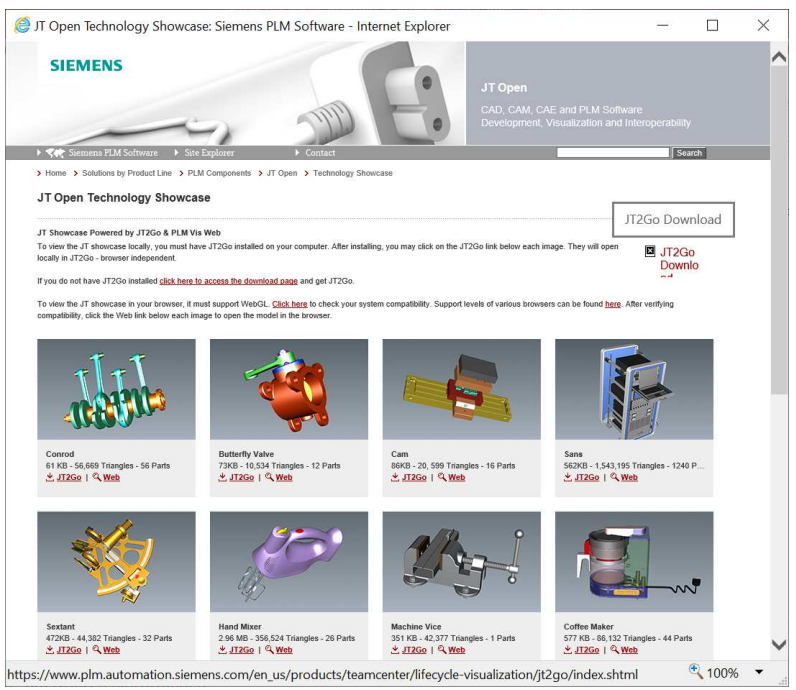
3. Download the ZIP file (contents: 3D_PDF, JT, etc.).

4. Opening the PDF file with Adobe Acrobat

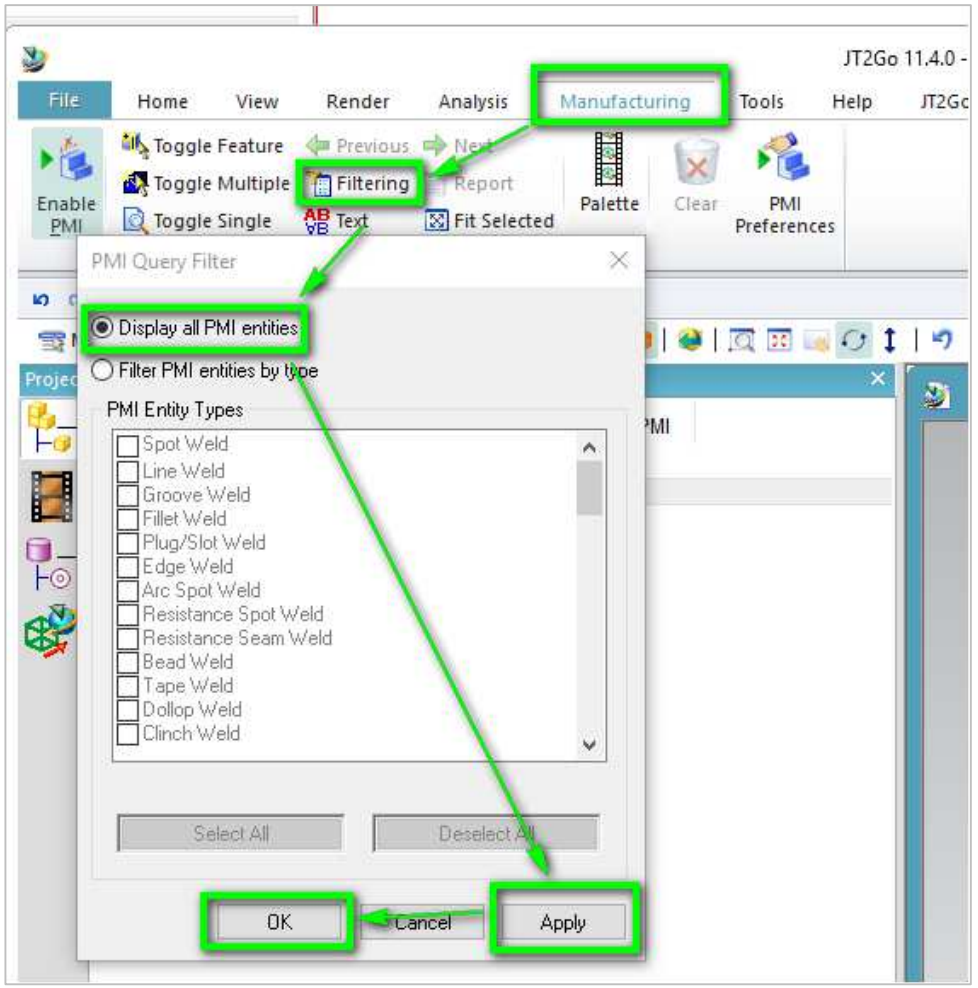
https://http://www.plm.automation.siemens.com/en_us/products/open/jtopen/index.shtml

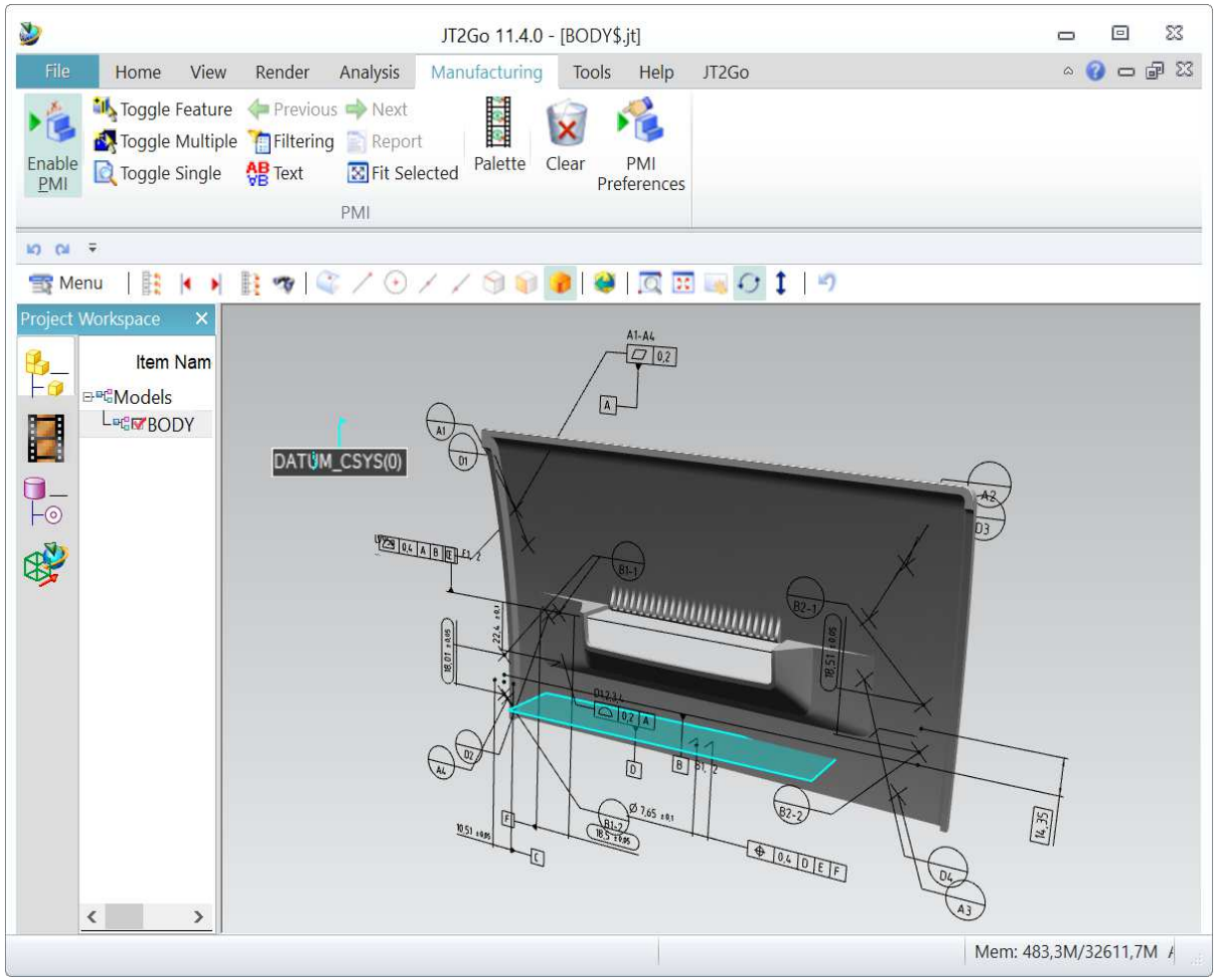


JT is an openly published data format developed by Siemens Ditgital Industries Software. It is widely used for communication, visualization, digital mockup and a variety of other purposes.
JT has been accepted by ISO as an International Standard for 3D visualization. In addition to visualization, many JT Adopters use JT as a process format for workflows such as data exchange, supplier collaboration, and long-term data retention

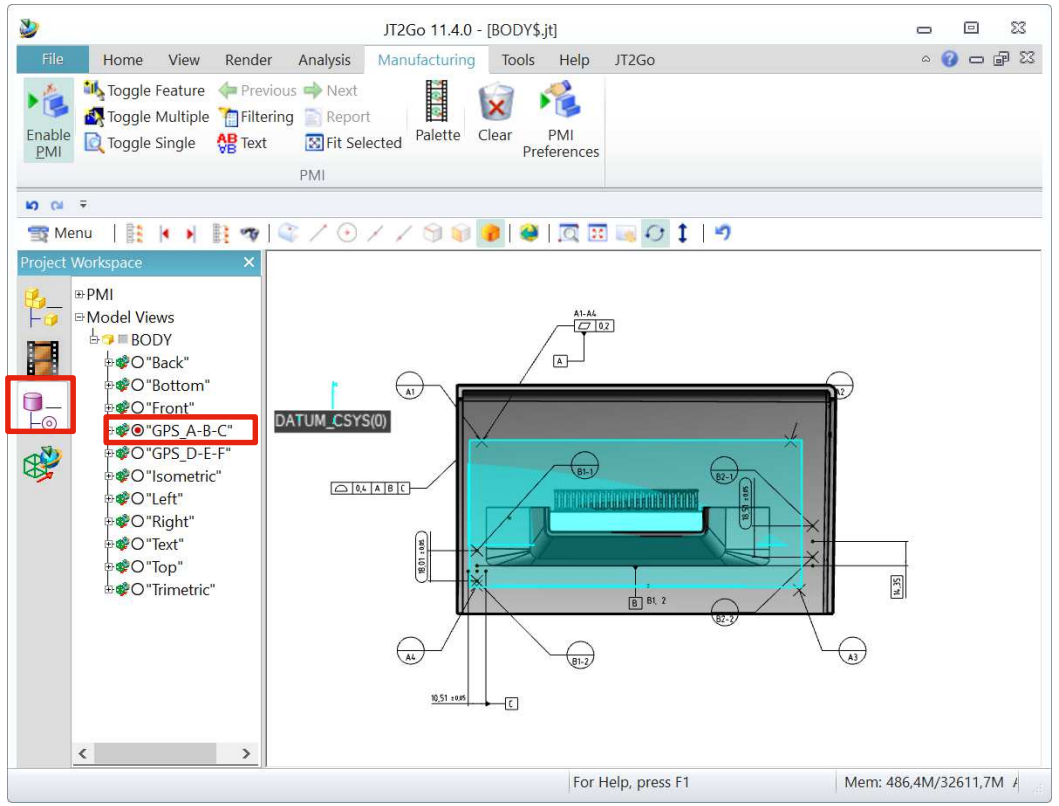


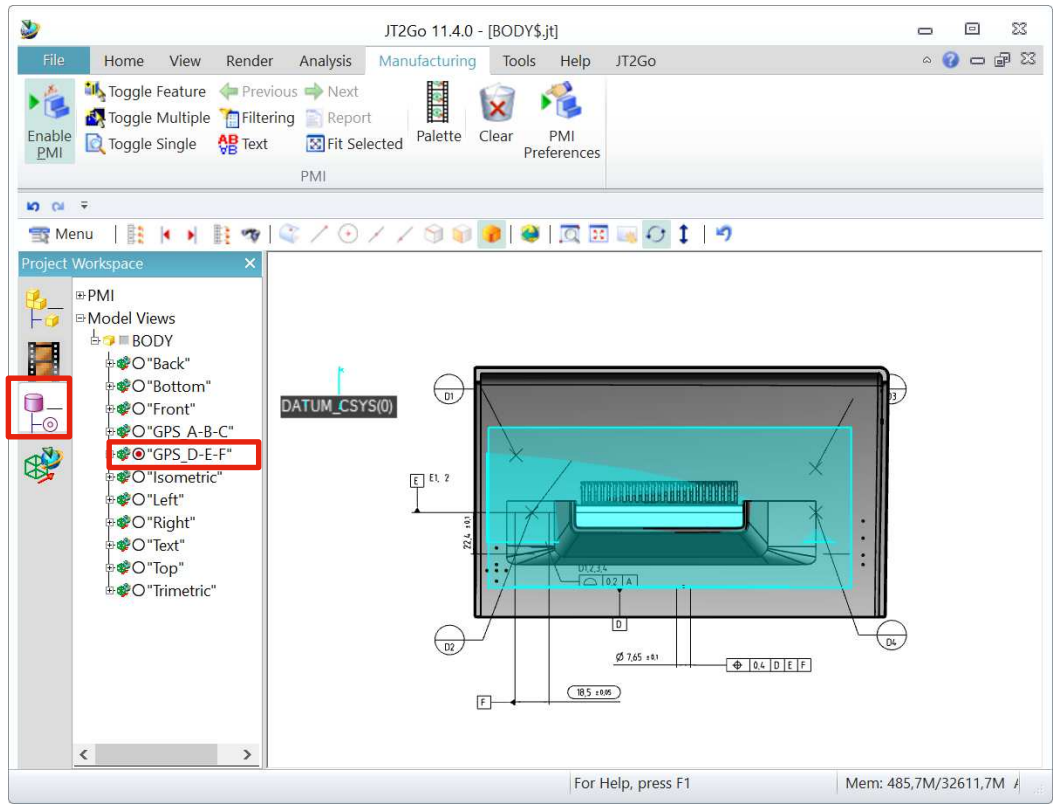
5. The 3D dimensioning (PMI) is visible via the "Manufacturing" menu.



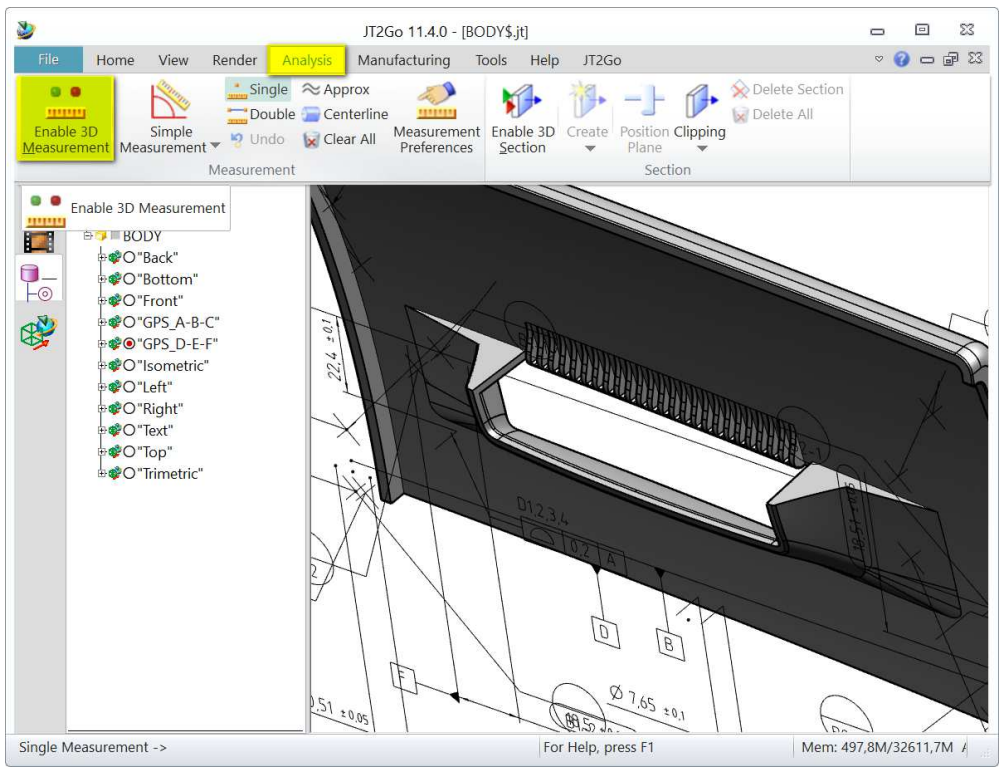


6. Selection of the different PMI views

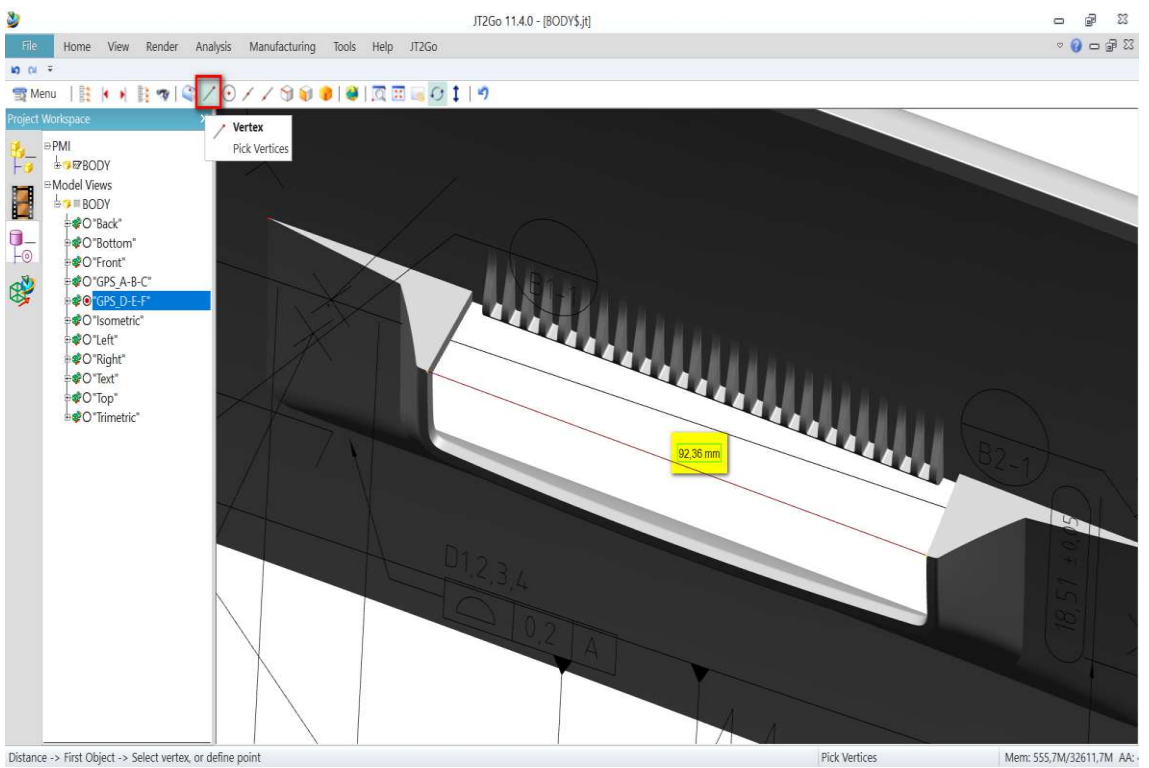




7. Activation of the 3D measuring functions



8. Selection of the body detection using the "pick vertices" default setting



Global mailbox concept for BSH supplier