Capvidia Products 3.9

Release Notes

February 2019

Introduction

This document communicates the new major features and changes in all Capvidia products version 3.9.

About this Release

These release notes are for the following Capvidia products:

1. **Capvidia License Server** - Floating license manager
2. Standalone Products
    a. **CompareVidia** - Data translation validation and revision comparison
    b. **MBDVidia** - View/Analyze any MBD data
    c. **3DTransVidia** - Data translation with repair and healing
    d. **ReverseVidia** - Reverse engineering
    e. **Pundit CMM** - Measurement uncertainty estimation
3. SolidWorks Add-in
    a. **FormatWorks** - Data translation for MBD import/export
4. PTC Creo Add-in
    a. **MBDVidia for PTC Creo** - MBD-Ready models for PTC Creo
5. Siemens NX Add-in
    a. **MBDVidia for Siemens NX** - MBD-Ready models for Siemens NX
6. **Capvidia SDK -** Software Development Kit for applications using Capvidia geometry kernel and GUI for software development.
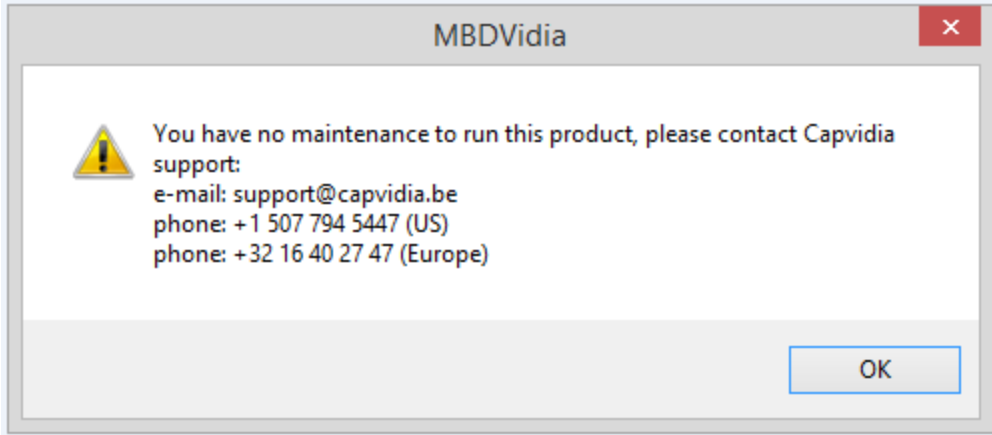
Product Upgrades

Capvidia' s upgrade policy allows customers to obtain general software updates and bug fixes free of charge, provided that they are under a current maintenance contract. Customers can download software from http://www.capvidia.com/software-downloads.
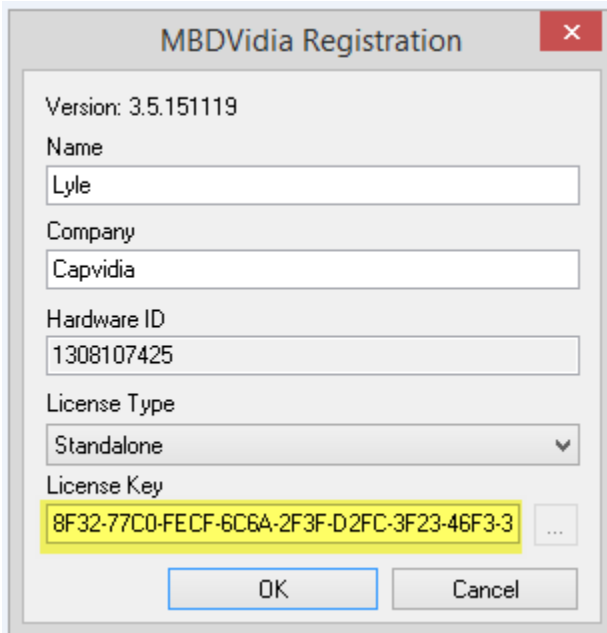
Note: If you have a floating license, you must upgrade the Capvidia License Server prior installing any product upgrade.
If you upgrade and you get this message, please contact Capvidia for support:

If you are current on maintenance, follow these steps to request a new license:

1. Delete the license key

2. Select "Request Key" and follow the instructions.

Supported Read/Write Formats

Capvidia 3.9 products support the latest versions of the following CAD formats: CATIA V5, CATIA V6, Inventor, PTC Creo, SolidEdge, SolidWorks, STEP AP 242, QIF, Parasolid, ACIS, and Siemens NX.

Import			
Format	**File extensions**	**Version**	**3D PMI**
ACIS	.asc	R1 – 2018 1.0	X
CATIA V4	. model, exp	4.1.9 – 4.2.4	
CATIA V5	.CAT Part, .CAT Product	R8 – R27 (V5–6R2018)	X
CATIA V6	.CAT Part, .CAT Product	V6R2017	X
DXF/DWG	.def., .dwg	2.5 - 2019	
IGES	.igs, .iges, .ig2(catia)	up to v6	
Inventor	.ipt	V6 – V2019	
	.iam	V11 – V2019	
JT	.jt	6.4 to 10.x	
ProE / Creo	.prt, .prt.*, .asm, .asm.*	16 – Creo 4.0	X
Siemens NX	.prt	11 – NX 12	X

SolidWorks	.sldprt, .sldasm	98-2019	X
Parasolid	.x_t, .x_b	9.0 – 30.0.198	
Solid Edge	.par, .asm, .psm	V18 – ST10	
STEP	.stp, .step	AP203, AP214, AP242	X
QIF	.qif	1.9.3 - 2.1.0	X
3DXML	.3dxml	4.0 to 4.3	
XCGM	.xcgm	R2012 – 2018 1.1	
VDA-FS	.vda	2.0	

Export			
Format	**File extensions**	**Version**	**3D PMI**
ACIS	.sat	R1-2018 1.0	
Parasolid	.x_t, .x_b	12 – 30.0.198	
CATIA V4	.model	CATIA 4.1.9 – CATIA 4.2.4	
CATIA V5	.CATPart, .CATProduct	V5R15 – V5–6R2018	
IGES	.igs, .iges	up to v6	
STEP	.stp	AP203, AP214, AP242	X
QIF	.qif	2.1	X
3D PDF	.pdf	1.7	
VDA-FS	.vda	2.0	

New Features and Enhancements

This section describes new features and enhancements for each product.

General Enhancements

1. **Install** - Starting from version 3.7 all Capvidia installation packages are digitally signed. The Capvidia Digital Certificate ensures integrity and authenticity of the installation packages.
2. **Interoperability:**
   a. Support of the latest version of the native formats (see the table above).
   b. NX Direct Interface is implemented and added to MBDVidia, 3DTransVidia and CompareVidia.
   c. Support of user defined characteristics in QIF.
   d. Support of NX Part family.
   e. Support of ISO GPS indicators in geometric tolerances (import from Creo 4, NX 12).
3. **Visualization and User Interface**
   a. **Improved 3D graphics performance for entry level graphical cards** – the visualization has been speeded up in x10+ times.
   b. **Model tree optimization** – to speed up work with big assemblies.
   c. **Improved Notifications** – new notifications (displayed in the information panel) have been added.
4. **Improved Feature Recognition**
   a. Optimization of the feature recognition workflow.
   b. Further improvements in support of patterns.

Capvidia License Server

Version 3.9 of the Capvidia License Server is compatible with Capvidia products software versions 3.5 and higher. If you upgrade, make sure you are using the Capvidia License Server version 3.9.
In version 3.9 support of MBDVidia for NX has been added.

CompareVidia

CompareVidia contains all enhancements mentioned in the general enhancements listed above and these new enhancements.

1. **Border Tolerance** – explicit definition of the border comparison tolerance (replacement for the Boolean flag "Ignore Border Deviation").
2. **Auto-Init Comparison Tolerance** – a new option to specify a proper comparison tolerance.

3. **PMI Comparison** - a number of enhancements in PMI comparison that focus on checking semantics have been implemented.
4. **Report**
   a. The reporting template has been improved for the assembly comparison case.
   b. Image quality has been improved.

MBDVidia

MBDVidia contains all enhancements mentioned in the general enhancements listed above and these new enhancements.

1. **QIF-Results Insertion with Automatic Alignment** – QIF results data can be inserted and aligned with MBD.
2. **PMI Semantization** - a number of extensions to support new cases.
3. **MBD Ready Check:**
   a. a number of enhancements in the core functionality
   b. new options
   c. new categories (e.g. "Not in a Saved View")
   d. manual repair (reconnect) of annotations.
4. **PMI Ballooning** - a new function to balloon all PMI entities (or a selected subset) clock-wise (within a saved view)
5. **Export BOC to Excel**
   a. Support of new templates have been added.
   b. Improved mechanism of saved view image embedding.
6. **Publish BOC to Net-Inspect (Web-Report)**
7. **Import Results from Net-Inspect**
8. **Control of Report Template Version** – check and show a message box to the user if the report template version is outdated.
9. **One Form for "Alignment" and "Mating"** - unification of "Alignment" and "Mating" operations within one new "Alignment" form.
10. **Bill of Characteristics:**
    a. Improved usability
    b. Manual re-ballooning has been added
    c. Improved report generation

3DTransVidia

3DTransVidia contains all enhancements mentioned in the general enhancements listed above.

1. **Repair Performance** - the performance of the verification and repair stages for models that contain patterns have been greatly improved.
2. **One Form for "Alignment" and "Mating"** - unification of "Alignment" and "Mating" operations within one new "Alignment" form.
3.

MBDVidia for PTC Creo

1. **Improved support of 2D/3D synchronization for Creo 4**.
2. **Synchronization of erased annotations has been added.**
3. **Export of Creo balloons has been added.**
4. **Extended diagnostic and logging capabilities.**

MBDVidia for Siemens NX

1. **Support of NX Balloons**.
2. **Support of Multi-Line Notes (Flat-to-Screen Annotation Included).**

ReverseVidia

ReverseVidia contains all enhancements mentioned in the general enhancements listed above.

FormatWorks

1. **Visualization of Annotation Balloons** – visualization of annotation balloons for imported models has been added.

Capvidia SDK (Software Development Kit)

Software Development Kit contains all enhancements mentioned in the general enhancements listed above.

Pundit 5.1

1. **Uniform sampling optimization** – ignore internal tangential edges (for multi-face features).
2. **Simulation Performance** - simulation performance has been improved.

About Capvidia

Capvidia (www.capvidia.com) is a global company operating through a network of offices in the USA, Europe and Asia. As a leading international software solution provider for the manufacturing industry, Capvidia offers products and related services focused in the following core areas: CAD Data Translation, CAD Validation, CAD Data Quality Assessment, MBE/MBD (Model Based Enterprise/Model Based Definition), and Computational Fluid Dynamics (CFD) Simulation and Optimization. For more information contact: info@capvidia.com.