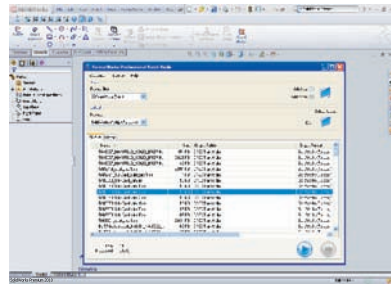


## Preview, Select, Translate

FormatWorks preview is especially useful for importing large models or complex assemblies. The imported part is first opened in a graphical preview window providing zoom, rotate and pan operations on the model. A project tree shows the entire model structure with direct access to each model entity. Select the model entities you want by picking them from the 3D model, using the project tree, or color based filtering. The selected parts are directly translated into SolidWorks leaving the rest behind. This allows you to translate only the information needed for your work, saving significant time and computer resources. Your models are light and easily manageable in SolidWorks.



Batch Mode Control Window

## Batch Translation

FormatWorks batch translation is designed to simplify and automate translation of large assemblies and multiple CAD data sets (e.g. large CATIA models). Batch translation is performed automatically. It is controlled from a single window allowing you to manage the translation process, monitor the progress, and analyze results. Batch translation is fully autonomous and will automatically recover in case of an unexpected error or crash. A report shows the translation results classified into the following categories: solid, non-solid and model with errors (specifying amount and type of error).

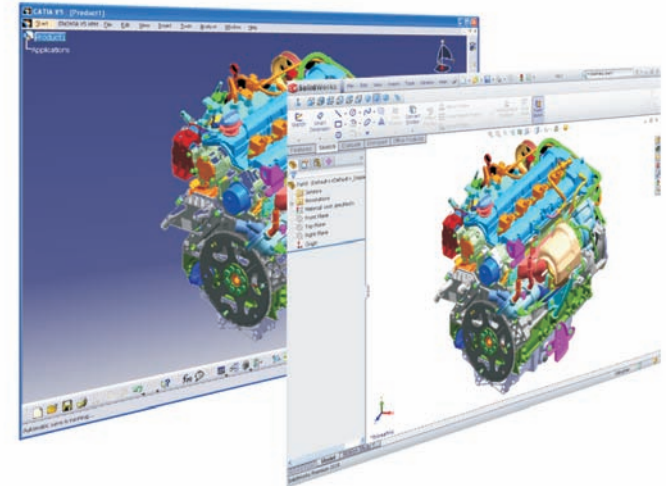
## Feature Translation

Complex CAD models imported through FormatWorks can be simplified into entities that are recognized as SolidWorks features. For example, a complex NURBS representation can be automatically converted to an analytical definition such as plane, cylinder, sphere, cone or SOR (Surface of Revolution). This significantly reduces the size of original CAD model and results in much higher success rate for automatic feature recognition. FormatWorks gives you the possibility to recognize more features automatically to make imported CAD models fully editable in SolidWorks.

# FORMATWORKS PROFESSIONAL

Proven in Automotive and  
Aerospace Industry for  
optimal work with imported  
CAD models in SolidWorks™

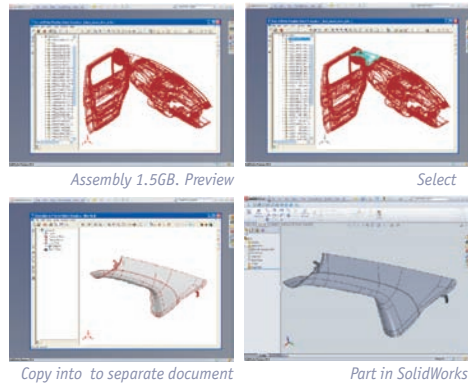
CATIA V5  
CATIA V4  
PRO/E  
UGS  
INVENTOR  
ACIS  
STEP  
IGES



## Data Translation Add-In for SolidWorks™

FormatWorks extends the SolidWorks data translation capability to support native CATIA V4 and V5 data as well as other formats. FormatWorks provides automatic, accurate and reliable bi-directional translation for SolidWorks.

Automatic repair and healing ensures that imported CAD models meet the criteria set by SolidWorks to form valid solids. Repair and healing are always performed within the model tolerance to ensure original model integrity and preventing model deformation.



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# FormatWorks

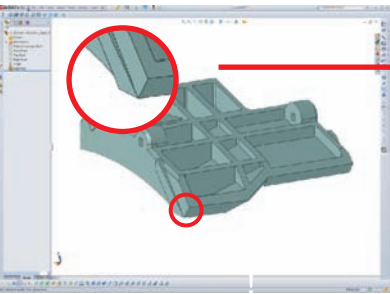
FormatWorks solves frustrating data incompatibility problems occurring during import of 3D models into SolidWorks such as: 1000+ surfaces that do not knit, model deformation, surface explosion. It seamlessly imports native data formats not supported in SolidWorks and performs necessary repairs to form valid and editable solid models.

## Data Formats

	Import	Export
CATIAV5 up to R21	+	+
CATIAV4 up to 4.2.4	+	+
ProE Wildfire 5.0	+	-
ProE Creo1.0	+	-
UGS, NX	+	-
Inventor	+	+
IGES	+	+
STEP A203/A214	+	+
ACIS	+	+
VDA-FS	+	+

## Automatic Repair

Automatic repair & healing is an integral part of the FormatWorks data translation process. FormatWorks identifies over 70 different errors and repairs them automatically using specialized proprietary algorithms. Geometry and topology definitions are verified and corrected so that the imported model can form a watertight solid in SolidWorks. This process is controlled and always performed within the model tolerance to ensure that the model is not deformed or altered from the original definition.



Direct import into SolidWorks

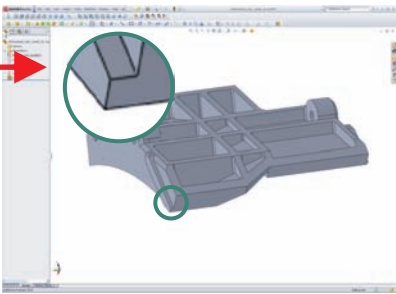
## Manual Repair

The manual repair process has never been simpler. FormatWorks provides an optimal workflow to correct errors that cannot be repaired automatically. The model is first analyzed and errors are classified into different types and grouped in the error tree.

Errors categories:

- Gaps
- Ledges
- Overlaps
- T-connections
- Open contours

FormatWorks gives you tools to isolate faulty entities and neighbors in a separate document. All manual operations are intuitive and easy to use. FormatWorks special functions such as: surface recreation, surface creation, surface merge, surface trimming, and surface splitting extend the SolidWorks tools allowing you to repair very complex geometry or topology errors. After the repair is completed, FormatWorks inserts the repaired entities back into the original model and automatically updates it.

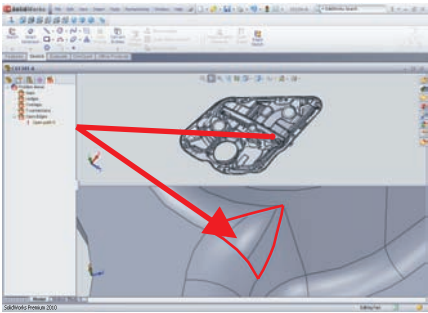


Import over FormatWorks

FormatWorks saves time and maximize your productivity

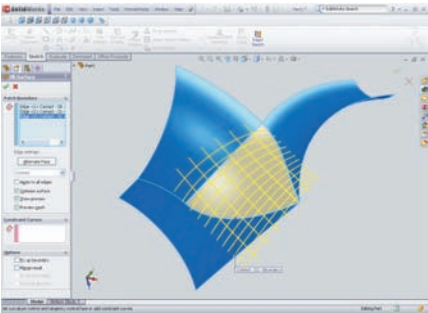
# Manual Repair Workflow

## 1 Error Classification



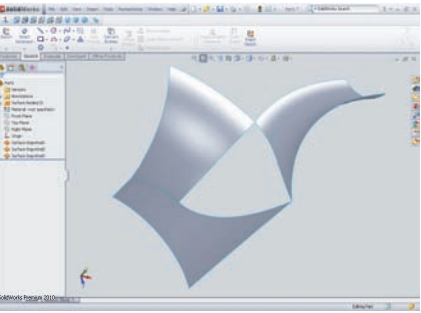
Error classified as an open contour

## 3 Repair



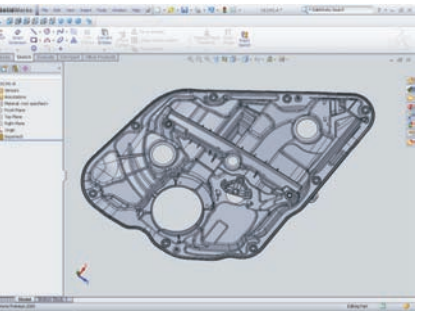
Repair

## 2 Export to separate document



Error extracted with neighbors into a separate document

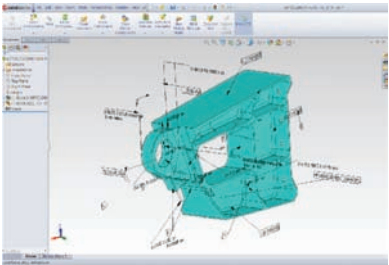
## 4 Update of original geometry



Original model updated with the repaired part

## MBD (Modal Based Definition) Support

The PMI (Product Manufacturing Information) stored together with 3D models native CAD models (CATIA V5, UGX and Pro/E) is now easily accessible for SolidWorks users. FormatWorks will import the 3D model together with all related annotations and dimensions providing essential manufacturing information about tolerances, finishing surface quality, and other manufacturing specific parameters. The PMI information is displayed directly on the imported into SolidWorks 3D model and can be stored together with the 3D CAD data in native SolidWorks file format.



PMI from CATIA V5 native file displayed directly on imported SolidWorks model