

xCompare V5/V5 1.12.x Quick Start Guide

This guide helps you getting started with comparing documents with xCompare V5/V5 and analyzing their differences.

Basics

xCompare recognizes differences between two CATPart, CATProduct, CATDrawing, or CGR documents.

The **reference document** is usually the “original”. xCompare checks the **compare document** for differences with respect to the reference document.

Technically, reference document and compare document are interchangeable, provided that they have the same file format. The different names can make it easier to distinguish the two documents while analyzing the results.

The **configuration** defines the rules by which elements of the two documents are mapped to each other, and by which aspects the models are compared.

Start xCompare in CATIA



In CATIA, click this button to open the xCompare main window.

Compare models

The screenshot shows the xCompare dialog box with the following fields and callouts:

- 1. Open the reference document or click a model window**: Points to the Reference document field.
- 2. Open the compare document or choose one from the list**: Points to the Compare document field and the 'From current session' dropdown.
- 3. Choose a configuration**: Points to the Configuration dropdown menu.
- 4. Run the comparison**: Points to the OK button.

Notes

- Different versions of the same document frequently have the same unique identifier (UUID) and cannot be loaded in CATIA at the same time. To compare such models, choose the compare document from within the xCompare main window. xCompare then creates a temporary copy of the model with a different UUID.
- To compare CATPart with CGR, always choose the CATPart as the reference document.

Analyze the results

The results are arranged by checks. Choose a check to display the elements compared with each other.

1. Choose a check

Check name	All	Checked	Different
Compare CRC	1	1	1
Compare Deleted	27	27	20
Compare Deleted med	6	6	0
Compare Product Components	5	5	4
Compare Transformation Matr...	5	5	4
Compare 3D Representation	1	1	1
Compare Activation Status	5	5	0
Compare Annotation Captures	0	0	0
Compare Annotation Datums	0	0	0
Compare Annotation Dimensi...	0	0	0
Compare Annotation Geometri...	0	0	0
Compare Annotation Graphic ...	0	0	0
Compare Annotation Notes	0	0	0

2. Choose an element pair

- Skeleton.1<=>Skeleton.1
- Piston.1<=>Piston.1
- Connecting_Rod.1<=>Connecting_Rod.1
- Pin.1<=>Pin.1
- Crank_Shaft.1<=>Crank_Shaft.1

Results for the selection

Check summary and pair results

Check summary

Check name: Compare Transformation Matrices
 Check status: Different
 Parameters:
 Transformation matrix to be compared:
 Comparison tolerance [mm]:

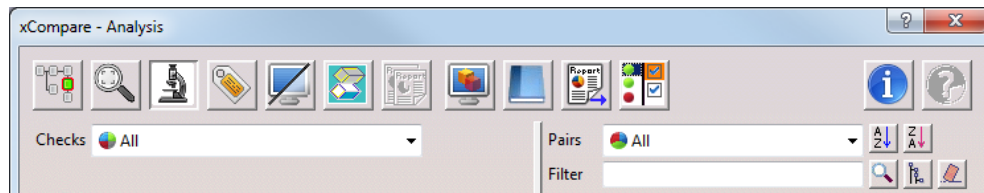
Pair results














Status: Different
 Summary: Reference and compare entities are different.
 Names: Pin.1 <=> Pin.1
 Addresses: 1028 <=> 1036
 Native types: ASMPRODUCT <=> ASMPRODUCT

OK

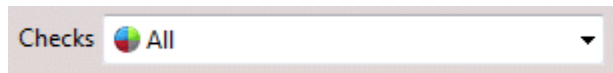
Analysis tools

Use the analysis tools in the analysis window to visualize the results in the reference or compare model window.

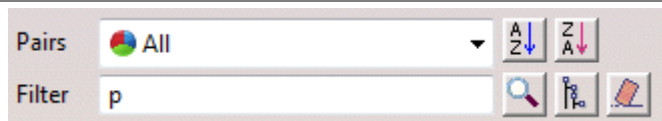


	Center graph onto the selection
	Zoom onto the selection
	Mark geometrical differences
	Create permanent marking elements. The marking elements are created inside a geometrical set.
	Ghosted display for the selection. Elements outside of the selection are displayed semi-transparent.
	Isolate the selection. Elements outside of the selection are hidden.
	Display results for the selected component of the CATProduct.
	Show settings for enhanced visualization. This icon is highlighted while enhanced visualization is activated.
	↗ Enhanced visualization
	Preview images for the HTML check report
	Create the HTML check report
	Select this button to arrange the results by element pairs Deselect this button to arrange the results by checks (default setting)
	Display general information (file paths, software version, ...)

Filter by result



Filter the checks by result (equal; different; general error during comparison; nothing to compare)

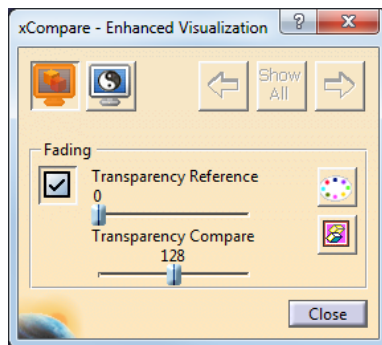


Filter element pairs by result, name, or element path.

Element path example:


Part1\\GeoSet\\Subset

Enhanced visualization

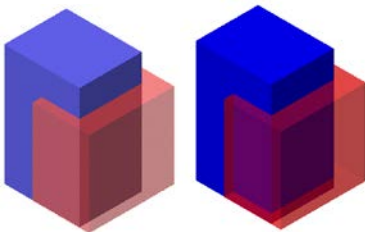


This dialog contains settings for enhanced visualization. Enhanced visualization remains enabled when you close this dialog.

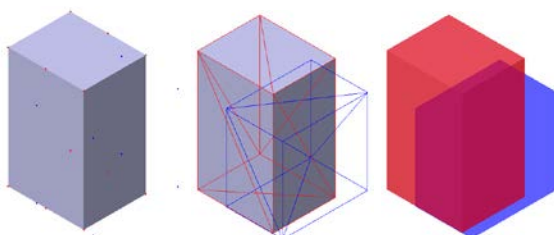
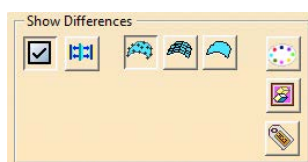
Enable/disable enhanced visualization.

 Overlay elements with differences.

 To display the elements with variable transparency, set the visualization in CATIA to "Shading with Material".

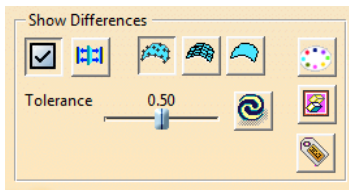


 Mark geometrical differences as points, triangular grid, or faces.

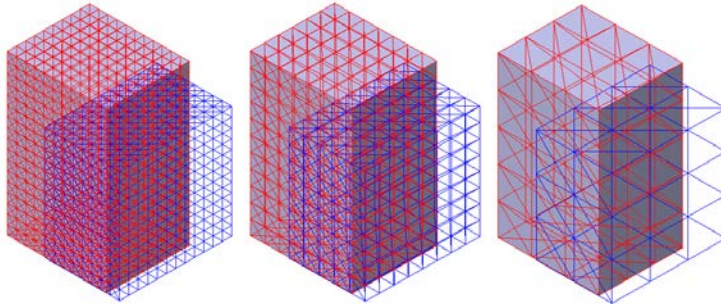




Mark geometrical differences as points, triangular grid, or faces
The density of compare points on the geometry can be adjusted.



High, medium, and low density of compare points:



Mark the previous/next difference in the element pair



Mark all differences in the element pair



Mark differences in all element pairs



Use points to mark differences



Use triangular grid to mark differences

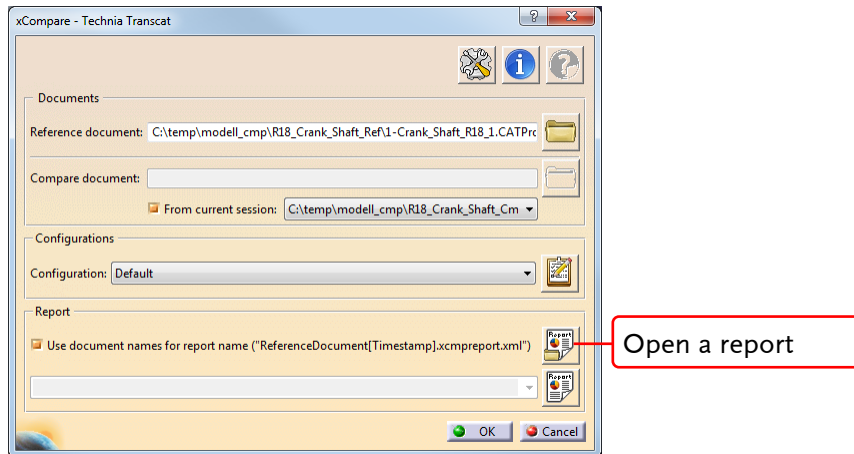


Use faces to mark differences

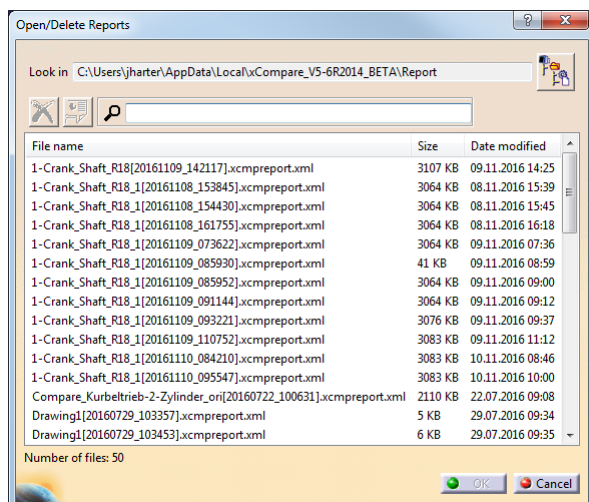
Open an existing report in the analysis window

Reports from earlier comparisons in interactive or batch mode can be loaded into xCompare again.

1st In the xCompare main window, click the “Open external report” button.

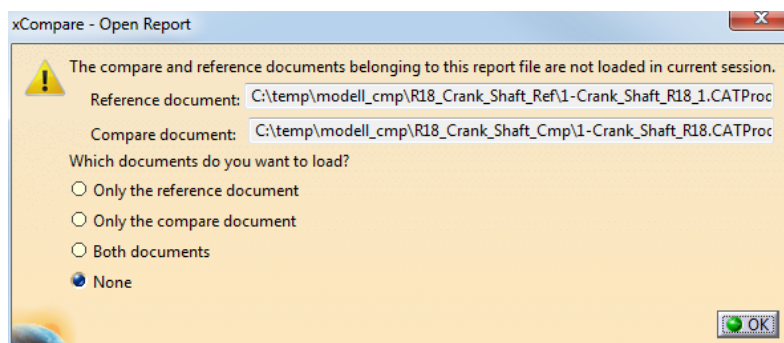


2nd Choose a report from the dialog.

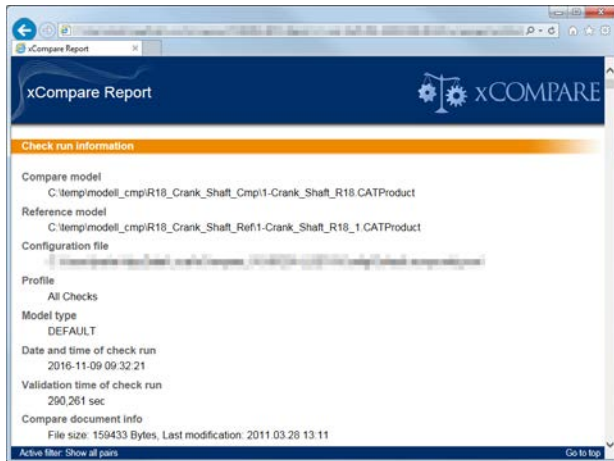


3rd Click “OK” to open the report in the analysis window.

If necessary, xCompare can open the respective documents in the CATIA session.



HTML reports



Reports in HTML format can be displayed in a web browser independently from xCompare.

To create a HTML report, click the “Generate HTML report” button in the analysis window.



xCompare can also be configured to create HTML reports automatically.

Complete documentation

You can find the xCompare V5/V5 user manual within the installation directory at doc\EN\xcompare.pdf.