



***Q-Checker V5 2.17.1***  
***What's new***

***TRANSCAT***  
A DASSAULT SYSTEMES COMPANY



# Q-Checker V5 2.17.1

## Overview

- 107 improvements have been made overall
- This "*What's new*" describes the major changes:
  - ✚ Improvements
  - ✚ New Criteria
    - ↳ *Norms and Standards*
    - ↳ *Methodology*
  - ✚ New features in existing criteria
  - ✚ Fixes
    - ↳ *General*
    - ↳ *In Criteria*

# Q-Checker V5 2.17.1

## Improvements

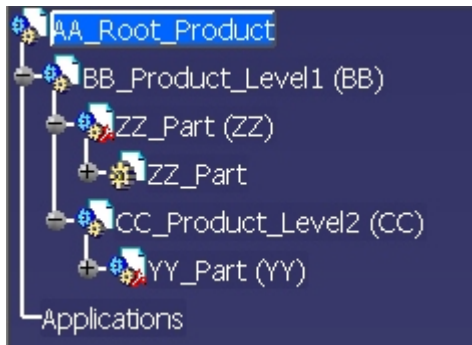
### Product component selection and Batch from interactive session

👤 Documents are now checked in the following order:

1. CATPart / CATShape
2. CATProduct
3. all other documents

👤 Note: In "Product component selection" in addition **sub**-products are checked before the **root**-product

Product with Components in **CATIA**



Order of checked models in **Product Component Selection**

Checked Models		
Assessment	Healed	Part Number
OK	No	ZZ_Part
OK	No	YY_Part
OK	No	CC_Product_Level2
OK	No	BB_Product_Level1
OK	No	AA_Root_Product

Order of checked models in **Batch from interactive session**

No.	Modelname	Return
<a href="#">1</a>	<a href="#">ZZ.CATPart</a>	0
<a href="#">2</a>	<a href="#">YY.CATPart</a>	0
<a href="#">3</a>	<a href="#">AA.CATProduct</a>	0
<a href="#">4</a>	<a href="#">BB.CATProduct</a>	0
<a href="#">5</a>	<a href="#">CC.CATProduct</a>	0

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## Improvements

### External check seal

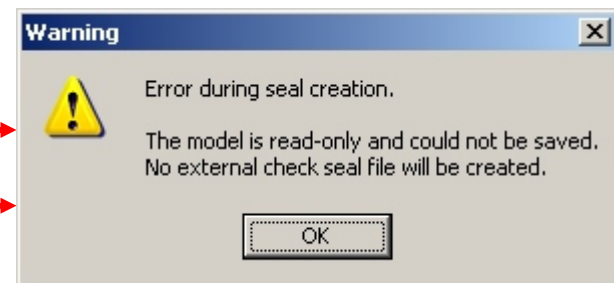
✎ Is not created any more for **"Modified Read Only"** models

✎ **Background:** For the external check seal the CHECKSUM\_DOCUMENT is calculated on the saved document. Thus for "Modified Read Only" models this checksum would be wrong.

Model with status **"Modified Read Only"** in CATIA Save Management

Q-Checker Warning to inform the user that the **external Check Seal is not created.**

State	Name	Location
Modified Read Only	AA.CATProduct	T:\dev-team\}
Open Read Only	BB.CATProduct	T:\dev-team\}
Open Read Only	CC.CATProduct	T:\dev-team\}
Modified Read Only	ZZ.CATPart	T:\dev-team\}
Open Read Only	YY.CATPart	T:\dev-team\}



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## Improvements

### Show filter (in the Analysis window)

👤 New filter added: "Not Called"

👤 Can now be **customized** for the **CATIA** style QC. You can define:

👤 **which** filter should be displayed

👤 the **order** in which the filter should be displayed

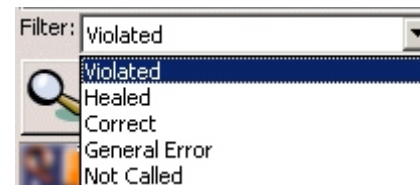
The customization is done in the **QCHECKER.par** with the new keyword:

**qchecker.ALLOWED\_SHOW\_FILTER Filter**

### Example: QCHECKER.par

```
qchecker.ALLOWED_SHOW_FILTER VIOLATED
qchecker.ALLOWED_SHOW_FILTER HEALED
qchecker.ALLOWED_SHOW_FILTER CORRECT
qchecker.ALLOWED_SHOW_FILTER GENERAL_ERROR
qchecker.ALLOWED_SHOW_FILTER NOT_CALLED
```

### Q-Checker Analysis window

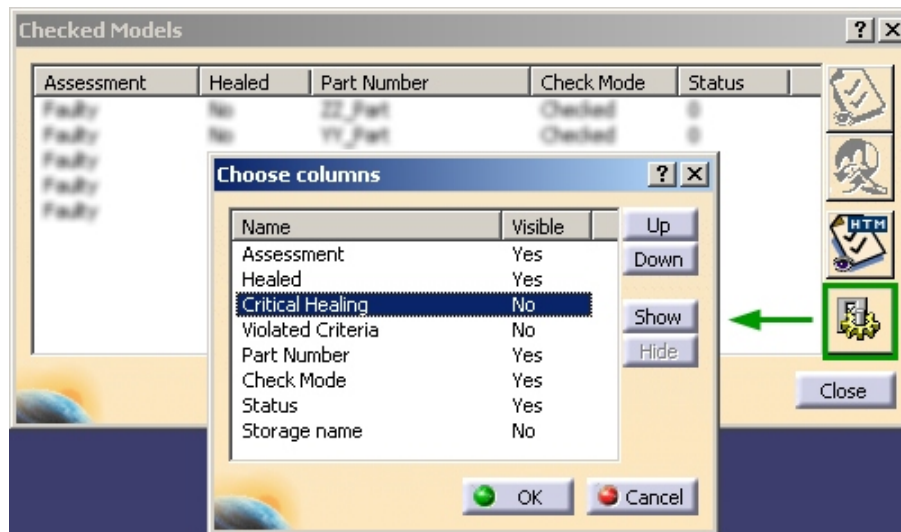


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## Improvements

### Checked-Models window (1):

- 👤 New column added: **Critical Healing**  
**Background:** A healing is called "critical" if in the criterion the following option is active:  
"Healing may affect model assessment"
- 👤 Columns can now be **customized**. You can define:
  - 👤 **which** columns should be displayed
  - 👤 the **order** in which the columns should be displayed



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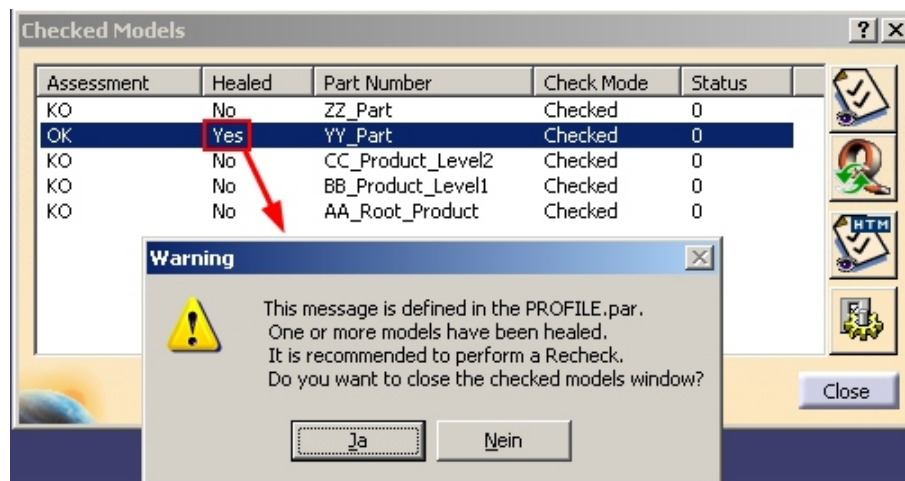
## Improvements

### Checked-Models window (2):

- In case model(s) have been healed an error message can be displayed
- If the error should be displayed is defined in the QCHECKER.par with the following keywords

```
qchecker.SHOW_MSG_SESSION_HEALED YES
qchecker.SHOW_MSG_SESSION_HEALED_CRITICAL YES
```
- The error message which is displayed is defined in the PROFILE.par

```
qchecker.SESSION_HEALED_MSG
```
- The User can disable the display of the message in the User Settings



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## Improvements

### Modeltype configurator:

 New function added: **"Model Type Group"**

 If the Model Type Group is used:

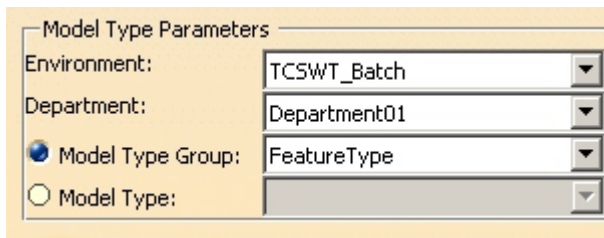
 the **user selects** only the **"Department"**

 the **"Model Type" is selected by a syntax** known from the MODEL.type

 "Department" and "Model Type" are **set for ALL selected documents**

 **Note:** The Model Type Group is **available only for documents loaded in CATIA**

Model Type Group in Modeltype configurator:



Model Type Parameters	
Environment:	TCSWT_Batch
Department:	Department01
<input checked="" type="radio"/> Model Type Group:	FeatureType
<input type="radio"/> Model Type:	

Example Syntax in DepartmentModelType.xml:

```
<Department name="Department_01">
  <ModelTypeGroup name="FeatureType" >
    BEGIN_MODELTYPE Test-1 "Test-1"
      BEGIN_FEATURE_ID
        FEATURE_TYPE "Product"
        FEATURE_IDENTIFIER "CC"
      END_FEATURE_ID
    END_MODELTYPE

    BEGIN_MODELTYPE Test-2 "Test-2"
      ...
    END_MODELTYPE
  </ModelTypeGroup>
</Department>
```

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## Improvements

### MODEL.type:

#### 👤 New keywords added:

```
BEGIN_FEATURE_ID
    FEATURE_TYPE           "string"
    FEATURE_CAATYPE        "string"
    FEATURE_IDENTIFIER      "regular expression"
    FEATURE_PATHNAME        "regular expression"
END_FEATURE_ID
```

### Multiselection:

#### 👤 New keywords added:

```
MODEL_PROPERTY ( "name" )
COMPONENT_PROPERTY ( "name" )
```

👉 Name: PartNumber, Revision, DefiSource, DescriptionRef, ...

👉 *Example:* MODEL\_PROPERTY( "DescriptionRef" ) = "EH\_13390\_SF"

### User function in qcheckerV5 script:

#### 👤 New keyword added:

```
Modelcounter (11)
```

👉 Returns the current number and the total number of interactive checked model

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## Improvements

### Profile "Options"

- ✚ The following options can now set **"Model-Type Dependent"**
  - ↳ "Initialize electrical environment for all electrical components"
  - ↳ "Consider all FT/A elements independently of Annotation-Set state"

### Check seal

- ✚ The value `timezone` added
  - ↳ `<CHECKING_TIMEZONE> 'UTC+02:00' </CHECKING_TIMEZONE>`
  - ↳ This is important in case the creation and validation of check seal is done in different time zones

### New feature type added:

- ✚ Process feature type "ToolChange"
  - ↳ CAA Type: ToolChange

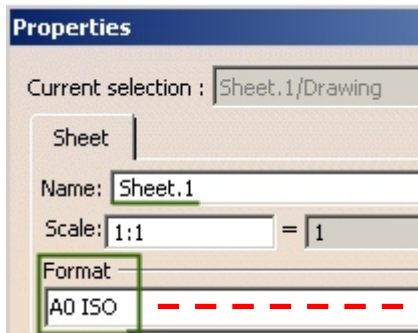
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**New Criteria** > Norms and Standards > Texts

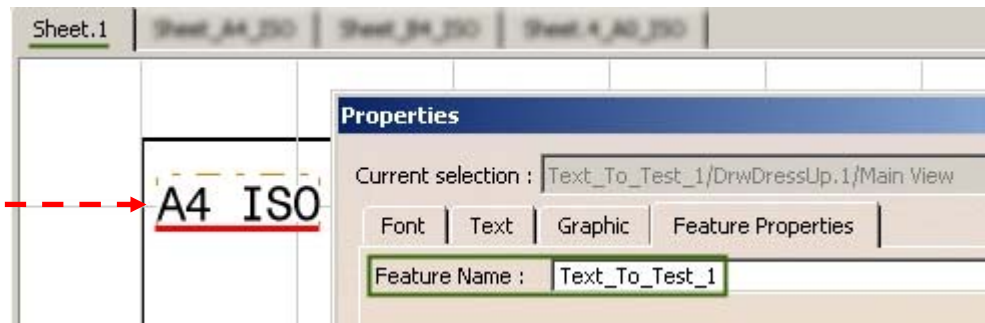
➤ New criterion: **"Text Content Must Match Sheet Format"**

- 👤 Checks whether the **content of text elements match the format of the sheet** on which the text element is located.
  - 👉 The text element(s) to be checked can be defined
  - 👉 How sheet format and text content should match is defined in a Regular Expression

The **Format** of "Sheet.1" is **"A0 ISO"**



The **content of the text element "Text\_To\_Test\_1"** (on "Sheet.1") is **"A4 ISO"**



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**New Criteria** > Methodology > Product

## ➤ New criterion: "**Non-Allowed Positioning Matrix**"

- 👤 Checks whether the translation vector and/or rotation matrix of product components have non-allowed entries.
  - 🔗 For every parameter a minimum and a maximum value can be defined

### Example:

Part1 has been translated and rotated by the product constrain "Fix".

For comparison only: For Part2 no translation and rotation has been applied.

The screenshot displays the software interface. On the left, a tree view shows the product structure: Product1, Part1 (Part1.1), Part1, Part2 (Part2.1), Constraints, and Applications. The 'Fix.1 (Part1.1)' constraint is highlighted. To the right, a 3D model shows Part1 (Part1.1) with a red anchor icon, indicating it is fixed. Below the model, a 2D grid is visible. On the right side, the 'Constraint Definition' panel is open, showing the following settings:

Parameter	Value	Unit
X	20mm	mm
Y	20mm	mm
Z	20mm	mm
RotX	45deg	deg
RotY	0deg	deg
RotZ	45deg	deg

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**New Criteria** > Methodology > Product

## New criterion: "Product Component Seal"

- 👤 Checks whether each component of a product has a check seal in the root-feature attribute
  - 🔗 *In addition allowed check profile(s) and assessemnt(s) can be defined*

**Tip:** You can use the check seal viewer to see which product component contains a check seal in root feature attribute. There you see also the Assessment and the (Check) Profile.

The screenshot shows the 'Q-Checker Check-Seal Viewer' window. It has a 'Filters' section with radio buttons for 'Root model, only', 'Only active component', 'All models' (selected), and 'Selection via regular expression:'. There are 'Options' and 'Tools' sections with icons. Below is a table with columns '#', 'Name', 'Assessment', and 'Profil'. Red arrows and text highlight specific rows: 'Non-allowed assessment' points to row 5, and 'Non-allowed profile' points to row 4.

#	Name	Assessment	Profil
1	AA_Root_Product	'KO'	'ADMIN / Allowed Profile'
2	BB_Product_Level1 (BB)	'OK'	'ADMIN / Allowed Profile'
3	ZZ_Part (ZZ)	'KO'	'ADMIN / Non-Allowed Profile'
4	CC_Product_Level2 (CC)	'OK'	'ADMIN / Non-Allowed Profile'
5	YY_Part (YY)	<Unset>	<Unset>

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## New features in existing criteria

### Criterion: "Ply and Core Definition"

👤 Old Name "**Ply Definition**"

👤 Additional feature type is checked: "**CompCore**".

👤 Additional column added: "**Direction name**"

👤 The allowed "Direction Name" can be defined with a Regular Expression

👤 The direction name is checked for valid directions only

👤 New parameter added:

**"Plies and cores to be checked" = Structural / non-Structural**

👤 Plies and Cores are "Non-Structural" if in the Plies Group the option "For non structural plies" is enabled

👤 New parameter added: "**Rosette name must match correspondent plies group rosette name**"



👤 To check the name of the rosette used for a ply or core definition matches the name of the rosette of the corresponding ply group

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## New features in existing criteria

### Criterion: "Conditional Feature Properties"

#### New option added: "Check also part components"

-  Thus it is possible to check features inside of part components during the product check
-  The violated part elements can NOT be zoomed and highlighted from the analysis window

#### Existing keywords enlarged:

-  MODEL\_PROPERTY ( "name" )
-  COMPONENT\_PROPERTY ( "name" )
-  The following "names" have been added: "InstanceName", "DescriptionInst", "ActivateBOM"

### Criterion: "CATDUAV5 "

#### New option added "In case of Enovia V5 model: Ignore specific selected rules:"

-  **Background:** Enovia V5 do not support all CATDUA rule. Not ignoring that rules cause problems

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## New features in existing criteria

- Criterion: **"Allowed Dimension Unit"**
  - 👤 Old name: **"Allowed FT/A Dimension Unit"**
  - 👤 Now also **Drawings** can be checked
  - 👤 New parameter added: **"Check also dual value (if activated)"**
  
- Criterion: **"2D-Component Text Must Match Sheet Property"**
  - 👤 Old name: **"2D-Component Text Must Match Sheet Name"**
  - 👤 New parameter added: **"Property to compare"**
    - 👤 Available properties: **"Sheet name", "Sheet format"**
  
- Criterion: **"Non-Allowed Machining Tool Name/Number"**
  - 👤 Old name: **"Non-Allowed Machining Operation Tool Name"**
  - 👤 New parameter added: **"Tool Number", "Tool Assembly Number"**
    - 👤 To check if a tool is at the correct position in the (correct) tool changer
  
- Criterion: **"Non-Allowed Deactivated Elements in Sketch"**
  - 👤 Old name: **"Non-Allowed Deactivated Constraints in Sketch"**
  - 👤 New parameter added: **"Element types to be check"**
    - 👤 Available types: **"Projection", "Offset", "Silhouette", "Intersection", "Constraint"**

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## New features in existing criteria

- Criterion: **"Permitted Text Fonts"**
  - 👤 Additional feature type is checked: **"FT&A feature"**
- Criterion: **"Allowed Solid Features "**
  - 👤 Additional feature types are checked: **"UdfFeature"**  
**"SheetMetalFeature"**
- Criterion: **"Instance Name Must Match Part Number"**
  - 👤 Additional feature types are checked: **"Structure component"**  
**"Shape component"**
- Criterion: **"Step Edge on Boundary of Shell"**
  - 👤 New parameter added: **"Length greater than"**
    - 👤 To define the minimum length of the edges to be checked

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## New features in existing criteria

- Criterion: **"Non-Allowed Sketch Positioning Type"**
  - 👤 New parameter added: **"Not allowed definition 'Implicit' for": Origin and/or Orientation**
    - 👉 CATIA V5 R21 SP2 or higher is required to use this check parameter
  
- Criterion: **"Current Work Object"**
  - 👤 New option added: **"Further allowed elements" :**
    - 👉 Last element of selected bodies
    - 👉 Last element of an OpenBody
    - 👉 Last element of an OrderedGeometricalSet
    - 👉 Last element of a HybridBody
    - 👉 Background: In this way a configuration as in QC 2.8.1 is possible
  
- Criteria: **"Existence and Text Content of Parameters in Part", " ... in Drawing", " ... in Product "**
  - 👤 New keyword added: **"HEALING ( VALUE = "xxx" )"**
    - 👉 To set the required value of parameter
    - 👉 **Note:** The parameter-type must allow the healing

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## Fixes > General

- **Q-Checker memory management has been improved**
  - 👤 Now (almost) all memory is released **when closing the checked document**
- **Highlighting / zooming of violated elements in drawings**
  - 👤 Now **the originally active situation is restored** before:
    - closing the analysis window
    - performing a recheck / last-modifications check
      - 👤 The healing in "Active Sheet" is take into account
      - 👤 **Background:** For highlighting and zooming of drawing elements the corresponding sheets and views are activated temporarily
- **Buttons to run an interactive check are disabled in case**
  - 👤 **NO document** has been loaded in CATIA
  - 👤 Q-Checker has been launched from **CATIA desk window**
- **Deactivated product components**
  - 👤 Are now checked correctly

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## Fixes > General

### External Analysis Viewer

- 👤 The **automatic connection** between CATIA and the External Analysis Viewer has been improved

### Batch Settings window

- 👤 If the option "**Current Session**" is active
  - 👤 **Enovia VPM models** can NOT be selected anymore
  - 👤 In specific case not all CATParts were displayed

### VPM models without access rights

- 👤 Handling in batch has been improved
  - 👤 Now the following models are checked
  - 👤 **Note:** The models itself can NOT be checked

### Q-Checker check-run via CATscript

- 👤 Works now also correctly for electrical documents

# Q-Checker V5 2.17.1

## Fixes > General

### Check Seal in Document Description

- ✚ The **line-end-character** has been adapted to CATIA needs
  - ↳ Now line-end-characters are not changed by CATIA any more

### Recheck and last-modifications check

- ✚ Now handle criteria with **"Interrupt Condition"** correctly

### Last-modifications check

- ✚ **After healing "Activate"** in criterion **"Deactivated Feature"**
  - ↳ Healed feature do NOT cause a General Error in geometry criteria any more
- ✚ **After healing "Correct Parameters"** in criterion **"Parameter Must Exist and Content Must Match Root-Feature Name"**
  - ↳ Healed feature are not longer marked as faulty

### Planes created with the function **"Symmetry"**

- ✚ Have now the **feature type "Plane"**

# Q-Checker V5 2.17.1

## Fixes > General

- **Commandline Batch, Option "\*ALL YES"**
  - 👤 Folder with names like CATPart, CATProduct, ... are now ignored
- **Q-Checker Batch Output HTML file**
  - 👤 The relative path to report-html-files work now also with IE6
  - 👤 Design is identical after batch without and with "Master Process"
- **Modeltype configurator**
  - 👤 Now writes its usr-file correctly also on UNIX
    - 👤 An incorrect usr-file could led to an abort
- **Geometrical Healing**
  - 👤 Is now available **after a recheck has been performed**
    - 👤 Thus Q-Doctor can be used also after loading a report
  - 👤 All "**healing feature**" have now **the same feature type as the input feature**

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## Fixes > In Criteria

- Criterion: **"Material Corresponds to Material Reference Catalog"**
  - 👤 Catalogs specified in criterion but **not available** are now ignored
    - ↳ Thus they do NOT cause General Errors any more
- Criterion: **"Sketch Not Fully Constrained"**
  - 👤 Options have been improved:
    - ↳ "Check also associated geometry entities"
    - ↳ "Check all construction entities"
- Criterion: **"Instance Name Must Match Part Number"**
  - 👤 Option works now correctly:
    - ↳ "Continuous order for components with identical part number"
- Criterion: **"Non-Allowed Input Reference to Vertex / Edge / Face"**
  - 👤 **Self computed topologies** are now handled correctly

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## Fixes > In Criteria

- Criterion: "**Non-Allowed B-Rep/Feature Color**"
  - 👤 **Inverse of Planes** are not checked no more
  - 👤 Error message has been improved
- Criterion: "**Assembly Constraints Must Reference Published Elements**"
  - 👤 **Handling of V4-models in Product has been changed**
    - 👤 **Assembly Constrains referencing on publications in a V4-model** can not be read and are now marked with a **General Error**
- Criterion: "**Thin Part Orientation corresponds to Surface Orientation**"
  - 👤 All surfaces are handled correctly again
- Criterion: "**Plugins**"
  - 👤 **Healing** (during the check run) works correctly again
  - 👤 QCHECKER.par variable works now also on **UNIX**:
    - 👤 `qchecker.PLUGIN_LOAD_PACKAGE`

# Q-Checker V5 2.17.1

## Fixes > In Criteria

- Criterion: **"No active Detail View in Detail Sheet"**
  - 🔧 Healing **"Set all view inactive"** works now correctly
- Criterion: **"Active Sheet"**
  - 🔧 Healing **"Activate sheet"** works now also for **Detail Sheets**
- Criterion: **"No active View in Sheet"**
  - 🔧 Healing works now also if the active sheet was changed between the check and the healing
- Criterion: **"Electrical Topology"**
  - 🔧 The **fine analysis** works now correctly **after loading a report**

***TRANSCAT***

**For more information, please contact us.**

**q-checker@transcat-plm.com**

**+49 721 / 97 0 43 - 100**

**www.transcat-plm.com**