



***Q-Checker V5 2.15.1***  
***What's new***

***TRANSCAT***  
A DASSAULT SYSTEMES COMPANY

# Q-Checker V5 2.15.1

## Overview

- 122 improvements have been made overall
- This **“What’s new”** describes the major changes:
  - ✚ Improvements
  - ✚ New Criteria
    - ✚ *Norms and Standards*
    - ✚ *Methodology*
    - ✚ *Geometry*
  - ✚ New features in existing criteria
  - ✚ Fixes
    - ✚ *General*
    - ✚ *In Criteria*

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## Improvements

- Model Type Configurator
  - Batch functionality has been added

Q-Checker Modeltyp-Configurator

Access: Current Session

Filter by document type: Product + Part/Shape + Drawing

Filter by name:   Case Sensitive

Model Type Parameters

Environment: TCSWT\_Batch

Department: TEST-02

Model Type: B

Settings

Preselect active model at start

Ask before overwrite existing Modeltype parameters

| # | Status | Department | Model Type | Name                | Path   | Comment |
|---|--------|------------|------------|---------------------|--------|---------|
| 1 | Set    | TEST-02    | B          | Product1.CATProduct | C:\tmp |         |
| 2 | Set    | TEST-02    | B          | Part1.CATPart       | C:\tmp |         |
| 3 | Set    | TEST-02    | B          | Product2.CATProduct | C:\tmp |         |
| 4 | Set    | TEST-02    | B          | Part2.CATPart       | C:\tmp |         |

Buttons: Set Erase Exit

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## Improvements

- Sub-product selection / Checked-Models window:
  - New column has been added to show the number of violated criteria -> **A**
  - New button has been added to write the content of the window into a html file -> **B**
    - If the button is checked after closing the window a file with the name PrdSelection\_YYYY-MM-DD\_HH-mm-ss.html is written into the report directory and opened in the browser.

| Assessment | Violated Criteria | Part Number | Check Mode | Status | Storage name               |
|------------|-------------------|-------------|------------|--------|----------------------------|
| OK         | 0                 | Product1    | Checked    | 0      | C:\tmp\Product1.CATProduct |
| KO         | 3                 | Part1       | Checked    | 0      | C:\tmp\Part1.CATPart       |
| OK         | 0                 | Product2    | Checked    | 0      | C:\tmp\Product2.CATProduct |
| Faulty     | 2                 | Part2       | Checked    | 0      | C:\tmp\Part2.CATPart       |
| Faulty     | 2                 | Part3       | Checked    | 0      | C:\tmp\Part3.CATPart       |

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## Improvements

- Partially support for simplified Chinese and Japanese in the CAA interface
  - Prerequisite: The current CATIA language must support the selected language

Q-Checker Start window in Japanese,



in simplified Chinese



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## Improvements

### Q-Checker reports:

👤 The value timezone has been added

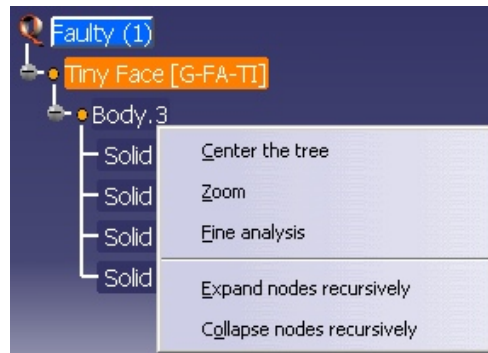
🔗 *\*.qcreport:* <Check-Date-Time Date="2011-03-04" Time="11:31:00" Timezone="UTC+01:00"/>

🔗 *\*.txt, \*.html:* Date of check | 2011-03-04 11:31:00 UTC+01:00

🔗 *(db)\*.xml:* <CHECKING\_TIMEZONE> 'UTC+01:00' </CHECKING\_TIMEZONE>

### QC analysis window:

👤 Context menu has been added



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## Improvements

### ➤ Possibility to use criteria only as precondition:

👤 A new flag is available in all criteria: "Use only as precondition criterion (result will not affect the assessment)"

👉 *If the flag is set:*

- *The assessment of the criterion has no effect on the model assessment*
- *The criterion is shown only if the show-filter is set to "Precondition"*

👤 Analysis window: new show-filter "Precondition" added

### ➤ The handling of plugins has been improved:

👤 Among others:

- 👉 *The update status of the "Rulebase" is not longer relevant*
- 👉 *Necessary extended language library packages can be loaded by Q-Checker if they are defined in the QCHECKER.par*

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## Improvements

### • New Types added

- 👤 Drawing feature type "DrwTable"
- 👤 FT&A feature type "FT&A\_Noa"
- 👤 FT&A feature type "FT&A\_CoordDimension"

### • Geometry criteria ignore ignore empty domains

- 👤 See also **New criterion: "Empty Domains"** on page 14

### • MODEL.type

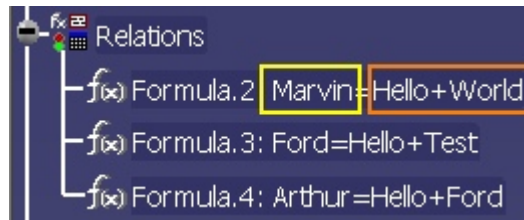
- 👤 New keyword PARTNUMBER has been added
  - 👤 *The keyword works for CATPart and CATProduct documents*
- 👤 The keyword USER\_PARAMETER works now also for CATProduct documents

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

- New criterion: **"Formula Must Exist"**
  - 👤 Checks whether the model contains formula(s) (parameter name and value) that matches the specification in the criterion

Formals in a CATPart



Check definition in Q-Checker

| Required formula string |                         |
|-------------------------|-------------------------|
| Left string (Reg. Ex.)  | Right string (Reg. Ex.) |
| ^Marvin\$               | ^Hello\+World\$         |
| ^Ford\$                 | ^Hello\+[A-Za-z]{6}\$   |
| ^Arthur\$               | ^[A-Za-z]{5}\+Ford\$    |

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**New Criteria** > Norms and Standards > Material

- New criterion: **"User-Defined Property Value Must Match Material in Catalog"**

- 👤 Checks whether materials specified in the user-defined properties of a model are available in specified material catalog(s).

User defined property "Material" in  
Part Properties > Product

|                            |  |
|----------------------------|--|
| Product                    |  |
| Part Number                | N+5 _ User-Defined Property Value Must Match Material in Catalog _ 1 |
| Revision                   |  |
| Definition                 |  |
| Nomenclature               |  |
| Source                     | Unknown  |
| Description                |  |
| Product: Added Properties  |  |
| Material                   | Aluminium  |
| Define other properties... |  |

Material Catalog and Material

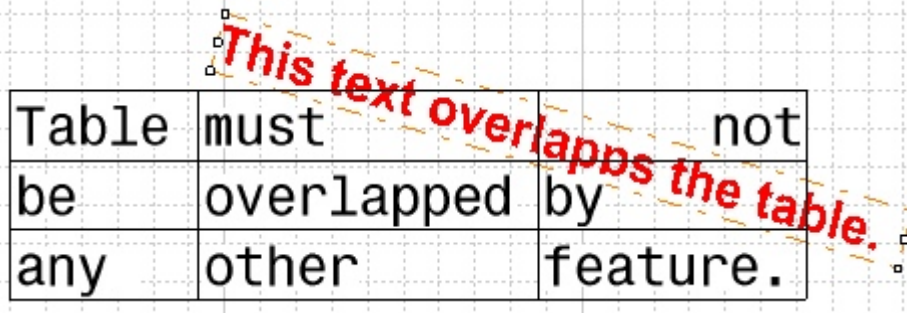


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*New Criteria* > Norms and Standards > Elements > Drawings

- New criterion: **"Non-Allowed overlapping feature"**
  - 👤 Checks if the bounding box of specified drawing elements are overlapped by other features.

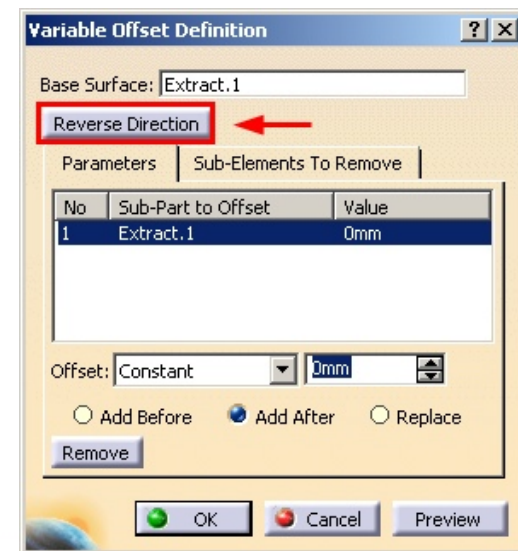
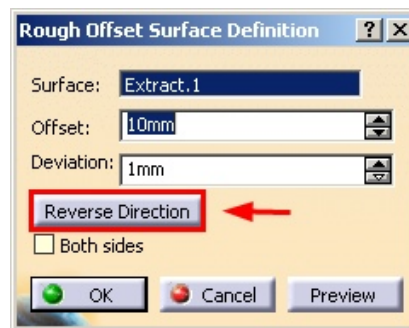
Drawing Table overlapped by a Text.



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*New Criteria* > Methodology > Part

- New criterion: "**Non-Allowed Direction of Offset Surface Feature**"
  - Checks whether **Reverse Direction** has been used in the definition of an Offset.

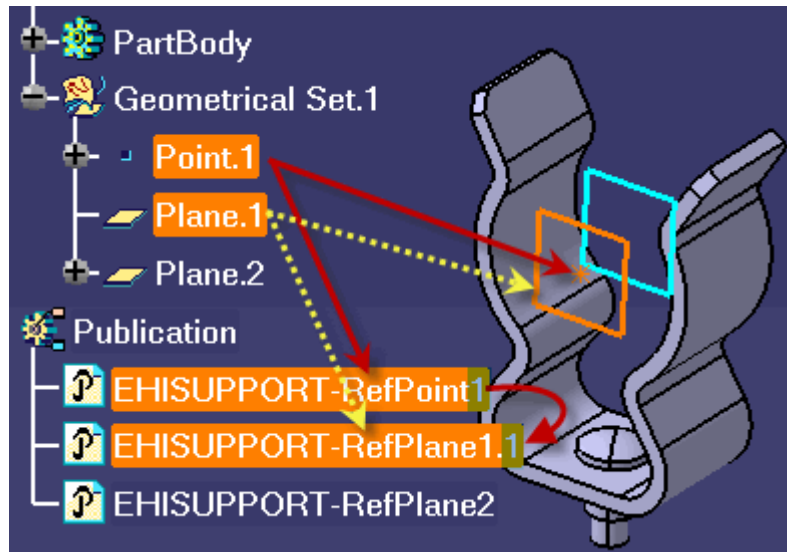


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*New Criteria* > Methodology > Equipment > Electrics

## • New criterion: "Electrical Support Points Must Lie on Electrical Support Planes"

👤 Checks whether points with published names **EHISUPPORT-RefPointx** are situated on published planes with corresponding published names **EHISUPPORT-RefPlane1.x**



All three conditions are fulfilled:

- Point.1 is published as EHISUPPORT-RefPoint1
- Plane1 is published as EHISUPPORT-RefPlane1.1
- Point.1 lies on Plane.1

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**New Criteria** > Geometry > Solid/Surface Features > General

**New criterion: "Empty Domains"**

👤 Checks whether a topology contains empty domains.

Volume.6 has 0 cells = the domain is empty

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## New features in existing criteria

- Criterion: "**Non-Allowed CATIA Version and Release**"
  - 🔗 New parameter has been added: "Ignore documents created with CATIA earlier than V5R10".
- Criterion: "**Product/Part update**"
  - 🔗 New parameter has been added: "Check also measure features".
- Criterion: "**Element Name**"
  - 🔗 The parameter "Check only renamed elements" has been replaced by "Check only = renamed elements/not renamed elements"
- Criterion: "**Drawing Picture Properties**"
  - 🔗 New parameters have been added: "Pixel size of picture" and "Size of picture".
    - 🔗 *To check the pixel size of the original picture and/or the size of the scaled picture in the current unit*

# Q-Checker V5 2.15.1

## New features in existing criteria

- Criterion: **"View not linked to CATPart/CATProduct"**
  - 👤 New list field has been added: "Ignore views which contain only these components"
    - 👉 *View will not be checked if it contains only components of the selected types*
- Criteria: **"Structure of Part Specification Tree"**  
**"Structure of Product Specification Tree"**
  - 👤 Now also a XML-file can be used as reference
  - 👤 New toolbar-icon: Convert Spec Tree to XML
    - 👉 *To convert an existing reference-Part/Product into a reference-XML-file*
- Criterion: **"Structure of Part Specification Tree"**
  - 👤 New healing button has been added: "Create missing bodies"
    - 👉 *Missing bodies are added to the specification tree of the checked model, as specified by the reference model*

# Q-Checker V5 2.15.1

## New features in existing criteria

- Criterion: **"Product Clash Detection"**
  - 👤 New parameter has been added: "Part components loaded in visualization mode"
    - 👉 *Options: "Load documents in Background", "Mark component as failed", "Ignore component"*
  
- Criterion: **"View Name Must Match Capture Name"**
  - 👤 New parameter has been added: "Mark the views not used in any capture"
    - 👉 *To mark views as incorrect if they are not referenced by any capture*
  
- Criterion: **"Non-Tangent Faces (G1 Discontinuity) [G-SH-NT]"**
  - 👤 New parameter has been added: "Check maximum normal deviation along the common edge"
    - 👉 *The new parameter allows the selection of one of two different G1 continuity definitions*

# Q-Checker V5 2.15.1

## New features in existing criteria

- Criterion: "**Degree of Freedom of Product Components**"
  - 👤 Old name "**Degree of Freedom of Product Components Equals Zero**"
  - 👤 New parameter has been added: "Allowed number of degrees of freedom"
    - 👉 *The min. and max. allowed number of degrees of freedom can be specified*
- Criterion: "**Geometry Linked to FT/A** "
  - 👤 Old name "**Geometry Linked To FT/A In NOSHOW**"
  - 👤 New parameter has been added: "and Geometry must be in SHOW"
    - 👉 *Activate this setting if geometry elements linked to FT/A elements must have the visibility state "SHOW"*
- Criterion: "**Edge/Variable-Radius/Chordal Fillets Definition**"
  - 👤 Old name "**Edge Fillet/Variable Radius Fillet Definition**"

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## Fixes > General

- **Axis systems created by mirroring:**
  - 👤 Have now the type "AxisSystem"
- **Layer number of electrical bundle segments**
  - 👤 Is now handled correctly
- **Elements with the CAA Type "2DOutput"**
  - 👤 The path is now displayed correctly in the analysis window
- **Model assessment "Express as a percentage"**
  - 👤 A error in the calculation has been fixed
- **Self-calculated topologies<sup>\*)</sup>**
  - 👤 Are again checked by all Geometry Criteria
  - <sup>\*)</sup> Topologies calculated by the criterion „Calculation of Shells / Volumes [G-SH-xx]"

# Q-Checker V5 2.15.1

## Fixes > General

- **Handling of special characters in path names has been improved for:**
  - 👤 Reading / writing reports
  - 👤 User function within the qcheckerV5.vbs
- **Check seal validation:**
  - 👤 Timestamp of CATDrawings checked on 64bit platforms works now correctly
- **Check seal comment:**
  - 👤 Handling in case of missing end tap has been improved
    - 👤 *The corrupted seal is ignored and a new seal is added*
- **Batch settings window > Selection:**
  - 👤 CGR-files are still displayed but can not longer be selected

# Q-Checker V5 2.15.1

## Fixes > In Criteria

- Criterion: "**Tiny Drawing Element [G-DW-TI]**"
  - 👤 In some special cases Q-Checker could cause an abort, when the curve length could not be calculated
    - 👤 *Now a general error is created*
- Criterion: "**Embedded Drawing Element [G-DW-EM]**"
  - 👤 Elements of type DrwGeneratedCircle are now checked
- Criterion: "**Unresolved Features**"
  - 👤 Composite features are now checked correctly
- Criterion: "**Ply Surface Must Match PlyGroup Surface**"
  - 👤 Cores below the PlyGroup do not lead to an General Error any more

# Q-Checker V5 2.15.1

## Fixes > In Criteria

- Criterion: **"Electrical Topology"**
  - 👤 In some cases connected segments have been erroneously marked
- Criterion: **"Non-Allowed MML (Multi-Model-Link) in Product-Context"**
  - 👤 The spelling of the keywords were wrong for the parameter "Ignored link types" in German and French language
- Criterion: **"Instance Name Must Match Part Number"**
  - 👤 If the parameter "Part components loaded in visualization mode:" is set to "Mark component as failed" to many components were marked as error

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