



Q-Checker V5 2.13.1
What's new

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Q-Checker V5 2.13.1

Major changes of Q-Checker 2.13.1

- **New Criteria**
 - ✚ Norms and Standards
 - ✚ Methodology
 - ↳ FT/A
 - ↳ Process
- **New features in existing criteria**
- **Improvements and Fixes**
 - ✚ General
 - ✚ In Criteria
- **Renamed Criteria**

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New Criteria > Norms and Standards > Texts

- New criterion: **"Content of Root Feature Attribute"**

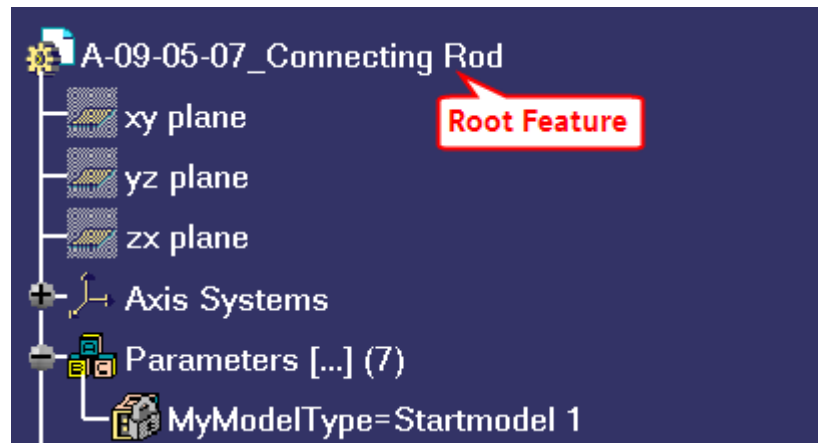
- Checks "Root Feature Attributes" for:

- Existence

- Name

- Value

- *Note: In CATIA, the "Root Feature Attribute" itself is invisible.*



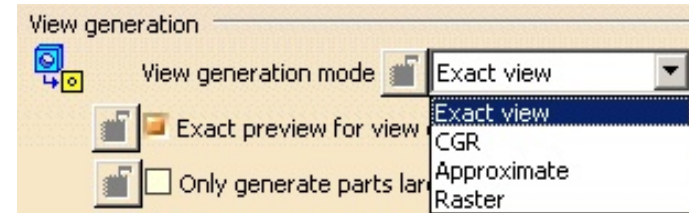
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New Criteria > Norms and Standards > Sheets/Views

- New criterion: "**Non-Allowed View Generation Mode**"

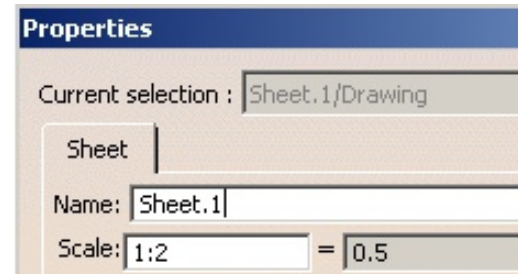
- 👤 Checks "View Generation Mode" of views

- 👤 *Exact view*
 - 👤 *CGR*
 - 👤 *Approximated view*
 - 👤 *Raster*



- New criterion "**Sheet Scaling**"

- 👤 Checks if the scale factor of sheets meets allowed values



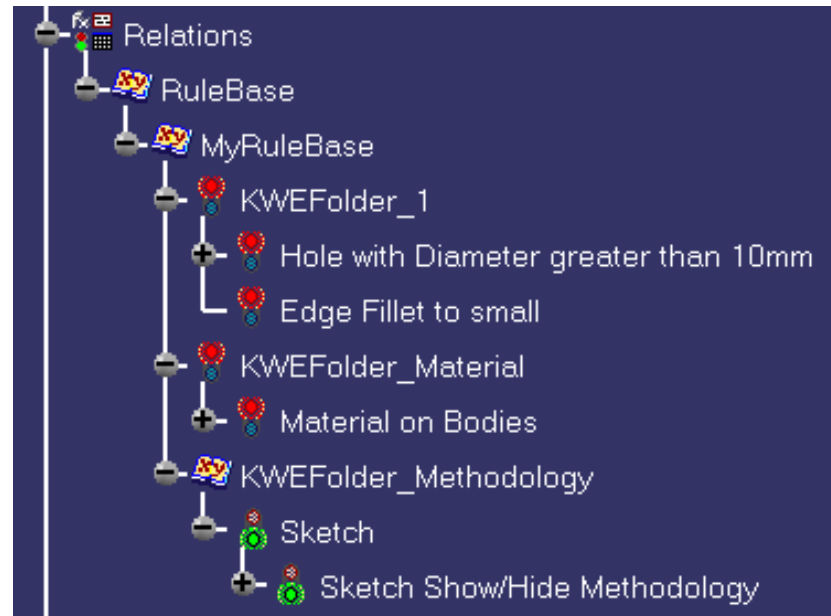
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New Criteria > Methodology > General

- New criterion: "**Non-Allowed Knowledgeware Relation Check Status**"

- 👤 Checks the Knowledgeware Relation Check status

- 👤 *Red*
 - 👤 *Black*
 - 👤 *Not Solved*
 - 👤 *InteropValidity*



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New Criteria > Methodology > Process

➤ **New criterion: "NC Machine Numerical Control Properties"**

👤 Checks the following values defined in:
Machining Editor > Numerical Control

- 👤 Min interpol. Radius
- 👤 Max interpol. Radius
- 👤 Min discretization step
- 👤 Min discretization angle

➤ **New criterion: "NC Machining Simulation Stock Accuracy"**

👤 Checks the following value defined in:
Part Operation > Simulation

- 👤 Stock Accuracy

Numerical Control	Tooling	Spindle	Rotary Data
Controller Emulator	Not Specified		
Post Processor	Not Specified		
Post Processor words table	_REALMECA_VF6.pptable		
NC data type	ISO		
NC data format	Axis (X,Y,Z,I,J,K)		
Home point strategy	From		
Min interpol. radius	0.010000mm		
Max interpol. radius	5000.000000mm		
Min discretization step	0.000100mm		
Min discretization angle	0.100000deg		

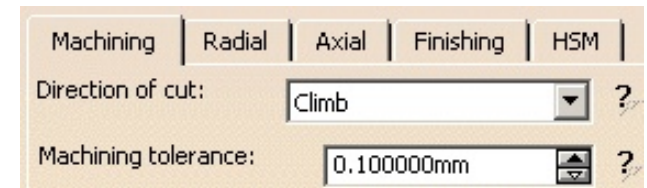
Geometry	Position	Simulation	Option	Collisions checking
Stock Accuracy: 0.200000mm				

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New Criteria > Methodology > Process

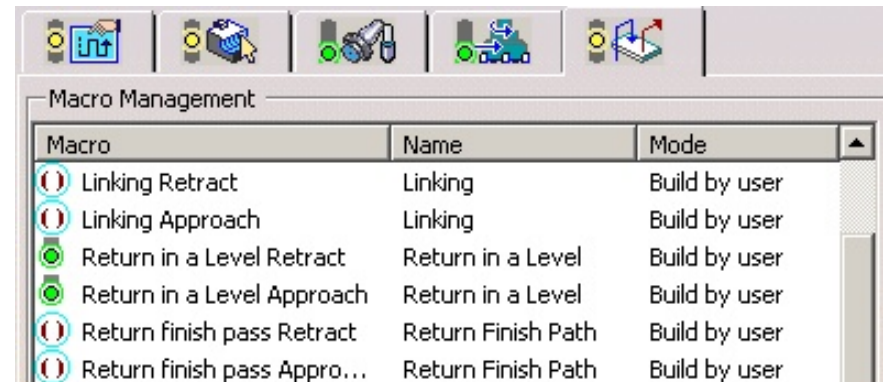
- New criterion: **"Machining Operation Strategy Properties"**
 - Checks the value of Machining tolerance in CATProcess documents

• Allowed "Machining tolerance":
Range from - to



The screenshot shows a dialog box with tabs for Machining, Radial, Axial, Finishing, and HSM. The 'Machining' tab is selected. It contains two fields: 'Direction of cut:' with a dropdown menu set to 'Climb' and a question mark icon, and 'Machining tolerance:' with a text input field containing '0.100000mm' and a question mark icon.

- New criterion: **"Activated NC Macros Must Exist"**
 - Checks if a minimum / maximum number of defined macros are activated



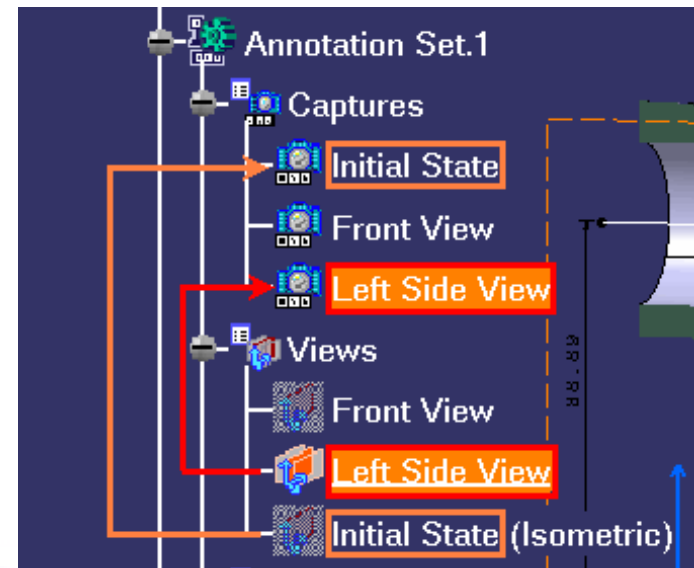
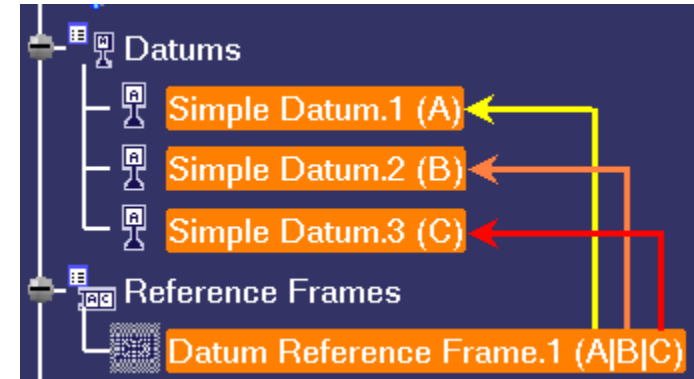
The screenshot shows a 'Macro Management' dialog box with a table of macros. The table has three columns: Macro, Name, and Mode. The 'Macro' column contains icons representing different macro types.

Macro	Name	Mode
Linking Retract	Linking	Build by user
Linking Approach	Linking	Build by user
Return in a Level Retract	Return in a Level	Build by user
Return in a Level Approach	Return in a Level	Build by user
Return finish pass Retract	Return Finish Path	Build by user
Return finish pass Appro...	Return Finish Path	Build by user

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New Criteria > Methodology > FT/A

- New criterion: **"FT/A Reference Frame Must Exist"**
 - Checks if a FT/A element **"Datum Reference Frame"** exists and if it is correctly defined
- New criterion: **"Capture Name Must Match View Name"**
 - Checks if in an Annotation Set the name of a specific Capture and a specific View match.
 - *Note: Criterion is cognate with the criterion "View Name Must Match Capture Name".*



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New Criteria > Methodology > FT/A

- New criterion: **"Annotation Content Does Not Correspond to Root Feature Properties"**

- Checks, if specific "User-Defined Properties" (property and value) are content of a specific "FT/A Note"

The screenshot displays two panels. On the left, the 'Product: Added Properties' panel lists various attributes: Status, Title, Dataset Type, ATA Chapter Section, Supplier Name And CAGE Code, Major Supplier Code, 3D Only, Material Specifications, and Material Description. On the right, the 'Notes' panel shows a tree structure with 'ENG PROPERTIES v1.0' and 'DESIGN NOTES (NOTE(S)...)' highlighted. Below this, a 'Publication' section contains a 'PartBody' feature. A red arrow points from the 'Title' property to the 'TITLE:' field in the note. A green arrow points from the 'Material Specifications' property to the 'MATERIAL SPECIFICATIONS:' field. A red arrow points from the 'Material Description' property to the 'MATERIAL DESCRIPTION:' field. The note content includes fields for PART NUMBER, TITLE, SUPPLIER NAME AND CAGE CODE, MATERIAL SPECIFICATIONS, and MATERIAL DESCRIPTION.

- New criterion: **"Unused FT/A Datums"**

- Checks if "FT&A Datum" elements are not used.

- *Not used means: Not covered by a reference frame or a geometrical tolerance*

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New features in existing criteria

Criterion: "Conditional Feature Properties" / PreCondition

 New keyword **DIRECT_PARENT_NAME** has been added

```
IF ( NAME = "Fill.1" )  
  THEN ( DIRECT_PARENT_NAME = "Sketch.1" )  
⇒ Element <Fill.1> must be child of <Sketch.1>
```

 New keyword **USER_PROPERTY** has been added

 Checks the value of a specified "user defined property"

Note: Every element in a model "knows" the user properties, thus the amount of them is the amount of the elements in the model.

```
IF ( USER_PROPERTY("Real" )= "0.5" AND TYPE = Surface AND NAME = "Fill*" )  
  THEN ( COLOR = 0,0,255 )
```

⇒ *If user property <real> has the value 0.5, surfaces with name <Fill...> must be blue.*

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New features in existing criteria

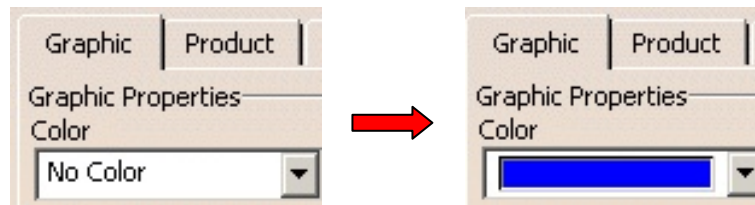
Criterion: "Conditional Feature Properties"

Existing Keyword **COLOR = AUTOMATIC** has been activated for CATProducts

For CATProducts COLOR = AUTOMATIC means color = <No color> is set.

Note: The check for a specific color should always be completed by the check that <No color> is not set.

```
IF( TYPE = Part )  
THEN( COLOR= 0,0,255 AND COLOR != AUTOMATIC )  
⇒ Color should be blue and not <No Color>
```



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New features in existing criteria

Criterion: "Existence and Content of Texts"

👤 New parameter has been added:

👉 *<Check also drawing dittos>*

Criterion: "Product / Part Update"

👤 New options have been added:

👉 *<Ignore deactivated features>*

👉 *<Load documents in background (in any case)>*

*Note: Useful if documents are loaded as **cgr** and the Q-Checker option "Check only root component of CATProducts" is enabled*

Criterion: "Non-Allowed Link of FT/A Elements"

👤 New options have been added:

👉 *<Elements linked to infinite geometry are faulty>*

👉 *<Elements linked to a vertex are faulty>*

👉 *<Elements linked to multiple geometry are faulty>*

👉 *<Allowed path for geometry parent>*

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New features in existing criteria

- Criterion: **"Non-allowed Input Reference to Vertex/Edge/Face"**
 - 👤 New options have been added:
 - ↳ <except origin>
 - ↳ <except coordinate plane>
 - 👤 The option <expect axis> has been improved, it now ignores:
 - ↳ "FeatureFEDGE"
 - ↳ "FeatureREDGE"
- Criterion: **"Allowed FT/A Dimension Unit"**
 - 👤 New field has been added: <Further allowed units>
 - ↳ The field allows the user to add any unit to be allowed
- Criterion: **"Non-Allowed User-Defined Properties of Root-Product/Part"**
 - 👤 New parameter has been added: **"Mark also duplicated user-defined properties"**.
 - ↳ *Note: Duplicate "user-defined properties" can (only) occur, if scripts to create them are performed twice*
- Criterion: **"Non-Allowed Chamfer Lengths"**
 - 👤 New healing parameter has been added: <Deactivate>

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Improvements and Fixes > General

MODEL.type

- ✚ New keyword **HIDDEN_PROPERTY** has been added

```
BEGIN_HIDDEN_PROPERTY
PROPERTY_NAME "regular expression"
PROPERTY_VALUE "regular expression"
END_HIDDEN_PROPERTY
```

New elements **Measure Parameter**

- ✚ Are read as element type "**Parameter**"
 - ✚ Area
 - ✚ Mass
 - ✚ Material
 - ✚ Surfacic Mass

SAP Parameter

- ✚ Are now also read in **CATDrawings**
 - ✚ DISnumber
 - ✚ DISpart
 - ✚ DIStype
 - ✚ DISvers

Selection of elements

- ✚ Html-help page has been added

External Analysis Viewer

- ✚ Needs now a Q-Checker License

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Improvements and Fixes > General

Command line batch

- 👤 Option <***ALL YES**>: Spelling of file-extension doesn't matter
 - 👤 Also *.catpart, *.CATPART or *.CaTpArT are checked

- 👤 Batch with master mode can now **open txt- or html-output-file**
 - 👤 New keyword <-html> **yes / no / not set** => html- / txt- / no output-file

Display existing report

- 👤 UDF parameters with same name are now handled correctly

Language dependant error messages

- 👤 Work now correctly for criteria that use SAMPLE-files

Option: "Consider all FT-A elements independently of Annotations Set state"

- 👤 Works now correctly for loading an existing report
 - 👤 *Note: Existing profiles must be newly saved with current Q-Checker*

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Improvements and Fixes > in Criteria

- Criteria: "**Activated Feature**", "**Negative Bodies / Sub-Bodies**", "**Unresolved Feature**"
 - ✚ Error in use of element selection has been fixed
- Criterion: "**Feature without Annotation Note**"
 - ✚ Element selection has been removed
- Criterion: "**FTA - Fake Dimension**"
 - ✚ The error messages is now displayed correctly also in inch
- Criterion: "**Non-Allowed Formula Value**"
 - ✚ The left value is now read correctly in all cases
- Criterion: "**View Outside of Sheet**"
 - ✚ Check considers now also the sheet scale
- Criterion: "**Multi-Volume Solid [G-SO-MU]**"
 - ✚ Fatal problem with volumes without faces has been fixed

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Improvements and Fixes > in Criteria

- Criterion: **"Active Capture"**
 - 👤 Error in healing "Activate first capture" has been fixed
- Criterion: **"Current Window View"**
 - 👤 Healing for very small corrections has been improved
- Criterion: **"FT/A Fake Dimensions"**
 - 👤 Healing has been improved
 - 👤 *The healed value is now displayed correctly in CATIA*
- Criterion: **"Permitted Element Types in Model"**
 - 👤 Fatal healing error inside CATProducts has been fixed
- Criterion: **"Root-Part Name (Part Number)"**
 - 👤 Fatal healing error in QT-Interface has been fixed
- Criterion: **"Selected Text/Dimension Attributes"**
 - 👤 Annotations are now healed correctly

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Renamed Criteria

- Criterion: "**Nested 2D Component**"
 - 👤 Old name: "Detail used in Detail"
- Criterion: "**Non-allowed Electrical Root/Components Type**"
 - 👤 Old name: "Non-allowed Electrical Document Type"
- Criterion: "**Ply with Invalid or not up-to-date Contour**"
 - 👤 Old name: "Ply with Invalid Contour"

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THANK YOU

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