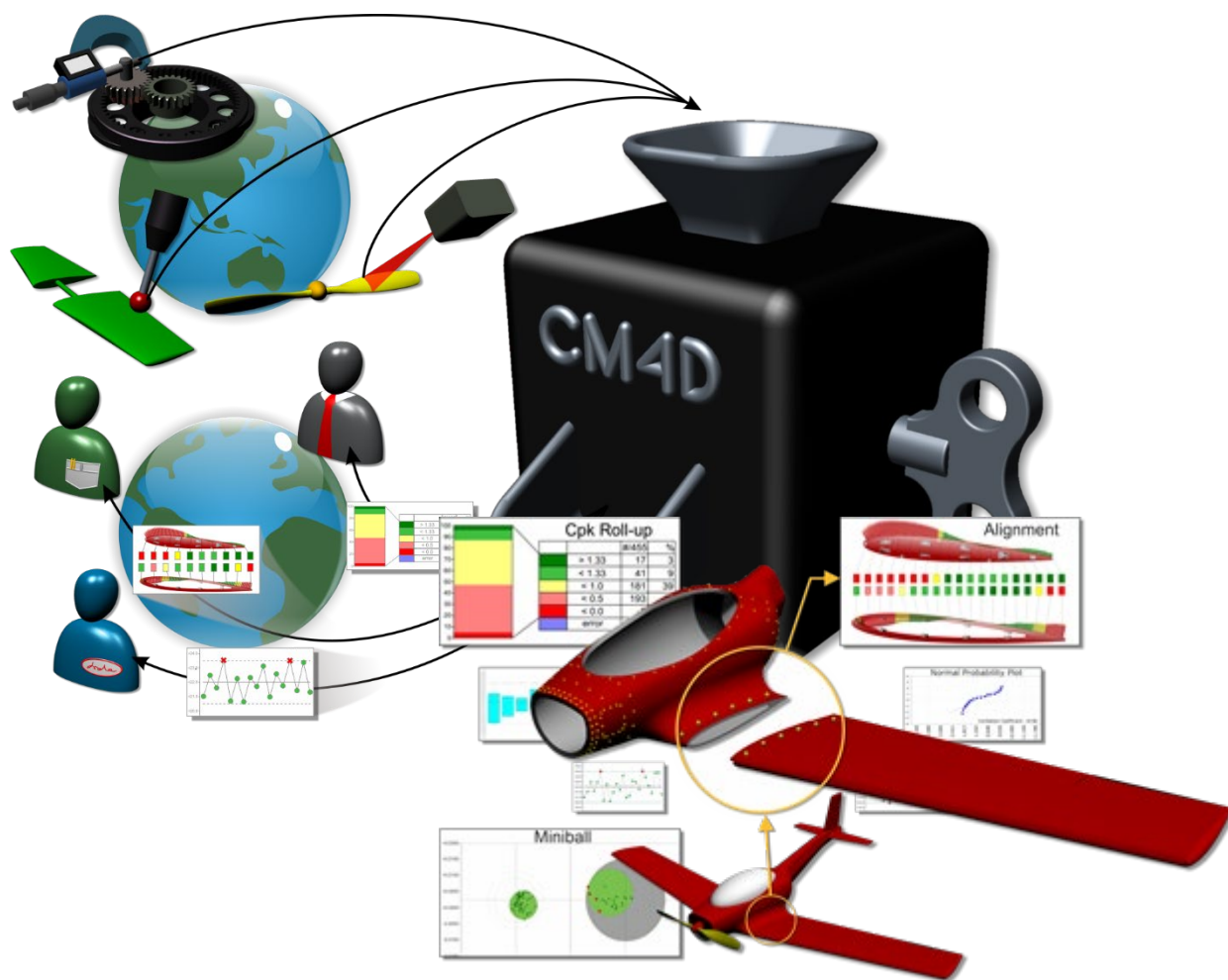




## What's New in v25





## Table of Contents

<b>v25.0.21182.....</b>	<b>3</b>
General Notes.....	3
New Features .....	3
Wireframe (WYR) Image Support Re-introduced .....	3
Document Properties - Feature Marker Colors .....	3
New Variables for Chart Axis Labels.....	3
New QaDataSource API Functions.....	4
Program Fixes .....	4
<b>v25.0.20136.....</b>	<b>6</b>
General Notes.....	6
CM4D Roadmap.....	6
New Features .....	6
Improved 3D Visualization Technology.....	6
Optional Results Database.....	8
Report Manager in Classic .....	8
Show/Hide Sheet Border .....	9
<b>Known Issues.....</b>	<b>10</b>
General .....	10
CM4D Services User.....	10
CM4D Classic.....	10
Print Misc > Print Metafile.....	10
Process Change Log Viewer.....	10
Spectrum .....	10
CM4D Web .....	10



## v25.0.21182

### General Notes

- ▶ CM4D Db Schema: 25b

### New Features

#### Wireframe (WYR) Image Support Re-introduced

With the introduction of the HOOPS engine in v25, support for some older image types were discontinued. However, in this version support for 3D wireframe models has been re-introduced. This includes settings for wire overrides in CM4D image properties.

#### Document Properties - Feature Marker Colors

Feature marker default colors can be set on the document properties. The color can either be set using a dropdown color picker, or the colors can be defined in the Cm4D.ini file. If these are defined in the INI file, the color values are copied into the document on creation. On existing documents, the values can be reset to values saved in the INI file. See the help documentation for details.

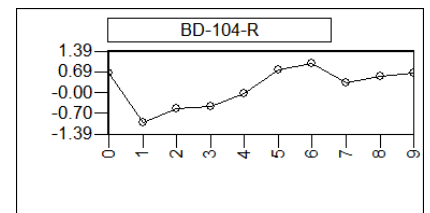
#### New Variables for Chart Axis Labels

In charts using a query with multiple Routines, chart axis labels show the DataSet column number when the Sample labels cannot be resolved.

New variables have been added that can be used in the axis label field that will properly resolve for multiple Routines:

- ▶ ~cellsamp,label~
- ▶ ~cellsamp,filter,[a-z]~

For DataSets with multiple Routines, these variables will resolve the chart axis as the Sample Label or Filter Label instead of the DataSet column number. This is best used with either a single feature or with Routines that have corresponding samples.



Annot Properties

Plot General Plot Top Area Plot Bottom Area Plot History Genera

Cause Settings

☒ View Causes ☐ View Cause Comments

☐ View Cause Hierarchy

☐ View Cause with Parent Only Cause Style

Top Plot Area % 100 Bottom Plot Area % 0

Horizontal Axis

Location ☐ Top ☒ Bottom Axis Style

Tick Size: 3

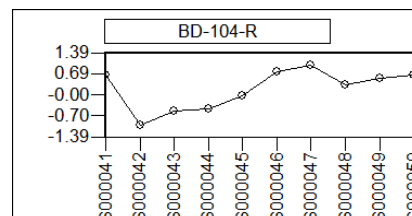
Scale ☒ Auto Min: 0 Max: 0 Inc: 1

Labels

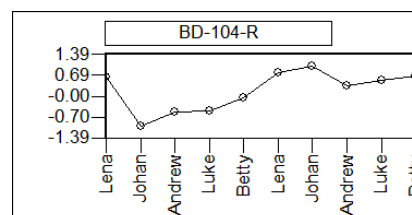
☐ None ☐ Decimal ☒ Text ☐ Num Sequence ☐ Alpha Sequence

~cellsamp,label~

~cellsamp,label~



~cellsamp,filter,c~





## New QaDataSource API Functions

API for the DataSet DataSource 'Use Feature' option has been added with following properties for QaDataSource. See the help documentation for more details.

- ▶ UseDataSetFeature => true selects Use Feature
- ▶ DataSetFeatureLabel => set/get the Feature for a DataSet
- ▶ DataSetFeatureChr => set/get the characteristic

## Program Fixes

APPLICATION	CORRECTED ITEM
CM4D	<ul style="list-style-type: none"><li>▶ <b>API - 2 missing functions and one broken one in the QaDataSource object.</b> API for the DataSet DataSource 'Use Feature' option is incomplete. For the solution, see the New QaDataSource API Functions in the Release Notes for more information.</li><li>▶ <b>Car Deviation data is not displayed in DataSet.</b> Car Deviation data is not shown in DataSets. The data could be seen in DataUtility but not in a DataSet. There is no DataSet Sift Rule data type for Car.</li><li>▶ <b>Characteristics of Features does not appear in DataStack Grid.</b> Characteristics of Features shown in the grid disappear after 3D Math is applied to the DataStack.</li><li>▶ <b>CM4D does not show JT build in Transparency.</b> Transparency embedded in JT image files is not applied when the model is loaded in CM4D.</li><li>▶ <b>CM4D v25 does not support WireSmith images WYR.</b> Support for WireSmith (WYR) images was removed in v25 with the introduction of the new HOOPS engine. However, due to customer requirements, wireframes have been re-introduced. See the Release Notes for more information.</li><li>▶ <b>Constructed Feature Marker has wrong direction.</b> When a new distance feature was created from two reference points, the feature marker points in the opposite direction of the CAD.</li><li>▶ <b>DataStack Subtract Calculation Error.</b> A DataStack subtracting DataSets where there are missing (NULL) values results in a NULL value, even when there should be a value from the DataSet that was not NULL.</li><li>▶ <b>Distance Feature Marker visibility and color.</b> Depending on the location, Constructed feature markers can be difficult to differentiate from other markers. See the new 'Document Properties - Feature Marker Colors' in the Release Notes.</li><li>▶ <b>Histogram Issue.</b> The Mean is misplaced and the bell curve is following the mean. This seems to affect histograms and has a similar problem in normality charts.</li><li>▶ <b>Polar characteristics doesn't show up in Chart Annot Properties.</b> There is no option for polar in the drop down menu in Chart Annot Properties.</li><li>▶ <b>Sample Label not displayed correctly when using Multiple Routines in Query.</b> In charts using a query with multiple Routines, chart axis labels show the DataSet column number when the Sample labels cannot be resolved. For the solution, see the new New Variables for Chart Axis Labels in the Release Notes.</li><li>▶ <b>Snapshot generation fails.</b> A document with sheets containing more than one view with *.wrl files crashes when generating Snapshots. Note: the document has SheetSet and Sheet labels that include the percent (%) sign.</li></ul>
DataSmith	<ul style="list-style-type: none"><li>▶ <b>Must be in Characteristics for Header and Footer ignores case.</b> The instruction "Must be... do not ignore case" used in the Characteristics of the</li></ul>



	<p>Header/Footer is ignoring case. It is working correctly for Header and Footer instructions, just not the Characteristics within the header/footer.</p> <ul style="list-style-type: none"> <li>▶ <b>Perceptron Translator Issue.</b> This appears to effect anyone who has a Perceptron type machine with more than ~250 characteristics, depending on the length of the feature names. DataSmith puts a carriage return/line feed in about character 4100. This prevents the use of the ~ord~/~rep~ method for reading excel/csv and txt files.</li> <li>▶ <b>DataSmith crashes while processing Data file.</b> A specific customer data file causes a crash in DataSmith during processing.</li> </ul>
EventSmith SMTP	<ul style="list-style-type: none"> <li>▶ <b>Not all email events arrive when Dynamic Managed Document with Dynamic Query is used with multiple Routines.</b> This fix only applies to EventSmith SMTP that is installed with CM4D Server 24+, not the legacy EventSmith deprecated in v24. Note: the legacy ES is only available as a separate install and should only be used if there is a specific reason not to use the built-in ES-SMTP.</li> </ul>
Site Manager	<ul style="list-style-type: none"> <li>▶ <b>The *.xlsx generated by the Site manager Export users function does not match the Site manager content.</b> When there are users not assigned to a group, only the last created user without a group is generated into the exported excel file.</li> </ul>

## v25.0.20136

### General Notes

- ▶ Site Db Schema: 25b
- ▶ CM4D Db Schema: 25a
- ▶ TLS 1.2

### CM4D Roadmap

Interested in the CM4D development roadmap? Visit: <https://cm4d.roadmap.ats-global.com/>

### New Features

#### Improved 3D Visualization Technology

CM4D has had 3D visualization since its inception in 1991. Over the years, we have had four generations of 3D visualization built into the product.

#### HOOPS Engine

The next generation of technology provides state-of-the-art 3D viewing and interaction capabilities. The initial implementation includes functionality such as:

- ▶ Improved visualization quality
- ▶ Improved tool set
- ▶ Direct import of CAD model

#### Supported File Types

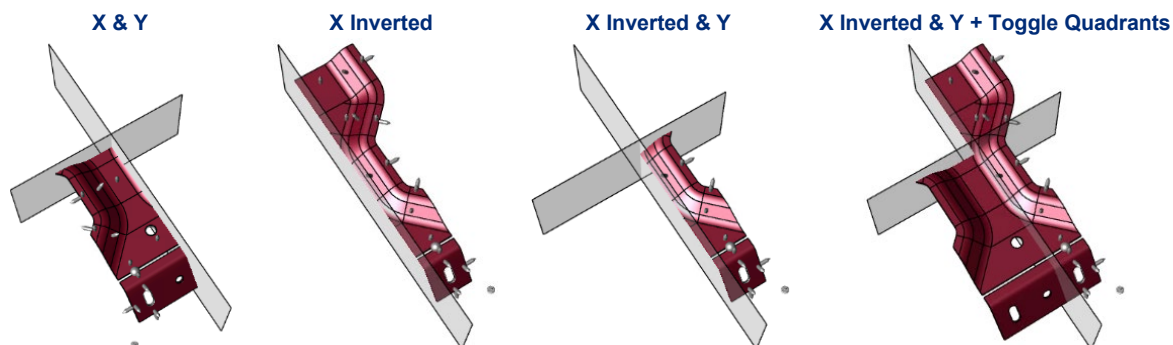
- |                          |                      |                      |
|--------------------------|----------------------|----------------------|
| ▶ ACIS                   | ▶ PDF                | ▶ CATIA V6 /         |
| ▶ AutoCAD - 2D 2         | ▶ PRC                | 3DExperience         |
| ▶ AutoCAD - 3D 2         | ▶ Revit              | ▶ Creo - Pro/E       |
| ▶ Autodesk 3DS           | ▶ Rhino3D            | ▶ I-deas             |
| ▶ Autodesk DWF           | ▶ Solid Edge         | ▶ IFC                |
| ▶ Autodesk Inventor      | ▶ SolidWorks         | ▶ IGES               |
| ▶ CATIA V4               | ▶ STEP               | ▶ JT                 |
| ▶ CATIA V5               | ▶ STEP/XML           | ▶ Parasolid          |
| ▶ CATIA V6 /             | ▶ Stereo Lithography | ▶ PDF                |
| 3DExperience             | (STL)                | ▶ PRC                |
| ▶ COLLADA                | ▶ U3D                | ▶ Rhino3D            |
| ▶ Creo - Pro/E           | ▶ VDA-FS             | ▶ Solid Edge         |
| ▶ FBX                    | ▶ VRML               | ▶ SolidWorks         |
| ▶ GL Transmission Format | ▶ Wavefront OBJ      | ▶ STEP               |
| ▶ I-deas                 | ▶ FORMAT             | ▶ Stereo Lithography |
| ▶ IFC                    | ▶ ACIS               | (STL)                |
| ▶ IGES                   | ▶ Autodesk Inventor  | ▶ U3D                |
| ▶ JT                     | ▶ CATIA V4           | ▶ Unigraphics - NX   |
| ▶ NX - Unigraphics       | ▶ CATIA V5           | ▶ VDA-FS             |
| ▶ Parasolid              | ▶ CATIA V5           | ▶ VRML               |

❗ CM4D image formats XGL and WYR are no longer supported.



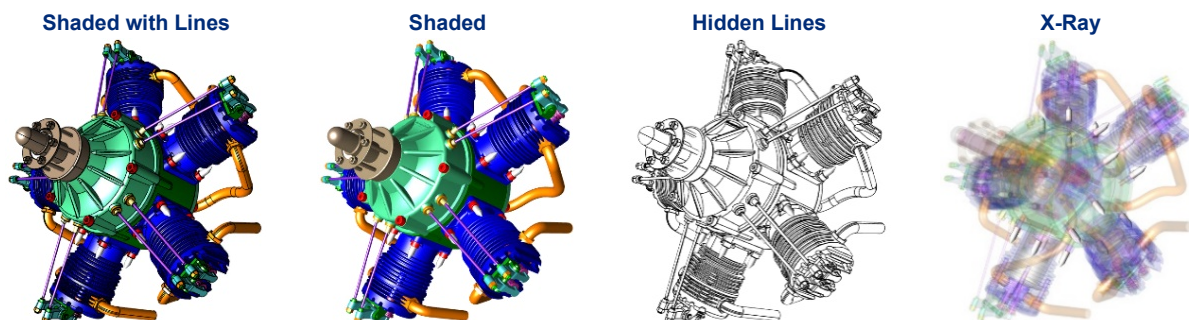
## Cutting Planes

The 3D HOOPS engine has built-in interactive cutting plane support and automatically generates “capping geometry” for closed meshes. It also supports aggregating cutting planes into sectioning planes to slice through and cut-out parts of a model.



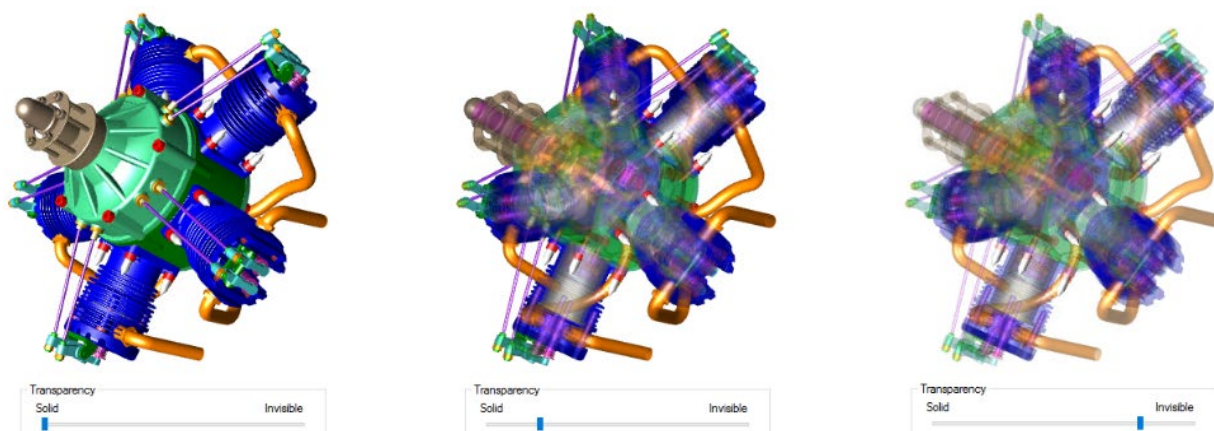
## Display Modes

Display Modes are different ways that CM4D can draw the model in a View. Switching the display mode is an easy way to turn off visibility of faces and lines for the whole model, make Feature markers more prominent or to provide a result suitable for hardcopy or screenshots.



## Transparency

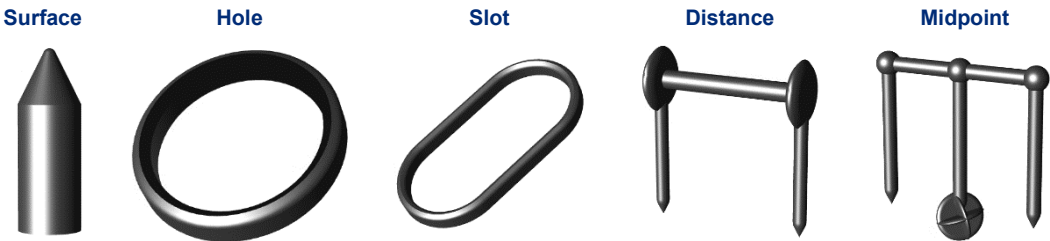
Updated transparency settings provide a sliding scale from solid to transparent.





### 3D Feature Markers

Features with vectors have a 3D marker that is unique for the feature type. This version introduces Surface, Hole, and Slot. Constructed Features Midpoint and Distance also have a unique marker.



### Optional Results Database

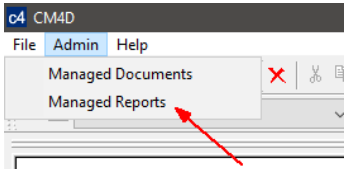
Using the Results Database is now optional. If you do not want to setup and use Results, you can disable the option at the Site database level. When the Results database is disabled, results messages will not be generated and the results services are not used.

**i** Without the Results database configured you will miss out on the benefits of a high-performance repository of information available for business analysis.

**!** In future versions of the product, the Results data will be a key part of the development path and a requirement for some new CM4D applications.

### Report Manager in Classic

Added a mechanism to administrate Managed Reports in CM4D. Document managers can create, modify and delete Managed Reports using CM4D Classic. This allows you to manage reports directly within the CM4D environment, rather than requiring the addition of CM4D Web.



Managed Report

Report Properties

Managed Report Label  
Animated Join - Hood - new report

Report Name  
~<doc,title>~

Report Depository  
Depository 1

Tag Source  
None

Report Contents

Document Name	SheetSet Label
Animated Join - Hood	Individual Routines

Select All    Select Document(s)

Ord	Document Name	SheetSet Label
0	Animated Join - Hood	Body
1	Animated Join - Hood	Hood
2	Animated Join - Hood	Hinges

Move Up    Move Down    Clear Selected

Revert    OK    Cancel





### Show/Hide Sheet Border

An option has been added to the SheetSet properties to show or hide the border of a Sheet in CM4D.

Display Border Enabled



Display Border Disabled



### Program Fixes

APPLICATION	CORRECTED ITEM
CM4D Classic	<ul style="list-style-type: none"> <li>▶ 3D CAD View doesn't load feature markers until the template is refreshed by clicking Refresh From Database option</li> <li>▶ Features are not loaded to Results Database</li> <li>▶ PDF Link doesn't work in annots</li> <li>▶ View Snapshots are not monitor independent</li> </ul>
CM4D Interactive	<ul style="list-style-type: none"> <li>▶ CM4Di crash when creating subroutine</li> </ul>
DataSmith	<ul style="list-style-type: none"> <li>▶ Datasmith shows 2 columns for same characteristic</li> <li>▶ Datasmith document isn't saving Ignore Case for Must Be instruction</li> </ul>
General	<ul style="list-style-type: none"> <li>▶ Results not updated when Limits are deleted</li> </ul>



## Known Issues

The following are minor known issues that you will want to be aware of. These issues will either be addressed in a subsequent patch release, or are part of an on-going investigation to develop a solution.

### General

#### CM4D Services User

The CM4D service user running the Results Launcher Service must have the Developer privilege in Site Manager. If it does not have this privilege, jobs will fail and jobs will not process.

### CM4D Classic

#### Print Misc > Print Metafile

- Printing a sheet using the **Print Misc > Print Metafile** menu option, the views sometimes appear to have a faint gray background.

#### Process Change Log Viewer

- After clicking Print to File, clicking Modify results in a crash.  
Workaround: Make sure a log entry is selected from the list before clicking Modify.
- After entering a User Defined log, the entry does not appear in the list after doing a new search.  
Workaround: Close the Log Viewer and reopen it to see the new User Defined entry.

### Spectrum

The Spectrum functionality is not available in CM4D v25. This functionality is intended to be re-introduced in a future version.

### CM4D Web

- CM4D Web ignores Routine Access Codes.
- Managed Documents saved with Samples selected in the Sample Load dialog cause issues when customizing a Template in Web. The saved selections will not be included in a report that is customized before submitting. Even if you add/remove the saved selections during customization, the original Samples saved as selected in the document are ignored. This use case would be considered rare, as most documents used for printing reports like this are not set up this way.
- Deleting a Managed SheetSet from a Managed Document does not remove the SheetSet from Managed Reports in CM4D Web.  
Workaround: Before deleting a Managed SheetSet, unmanaged the SheetSet, save your Managed Document, then delete the SheetSet.