102-RN-1701003

32bit version / 64bit version

FFCAM 2017

Release Notes

MAKINO

Introduction

This manual is described about the release note of Makino Milling Machine product FFCAM.

Please read it through before using FFCAM.

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- Screens shown in this manual may vary depending on the model.
- Screens shown in this manual may slightly differ from the actual display.

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1. FFCAM Release Notes

1.1 Restrictions on Functions

1.1.1 Installation

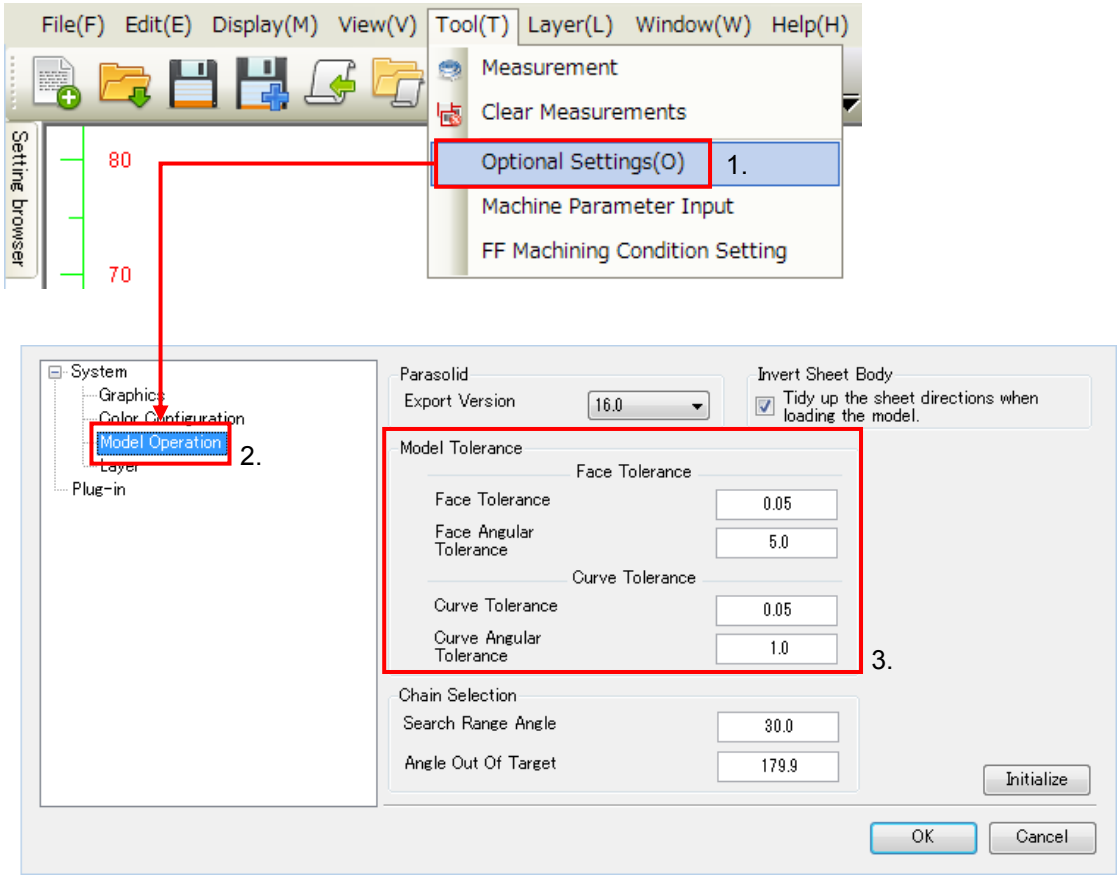
Please install the software in OS of the corresponding language. The version unsupported with the default language in OS cannot be installed.

1.1.2 CAM function

(1) An error may occur during importing the model data by the graphic driver, and then the FFCAM operation is disabled. In such a case, increase the “Model Tolerance” value of the system parameters.

- The recommended tolerance value can be set by pressing the “Initialize” button.
- The recommended tolerance value for a Face and a Curve is 0.05 respectively. Depending on the model size and personal computer performance, and a bigger value may be input.

Setting Procedure:



(2) When "Helical" is specified for Tilt Infeed Motion in machining with a round insert face mill, a toolpath may be generated with collision between the bottom of the face mill and the workpiece even if the function to "Avoid cutting by the bottom of Round Insert cutter" is selected.

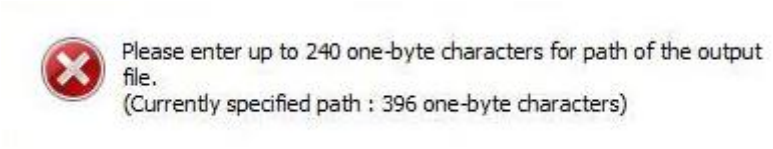
To avoid this problem, specify "Along-route" for Tilt Infeed Motion when using a round insert face mill.

If "Helical" needs to be specified for Tilt Infeed Motion, confirm that the following conditions are satisfied:

- Helical Radius > bottom diameter of the round insert face mill
- Helical Infeed Tilt < Max cut angle of the round insert face mill

(3) When toolpath is calculated after moving or copying the machining model, the wrong toolpath will be calculated. The reason is that the previous intermediate data is used. After moving or copying the machining model, be sure to re-register the machining model before calculating toolpath.

(4) The output file name, generated with batch and having many machining, is limited to 240 single byte characters.
If it exceeds the limit, the following message is displayed.



(5) Over four machining definition files cannot be opened at the same time.

(6) The “High Function” of contour projection machining require larger memory consumption amount than the normal mode. In some cases, calculation errors occur due to the lack of memory in 32-bit OS environment. It is recommended to use 64-bit OS that can use over the 8GB memory.

1.2 Function Revision (Addition/Change) History

FFCAM 2017.0.0

Machining functions

DUG No.	Description
-	Machining movement that the cutting with higher efficiency becomes possible by the high feed follow motion was added.
-	A function to calculate the indexing angle to the machining target surface and the overhang length to that indexing angle was added.
2014-0991	A function to suppress the path along area to the groove was added to the corner R machining.
-	The bottom corner radius adding function was added to the projection area of the contour projection machining.
-	Round insert bottom surface interference check function was added to the flat face machining.
-	A function to select run-in operation type was added to the route machining, 2D route machining, and 3D curve machining.
-	Specifying the Heidenhain drilling fixed cycle became available.

Operation functions

DUG No.	Description
-	A function to define the output file names in serial numbers was added.
-	The operation screen of the CL edit function was improved.
-	Operation in a unit of movement became available in the deletion function of the CL edit.
-	A function to automatically and continuously calculate the machining registered to the Batch calculation screen was added.
-	Migration of the Vericut interface and CSG interface setting files became available by using the user data converter.
2013-0483 2014-0218 2014-1839 2015-2463	Loading the layer information at the timing when STEP and CATIA V5 model data are loaded to FFCAM became available.

Post Processor

2016-1326	Outputting a block with only a line feed code to an NC file became available by using FFPOST [Normal].

1.3 Correction of Problems

FFCAM 2017.0.1003

Machining function

DUG No.	Description
2017-2069	When calculating paths with FFCAM on the version 1709 of Windows 10, the calculation terminated abnormally. The problem was corrected

Operation functions

DUG No.	Description
-	When importing a file of DXF, DWG, STEP, or CATIA V5 with the model import feature in FFCAM on the version 1709 of Windows 10, the import became failed. The problem was corrected.

FFCAM 2017.0.1002

Machining function

DUG No.	Description
-	The issue that the divide overhang length did not work normally in the German edition was corrected.

Operation functions

DUG No.	Description
-	The issue that the message of “Control equipment type” was not described appropriately in the Simplified Chinese, Traditional Chinese and German editions was corrected.
-	The issue that "Follow (High feed machining)" could be set at the motion type of the

	Contour Face Cut Machining in Core/Pocket Contour Machining was corrected.

FFCAM 2017.0.1001

Machining functions

DUG No.	Description
2017-0336	The problem that biting occurred in the pick movement of the high feed follow motion was corrected.
2017-0407	The problem that biting occurred when the zigzag and the high feed follow motions of contour machining were used together was corrected.
-	When the face cutting and high feed follow motions were used together, the paths by rough finishing were not properly output. This problem was corrected.
2016-1805	When setting the corner R machining as "Along-area" or "Contour + Along-area", cutting paths with the high load of the tool were output. This problem was corrected.

Operation functions

DUG No.	Description
-	When the machining with setting the drilling operation of the Heidenhain type was calculated and its CL-display was run, the relief motion was not drawn at the correct position. This problem was corrected.
2013-1424 2014-1735 2016-2410	When "Z level each" was selected in the CL display screen, the CL was displayed with the wrong order. This problem was corrected.
2016-0836 2016-0845 2016-2594	The problem that minute curves could not be properly selected in the chain function was corrected.
-	The problem that the tolerance value of "Curve tolerance" set in the Option screen was not applied to the arc was corrected.
2016-0657 2017-0228	The problem that the tool for sharing the tool and machining condition databases by multiple PCs did not launch was corrected.
-	The problem that the function screen of Machining direction calculation did not launch in 2D route machining was corrected.
-	The problem that the parameter check process in the high feed follow motion was not completely handled was corrected.
-	The problem that the wrong message at the title bar in File save screen displayed on the

	Insert statement screen was corrected.

-	The wrong message was displayed, when setting the empty values at the axis list table in the axis interpolation for the tool axis control on the 5-axis simultaneous movement setting. This problem was corrected.
-	An invalid value could be set at "Height", when setting "Ellipse" at the motion type in the path approach motion. This problem was corrected.
-	The function of "Auto-numbering machining names" worked without following the name format setting when some particular name formats. This problem was corrected.
-	At the Vericut launch screen, the explanatory figure was not displayed in the Chinese (simplified and traditional characters) and German editions. This problem was corrected.
-	At the CSG output screen, the explanatory figure was not displayed in the Chinese (simplified and traditional characters) and German editions. This problem was corrected.
-	The file could not be chosen properly at the file selection screen of setting the existed project file on the Vericut launch screen in the German edition. This problem was corrected.
-	The file could not be chosen properly at the file selection screen of setting the machine and control devices on the Vericut launch screen in the German edition. This problem was corrected.

Post Processor

DUG No.	Description
2017-0036	The problem that the long machining time was estimated for specific machines was corrected.
2016-0365 2017-0416	When calculating the path machining with setting a taper tool, the tool information was not output to processing instruction sheets. This problem was corrected.
-	The display positions of the Processing instruction got away from the right position depending on the output information with the lst-format. This problem was corrected.
2017-0446	FFpost NC output got failed depending on the setting of the conversion table. This problem was corrected.

FFCAM 2017.0.1000

Installation

DUG No.	Description
2017-0286 2017-0356 2017-0381	The problem that the blue screen appeared on some PCs, when installing FFCAM2017 HASP driver, was corrected.

FFCAM 2017.0.0

Machining functions

DUG No.	Description
2016-0857	The problem of an internal error in the calculation during the 3D curve machining was corrected.
2016-0021	The problem that biting occurred in the corner R machining was corrected.
2016-0654	When the machining geometry includes a vertical surface, the calculation time becomes longer, and the output file size becomes larger. This problem was corrected.
2016-1521	The problem that the calculation process The problem that the calculation process stopped during the contour machining was corrected.
2016-2034	The defect of the geometry process in the stock machining generated wrong paths. This problem was corrected.
-	The problem that geometry process in the optimization function of the tool nose feed speed could not be done normally was corrected.
2016-1590	The biting problem occurred at the behavior of Z spiral operation in the contour machining was corrected.
2016-0468	The problem of the specification difference on generated paths, when using the stock or not in the plain surface machining, was corrected.
2016-2475	The wrong paths were generated, because the geometry process in the contour line machining could not be operated normally at the stock machining. This problem was corrected.

Operation functions

DUG No.	Description
-	The problem that the changed control point position in the along surface machining parameter could not be properly registered was corrected.
2016-1945	When the [Previous tool] parameter of the corner R machining registered to the machining create list is dragged and dropped to [Previous tool] of the newly added corner R machining, the settings cannot be copied normally, and the path calculation fails. This problem was corrected.
2016-1647	The problem that an invalid value could be entered into the dimension value at the drilling tool in the Tool select screen was corrected.
2016-2487	The parameter error appeared and the calculation could not be done, when changing to the ball end at the tool type mill in the machining of round insert FM already registered .This problem was corrected.
2016-0777	Even if the operation type and value of the XY step or Z step were changed after the FF machining condition calculation button was clicked in the machining parameter, when the Machining parameter screen is opened again and the changed operation type and value of the XY step or Z step returned to the values that right after the FF machining condition calculation button was clicked. This problem was corrected.
2016-0981	The scroll bar in the Machining Create list moved to the top position on its own, when the machining added to the Machining Creation list was registered in a batch. This problem was corrected.
2016-1012	The problem that [Path movement] in the process setting in the machining creation list was hidden was corrected.
2016-0545	The problem that drawing update by the view operation takes long time was corrected.
-	When the right-click menu was opened on the screen displaying the ST model while [High speed view] was valid, an exception occurred. This problem was corrected.
2016-1240	When several xMtn files are open in FFCAM, the Parameter setting screen is not properly displayed. This problem was corrected.
2015-0688	The problem that the [Masking edges between two curve groups] function of the one-click masking is not properly processed on specific models was corrected.
-	Even after all the registration information of the path assist was deleted, the preview kept shown the registration information before the deletion. This problem was corrected.
2016-2200	When the path of the indexed machining was CL-edited, the relief avoidance height became lower than the specified relief avoidance height. This problem was corrected.
2016-1865	When the simulation ran with [Create data (high speed)], the rest model color was not displayed. This problem was corrected.

2016-2683	The machining with simulating with [Create data (high speed)] was not displayed in detail depending on the holder shape. This problem was corrected.
2016-0319	The problem that running the simulation with the specific machining data got abended was corrected.
2016-1755	The saving folder of repost information could not be set other than at the Desktop in Windows 10.This problem was corrected.
-	When xMtn created with FFCAM of the new version was opened with FFCAM of the former version, the warning message was not displayed. This problem was corrected.
-	When the output destination of the NC file in the Data output folder on Option setting screen was changed, an error occurred at startup of the Vericut interface or the CSG interface. This problem was corrected.
-	The problem that F1 digit could not be used in MILL TIME was corrected.
2016-2508	The problem that the specific DXF/DWG files could not be imported normally in FFCAM was corrected.

Post Processor

DUG No.	Description
2013-1491 2015-0449 2015-2559 2015-2762	When the specification of the machine parameter was the combination of [Tool center point control: TYPE2] and [High precision tool center point vector output: Yes] and the tolerance of the machine spin axis and machining was set the value smaller than the specified precision, FFPOST got failed at the calculation. This problem was corrected.