64bit version

FFCAM 2025

Release Notes

MAKINO

Promise of Performance

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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(7) Screens used in this manual:

- 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

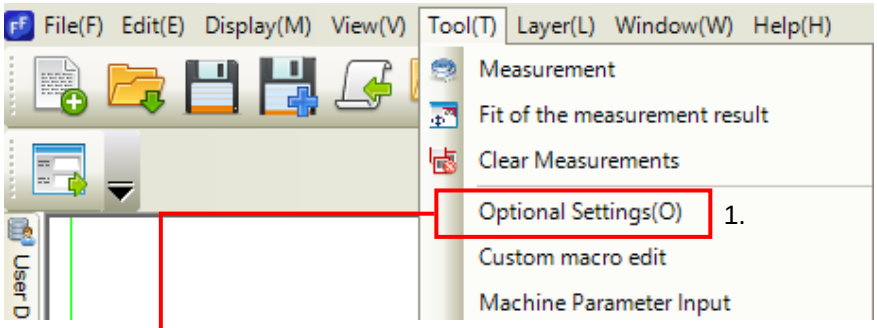
1.1 Restrictions on Functions

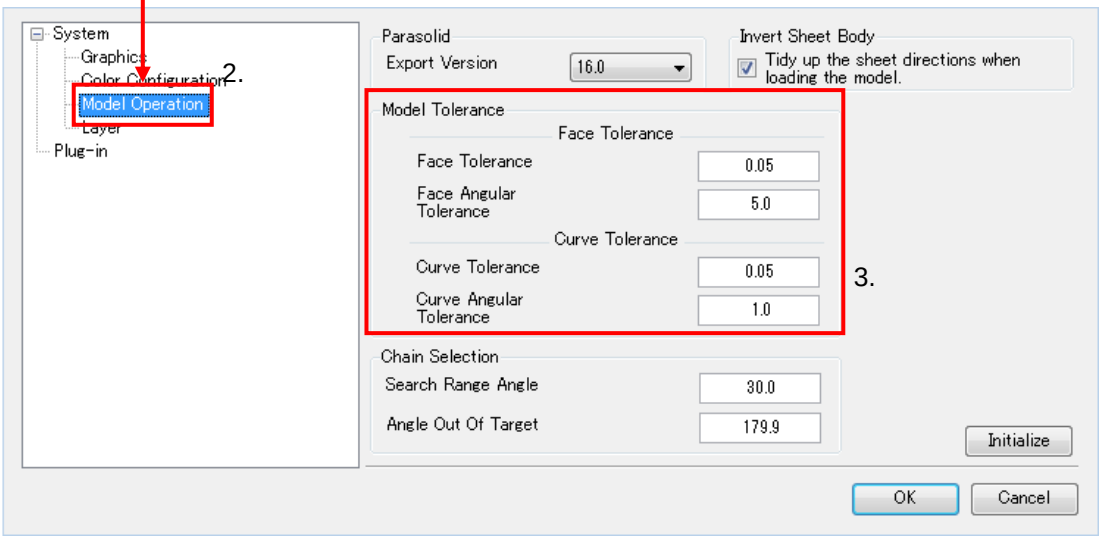
1.1.1 CAM function

(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.

For this reason, set "Along-route" at Tilt Infeed Motion when using a round insert face mill.

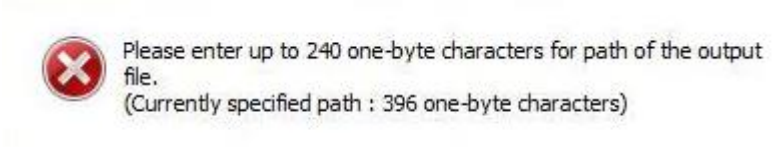
When "Helical" needs to be set for Tilt Infeed Motion, confirm that the following conditions are satisfied:

- 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.

1.2 Function Revision (Addition/Change) History

FFCAM 2025.0.0

Machining functions

DUG No.	Description
-	Added a function to calculate the overhang length of a tool before path calculation, using the tool and machining area.

Operation functions

DUG No.	Description
-	After importing a tool from the tool database on the tool selection screen, reopening the tool database will display the tool database screen with the data row matching the imported tool selected.
2018-1521 2021-0635 2022-1544 2024-1218	Enabled the registration of multiple favorite groups in the Tool Database Maintenance screen.
-	Added a function to organize all machining tool data in the machining creation tree view.
2023-1297	When copying Contour Projection Machining from the user database to the machining creation tree view, the model elements are now acquired based on the element selection filter information of the Specify Contour Projection Machining function.
2023-1981	The relief height function in the [Process Start/End Point/Relief Setting] tab of a process can now display a preview of the relief height.
-	Adjusted the layout of the screen controls for drilling.
-	Assigned icons to the items without icons in the right-click menu of the machining creation tree view.
-	Assigned icons to the items without icons in the right-click menu of the user database.
2021-1937	Changed the Tool Load Reduced Infeed in the Area Detail Setting screen to be deactivated when it cannot be used, depending on the parameter combination.
2023-1984	Changed the placement of the minimum and maximum input controls for X, Y, and Z in the Machining Workpiece and Area Settings screens.
2020-1597 2022-1267 2022-1880	Added a function to prevent the model from being fit on the model view after the model is imported.

-	The machining area setting parts are now visible in the machining creation tree view.
2021-1138	The Move/Copy a Graphic function now allows for continuous copying of the target geometry with a single operation.
2022-1935 2023-1978	When the Model Import function is executed, a file selection dialog box will now open based on the path specified in the Option Set Screen.
2023-1607	The height of the grid in the Machining Parameter Setting screen can now be changed.
2015-2835 2019-1235 2023-0435	The initial view direction of the model display when xMtn is opened can now be specified in the Option Set Screen.
-	When the indexing angle is input on the Tilt Mill screen, the value is now rounded based on the minimum set unit of the machine.
2023-1806	Added the models V300, V900, a500iR, and DA500 to FFCAM.
-	Changed the maximum number of circular references in macro calculations to 700.
-	Drilling is now supported in the message output macro.
2024-0937	The process start point and process end point are now supported in the parameter macro.
2023-1979	Added [File name] to the variables in the custom macro editing screen.
2013-0448 2022-0372 2022-1675 2023-0655	In Detailed mode of CL simulation, view operations will no longer update the drawing of the uncut model.
2023-1679	Enabled the initial value of the CL simulation parameter [Bite Check of Machining Geometry].
-	When launching the VERICUT IF screen in the Simulation/Repost screen, the CL data list information will now be referenced if a macro is specified.
2023-1582	When exporting a tls file of the VERICUT IF package data from FFCAM, the cutter and shank information will now be output as rotating bodies.
2023-1020 2023-2112	Even before path calculation for the machining data, the CSG IF package data can now be output.
-	The Batch Calculation Schedule screen now supports simple display.
2018-1640	If the machining name being registered in the user database is the same as a machining name that is already registered, it can now be changed.
2023-1734	Added [Random Color Setting] to the color setting of the angle deviation function on the Measurement screen.
2021-1139	Added an extension function to the Create Curve function.

-	The data migration tool now supports FFCAM2025.
-	In the data migration tool and user data conversion, favorited images for tool data can now be transferred.
-	Changed the screen specifications of the folder selection dialog box in the data migration tool.
2024-0461	The data migration tool and user data conversion no longer display a termination message during execution.
2023-1429	A completion screen is now displayed when data migration tool finishes execution.
2022-1260	In the data migration tool and user data conversion, column information in the machining creation tree view can now be transferred.
2023-2029	Changed the order of conversion pattern items on the user data conversion screen to descending from the latest version.
-	Added copyright information to the splash screen.

Post Processor

DUG No.	Description
2023-1416	The following parameters are now compatible with the conversion table variables in FFPOST: tap tool pitch, taper angle of the taper tool, workpiece size, key name of the machining method, process number, and hole information number.
2022-1062	Cutter comments can now be output to the Machining Instruction Sheet (csv).

Installer

DUG No.	Description
2023-0622	Placed the SQL Server installation button and the user data conversion start button on the FFCAM installation top screen.

1.3 Correction of Problems

FFCAM 2025.0.0

Machining function

DUG No.	Description
2019-1527 2020-1077 2023-1644	Fixed an issue where a bite could occur when using the high-efficiency roughing function for contour face cut machining.
2018-1800 2019-0773 2023-1677 2024-1852	Fixed an issue where a bite could occur when the finishing allowance was specified to a negative value with the same maximum radius as the tool tip.
-	Fixed an issue where the movement to the machining start point increased when along-surface machining had multiple machining areas.
2022-0501	Fixed an issue where air cutting occurred in CL when a taper tool was specified for uncut part machining.
2019-0401	Fixed an issue where the path approach motion started from the remaining uncut areas.

Operation functions

DUG No.	Description
-	Changed the column name for comments in the hole information row of the machining creation tree view to [Hole Comments].
-	Removed the slash at the end of the string displayed in the List screen for the Check Geometry function.
-	Fixed an issue when Flat End Mill was specified for Spot Face Machining, where the tip angle of the cutter underwent a parameter check depending on the motion type.
2024-0479	Fixed an issue where [Save As] could not be executed when multiple xMtn files were present in the project folder opened in FFCAM.
-	Fixed an issue where [Save Current Screen Layout] and [Reset Screen to Default Layout] in the right-click menu of the Machining Parameter Setting screen did not work for the following machining types. 3D equi-pitch close machining, 3D equi-pitch open machining, 3D curve machining, core pocket contour machining, core pocket projection machining, 5 axis parallel machining, 5 axis along-surface machining, 5 axis route machining, thread cutting.

-	Fixed an issue where an exception occurred in the program when opening the Machining Parameter Setting screen for thread cutting.
2024-0806	Fixed an issue where the machine name in the process row of the machining creation tree view could not be changed.
2024-0798	Fixed an issue where the Element Selection screen could not be launched after using the Create Curve function in the Area Settings screen.
-	Fixed an issue in 3D Equi-Pitch Open Machining where the Scan Interval Switching Length became inactive during the [Cutting] phase between scans.
-	Fixed an issue where color filter control in the Element Selection screen was cut off.
2021-1756	Fixed an issue where tab key navigation was out of order in the Drilling screen for HEIDENHAIN.
-	Fixed an issue in drilling chamfering machining where the parameter display in the Machining Condition Setting screen did not switch when changing the motion type.
-	Fixed an issue on the Check Geometry and Offset Plane screens where the color palette was actively displayed when the color filter was disabled.
-	Fixed an issue in along-surface machining where the tool tip message for the mesh width was incorrect.
2024-1423	Fixed an issue in contour face cut machining where screen transition was prevented due to hidden parameter checking.
-	Fixed an issue where an exception occurred in the program when opening the Machining Parameter Setting screen for chamfer route machining after opening the Machining Parameter Setting screen for machining with a pencil neck tool specified.
-	Fixed an issue in the movement function where the icon design for the rotation function was incorrect.
2024-1305	Fixed the following issues with the parameter display in route machining: Scan Interval Switching Length is inactive in the [Cutting] phase between scans. Specify Amount is inactive when Add Corner R is [Set Value]. Prevention of Running Down is active when Motion Type is [Zigzag]. Route Drive-in Cut is active when Prevention of Running Down is enabled.
-	Fixed an issue in the English version of FFCAM where the control layout in the Machining Parameter Setting screen for along-surface machining was misaligned.
-	Fixed an issue in the English version of FFCAM where the parameter name for [Delete Short Cutting Movement] was only partially displayed in Contour Projection Machining, even when resizing the screen.
-	Fixed an issue in along-surface machining where the screen split function was displayed on the vertical scrollbar of the drive surface list.

-	Fixed an issue in the machining creation tree view where the color information attached to machining data was not copied when pasting the machining data into the process row.
2023-0850 2024-0891 2024-1203	Fixed an issue where the hole dimensions could not be accurately retrieved when executing hole position detection on a model with countersinks at the base end of the holes.
2023-1858	Fixed an issue where two dimension lines with the same value were displayed in the tool shape diagram when the tapered blade length and neck length of the taper tool were the same value.
2022-1961	Fixed an issue where tool data previously imported into the tool database was duplicated in the Tool Database Maintenance screen when overwritten.
2023-0537 2023-1105 2023-2166 2024-1873 2024-1875	Fixed an issue in the FFCAM screen where an error occurred in the tool display and simulation due to a problem with importing tap tools from the tool database.
2023-1559	Fixed an issue where a macro function could not obtain the previous machining information when the previous machining was the following machining type. Core pocket contour machining, core pocket projection machining, 5 axis parallel machining, 5 axis along-surface machining, 5 axis route machining.
2024-1445 2025-0081	Fixed an issue where the macro function could not obtain the process information when the machining was the following machining type. 2D route machining, 3D curve machining, chamfering route machining.
-	Fixed an issue in the macro function check process where the error message for the minimum tilt angle was incorrect.
-	Fixed an issue where the specified parameter macro could not be saved to [Cutting Length] in Path Detail Parameter.
2024-0550 2024-1071	Fixed an issue points could not be picked on certain parts of the model when Hidden Line Removal display and Shading with Edge display were used.
2024-0544	Fixed an issue where the tool axis direction would incorrectly align with the Z-axis of the absolute coordinate system during simulation of the CL data for index machining after enabling [Cutting Depth Calculation] in Detailed mode of CL simulation.
2023-1568	Fixed an issue where CL simulation could result in an error when executed in Detailed mode.
2021-0571	Fixed an issue where CL simulation would result in an error for specific data when executed in Detailed mode.

2024-0969	Fixed an issue where CL simulation would result in an error when simulating CL data for batch-calculated machining after enabling [Bite Check of Machining Geometry] in the CL simulation.
-	Fixed an issue where the holder clearance was processed as 0 during execution of [Overhang Length Calculate] in the CL simulation.
2024-0662	Fixed an issue where simulation would result in an error based on the minimum overhang length and holder clearance values during the execution of [Overhang Length Calculate] in the CL simulation.
2024-1302	Fixed an issue where CL simulation would result in an error based on the xMtn file name when [Simulation Undo Precision] was set to High Speed.
-	Fixed an issue where the Machining Instruction Sheet output an incorrect overhang length calculated in the CL simulation when the input units in FFCAM were set to inches.
-	Fixed an issue where the total cutting length in the CL division function was displayed incorrectly on the screen when the input units in FFCAM were set to inches.
2023-0468 2025-0025 2025-0226	Fixed an issue where chamfer cutters were sometimes output with incorrect tool information in the tls file when VERICUT IF package data was output from FFCAM.
-	Fixed an issue where FF.Boot would not automatically start when executing path calculation from the right-click menu in the machining creation tree view.
-	Fixed an issue where calculation could not be resumed when it was paused on the last data of batch registration during calculation on the Batch Calculation screen.
-	Fixed an issue where launching the Create Curve function took a long time when a large number of elements were displayed in the model.
-	Fixed an issue where an exception occurred in the program when executing the Error Surface Check function.
-	Fixed an issue in the English version of FFCAM where Japanese messages were displayed in the intermediate file deletion function.
-	Fixed an issue where an exception occurred in the program when launching the intermediate file deletion function.
2024-0963	Fixed an issue where FFCAM information could not be obtained on certain computers when backing up data using the data migration tool.
2023-2030	Fixed an issue where the screen message for user data conversion was incorrect.
-	Fixed an issue where the message was not displayed correctly during restoration with the database backup restore tool.