

64bit version

FFCAM 2024

Release Notes



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

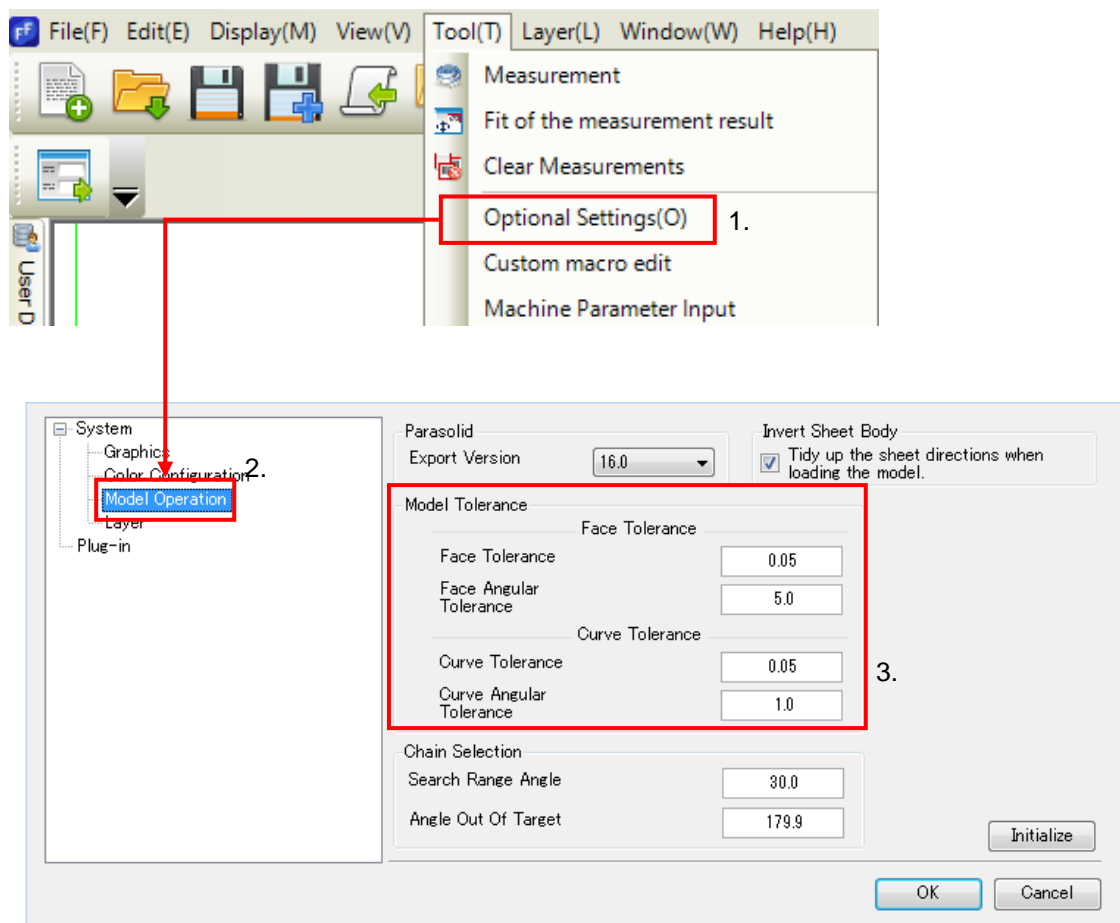
1.1 Restrictions on Functions

1.1.1 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.



Please enter up to 240 one-byte characters for path of the output file.
(Currently specified path : 396 one-byte characters)

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

1.2 Function Revision (Addition/Change) History

FFCAM 2024.0.1

None

FFCAM 2024.0.0

Machining functions

DUG No.	Description
2013-3013 2014-3010 2017-0465 2019-1054	In along-surface machining, multiple along-surface machining areas can now be specified during a single machining.
2014-3013 2015-2597 2016-2566 2016-2567 2021-0319	On the machining work, a cylinder in the X-axis or Y-axis direction can now be specified.

Operation functions

DUG No.	Description
-	When copying process and machining data in a template to the tree view, model elements are now automatically retrieved based on the filter information of the model element function of the data. Check Geometry and Offset Plane are now supported.
2014-1176 2016-1347 2018-2320	NC output with a different machine name is supported for post processing.
-	The Hole Positions Sort function now supports sorting of hole positions with a bandwidth.
-	A comment input field has been added to Drilling.
-	The tool setup sheet output function that can be used with ZOLLER has been added to the machining information output function.
-	Holder parameters have been added to the tool DB.

2013-1191	A function to delete holders has been added to the Edit Tool screen of Tool Database Maintenance.
-	The machine parameter spindle nose has been updated. Existing items can now be renamed and new items can now be added.
-	Drilling now supports the parameter macro function.
-	A macro function has been added to the macro functionality to obtain parameter information for pre-machining.
-	A function has been added to the macro functionality to determine whether the result of a specified macro expression meets the conditional expression.
2022-2012	The model import function now supports the deletion of redundant elements from the model.
2022-1865	The data migration tool now supports migration of icons, logos, and product images of the tool database manufacturer.

1.3 Correction of Problems

FFCAM 2024.0.1

Machining function

DUG No.	Description
2023-1825	Fixed an issue where CL data without movement was being output during path calculation.
-	Copy the template machining data to the machining creation tree view. Fixed an issue where the processing result varies depending on the timing of path calculation execution for machining.
2024-0403	Fixed an issue where a calculation error occurred during path calculation for machining when the process name or operation name contains a dot.

Operation functions

DUG No.	Description
-	Fixed an issue where, depending on the order in which machining rows were selected in the machining creation tree view, the creation of stock file names would result in an error when parameter macros were used for the stock file names.

2024-0379 2024-0611	Fixed an issue where the confirmation dialog for updating machining conditions did not appear when modifying machining parameters related to machining conditions.
2024-0597	Fixed an issue in the machining parameter setting screen where users were unable to navigate to other tab screens while editing.
2024-0736	Fixed an issue where [Guide Cutting] could not be used when [Spiral] was selected as the motion type for flat face machining.

FFCAM 2024.0.0

Machining function

DUG No.	Description
2021-1238 2022-0090	Corrected the problem in contour machining where the path is sometimes cut in if the tapered part of the machining geometry matches the taper angle of the cutter.
2022-0749	Corrected the problem in contour machining where a calculation error sometimes occurs if an uncut model created in advance mode is imported.
2022-0636	Corrected the problem in contour projection machining where a guide cutting path sometimes becomes irregular if an uncut model created in advance mode is imported.
2023-0590	Corrected the problem in constant scallop height operations in along-surfaces where a path whose vertical wall pitches are wider than the specified value is output.
2021-1872	Corrected the problem in contour machining where contour machining paths and gap machining paths are sometimes output in the wrong order.
2020-1753	Corrected the problem in contour machining where the path is output without adhering to the set value of Z Step if Z Spiral and Along-Section are simultaneously specified.
2023-0087	Corrected the problem where an incorrect error message is displayed after path calculation.

Operation functions

DUG No.	Description
2023-0365 2023-0817	Corrected the problem where the calculation result of the expected machining time is not displayed in the machining tree view after path calculation.
2023-0625	Corrected the problem in contour machining where [Contour Face Cut Machining] sometimes is automatically disabled.

-	Corrected the problem in the control method [Cutting direction standard] of the 5-axis simultaneous movement setting where an exception occurs if you hover the mouse cursor over an item in Angle Range List on the Cutting Edge Manager screen.
-	Corrected the problem in the control method [4 Axis control] of the 5-axis simultaneous movement setting where an exception occurs if you hover the mouse cursor over an item in the central rotation axis.
-	Corrected the problem in the machining tree view where the CL status is sometimes not updated when a value of another process data is copied to the calculated process data by drag-and-drop.
2023-0099	Corrected the problem in the machining tree view where the CL status is sometimes not updated when the comment value of calculated drilling data is changed.
2022-1639	Corrected the problem in the drilling row of the machining tree view where the CL status icon does not change to yellow when the values of [T], [H], and [D] are changed.
-	Corrected the problem where the path calculation is not executed and the screen becomes unresponsive when the FFCAM V.8 template is read by FFCAM2023 and specific machining is created from that template.
-	Corrected the problem where, when machining data is copied from a template to the machining tree view, the area type does not change when the target model for the [Non-Machining Area] setting is element zero.
-	When machining data is copied from a template to the machining tree view, the process name and machining name are automatically determined. The names sometimes did not match the stock file name, resulting in a calculation error. This problem has been corrected.
-	Corrected the problem in the system log of FFCAM where an exception occurs for machining condition processing.
-	Corrected the problem where the exception "[MAKINO.FF.Fum.FFlength_t] out of limit" occurs in the system log of FFCAM.
-	Corrected the problem in the Tool Setting screen where the update process for a tool drawn in the model view is not properly executed when the tool color is changed.
-	Corrected the problem in the Machining Direction and Reference Point setting screen of 5-axis along-surface machining where an exception occurs when screen operations are performed in a specific order.
-	Corrected the problem in the area setting where a guide figure remains drawn when the area type [Curve] is selected for the non-machining area.

-	Corrected the problem in the area setting where the area copy function in the area setting screen sometimes draws a guide figure without considering the region offset when the area type [Curve] is selected.
-	Corrected the problem in the Tool Setting screen for the overhang length division where the value of a specific holder parameter is not saved despite being changed.
-	Corrected the problem in the Batch Calculation Schedule screen where the limit on the number of history records is not saved.
2023-0913	Corrected the problem in the Batch Calculation Schedule screen where the [Auto] setting becomes disabled even after enabling the setting and upon exiting Mos.Boot.
-	Corrected the problem of being unable to delete images in the image display section of the setting browser.
-	Corrected the problem of the variable [Least Input Increment] on the Custom Macro Edit screen returning an incorrect value.
-	Corrected the problem where the Macro Edit screen does not start up even when [Macro Edit] in the right-click menu of the machining setting screen is clicked for certain machining types.
2021-1281 2023-1231	Corrected the problem where FFCAM is sometimes terminated irregularly due to the internal data of the screen not being released with continued use of FFCAM.
2023-1410	Corrected the problem of being unable to delete the lock file in the project folder when the project (xMtn) is closed from the FFCAM screen.
-	Corrected the timing of the restoration process of the screen toolbar on FFCAM startup.
-	Corrected the problem of being unable to properly save the layout information on the FFCAM screen depending on the conditions of the PC.
2022-2081	Corrected the problem in simulations where the machining geometry is drawn in black when [Undo One Step (High speed)] is performed after simulation execution when [High speed] is specified for [Simulation Undo Precision] in the simulation setting.
2021-0842	Corrected the problem where the execution result of [Simulation (Extend)] is roughly drawn when STL is specified as the machining workpiece.
2023-1421	Corrected the problem in simulations where an error occurs in the simulation result when simulating in [Create Data (Details)] mode with specific model and simulation settings.
2023-0299 2023-1048 2023-1098	Corrected the problem in repost information where an error occurs in the CLdata file when the professional data output function is started after executing the [NC Create (Output the One NC file)] function.
-	Corrected the problem in repost information where the [LST] button is sometimes inactive after machining information is output.

-	Corrected the problem in the Excel machining information function where process information is not output to the machining information when duplicate tool data is deleted and the name of the process using that tool data is the same as that of the start process.
-	Corrected the problem in the Excel machining information function where the value of the shank of the cutter is not output correctly when batch calculated data is used.
-	Corrected the problem in the cutter edit screen of Tool Database Maintenance where incorrect parameters are entered for Chamfer Cutter.
-	Corrected the problem in the cutter edit screen of Tool Database Maintenance where prohibited characters can be specified for External Tool ID.
-	Corrected the problem in the cutter edit screen of Tool Database Maintenance where an error occurs in the DB when a single quotation mark is entered for External Tool ID.
-	Corrected the problem in the machining condition table edit screen of Tool Database Maintenance where the screen is abnormally terminated when a pull down menu is operated in an attempt to add machining condition data.
2020-1492	Corrected the problem in the model import function where unnecessary model elements are imported as a result of importing a DWG file.
2018-1926	Corrected the problem in the model import function where the origin of the model is in an incorrect position as a result of importing a DXF file.
2017-2500	Corrected the problem in the model import function where some graphics do not appear in the correct position as a result of importing a DXF file.
2022-1342	Corrected the problem in certain model data where rotating a model around the Y-axis or Z-axis results in a corrupted geometry.
2023-0049	Corrected the problem of being unable to read Parasolid files and STEP files output from VISI CAD.
-	When the xMtn files is opened in FFCAM, unnecessary Toolpath Assist data is deleted. Corrected the problem of being unable to delete drawing data in such case.
2023-0489	Corrected the problem in the fillet creation function in the Create Curve function where a fillet sometimes cannot be added.
-	Corrected the problem in drilling where an incorrect message is displayed when a chamfering tool whose diameter is larger than that of the hole is specified.
-	Corrected the problem in the right-click menu of certain screens where messages are not assigned to [Macro Edit].
-	Corrected the problem of the [Macro Edit] button being displayed in the right click menu in the machining setting of core/pocket machining and the 5-axis simultaneous movement screen.

-	Corrected the problem of an incorrect message being displayed when an error occurs in the parameter macro for the tool type of the pre-machining tool of corner R machining.
-	Corrected the problem of an incorrect parameter name being displayed on the macro error screen when an error occurs in the parameter macro for the tilt angle and minimum tilt angle for corner R machining.
-	Corrected the problem on the Custom Macro Edit screen where the description was incorrect for variables [Holder 1 diameter 13], [Holder 2 diameter 13], [Holder 1 diameter 13], and [Max. Speed].
-	Corrected the problem on the Create Curve screen where the description displayed in the tooltip of a function was incorrect.
-	Corrected the problem in the English and German versions where the description of [FFcam.dll] in the plugin list in the Option Set Screen was incorrect.
-	Corrected the problem in the English version where a container name in the Change Tool Settings screen of the CL Edit function was incorrect.
-	Corrected the problem in the English version where a function name in the Option Set Screen was incorrect.
-	Corrected the problem in the Simplified Chinese and German versions where some help menus in the menu bar were in English.
-	Corrected the problem in the English version where the function names on the TURS screen were not displayed properly.
-	Corrected the problem in the Create Curve screen where the buttons were not displayed properly.
-	Corrected the problem in the Guide Wire selection screen where the buttons were not displayed properly.
-	Corrected the problem of the Cleanup of the project file function being displayed with a small image size icon in the menu even when the screen is set to display with large menu icons.
-	Corrected the problem of the FFpost upgrade converter of FFCAM2023 not executing the process correctly.

Post Processor

DUG No.	Description
-	Corrected the problem in outputting incremental values in drilling where the hole bottom position is raised when continuous drilling is performed at a fixed cycle.
-	Corrected the problem where a cutting feed rate F20000 not specified by the user is output to the NC program.

2022-1744	Corrected the problem where deep drilling occurs in drilling.
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