3DMakerpro MagicSwift Plus Swift PLUS 3D Scanner Instruction Manual

Contents

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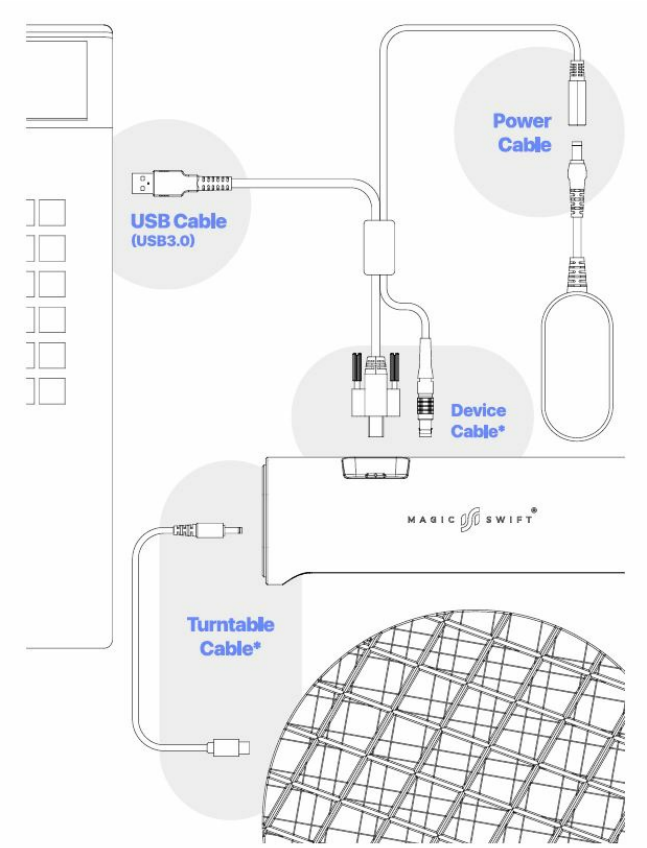
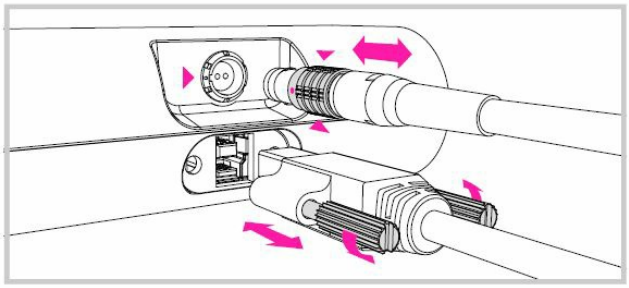
HARDWARE CONNECTION.



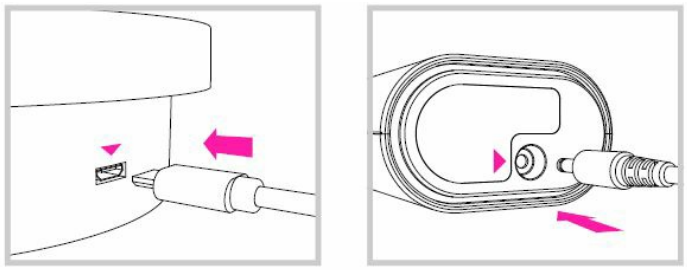
Plug the USB3.0 end into your computer’s USB3.0 port Plug the power connector into the power adapter. The other end of the two plugs into the end of the device. Plug the turntable cable into the side connector of the device.

Device Cable



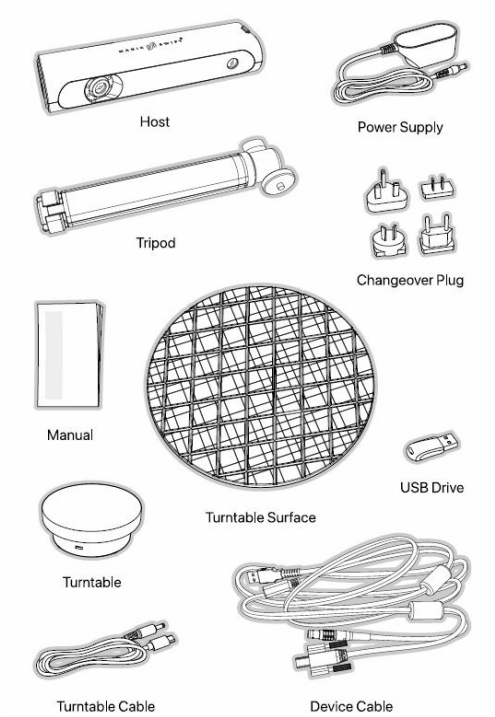
Insert the power plug at the device end by aligning the raised point with the interface dot mark. Pinch the side wall of the plug when pulling it out, and then pull it out.

Turntable Cable



One end of the turntable cable plugs into the jack on the side of the unit. The other end plugs into the connector on the turntable.

PACKING LIST



To prevent antivirus software from blocking the driver, please uninstall the antivirus software.

Software Installation

Operating System Requirement

Recommended Computer Configurations
Intel Core i7 8th, 16GB RAM, NVDIA1O6O GPU with 4GB VRAM

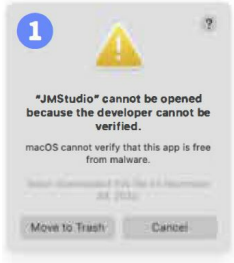
Minimum Computer Configurations
Intel Core i5 8th, 16GB RAM, MX25O GPU with 2GB VRAM

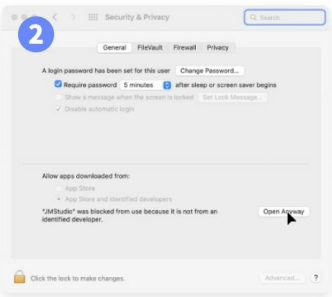
How to Install
You can acquire the application file from the attached USB drive or by visting our website. Follow the steps below to install the software.

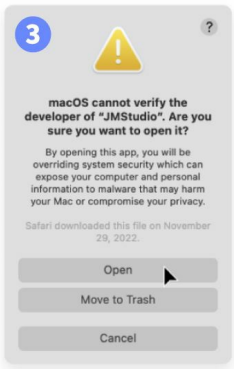
For macOS

1. Double-click the application file and drag it to the Applications folder.

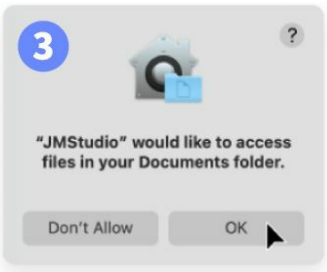
2. When this erro occurs, please go into your Security & Privacy, check the App Store and Identified Developers radio button, and click Open Anyway.







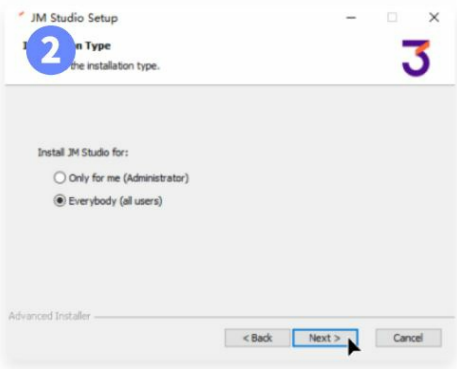
3. Allow JMStudio to access files in your Desktop folder.

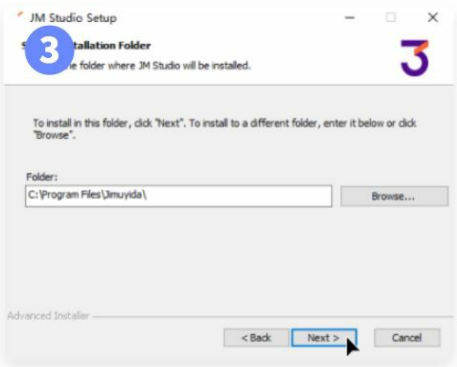


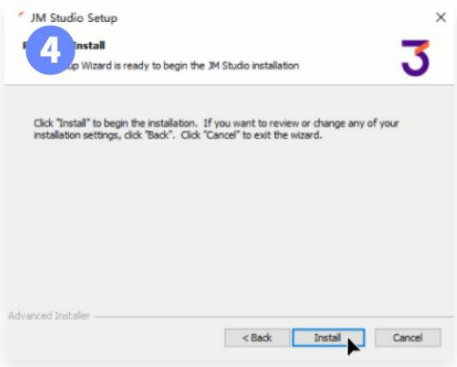
4. Run JMStudio, allow it to access the camera, now the installation is completed.

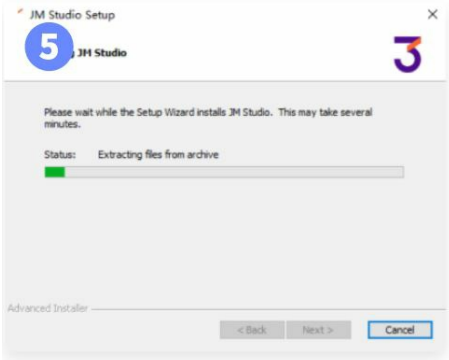
For Windows

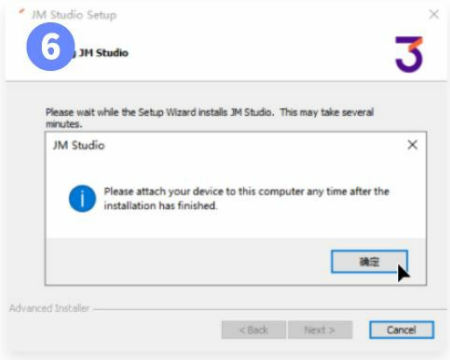
1. Click on the application file, follow the intallation wizard and click Next to install the software.



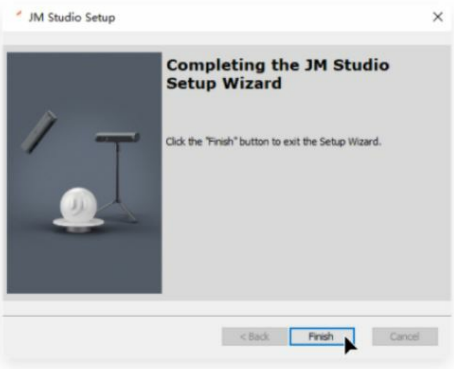








2. Click Finish to complete the software installation.



Please make sure you're running the lastest version of software.

User Interface

The user interface consists of the following parts:

1. Title Bar
2. Tool Bar
3. Work Mode
4. 3D Viewer
5. Work Panel
6. Data Panel
7. Status Bar

Scanning Workflow

Preparation

Preparation for special objects
Please choose the right scan mode according to the size of the object.

Objects needing special treatment
In order to get a better scanning result, please use spray, dry shampoo, powder, etc. on the following types of objects before scanning:

1. transparant objects (glass products, plastic bottles, etc.)
2. deformable objects (clothes, animals, etc.)
3. reflective, shinny objects (metal products, electroplated parts, etc.)

Preview and Adjustment

ScanMode
In Easy Scan, you can operate the scanner flexibly to scan large sized objects in irregular shapes; in Table Scan, the scanner works with tripod and turntable to scan small sized objects and free your hands.

Please choose the right scan mode accordingly, and keep a proper working distance as follows.

	Easy Scan	Table Mode
Whale	200-2000mm(wide-core) 15-2000mm(micro-core)	200-500mm(wide-core) 15-300mm(micro-core)
MagicSwift Plus	200-2000mm	200-500mm
MagicSwift	200-2000mm	200-500mm
CR-Scan Lizard	15-1500mm	15-300mm
CR-Scan 01	200-2000mm	200-500mm

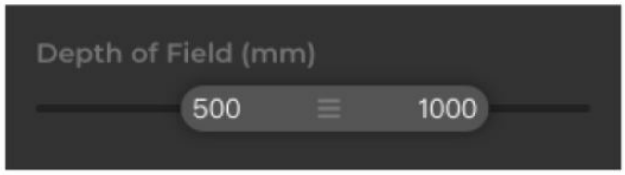
Choose “Easy Scan” or “Table Scan” in the Work Mode.

Slam Mode
Choose “Geometry Mode” if the scanned object is bumpy and has great geometic features; while choose “Texture Mode” when scanning objects with vivid colors, patterns and textures. Please choose the right slam mode for your target objects.

Working Distance

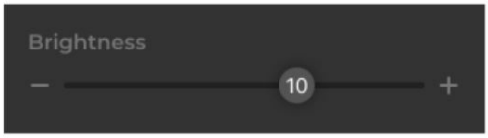
The distance indicator on the left side of the 3D viewer can help you find the optimal woking distance.

Set the depth range of data aquisition in the Work Panel_Adjust_Depth of Field.



Locate the Object

The preview window on the top right of the 3D viewer helps you locate the object. Make sure it fully exposed in the preview window.



Easy Scan

Scan
Adjust the scanner's position and angle to centre the target object in the preview window; check if they're kept in a proper distance by focusing on the distance indicator. Click "Scan" on the work panel, hit the spacebar or press the start/stop button on the scanner to start scanning.

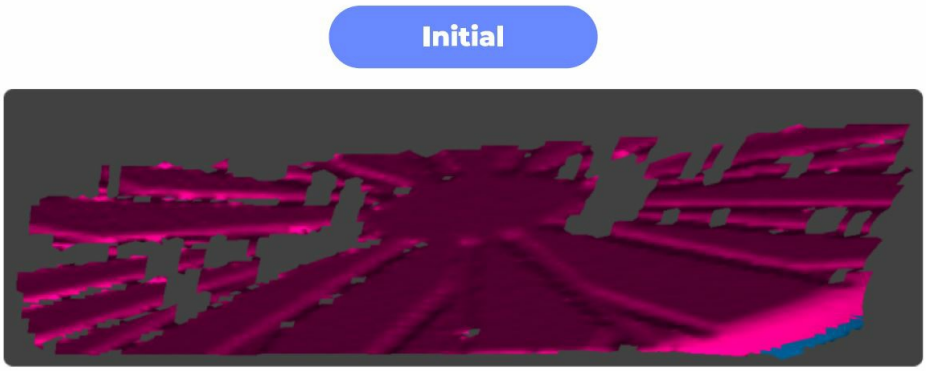
Stop
Click the red counter, hit the spacebar or press the start/stop button on the scanner to stop scanning. 600F

Append
If you want to scan at a different angle and add a new scan, click "Append", hit the spacebar or press the start/stop botton on the scanner.

Process
Click "Process", hit the spacebar or press the start/stop botton on the scanner to go into the Edit Mode and process the scan data. You can also hit right or left arrow keys to the next or last step.

Table Scan

Initial
Adjust the scanner's position and angle to centre the target object in the preview window; check if they're kept in a proper distance by focusing on the distance indicator. Remove the object from the turntable when scanner is well positioned.Click "Initial", hit the spacebar or press the start/stop botton on the scanner to scan the empty turntable until it turns red.



Stop initializing
Click the red counter, hit the spacebar or press the start/stop button on the scanner to stop initializing.

Scan
Leave the turntable there and place the target object in the centre of it. Click "Scan", hit the spacebar or press the start/stop button on the scanner to start scanning.

If you find the initialization result unsatisfactory, can also hit right or left arrow keys to the next or last step. Click the button "1", hit the spacebar or press the start/stop button on the scanner to re-initialize.

Stop
Click the red counter, hit the spacebar or press the start/stop button on the scanner to stop scanning.

Append
If you want to scan at a different angle and add a new scan, click "Append", hit the spacebar or press the start/stop botton on the scanner.

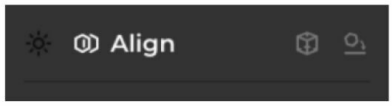
Process
Click "Process", hit the spacebar or press the start/stop botton on the scanner to go into the Edit Mode and

process the scan data. You can also hit right or left arrow keys to the next or last step.

Reset
Click “Reset”, hit the spacebar or press the start/stop botton on the scanner to initialize again. Or hit right or left arrow keys to the next or last step.

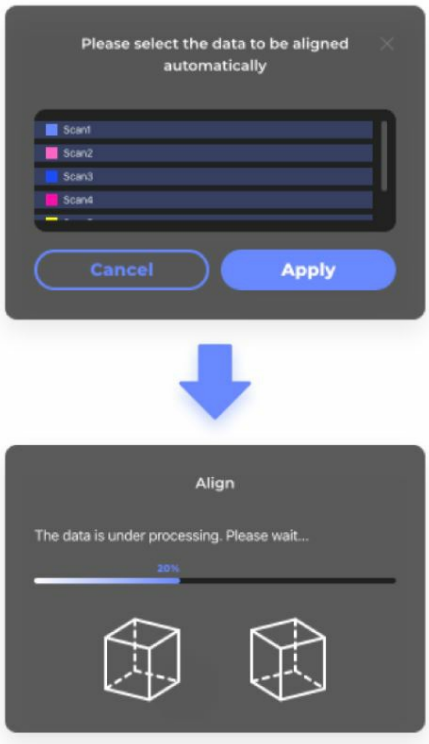
Editing

Align
Go into “Align” in the Work Panel.

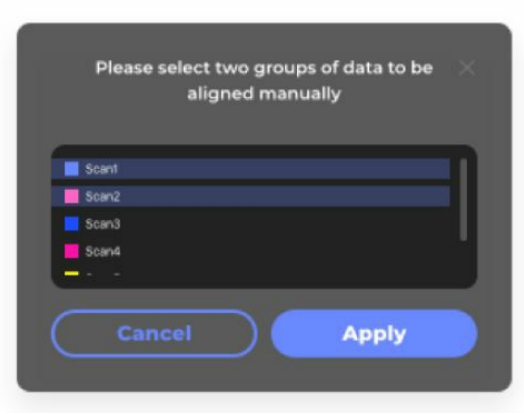


Click “Align” on the 3D viewer and select the align mode in this pop-up window.

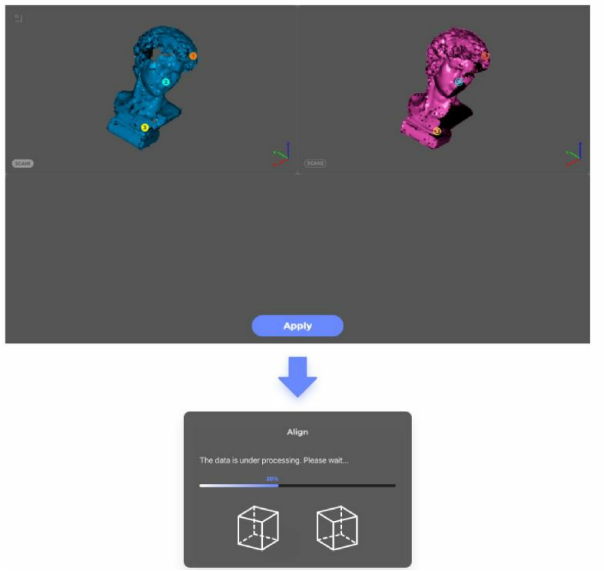
Auto Align
Select the scans in this pop-up window to align and click “Apply” to start the auto align.



Manual Align
Select two scans in this pop-up window to align, and click “Apply”.The first selected is the reference data by default.



With three pairs of mark points created, right-click to drag each pair to the place you want until they are matched.

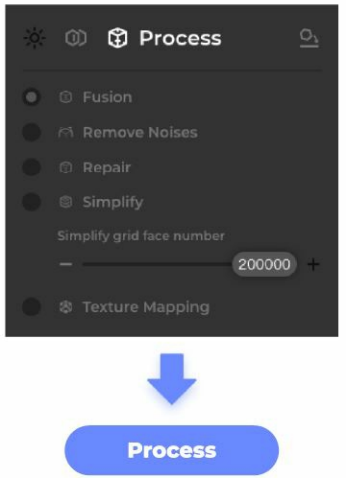


Click “OK” to apply the alignment.

Click “Return” to repostion the mark points and align the two scans.

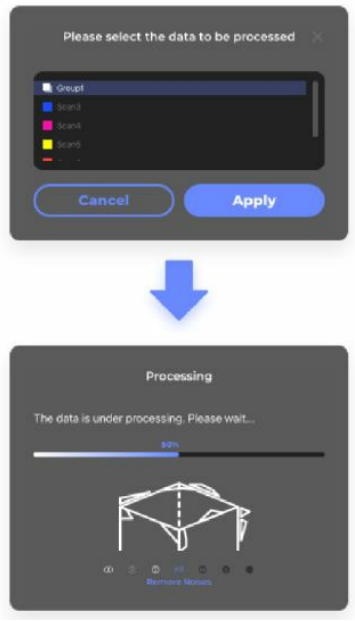
Process

Check the processing steps you need for your point cloud data in the Work Panel_Process; click “Process” on the 3D viewer.



Note: Here “Texture Mapping” refers to the texture capturing by the scanner itself. If you need to do “External Texture Mapping”, please uncheck this step.

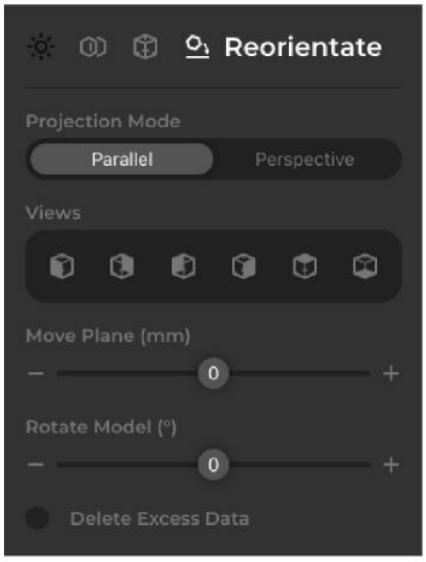
Select the scans in this pop-up window and click “Apply” to start the data processing.



Reorientate

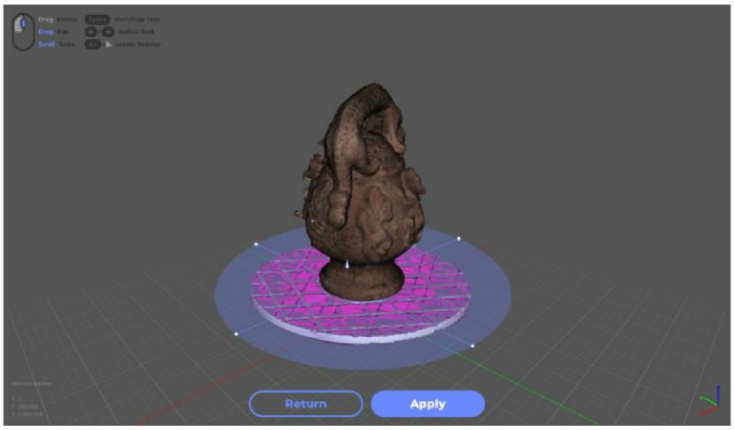
Reorientate your 3D model by going into the work panel_Reorientate. Three mark points will be automatically created to generate a plane; drag the points to reposition them but not put in a line; flipping direction in the work panel_Reorientate; click “Reorientate” on the 3D viewer.

In the Work Panel_Reorientate, there are other settings such as changing the view types, moving the plane, rotating the model and deleting the highlighted excess data below the plane.



Drag four anchor points to reposition the plane, and drag the arrow in the middle to move the plane vertically; click

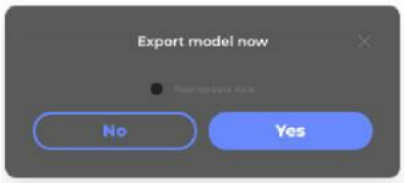
“Apply” if you are satisfied.



Export the Model

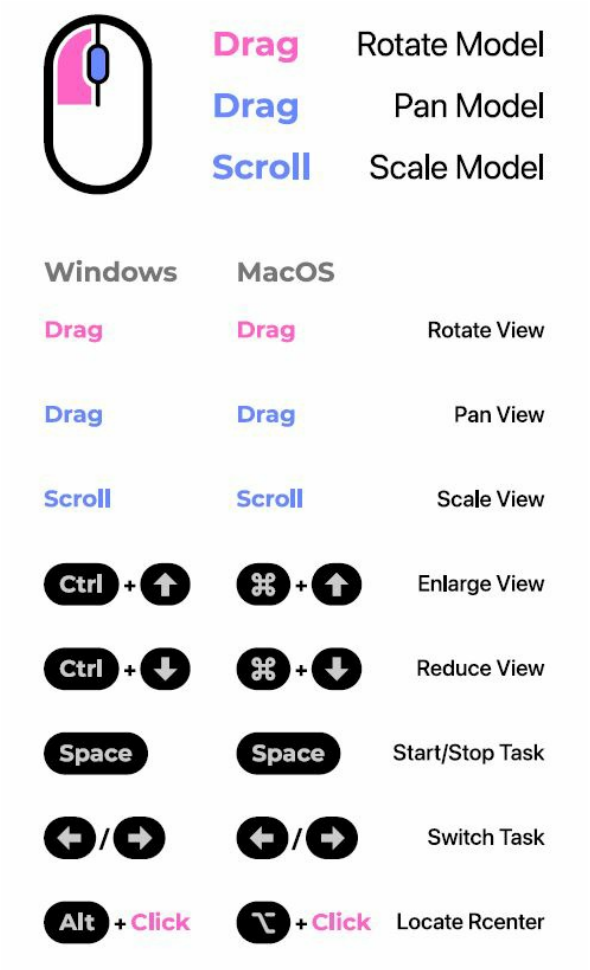
Click “Export” in the Title Bar_File or the export icon in the Data Panel to export the model.

Click “Yes” in the pop-up, will go to reorientate the model if checking “Reorientate Axis”.

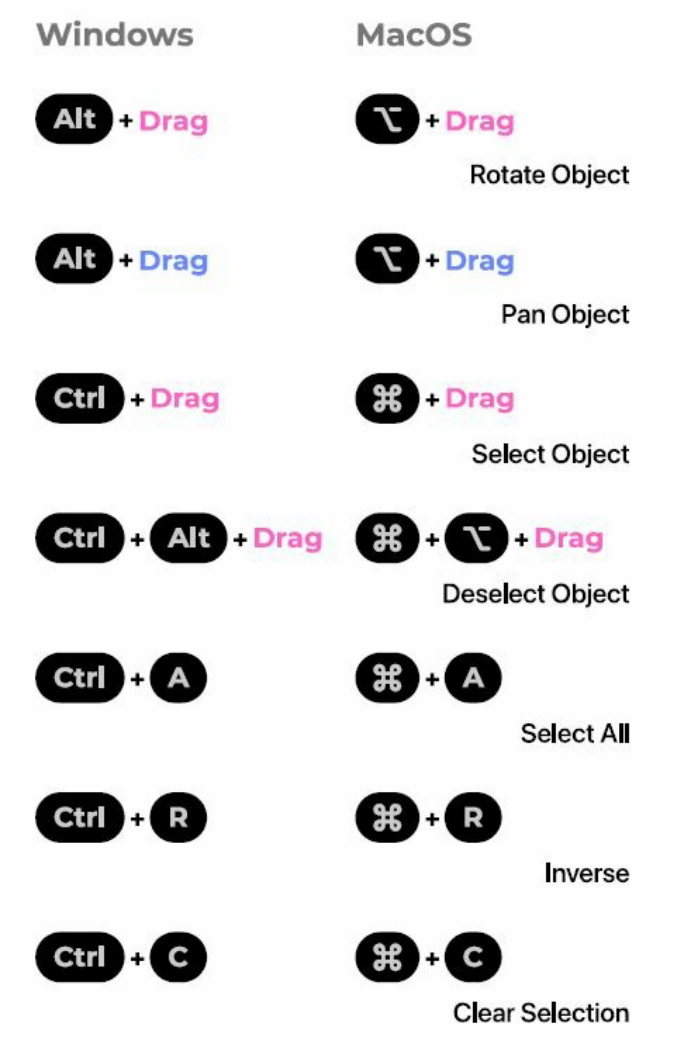


JM Studio now supports model exported in obj, stl and ply format, stay tuned for more available formats.

Shortcut Key



For Edit Mode



Computer Requirements

Minimum
Intel Core i5 8th, 16GB RAM, MX250 GPU with 2GB VRAM

Recommended
Intel Core i7 8th, 16GB RAM, NVDIA1060 GPU with 4GB VRAM

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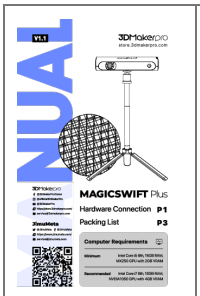
Documents / Resources

	3DMakerpro MagicSwift Plus Swift PLUS 3D Scanner [pdf] Instruction Manual MagicSwift Plus Swift PLUS 3D Scanner, MagicSwift Plus, Swift PLUS 3D Scanner, PLUS 3D Scanner, 3D Scanner, Scanner