

# SHINING 3D AccuWare Data Preparation Software for **AccuFab printers User Manual**

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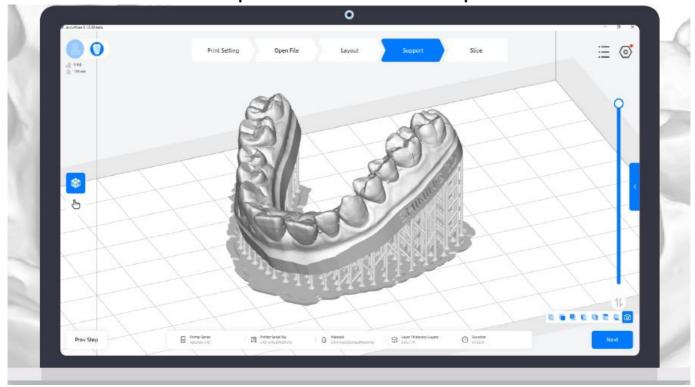


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SHINING 3D AccuWare Data Preparation Software for AccuFab printers



### RF exposure statement

The user manual (hereinafter referred to as "the manual") introduces the functions, installation, operation of the AccuWare (hereinafter referred to as "the software"). Improper actions or conditions may damage the product or result in personal injuries, and consequently void your warranty or service contract or lose the data.

#### **About the User Manual**

The Manual is related to your safety, lawful rights and responsibilities. Please read it carefully before installing and using the product.

- Shining 3D Tech Co., Ltd. (hereinafter referred to as "the Company") owns complete intellectual property rights of the Manual. No part of the Manual may be reproduced, transmitted, distributed, adapted, compiled or translated in any form or by any means without the prior written consent of the Company.
- The Manual is a guidance for installing, operating, and maintaining the product, including the device, software, or other products provided by the Company, to which the Manual is applicable. The Manual does not serve as the quality guaranty for the product. Every effort has been made in the preparation of the Manual to ensure accuracy of the contents. The company reserves the right to interpret and modify possible errors and omissions therein. Contents of the Manual are subject to changes without notice.
- Images and diagrams in the Manual are presented to provide convenience to readers. If any of them is inconsistent with the actual product, the actual product shall prevail.
- Please read the Manual carefully before using related products. Trained professionals or technicians are
  recommended to operate related products. The Company shall not be held responsible for any damages
  and/or losses caused by negligence, environmental factors, improper maintenance, improper use, and/or any
  other
  - non-quality problems.
- Disputes arising from the Manual and/or related products thereof shall be governed by the laws of the People's Republic of China.
- If you have any ambiguity or suggestion about the contents of the Manual, please contact us by the contact

information provided in the Manuals.

#### Installation

AccuWare is the data preparation software for AccuFab Printers. Which is independently developed by SHINING 3D. You can manipulate the model with positioning and orientation. And after that you can generate support structure for printing. Finally you can slice the model and send to printer. AccuWare is compatible with all AccuFab-Printers. The only difference is the sliced file format. AccuDesign is a built-in model creator. Which allows you to create model based on the scan data. You can add attachments such as text and frame, also you can create drain holes for the hollow model to save material for printing.

### **PC Recommended Configuration**

Minimum requirement

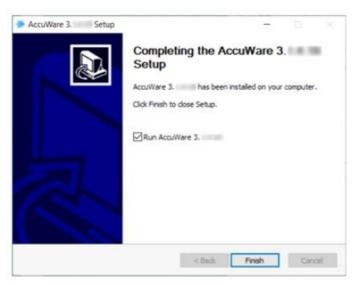
Operation System	Win10	
CPU	Intel Xeon Processor E3-1230 (8M Cache, 3.20 Ghz)	
Memory	8G	
Graphics Card	NVIDIA GTX 750 Ti	

# Suggested requirement

Operation System	Win10
CPU	Intel Core i5-8500 Processor (9M Cache, up to 4.10 Ghz)
Memory	16G and above
Graphics Card	NVIDIA GTX 1050 Ti and above

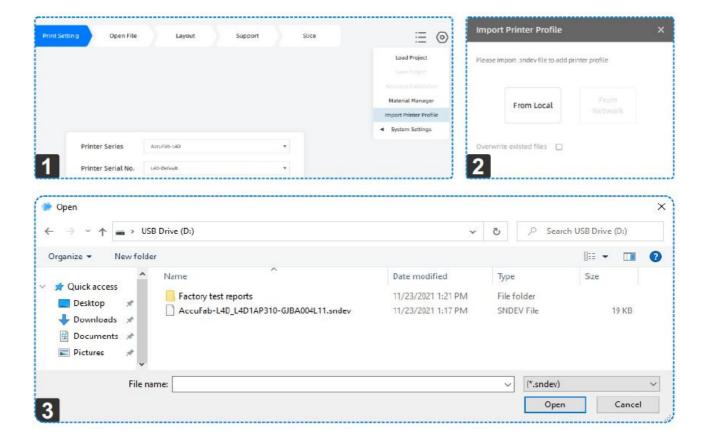
#### Installation

Insert the flash drive came with printer into the PC, Copy the installation file to the PC. And run it.Install the software following the installation wizard. Click Finish to finish and run the software.



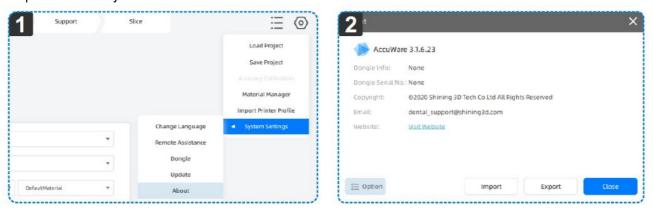
### Import printer profile

The printer profile is stored in flash drive came with the printer. Open setting and choose "Import Printer Profile", and choose the profile file to complete the import process.

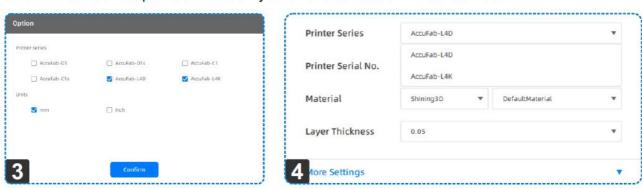


### Print series and units

Click Option to select your Print Series and Units.

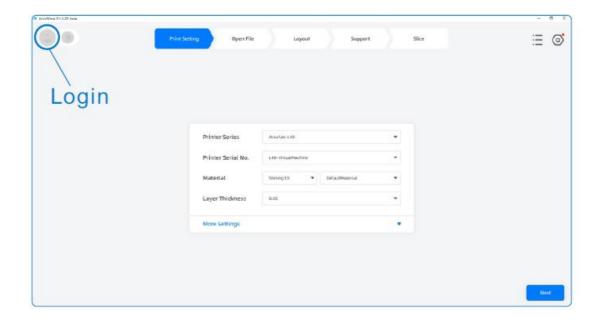


The Printer Series pull-down list only show the selected Printer Series.

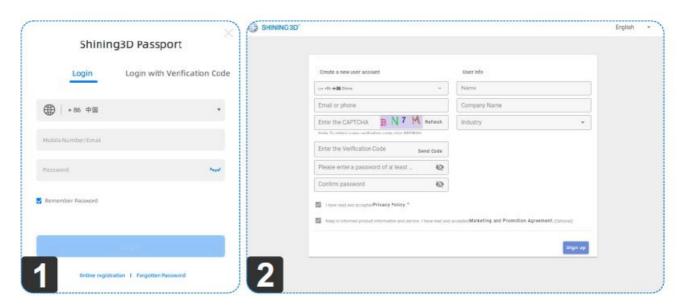


# Login

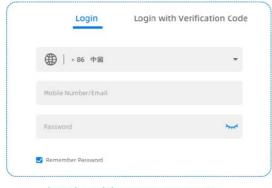
Login and you can use AccuDesign for free.



# **Register Your Account**



- 1. Click,a login pop-up dialog box about login will appear. Click Online Registration to the registration pop-up dialog.
- 2. Enter the account information and user information. Read and check "Privacy Policy" and "Marketing Agreement". Click Register to finish. Login Please follow the prompts to login with your account or verification code.



Login with your account



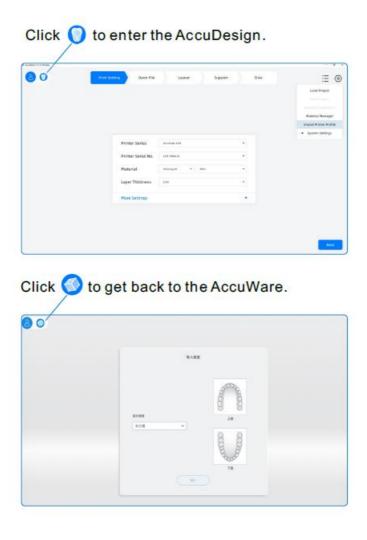
Login with verification code

After successfully login, the icons will turn blue. The AccuDesign feature can be used normally.

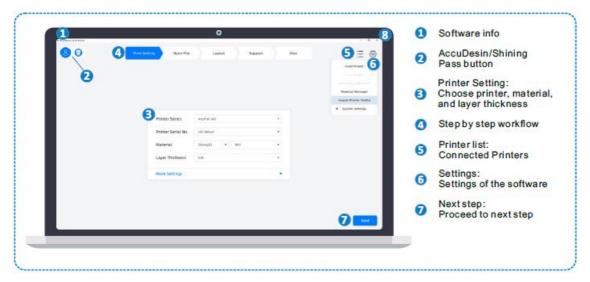


# AccuDesign

AccuDesign is a built in model creator. This allows you to create model based on the scan data. You can add attachments such as text and frame, also you can create drain holes for the hollow model to save material for printing.



### Operation



# **Print Setings**

In this step user are able to choose the printer and as well as the material type and layer thickness.

#### Note:

Please choose the printer serial number. Which should be the same as the serial number on the printer label. Please choose the printer in ready status for sending and printing the files automatically.

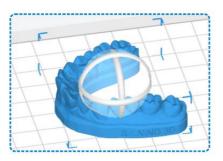
The printer in status of Finish, Printing, Off-line or Alarm can only be sent files and not Remote printing.

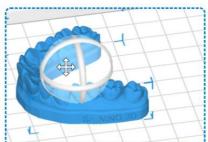
#### **Open File**

Click and choose the STL files and click "open".



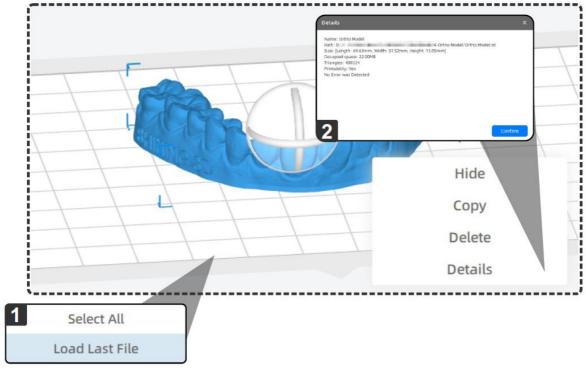
- 1. Display size and triangular patch numbers for current file
- 2. Click to import local model files to print.
- 3. Click to select model files in "List of recent files".
- 4. Model preview:Click the model, a controlling ball with button to rotate the model about the axis through the selected circular ring.







- 5. Rotate mouse wheel for zooming. Holding down the right mouse button for rotating the view. Use the scroll bar to view each layer of the model. It displays the height and the number of layers from current layer to the first layer.
- 6. Model list shows all the models opened already.



- 7. Display printer information, printing material and time needed.
- 8. Check different views of the model.

### **Open File**

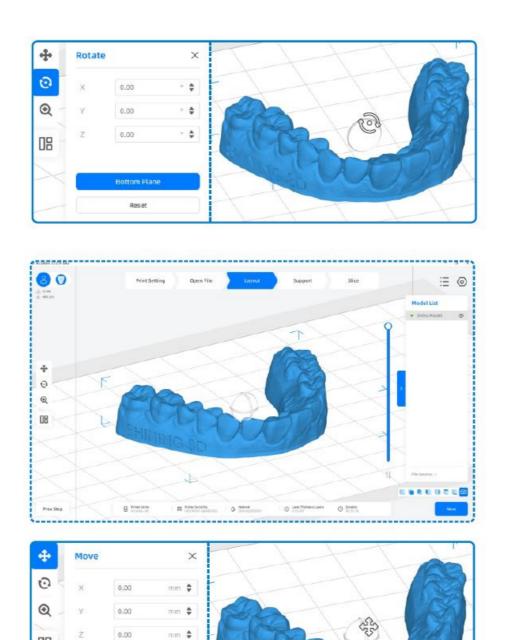
- · Shortcut key:
- Right click on the window to bring up the shortcut key to load previous model.
- Right click on the model and select 'Details' to view model details.

### Layout

In this step, we can move, rotate, and scale the model. And for multiple models. We can apply auto-layout to speed up the part arrangement. User can click the function tab on the left or to select the model and move the mouse to the dragger and operate directly.

### Move the model

X,Y,Z: Move the model by coordinate value. Move To Center: Move the model to center position of platformStick To Platform: Move the model down to the platform(Z=0mm) Reset: Reset the move operations



Note: The model placed outside of the build platform will be displayed in red.

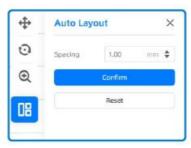
Stick To Platform

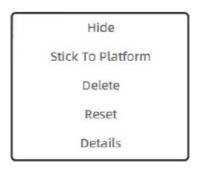
# **Rotate the Model**

X,Y,Z: Rotate the model with angle setting bottom Plane: Choose the bottom plane for the model Reset: Reset the rotate operations

# Scale





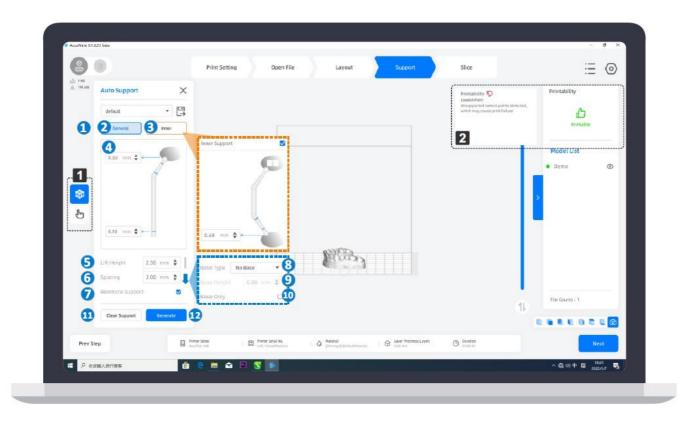


X,Y,Z: Scale the model by setting changing one axis or 3 axes together with "Uniform Scale" . Scale: Scale the model by setting a factor Reset: Reset the Scale operations

# **Auto Layout**

Spacing: The distance difference of adjacent models. Confirm: Apply the auto layout Reset: Reset the auto layout operation Right click on the model to bring up the shortcut key for Layout

# Support



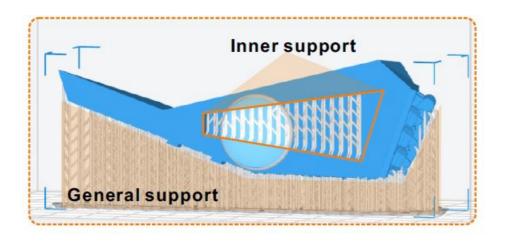
In support page. User can generate support for the model. Generate automatically by parameter setting or add manually.

### Support generation options: Auto and Manual

Printability tab: Software will check the support for the lowest area of the model. If part is properly supported. It will display thumbs up in green. Otherwise, it will display thumbs down in red.

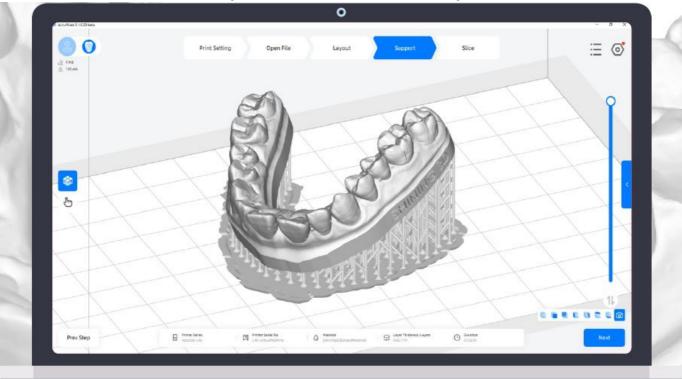
- 1. Support style:Choose a support style or save current setting to the library.
- 2. Ilnnnneerr s: upport settings Setting of the diameter of 4 contacting point
- 3. Lift Height:
- 4. Move the model up by the setting
- 5. SSppaaccine bge: tween adjacent support Reinforce Support:
- 6. Enable reinforce support
- 7. Base Type: Choose base type for the support
- 8. Base Height:
- 9. Height of the base for support
- 10. Base Only: Generate base only.
- 11. Clear Support: Clear the current support
- 12. Generate: Generate support based on the settings above.

### **Auto Support**





# SHINING 3D AccuWare Data Preparation Software for AccuFab printers



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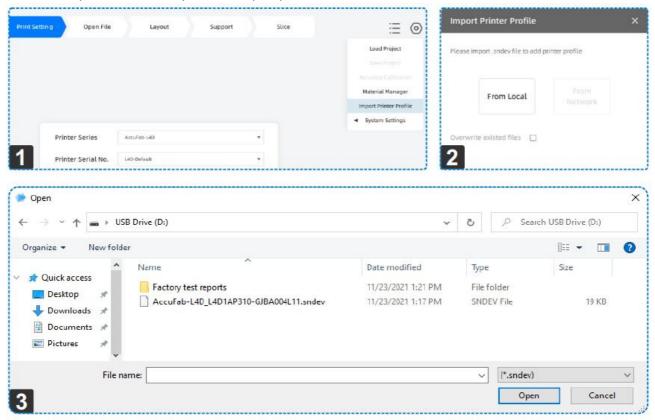
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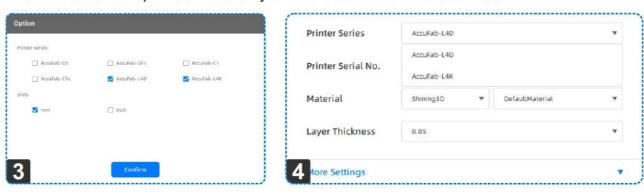


### Print series and units

Click Option to select your Print Series and Units.

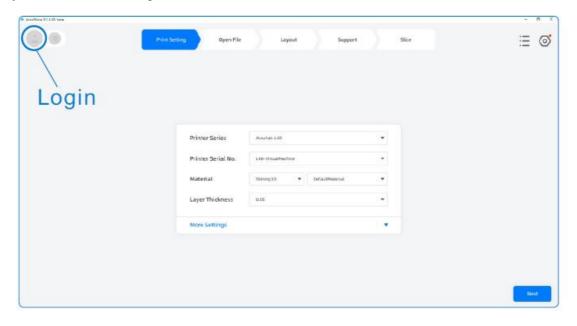


The Printer Series pull-down list only show the selected Printer Series.

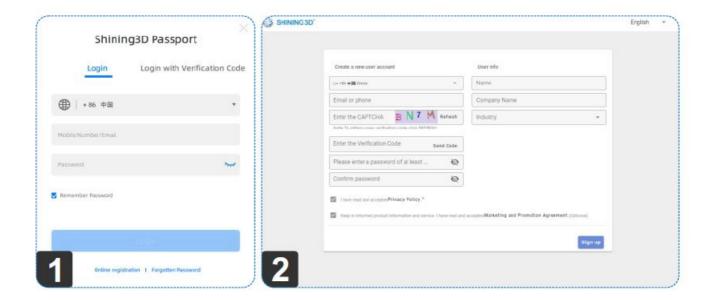


# Login

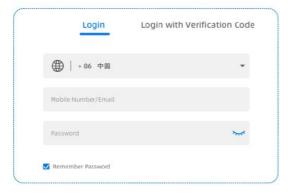
Login and you can use AccuDesign for free.



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- 2. Enter the account information and user information. Read and check "Privacy Policy" and "Marketing Agreement". Click Register to finish. Login Please follow the prompts to login with your account or verification code.



Login with your account



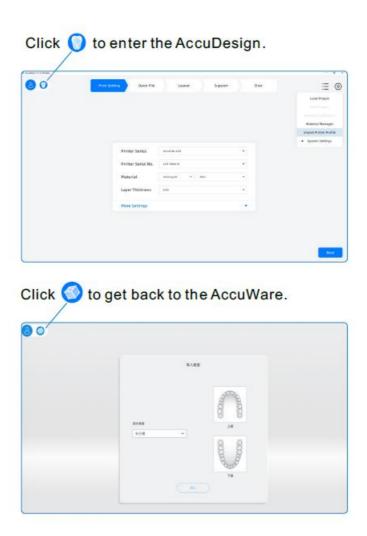
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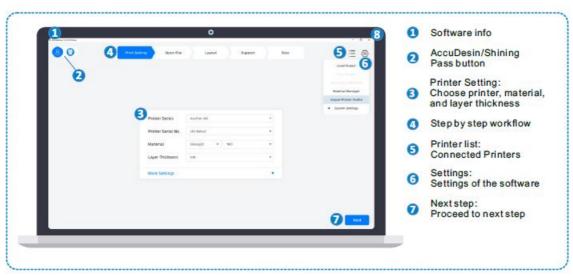


#### AccuDesign

AccuDesign is a built in model creator. This allows you to create model based on the scan data. You can add attachments such as text and frame, also you can create drain holes for the hollow model to save material for printing.



# Operation



# **Print Setings**

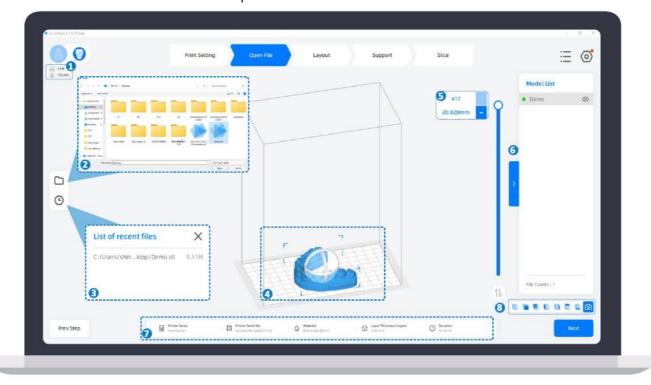
In this step user are able to choose the printer and as well as the material type and layer thickness.

#### Note:

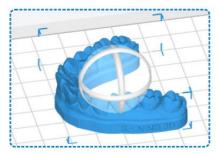
Please choose the printer serial number. Which should be the same as the serial number on the printer label. Please choose the printer in ready status for sending and printing the files automatically.

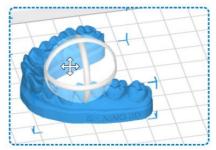
The printer in status of Finish, Printing, Off-line or Alarm can only be sent files and not Remote printing.

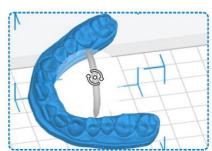
Click and choose the STL files and click "open".



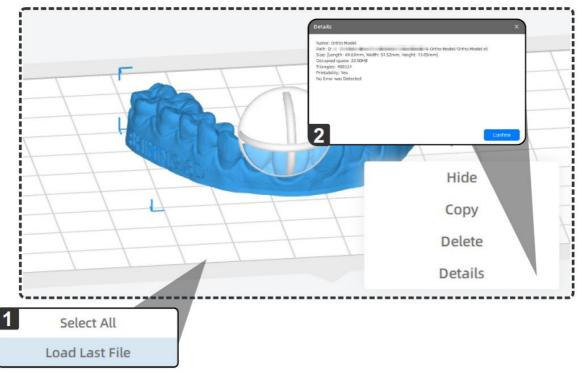
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- 2. Click to import local model files to print.
- 3. Click to select model files in "List of recent files".
- 4. Model preview:Click the model, a controlling ball with button to rotate the model about the axis through the selected circular ring.







- 5. Rotate mouse wheel for zooming. Holding down the right mouse button for rotating the view. Use the scroll bar to view each layer of the model. It displays the height and the number of layers from current layer to the first layer.
- 6. Model list shows all the models opened already.



- 7. Display printer information, printing material and time needed.
- 8. Check different views of the model.

### **Open File**

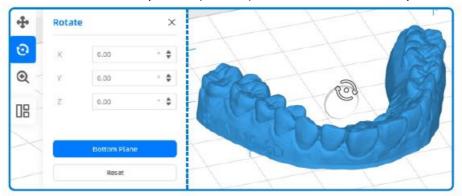
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- Right click on the window to bring up the shortcut key to load previous model.
- Right click on the model and select 'Details' to view model details.

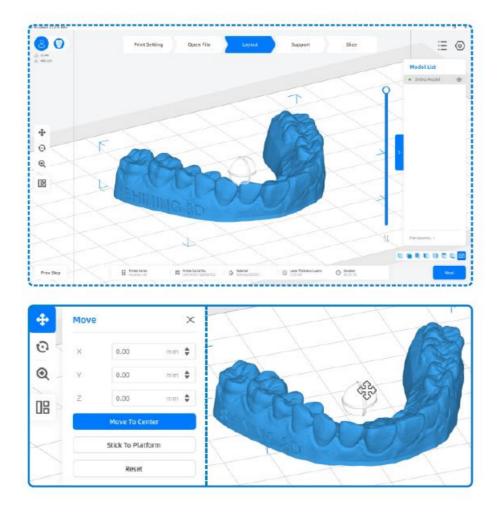
#### Layout

In this step, we can move, rotate, and scale the model. And for multiple models. We can apply auto-layout to speed up the part arrangement. User can click the function tab on the left or to select the model and move the mouse to the dragger and operate directly.

### Move the model

X,Y,Z: Move the model by coordinate value. Move To Center: Move the model to center position of platformStick To Platform: Move the model down to the platform(Z=0mm) Reset: Reset the move operations





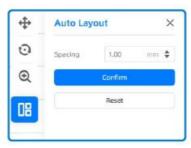
Note: The model placed outside of the build platform will be displayed in red.

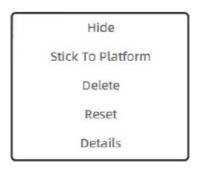
# **Rotate the Model**

X,Y,Z: Rotate the model with angle setting bottom Plane: Choose the bottom plane for the model Reset: Reset the rotate operations

# Scale





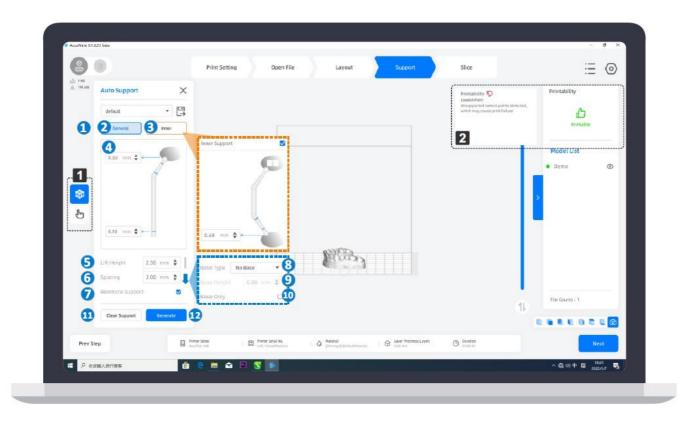


X,Y,Z: Scale the model by setting changing one axis or 3 axes together with "Uniform Scale" . Scale: Scale the model by setting a factor Reset: Reset the Scale operations

# **Auto Layout**

Spacing: The distance difference of adjacent models. Confirm: Apply the auto layout Reset: Reset the auto layout operation Right click on the model to bring up the shortcut key for Layout

# Support



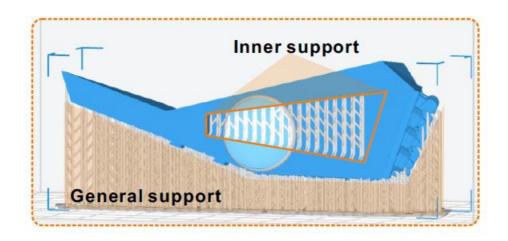
In support page. User can generate support for the model. Generate automatically by parameter setting or add manually.

### Support generation options: Auto and Manual

Printability tab: Software will check the support for the lowest area of the model. If part is properly supported. It will display thumbs up in green. Otherwise, it will display thumbs down in red.

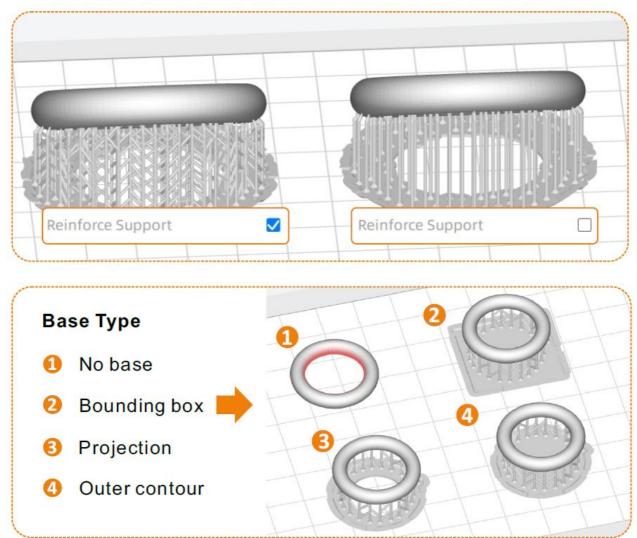
- 1. Support style:Choose a support style or save current setting to the library.
- 2. Ilnnnneerr s: upport settings Setting of the diameter of 4 contacting point
- 3. Lift Height:
- 4. Move the model up by the setting
- 5. SSppaaccine bge: tween adjacent support Reinforce Support:
- 6. Enable reinforce support
- 7. Base Type: Choose base type for the support
- 8. Base Height:
- 9. Height of the base for support
- 10. Base Only: Generate base only.
- 11. Clear Support: Clear the current support
- 12. Generate: Generate support based on the settings above.

### **Auto Support**



### **Support**

Set up the parameters and then click Generate.

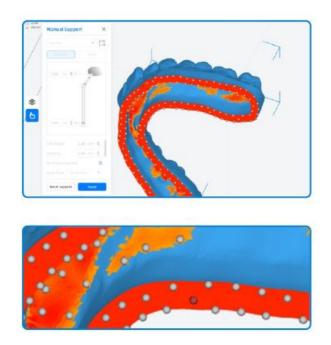


# **Manual Support**

Manual enables the manual adding or deleting of the support. User can modify the auto supports or add the support manually. Reset Support: Reset the support back to the original state. Apply: Apply the manual support editing.

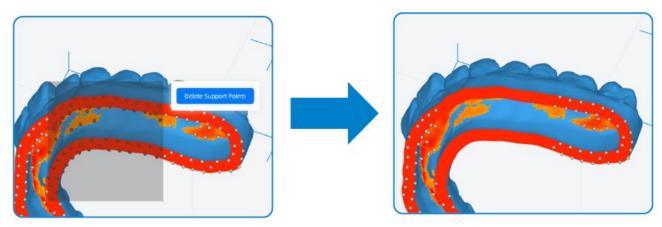
# **Delete single support**

Move the mouse to the existing support. Click when it turns to red.



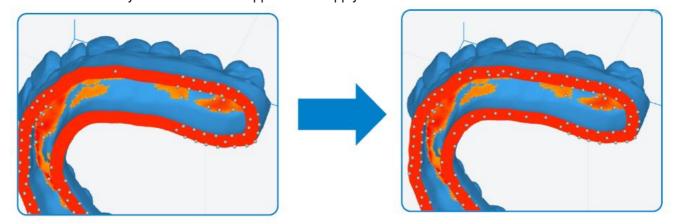
# Support

Delete multiple supports Select multiple supports by pressing the left key and drag. And choose" delete support points."



# **Add support**

Left click on the area you want to add a support. Click Apply when finished



# Add to support list

Click the save button to save the current setting with a new name. And it can be a support style to choose from.

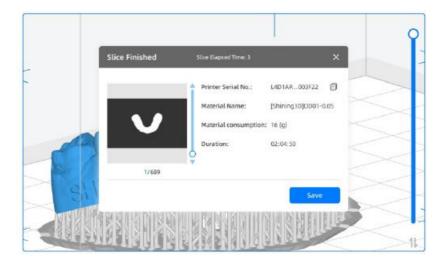


Right-click on the model to bring up the shortcut keys.

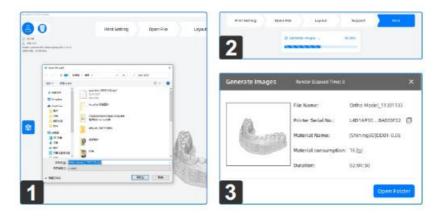
### Slice

In this step. We can slice the model with current setting. Click 'Slice' to slice the model.





Basic information will be displayed such as estimated material consumption and print duration. Also, in this window, user can view the sliced images by dragging the bar on the right of the layer display. Click Save to choose the save path for "\*.slp4" file. And click 'save'. Software will generate slice file according to the slice setting. Slice Finished.



**Note:**Slicing time much depending on the performance of the PC. AccuWare supports GPU accelerate for the slicing function with a graphic card of GTX 750 or higher.

Software will show the info of the graphic card and CUDA version. Check the upper left corner of the slicing interface. The information displayed in red indicates that the GPU is not on If the CUDA version shows "undefined," it means the driver version is not the latest version. Please update. Please change the setting for AccuWare if you don't see the info of the independent graphic card displayed.



# Send print job

Open "Printer list" The connected printer will be displayed.

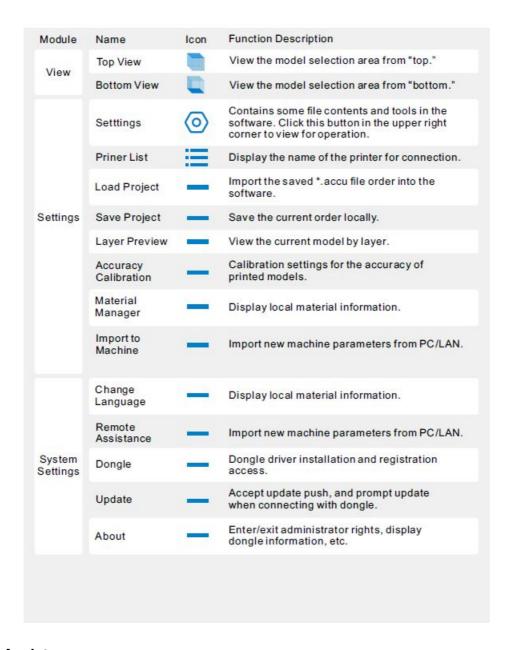


### Online sending:

In the printer list. User can check the status of printer. And be able to choose the printer to select the sliced ".slp4" file to 'send' or to "send and print".

### **Function**

Module	Name	Icon	Function Description
File	Open File		Insert STL file selected by the user in the current file.
	Recent File	<b>(L)</b>	Link to the recently used STL model, and click it to load the model into the software.
Layout	Select All	-	Select all models.
	Сору		Copy the selected model.
	Hide		Hide the selected model.
	Delete		Delete the selected model.
	Details	-	Display the name, path, dimensions, occupied space, triangle patch of the model, and whether any problem with the model.
	Move Model	+	Move the model in XYZ axial directions.
	Rotate Model	0	Rotate the model in XYZ axial directions .
	Scale Model	€	Secale the model in XYZ axial or equal scale.
	Automatic Layout		Intelligent layout of the loaded model in XY plane.
	Automatic Support		Set support parameters for the model file and automatically generate support.
	Manual Support	1	Set support parameters for the model file and manually generate the support.
	Slice	9	Generate a "*.slp4" path file for the data whose printing parameters have been set, and set the path of exportationon.
	Default View		View the model selection area from "upper front."
	Front View		View the model selection area from "front."
View	Back View		View the model selection area from "back."
	Left View		View the model selection area from "left."
	Right View		View the model selection area from "right."

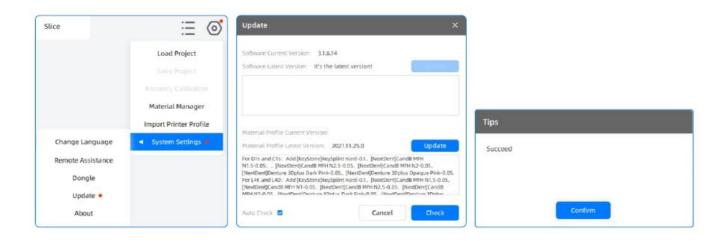


### **Update and Assistance**

Update software and material profile

### Open "Printer list"

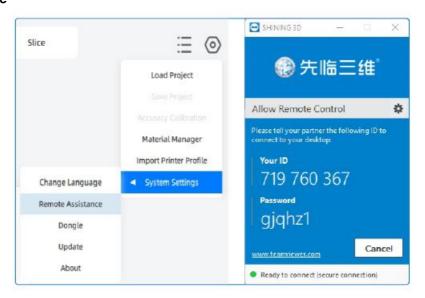
The connected printer will be displayed.



Open the 'Update' page. User can check the update manually or check the "Auto Check" option to reveive the

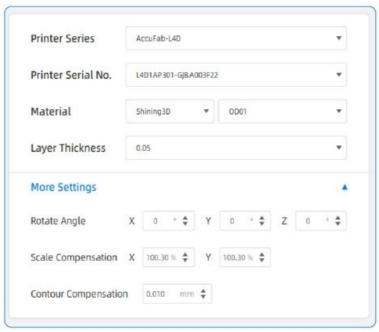
update notice. So that A red dot will be displayed on 'Settings' when there is new update of software or material profile. And by click on the 'Update' button. Update process will take place. The material profiles are uplode by the test department of Shining3D. User can then choose the material in "print setting".

#### **Remote Assistance**



AccuWare has built in TeamViewer program. User can go to "Settings-System Settings-Remote Assistance" to open. When help is needed. User can contact support and offer the remote info as requested by the support engineer.

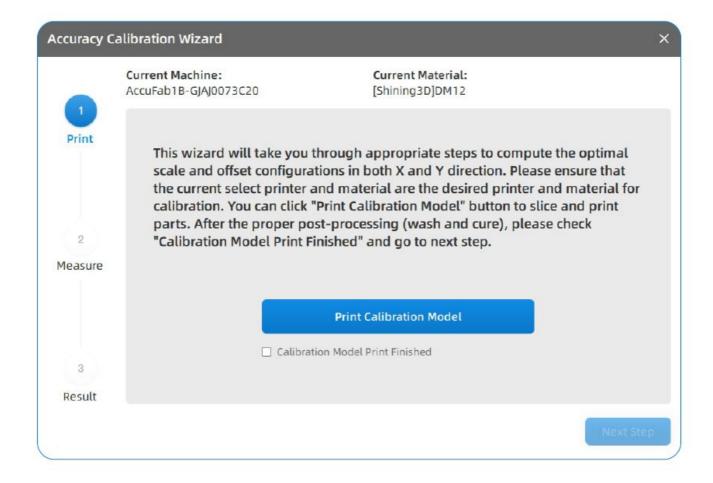
### **Accuracy Calibaration**



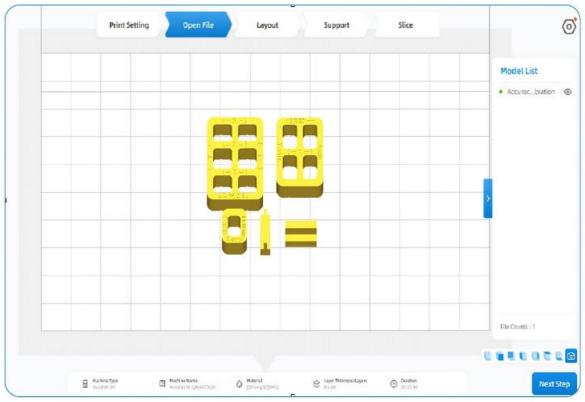
Accuracy calibration is needed when users encounter accuracy or fitting issue. Since the printing material is sensitive to the environment status such as temperature and humidity. Which is causing the change of the sensitivity of the material curing. Compensation of scale and contour setting with the standard environment may not be perfect for different environments.

### **Accuracy Calibration Wizard**

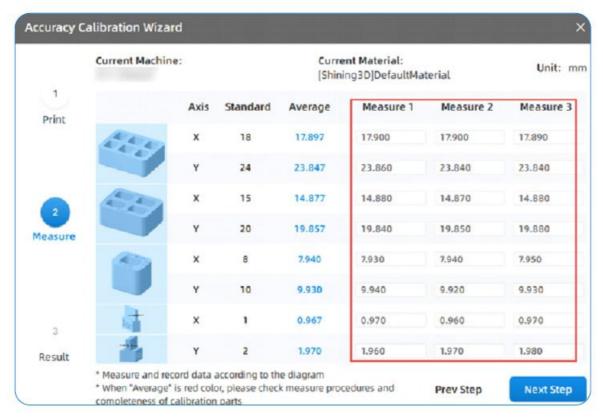
By clicking on the "Settings- Accuracy Calibration", a window of "Accuracy Calibration Wizard" will be open.



1. Click Print Calibration Model, and the platform displays the calibration model for slicing. User can go to slice directly. And start printing.



2. When print finished, check the option "Calibration Model Print Finished" to highlight the button of "Next Step", and click "Next Step" to enter the measurement interface. Enter the measurement value in the measurement interface, and the "Next Step" button will be highlighted, then it will forward to the results page. Click the "Apply" button on the results page, apply the "scale offset" and "contour offset" value to the current material.



3. Note: For first-time software start, all printer series are selected by default.

#### **Documents / Resources**



SHINING 3D AccuWare Data Preparation Software for AccuFab printers [pdf] User Manual AccuWare, Data Preparation Software for AccuFab printers, Data Preparation Software, Preparation Software, AccuWare, Software

### References

Manuals+, home privacy