

AccuWare Data Preparation Software for AccuFab printers



<u>User Manual</u>

V3.1.6

Foreword



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").



Additional information Improper actions or conditions that 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.

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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.

1.1 **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



Note: PC performance will affect software performance. Especially for the support generation and slicing.

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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.



Installation



1.3 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 Setting Open F	le Layout	Support	Slice		Load Project Save Project	0	Import Pri	inter Profile	nter profile	×
				A In	ccuracy Calibration Material Manager nport Printer Profil System Settings	le	I	From Local		
Printer Serial N	AccuFab-L4D	•					Overwrite ex	isted files 🗌		
ightarrow Open ightarrow $ ightarrow$ $ ightarrow$ $ ightarrow$ $ ightarrow$	> USB Drive (D:)						ٽ ~	,∕⊂ Search	USB Drive (D:)	×
Organize 🔻 New	folder								== -	?
 ✓	Name Factory te	^ st reports L4D_L4D1AP310-G	JBA004L11.sndev		Date modif 11/23/2021 11/23/2021	fied 1:21 PM 1:17 PM	Type File f SND	older EV File	Size	
3	File name:						~	(*.sndev) Open	Cance	~

1.4 **Print series and units**

Click Option to select your Print Series and Units.

1 Support	Slice	∷ ⊚	2 ^t	×
		Load Project Save Project	AccuWare 3.1.6.23 Dongle Info: None	
		Accuracy Calibration Material Manager Import Printer Profile	Dongle Serial No.: None Copyright: ©2020 Shining 3D Tech Co Ltd All Rights Reserved Email: dental support@shining3d.com	
•	Change Language Remote Assistance Dongle	 System Settings 	Website: <u>Visit Website</u>	
▼ DefaultMaterial	Update		5 Option Import Export	Close

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

3	Confirm		4 More Settings			•
_			Layer Thickness	0.05		•
Units	🗌 Inch		Material	Shining3D	▼ DefaultMaterial	•
AccuFab-C1s	AccuFab-L4D	✓ AccuFab-L4K	Finter Senativo.	AccuFab-L4K		
Printer series	AccuFab-D1s	AccuFab-C1	Driptor Sorial No.	AccuFab-L4D		
			Printer Series	AccuFab-L4D		•

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2 Login



2.1 Login

Login and you can use AccuDesign for free.

Login				
	Printer Series	AccuFab-L4D	•	
	Printer Serial No.	L4D-VirtualNachine	*	
	Material	Shining3D 🔻 DefaultMaterial	*	
	Layer Thickness	0.05	Ŧ	
	More Settings		•	



Note: Excluding the AccuDesign, other functions of AccuWare can be used normally without login.

Register Your Account



2

Click (), a login pop-up dialog box about login will appear.

Click **Online Registration** to the registration pop-up dialog.

Login	Login with Verification Code	Create a new user account User Info	
		ox+66 中篇 China ··· Name	
	-	Email or phone Company Name	
		Enter the CAPTCHA B N 7 M Refresh Industry	-
Mobile Number/Email		Note: To obtain a new verification code, click REFREDH	
		Enter the Verification Code Send Code	
Password	~	Please enter a password of at least	
		Confirm password 🗞	
Remember Password		I have read and acceptedPrivacy Policy.*	
		Exception informed product internation and services. These read and accepted Marketing and Promotion Agreement. (Systema)	
	Login	Sign u	P

Enter the account information and user information. Read and check "Privacy Policy" and "Marketing Agreement". Click **Register** to finish.

Login

Please following the prompts to login with your account or verification code.

Login	Login with Verification Co
⊕ +86 中国	
Mobile Number/Email	
Password	مبرد م
Remember Password	

Login with your account

Mobile Number/Email Captcha 🕺 🌮 2 Verification Code Send Verification Code

Login

💮 | +86 中国

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



Login with Verification Code



2.2 AccuDesign

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.

Click 🕥	to enter th	ne AccuDes	sign.	
Acculture 31.5.14 bets	_	X X		- σ ×
	Print Setting Open File	Layout Support	Slice	Load Project
				Material Manager
				 System Settings
	Printer Series	AccuFab-L4D	•	
	Printer Serial No.	L4D-Default	•	
	Material	Shining3D v TR01	*	
	Layer Thickness	0.05	v	
	More Settings		•	
				Next

Click So get back to the AccuWare.

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3

SHINING 3D°

3.1 Interface Introduction

Accolure 2.1.6.14 beta				- 0 × 0		Contware into
	Print Setting Open File	Layout Support	Slice	Load Project 6	2	AccuDesin/Shining Pass button
				Save Project Accuracy Calibration Material Manager Import Printer Profile	3	Printer Setting: Choose printer, mater and layer thickness
	Brinter Series	AccuFab-L40	•		4	Step by step workflow
	Material Layer Thickness	Shining3D • Th01	v v		5	Printer list: Connected Printers
	More Settings		•		6	Settings: Settings of the softwa
				7 Next	0	Next step: Proceed to next step

.....

3.2 **Print Setings**

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

0 8 4 6	 Printer Series Printer Serial No. Material Layer Thickness More Settings Rotate Angle 	AccuFab-L4D ▼ L4D-VirtualMachine ▼ Shining3D ▼ DefaultMaterial ▼ 0.05 ▼ X 0 ° ◆ Y Y 0 ° ◆ Z 0 ° ◆ Y 0 ° ◆	0 2 6 4	Select printer series for the printer to receive printing file. Select serial number for the printer to print the model. Select material for printing. Thickness of each layer after slicin
	Scale Compensation Contour Compensation	X 100.00 % ♦ Y 100.00 % ♦	6	Please check Accuracy Calibration for detailed information.

SHINING 3D°

3.3 **Open File**

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

Model List Image: Context files Image: Context fi	D MB 1	Print Setting Open File	Layout Support	Slice	
Ist of recent files C:/Users/shinktop/Demo.stl	199,444 ← → → ↑ III → Thi FC → Delition	v C SeechDelitag A			Model List
Image: state with the sta	Operative Restriction	UT 4 Wandorff Manadaria Makata		5 417 20.820mm -	• Demo 💿
Ist of recent files C:/Users/shinktop/Demo.stl 9.51M Image: Content file Image: C:/Users/shinktop/Demo.stl Image: C:/Users/shin.	Construction Construction Construction Construction Construction Construction Construction	CODER REAR 20 of (2.0.2 Benefit Bit instance Control (2.0.1 Control (2.0.1 Contro			6
List of recent files X C:/Users/shinktop/Demo.stl 9.51M Image: Control of the second se	ב פ				>
C:/Users/shinktop/Demo.stl 9.51M	List of recent files	s X			
		lemo.stl 9.51M			
	C:/Users/shinktop/D	ELAE			
	C:/Users/shinktop/D			1	File Counts : 1

- Dispaly size and triangular patch numbers for current file.
- 2 Click D to import local model files to print.
- Click b to select model files in "List of recent files".
- 4 Model preview :Click the model, a controlling ball with 3 rings will appear.

Move the cursor onto the ball and turning it into 45 . Holding down the left mouse button to move the model on horizontal plane.

Move the cursor onto ring and turning it into 2 . Holding down the left mouse button to rotate the model about the axis through the selected circular ring.







Rotate mouse wheel for zooming. Holding down the right mouse button for rotating the view.

6

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



3.3 **Open File**



3.4 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.

Operation

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 platform

Stick 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



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Scale

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Right click on the model to bring up the shortcut key for Layout











key

Shortcut

B Operation



3.5 Support

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



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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.



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Auto Support



2

Click .

Select support style. (General or Inner)





3.5 Support

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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.







3.5 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.







3.6 **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.

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Note: Slicing time much depending on the performance of the PC. AccuWare supports GPU accelerate for the slicing function with AccuWare 3.1.6.14 beta 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 0 22 MB If the CUDA version shows "undefined," it means the driver version A 480,324 is not the latest version. Please update. NVIDIA GeForce RTX 3060 Laptop GPU / 11.4 4669 MiB / 2100 MHz Please change the setting for AccuWare if you don't see the info of the independent graphic card displayed.



3.7 Send print job

Open "Printer list"

The connected printer will be displayed.

Printer List					×
Printer Selection			AccuFab-L4D		•
L4D1AP301-CNBA018G01 Serial: L4D1AP301-CNBA018G01 Printer Series: AccuFab-L4D Material: [Shining3D]DM12	DVT_No Serial: DVT_No_1 Printer Series: AccuFab-L4D Material: [Shining30]0D02 File Name: Lno1 正時限 od02.slp4	© Finished			
Add Printer	< 1	>		Send&Print	Send
NetCard Settings					•

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".

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Note: The serial no. in print setting should be matched with the printer you choose. Or there will be error opening file on printer.

Offline sending:

Copy the file to the flash drive and insert to the printer.

4 Function



Module	Name	lcon	Function Description
File	Open File		Insert STL file selected by the user in the current file.
File	Recent File	Ŀ	Link to the recently used STL model, and click it to load the model into the software.
	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.
Layout	Rotate Model	હ	Rotate the model in XYZ axial directions.
	Scale Model	Ð	Secale the model in XYZ axial or equal scale.
	Automatic Layout	08	Intelligent layout of the loaded model in XY plane.
	Automatic Support		Set support parameters for the model file and automatically generate support.
	Manual Support	ſ	Set support parameters for the model file and manually generate the support.
	Slice	\$ }	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."

4 Function



Module	Name	lcon	Function Description
View	Top View		View the model selection area from "top."
view	Bottom View		View the model selection area from "bottom."
	Setttings	\bigcirc	Contains some file contents and tools in the software. Click this button in the upper right corner to view for operation.
	Priner List		Display the name of the printer for connection.
	Load Project	—	Import the saved *.accu file order into the software.
Settings	Save Project	—	Save the current order locally.
	Layer Preview	_	View the current model by layer.
	Accuracy Calibration	—	Calibration settings for the accuracy of printed models.
	Material Manager		Display local material information.
	Import to Machine	-	Import new machine parameters from PC/LAN.
	Change Language	—	Display local material information.
	Remote Assistance	—	Import new machine parameters from PC/LAN.
System Settings	Dongle	—	Dongle driver installation and registration access.
	Update		Accept update push, and prompt update when connecting with dongle.
	About		Enter/exit administrator rights, display dongle information, etc.



5.1 **Update software and material profile**

Open "Printer list"

5

The connected printer will be displayed.

Slice		Update ×	
	Load Project Save Project Accuracy Calibration	Software Current Version: 3.1.6.14 Software Latest Version: It's the latest version!	
	Material Manager Import Printer Profile		Tips
Change Language Remote Assistance Dongle Update • About	 System Settings 	Material Profile Current Version: 2021.11.25.0 Update Material Profile Latest Version: 2021.11.25.0 Update For D1s and C1s: Add [KeyStone]KeySplint Hard-0.1, [NextDent]CandB MFH N2-0.05, [NextDent]CandB MFH N2-0.05, [NextDent]CandB MFH N2-0.05, [NextDent]CandB MFH N1-0.05, [NextDent]CandB MFH N2-0.05, [NextDent]CandB MFH N1-0.05, [NextDent]CandB MFH N2-0.05, [NextDent]CandB MFH N1-0.05, [NextDent]CandB MFH N2-0.05, [Ne	Succeed

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".

5.2 **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.



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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 environment.	Printer Series	ŀ	AccuFab-L4D			
	Printer Serial No.	L	4D1AP301-GJBA0	03F22	2	
	Material	9	5hining3D	•	OD01	
	Layer Thickness	().05			
	More Settings					
	Rotate Angle	х	0 *	Y	0 *	z
	Scale Compensation	Х	100.30 % 🜲	Y	100.30 % 🚔	
	Contour Compensatio	n	0.010 mm	÷		

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Accuracy Calibration Wizard

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

Accuracy C	alibration Wizard		×
	Current Machine: AccuFab1B-GJAJ0073C20	Current Material: [Shining3D]DM12	
1 Print 2 Measure	This wizard will take yo scale and offset configu the current select printu calibration. You can clio parts. After the proper "Calibration Model Prin	ou through appropriate steps to compute the optimal urations in both X and Y direction. Please ensure that er and material are the desired printer and material for ck "Print Calibration Model" button to slice and print post-processing (wash and cure), please check It Finished" and go to next step.	
		Print Calibration Model	
3 Becult	🗆 Cali	bration Model Print Finished	
Resull		Next 5	tep

Accuracy Calibaration





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



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.

	Current Machin	ne:		Curre (Shini	nt Material: ng3D]DefaultMa	terial	Unit: m
Print		Axis	Standard	Average	Measure 1	Measure 2	Measure 3
T IIIC	600	×	18	17.897	17.900	17.900	17.890
		Y	24	23.847	23.860	23.840	23.840
	50	×	15	14.877	14.880	14.870	14.880
Measure		Y	20	19.857	19.840	19.850	19.880
		×	8	7.940	7.930	7.940	7.950
		Y	10	9.930	9.940	9.920	9.930
3		×	1	0.967	0.970	0.960	0.970
Result		Y	2	1.970	1.960	1.970	1.980



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Go Digital With SHINING 3D



Support Center: https://support.shining3ddental.com/en/support/solution

 Aftersales service:
 ·Create support ticket
 ·Check ticket status

 Technical resource:
 ·FAQs
 ·Basic Tutorials
 ·Useful tips.
 ·Webinars

APAC HEADQUARTERS

SHINING 3D Tech.Co.,Ltd. P: +86-571-82999050 No.1398 Xiangbin Road, Wenyan, Xiaoshan, Hangzhou, China, 311258

AMERICAS REGION

SHINING 3D Technology Inc. P: +1415 259 4787 1740 César Chávez St. Unit D. San Francisco, CA 94124, United States

EMEA REGION

SHINING 3D Technology GmbH P: +49-711 28444089 Breitwiesenstraße 28, 70565 Stuttgart, Germany