Saving Print Files (.TSK) from Afinia Studio
and Printing on the H400+ via USB Drive

Purpose:

A .TSK file is a type of sliced model file specifically created for the Afinia H400+ 3D printers. This file can be sent to the H400+ to print without going through the slicing process.

Data Composition:

The .TSK file consists of three sets of information, the Print Profile, the Printer Profile, and the Model Data. These represent the three different aspects of the printing process.

The Print Profile is a set of parameters related to the print settings, such as: nozzle size, filament type, printer model number, etc. If the target printer is compatible with the printer profile defined in the .TSK file, this file can be printed on the target printer.

The Model Data is the sliced model data generated by the slicer using the parameters defined in the Print Profile and the Printer Profile.
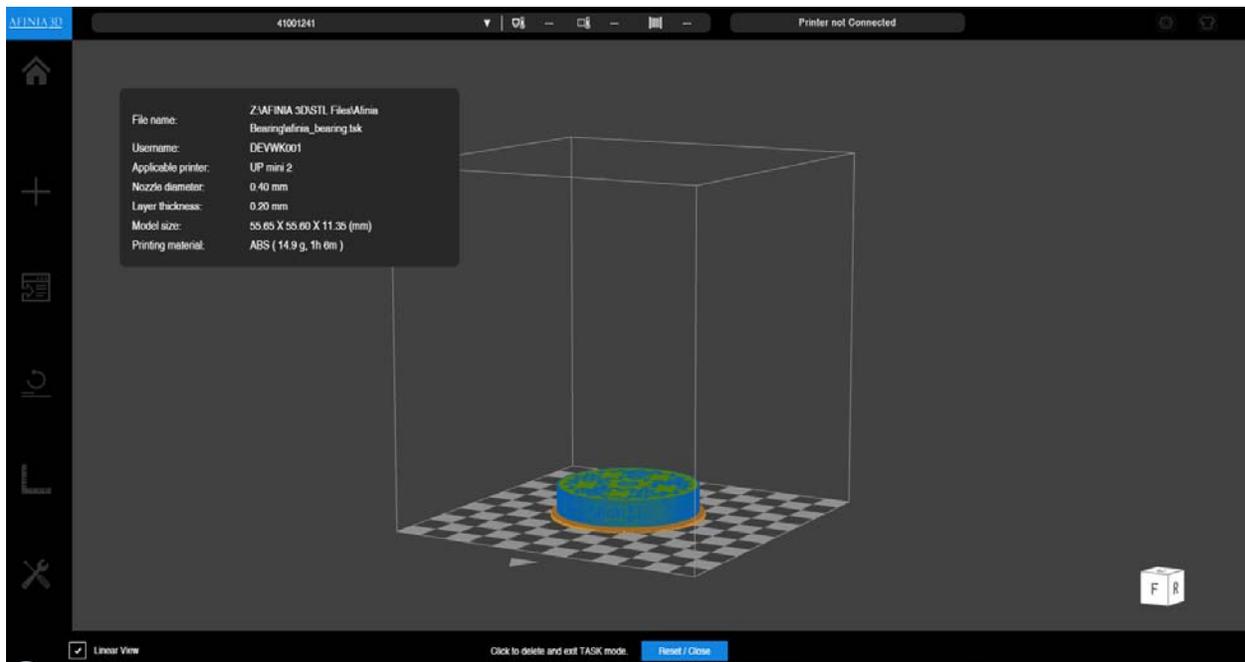
Figure 1. Task Mode, showing detail information of .TSK file

.TSK File Generation:

To generate a .TSK file, the Studio software needs to be connected to a H400+ 3D printer.

1. Open the Afinia Studio software.
2. Connect the target H400+ via USB, WIFI, or Ethernet.

3. Define the Print Profile: Change the setting in the Printing Setting to specify the detail information related to the print, such as layer thickness, support settings, infill, print speed, etc.

4. Define the Printer Profile: In the Studio software, change the settings related to the Printer Profile, such as nozzle size, filament type, etc.

5. Click Print Settings -> Click Preview -> Choose "Save to file" in the drop-down menu.
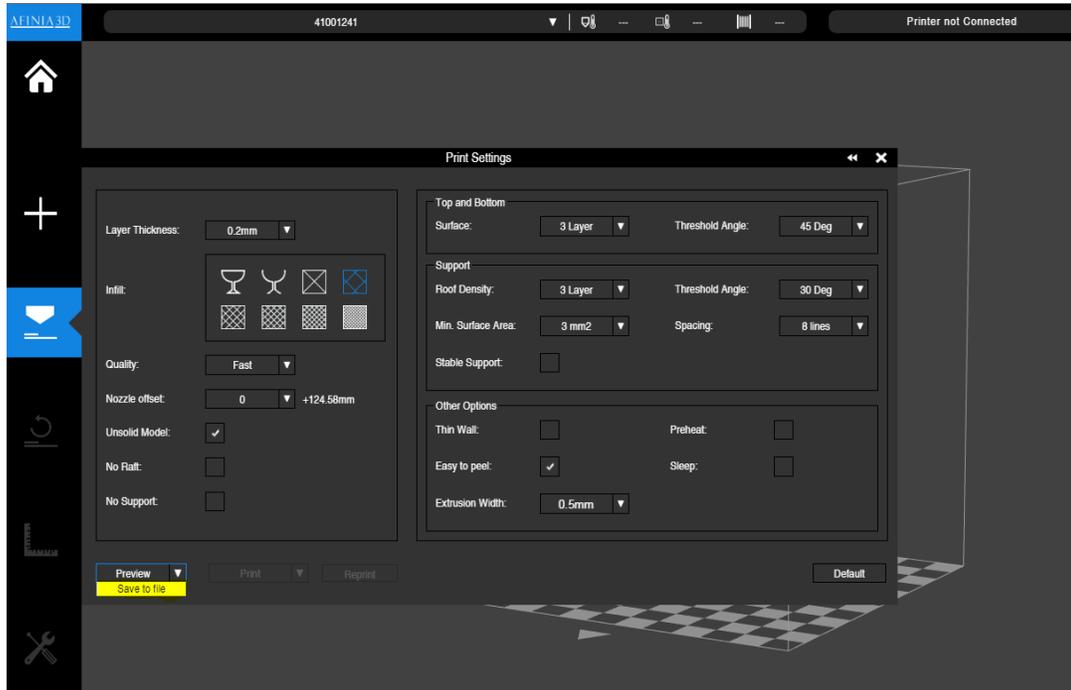
6. Save the .TSK file
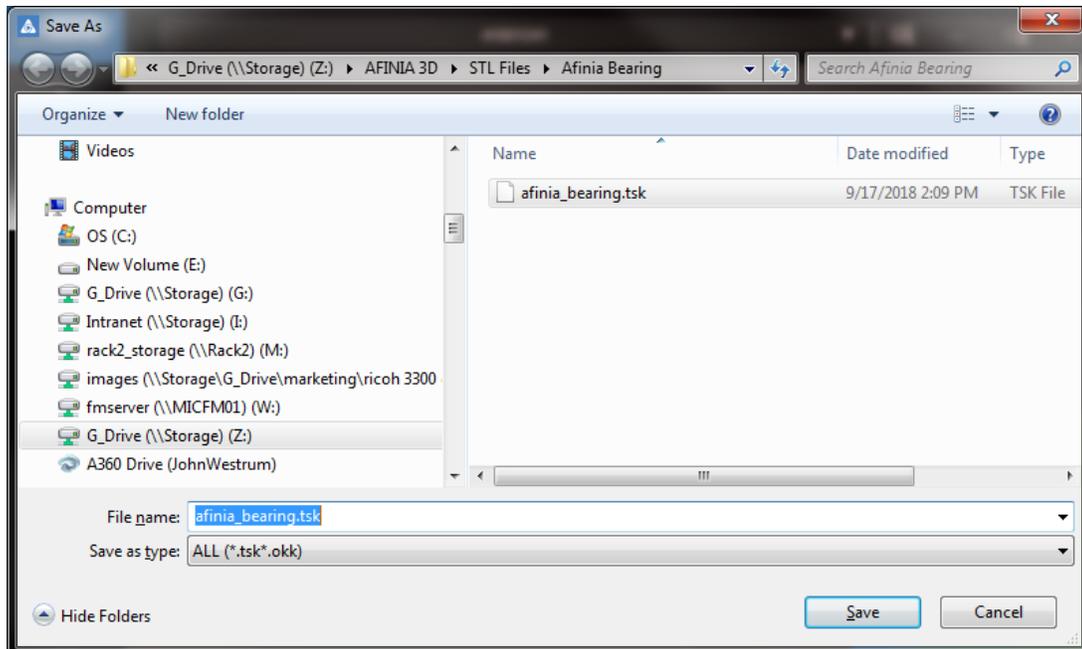
If there is more than one model inside the build envelope, all the models will be saved as separate .TSK files in the folder selected. If the models are merged, they will be treated as one model and only one .TSK file will be generated.

Print from a .TSK file:

A .TSK file can be loaded from the Main Menu "Add" -> Add 3D Model and choosing .tsk in the File Chooser. The Studio software will switch to Task Mode and load the model from the .TSK file.
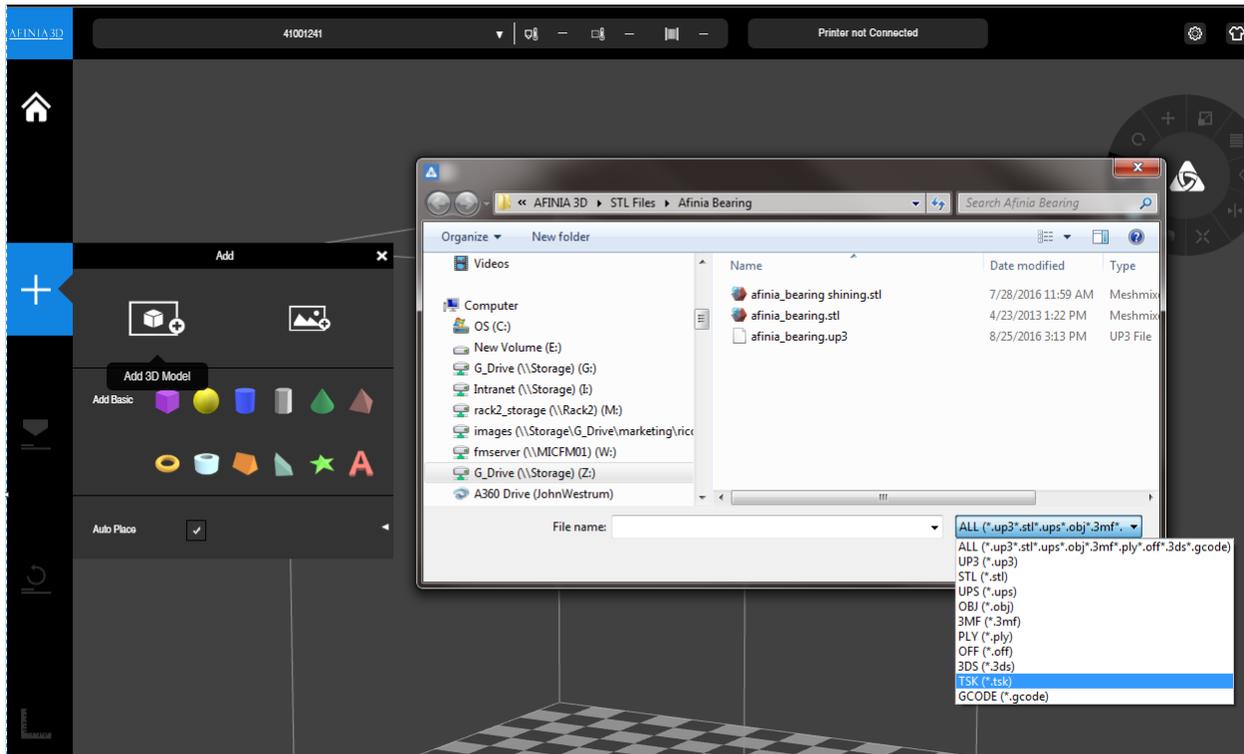
Once the model is fully loaded, the "Send" button will be enabled on the left menu. Click the "Send" button to send the data to the printer. Clicking "Reset/Close" will exit Task Mode.

Compatibility of a .TSK File and a Printer

In order to print a .TSK file on a printer, the Printer Profile of the .TSK file has to match the Printer Profile of the printer.

Printer Profile includes the following parameters: nozzle diameter, build volume, printer model, material type, material left.

The Printer Profile of a .TSK file is compatible with the Printer Profile of a printer if it matches the settings in the Studio software when the .TSK file was created.

If the Printer Profile of a .TSK file is not compatible with the Printer Profile of the printer, the Studio software will give an error message and you will need to adjust the Printer Profile of the printer to make sure of the compatibility.

Print Directly from USB Drive

This feature runs directly from the H400+ via the touch screen and USB port on the back of the printer.

Users need to prepare a USB drive formatted as FAT32. Copy a .TSK file to the root directory of the USB drive. The instructions for creating a .TSK file are listed in the first part of this document.

Once the .TSK file is copied to the root directory of the USB drive, follow these steps to print the .TSK file directly on an H400+:

1. Plug in the USB drive into the USB port circled in red in the image above.
2. On the main menu of the touch screen, go to "Print", then click USB Drive and find the target .TSK file.
3. Click on the TSK name. The display will show the detail information of the .TSK file.
4. Click the "Print" button to start the print job.