



Building After A Failure

This procedure describes how to build the remaining portion of a part that has failed during a build either due to machine failure or power loss. In many cases this will be a better option if a part build fails, it is a long duration build or it is too long to start over from the beginning. This procedure will allow you to build the remaining portion, then glue the pieces together, saving build time and material usage.

Process

Step 1: Open Insight, select “Open” from the File menu, and locate the Job Folder (ssys_[filename]) for the part you wish to build. Load the .SJB file (Stratasys Job File) from that folder.

Step 2: Select “Setup” from the Support menu. Delete the existing supports from the part (these will be recreated later).

Step 3: Determine the layer height at which the part stopped building.

- A. If the failure was due to a machine problem, the layer height will be displayed on the User Interface screen, and in the Details screen under Insight Status.
- B. If the part stopped building due to a power failure, the method of finding the last layer will depend on which machine you are running.
 - On a Fortus system, after powering the machine back up and performing an Autohome XYZ operation, navigate through the following menus on the user interface screen: Modeler Status -> Machine State -> System Status. The top line in the resulting screen will read “Last Layer Built” followed by a number. Use this number as the Range Top in Step 4.
 - On a Maxum system, you will need to follow the “Recover a Part” procedure to find the last layer built. (Refer to the Maxum User Guide for further instructions.)

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Step 4:

- A. Select “Display Options” from the View menu.
- B. Enter the number of the last layer built in the “Current layer number” field (Fortus), or enter the height of the last layer built in the “Current Z” field (Maxum). Click on the icon to set this as the top of the range.
- C. Enter the height of the last layer built in the Range Top field, and enter “0” as the Range Bottom.
- D. Click on the View Range of Layers icon to display the selected range.

Note: If the last layer built was not completely finished, it may be advisable to enter one layer below that as the Range Top. This will allow a little finishing stock when joining the two pieces together.

Step 5: The curves now visible represent the portion of the part that has already been built.

- A. Select “Delete...” from the Edit menu. Make sure “Curves” is selected at the top of the delete operation page, then click to select all the visible curves.
- B. Click on the OK button to delete all visible geometry.
- C. Return to the Display Options operation and click to show all the layers; the remaining geometry is the portion of the part that still needs to be built.

Step 6: The remaining portion of the part now needs to be moved to the bottom of the build space.

- A. Select “Move, rotate, copy...” from the Edit menu, then click on “Move to origin” under Action on the upper right side.
- B. Click again to select all visible geometry, then click on OK to move the part to the bottom.

Step 7: Click on the Main toolbar to create a new support structure, click on the button to generate toolpaths, and then save this job with a new name (such as “[filename]_top”).

Step 8:

- A. Remove the completed bottom portion of the part from the build chamber of the machine and insert a new foundation sheet.
- B. Send the newly created .CMB file from the Status application on your workstation to your Fortus system just as you would any other part.
- C. When this part is completed and the supports have been removed, it can be glued on to the previously built bottom section.

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