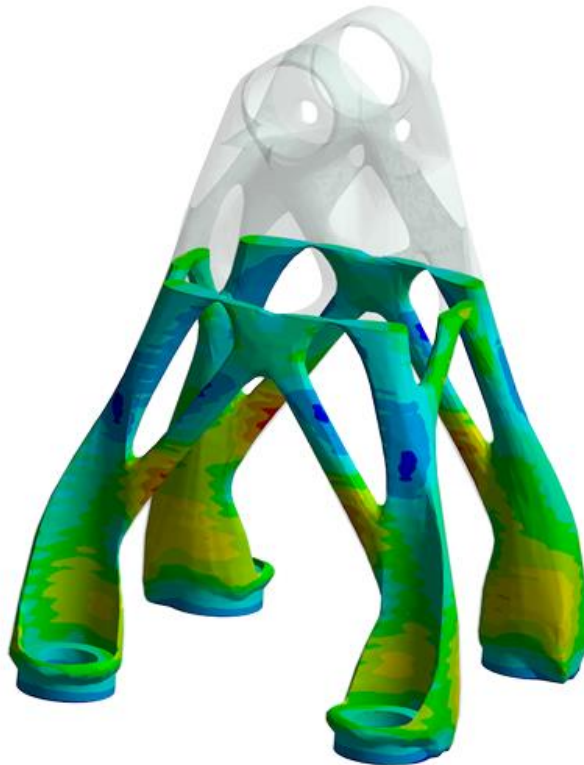


ANSYS ADDITIVE MANUFACTURING Update in 2020 R1

ANSYS 2020 R1 features major advances in additive manufacturing (AM) simulation capabilities throughout the AM product line:

- ANSYS Additive Prep features expanded capabilities in the build processor so you can change laser parameters. Building on its capability to write files to SLM machines, it now lets you write files to EOS machines.
- Workbench Additive now offers inherent strain simulation in addition to thermal–structural additive simulation. ANSYS Additive Print to Workbench Additive workflow for cutoff scenarios has been introduced.
- Additive Print now supports J2 Plasticity. It also accepts laser beam inputs for the thermal solver.
- Aluminum alloy AlSi10Mg has been validated for all simulation types in Additive Print and Additive Science.
- Additive Print and Additive Science have been improved for increased accuracy and faster run times.



ANSYS Additive Prep:

Additive Prep optimizes part orientation, auto-detects support regions and individually configures regions to create different support types. In seconds, Additive Prep can generate a complex set of support geometries. This set can be exported for simulation to identify failure modes and determine the expected distortions and stresses, without utilizing machine time and print materials.

Additive Prep also enables you to view and/or animate the progression of laser scan vectors across any slice within the part. Alternatively, you can watch the sequential build of all the 2D slices in the build volume using the new Slice Viewer tool.

A new Build Processor tool enables you to export a build file directly to a 3D machine. Parameters are available to control scaling, slicing, volume, up-skin remelting, up-skin recoating and down-skin. You can also specify laser power, laser speed and focus for scan vectors using scanning parameters.

Additive Prep enables you to:

- Create build volumes
- Orient parts
- Create support regions
- Generate supports
- Utilize the Slice Viewer
- Modify or specify build parameters
- Export geometries for simulation
- Estimate costs
- Create and export build files to additive manufacturing equipment

Additive Prep is included in ANSYS [Additive Suite](#) and ANSYS [Additive Print](#) and is also available as an add-on to [SpaceClaim](#).





