Slice









Parts



# Industrial software for successful Build Prep

# **PLANNED** FEATURES OVERVIEW

AMIS Prois the premium tool for build preparation and 3D-RIP for SLS, MJF and binder (BJ) or material jetting (MJ). AMIS Pro is an off-cloud editor for Mac & Windows providing access to the technology.

The software solution enables rapid and sound preparation of parts, batches and the resulting slices for any build job, and allows for the parallel preparation of multiple batches. Features to improve part quality and Cost-per-Part are embedded in the solution.

For superior results, AMIS Pro is tailored to the machine, in cooperation with the printer manufacturer. The API-based architecture allows for seamless integration with MIS/MES systems and peripheral software, such as simulation solutions or CAD input.

### Intended user & use

The intended user is the person or team preparing and executing the print.

Combining the user's own expertise on machine and process with the AMIS print control software, will enable them to make the most of the printer's potential. AMIS Pro provides a solution enabling "from part to drop" management of any 3D-print.

The User Interface is conceived in such a way that prior knowledge is not required. AMIS Profacilitates production by suggesting parameters or settings, adapted to the Jetting process.

#### Guidance & Support

AMIS Pro users are supported throughout the software life cycle, through:

- Dedicated support platform
- <u>Manual</u> & <u>Tutorials</u>
- Direct support service contact





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#### Main features



## General

- Workflow-based, user-oriented UX
- OpenGL view, with full interactive control
- Windows and Mac parallel development, cloud-connected
- Native 3mf
- Parallel preparation of multiple batches for multiple printers
- Full control of parts & print parameters
- Reiterations, adding/removing parts, renesting at any time during the process
- Easily repeat jobs by reloading existing batch
- Optimize batch for execution time & material use
- API-based architecture



#### Adding parts

- Import all common 3D format files (native CAD included)
- Continue adding parts at any time during batch preparation
- File repair / healing
- Speed up import



#### Part preparation

- Position, orient and scale parts
- Automated Shell-Grid-Core generation (internal lattices)
- Variable density infill
- Lock position, orientation and/or scaling prior to nesting
- Lock distance to other parts and to walls prior to nesting
- Multiply number of a specific part
- Full interactive control of parts (OpenGL view)
- Part prioritization
- Boxing of parts



## Batch preparation/nesting

- High-speed voxel-based auto-nesting, without unintentionally interlocked or trapped parts
- Nesting based on:
  - o % fill or maximum fill
  - o nesting calculation time
  - o part distance, distance to walls
  - o optimized for machine or cost and for optimized layer binder variation (AKA slice density or area averaging)





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Nest















Full interactive control of batch (OpenGL view)



# Slicing/3D-RIP

- High-quality slicing output
- Up to 3-bit binder density or type definition
- Fast slicing
- Full progress reporting
- Control slicing parameters, incl. layer height, size and resolution
- MetPrint®-ready, including patented technology for Additive Manufacturing, securing full compatibility with most AM-printheads



# Print / Print follow-up

- Track print status, incl. remaining/lapsed time, current slice,...
- Monitor printer status
- Follow up on preventive maintenance
- Follow up on print errors
- Review part & print results
- Save batch monitoring reports



## Configuration options

- Add and control printer settings, batch size, DPI and nozzle count
- Add binders
- Add materials

