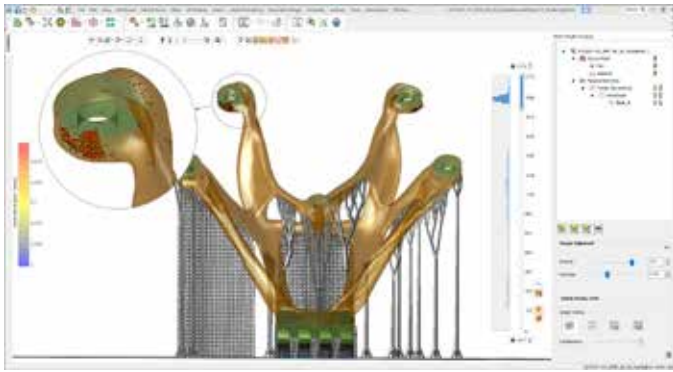


Build Insight

3D visualization tool for advanced diagnosis of AM builds, enabling improved application development lead time, cost, and success.



GET MORE INSIGHT ABOUT THE BUILD PROCESS WITH 3DXPERT BUILD INSIGHT

- Analyze — Identify signatures of AM process anomalies
- Diagnose — Perform root cause analysis with 3D visualization of anomalies with the digital model
- Resolve — Easily take corrective actions to resolve the issues with the build design and printer maintenance

RECOMMENDED SOFTWARE AND TRAINING PACKAGE

- Build Insight is available for all materials on DMP 350 series* (single/dual laser) and DMP Factory 500
- Build Insight is available as an add-on to 3DXpert Standard and Ultimate packages
- Build Insight Advanced Training is offered by 3D Systems' Application Innovation Group

*Also available for ProX DMP 320

BENEFITS

- Add confidence to the AM process by monitoring process stability for each build
- 3D visualization of signature of AM process issues and the digital model
- Identify potential issues related to the build design or printer maintenance
- Root cause analysis and corrective actions in the same software help minimize design and process optimization loops, saving time and reducing waste
- Advanced data size reduction strategies to compress data size down to the order of megabytes

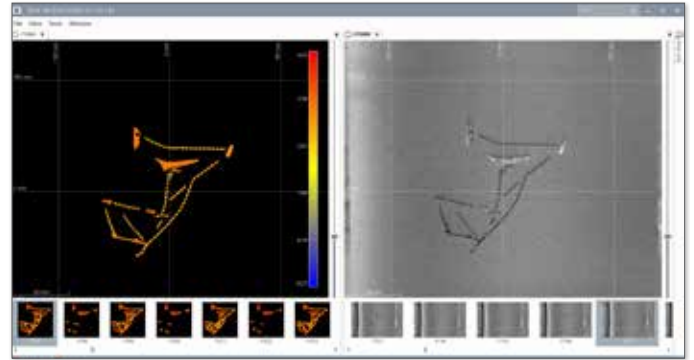
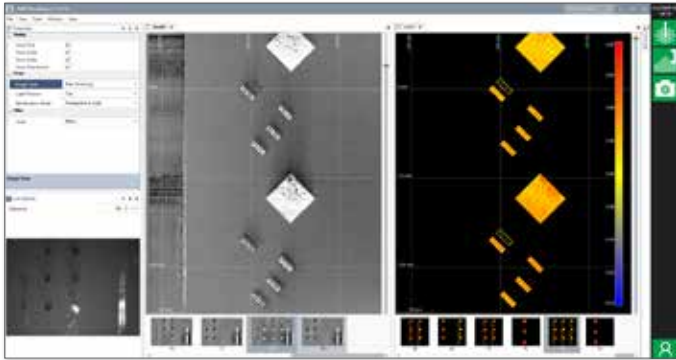
FEATURES

- Post-build analysis of monitoring data
- Detection of AM anomalies such as warpage, spatter, short-feed, dross, coater lines, gas flow issues, etc.
- Load and visualize monitoring data in the design environment
- Tunable thresholds for advance users
- Dynamic histogram displaying detections along the build height

DMP Monitoring

Real-time process monitoring for informed decisions on product quality

Generate a wealth of process data for non-destructive analysis and understanding of metal 3D printing build quality, accelerated process parameter optimization, and enhanced understanding of process results.



REAL-TIME IN-BUILD DATA COLLECTION AND VISUALIZATION

- Visually (manually) detect, analyze and minimize 3D metal printing process defects such as: lumps, spatters, flow quality, porosities, feed quality, etc.
- Control and ensure that the process is running smoothly, monitoring consumables and maintenance items such as the coater and materials
- Remote monitor-capable for combined control from centralized location, e.g. live camera and remote machine access*

FEATURES

- Automatic data recording
- Fully configurable user interface
- Real-time job analysis and offline functionality
- Synchronized side-by-side comparison of Meltpool** and Vision data, comparison with previous print jobs (meltpool-to-meltpool, vision-to-vision, meltpool-to-vision)
- Synchronized zooming and panning through all jobs opened on screen
- Integrated live camera
- Video generation: sequential layers to video frames
- Coordinates and scale display on screen matching with build plate
- Measurement tool: line and surface
- Automatic back-up tool (to server or external data storage)

* Remote machine access requires standard 3rd party software

**Available only for single laser platforms

POST-BUILD PROCESS ANALYSIS

- Analyzing Vision and Meltpool data synchronized side by side allows build quality monitoring on a macro level to e.g. ensure powder deposition quality
- The post-build analysis of DMP Meltpool data enables further inspection of build quality by monitoring e.g. porosity on a micro level
- Use Build Insight for automated data analysis, which facilitates diagnosis of process issues and enables user to take corrective actions with a single tool