

CASE STUDY /

Ansys + EWI

USING ANSYS GRANTA MI FOR BEST PRACTICE ADDITIVE MANUFACTURING DATA MANAGEMENT AT EWI

"The pedigree of AM data is becoming more important. We needed to progress from our past state, where most of our data outputs were Excel sheets, to a mature data-handling world. Ansys Granta MI helped us to achieve our goals."

Alex Kitt Product Manager / EWI EWI's implementation of Ansys Granta MI for additive manufacturing (AM) was done to enable innovation and collaboration through more effective project data management. Collaboration cannot proceed unless project members can reliably share data and know that they have a complete and accurate picture of project results and analyses. This is made possible with the Granta MI solution.

/ CHALLENGES

The challenges faced by EWI include a number connected to the effective management and use of AM project data:

- Making best use of many sources of linked data (e.g., from powder characterization, builds and mechanical testing)
- The need to share pedigreed data with a range of customers and partners
- The range of project/program types and goals

/ TECHNOLOGY USED

- Ansys Granta MI Enterprise
- Ansys Granta MI:Additive Manufacturing

/ ENGINEERING SOLUTION

- EWI worked with Ansys to implement Granta MI
- This included the Additive Manufacturing 'Schema': a best practice data structure to enable EWI to know what AM data to capture, and how
- The schema was adapted to capture data from priority EWI equipment, powder inventory and modifications for specialized workflows

/ BENEFITS

- Enabled the deployment of an "America Makes" program to understand the cost/ benefit of HIPP treatment and finishing
- System was able to support powder characterization and data capture from several AM systems: ExOne Innovent, RPM and Arcam
- Enabled data capture for several inspection systems: Nikon CT systems, VGStudio porosity analysis, tactile profilometry, and Keyence surface roughness measurements



Examples of AM powder data capture in Granta MI



AM machine data capture using Granta MI

/ COMPANY DESCRIPTION

EWI is a non-profit engineering and technology organization dedicated to developing, testing, and implementing advanced manufacturing technologies for industry. devices, handheld devices and many others.





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