



CIMdata 2023 PLM Market & Industry Forum

The Digital Thread: Powering Business Transformation

About

Since the onset of Industry 3.0 and the early applications of digital technology to the product lifecycle, firms have dealt with myriad information types. Scratches on a cocktail napkin, formal requirements, program and project plans, early 0-1D models, mechanical computer-aided design, electronic design automation output, software source code and executables, and test results from simulation and analysis are just some of the information types that help describe the evolution of products from idea through life. In the late 1990s, CIMdata started to talk about the bill of information (BOI) to describe this concept that predated the definition of PLM.

Fast forward to today. The capabilities of information systems and storage devices to manage heterogeneous information are astounding. The concept today is “the digital thread” and is used by software companies across PLM (and into other application domains, like ERP and CRM) and leading service providers. Government organizations, especially in aerospace & defense, are bullish on the topic. The phrase “single source of truth” has been brought to bear once again, and ideas of master data management (MDM) and data governance (DG) are essential to a healthy and accurate digital thread, no matter your environment. But,

as with most buzzwords, they mean different things to different people and organizations.

Since our founding in 1983, CIMdata has been helping to moderate such discussions for the betterment of the industry, and we have been actively working on this topic for several years. CIMdata administers the Aerospace & Defense PLM Action Group (AD PAG), an advocacy group for the requirements of the global A&D industry with the software and services companies upon which they rely to achieve their PLM objectives. In 2021, CIMdata published research on the digital thread and initiated research funded by the AD PAG and leading solution providers to understand better the state of the art and practice around the digital thread in industry and to document best practices and industry needs to help impact the roadmaps and plans of those firms for the mutual benefit of the global A&D industry, and PLM users more generally.

The theme of this year’s PLM Market & Industry Forum leverages the efforts of the AD PAG and the PLM Economy on this topic. These efforts will be showcased in a series of thematic presentations. One will provide background on the work to date and define the digital thread and related topics. Another, focuses on the industrial perspective on the digital thread, leveraging interviews with industrial firms and a Web-based survey conducted by CIMdata to get a broader perspective from industries outside of A&D.