



Unleash the Model Based Enterprise™

Unifying Multi-PLM & Multi-CAD Enterprises through the Open Adobe 3D PDF Platform

NCMS, NAWCAD and Anark to show that Multi-PLM and Multi-CAD Enterprises can unify common best practices with the Adobe 3D PDF Platform.

Boulder, CO - July 8, 2015: Anark Corporation, leading provider of Model Based Enterprise (MBE) and Visual Communication software solutions, announced today that it is partnering with NCMS (The National Center for Manufacturing Sciences) and NAWCAD (Naval Air Warfare Center Aircraft Division) on their ground breaking "Multi-PLM and Multi-CAD drives Common 3D PDF MBE Best Practices" deployment project sponsored through the joint NCMS & DOD Commercial Technologies for Maintenance Activities (CTMA).

This program takes the next major step in establishing processes and procedures which will streamline and connect NAWCAD's multiple disparate PLM and CAD Engineering tools to drive common and open 3D MBE best practices to the many downstream consumers of engineering data.

For the past six years the Department of Defense has been leading the way in developing best practices and procedures to enable the 3D Model Based Enterprise (3D MBE) through the transformation of their Native CAD plus Model Based Definition (MBD) data into open platforms that are free to view and free to deploy like 3D PDF and 3D HTML.

These efforts culminated in February 2013 with the official release of MIL-STD-31000 Rev A (The 3D TDP) specification which clearly signaled the DOD's intentions to dramatically improve the communications of design intent, reduce errors and improve the response time of their thousands of suppliers by moving away from the volumes of 2D Paper Technical Data Packages (TDPs) currently used towards a more concise, complete and graphically rich 3D Model Based Enterprise.

"Through various DOD projects, including last year's NCMS, NAVAIR and Anark "Common 3D PDF TDP Project" we have proven that the ISO Standard 3D PDF platform is capable of securely containing, distributing and rendering complex 3D Engineering CAD plus MBD data as well as other required TDP artifacts (like Provisioning, Packaging and Manufacturing Information), from Navy, Army and Air Force Engineering Data stored in Native Creo, NX, and CATIA parts and assemblies," said Dana Ellis, Program Manager at National Center for Manufacturing Sciences.

"Being able to publish and distribute our MBD Engineering CAD data into Common 3D PDF TDPs will allow NAVAIR the freedom to contract and interact with our supplier base with more intuitive and less ambiguous Data Packages. By eliminating 2D Drawings for the communication of design intent, we expect to see a reduction in the number of design mis-interpretations and rework produced by our suppliers," said John Schmelzle, PE and MBD Initiative Lead for the Naval Air Warfare Center at Lakehurst New Jersey.

This year the NCMS, NAVAIR and Anark are expanding these 3D PDF TDP best practices established by NAVAIR-Lakehurst in two important directions:

First is to add the processing of Native NX+MBD 3D Engineering data used by NAVAIR-North Island and CATIA + MBD data delivered by some of NAVAIRs prime contractors into the Common NAVAIR 3D PDF TDP engineering release template. This will allow both Lakehurst and North Island Engineering practices to generate a Common 3D PDF TDP Engineering Release Document even though the source of the 3D Engineering data may come from anyone of three (3) different CAD systems (NX, CATIA or Creo). Transforming these different sources of 3D Engineering data into a single common 3D PDF TDP will promote efficiencies throughout the NAVY, the Defense Logistics Agency and the thousands of suppliers that need to interact with NAVAIRs

engineering data.

Second is to establish the necessary integration links which will allow both the Teamcenter Data Repository in North Island and the Windchill Data Repository in Lakehurst to automatically generate these Common 3D PDF TDPs based on standard Teamcenter Work Flows and standard Windchill Work Flows respectively.

"When we have completed our new Multi-PLM and Multi-CAD to Common 3D PDF TDP Project between Lakehurst and FRCSW, and the PLM backbone at the COMFRC, we will have proven the concept that it is more cost effective, and efficient for the whole of DOD if we focus our time and energy on developing transformation bridges to universal standards such as 3D PDF and 3D HTML, or others rather than trying to force one CAD and PLM platform across all of NAVAIR's operations, at other end users or at consumers such as our FRC manufacturing centers or DLA, which would be costly, contentious and take years to implement," said Rick Mendoza, Engineering Manager at NAVAIR North Island.

"We will also be in a position to deploy our manufacturing and assembly 3D data with all required geometrical properties, PMI, and required metadata and logistics information for the end user to readily consume without their needing to have (or have access to) all combinations of CAD and PLM systems," continued Mendoza.

About NCMS and the CTMA

The National Center for Manufacturing Sciences, the largest cross industry collaborative Research & Development consortium in North America, is dedicated to driving innovation in commercial, defense, robotics and environmentally sustainable manufacturing. NCMS has over 25 years of experience in the formation and management of complex, multi-partner collaborative R&D programs, and is backed by corporate members representing virtually every manufacturing sector.

This current project to show that Multi-PLM and Multi-CAD Enterprises can unify common best practices with the Adobe 3D PDF Platform, is part of the lifesaving Commercial Technologies for Maintenance Activities (CTMA) program. The CTMA program is a Department of Defense supported, NCMS initiative that ensures American troops and their equipment are ready to face any situation, with the most up-to-date and best-maintained platforms and tools on earth.

About NAVAIR Lakehurst

NAVAIR Lakehurst, N.J., is part of the Naval Air Warfare Center Aircraft Division. As the Navy's engineering support activity for Aircraft Launch and Recovery Equipment (ALRE) and Naval Aviation Support Equipment (SE), Lakehurst is the critical link between Naval Aviation and Navy Aircraft Carrier (CV) Battle Groups worldwide.

It is envisioned that this current project can expand the gains realized from MBD at Lakehurst across the NAVAIR enterprise. Currently, this collaborative effort between the Fleet Readiness Centers (FRC) and NAWC Lakehurst are working towards implementing this vision.

About Anark

Anark has an excellent track record for delivering successful, cost effective 3D MBE and visual communication solutions for the industry's most demanding and innovative customers that are embracing the power and efficiency gained from 3D Model Based Enterprise (MBE) practices and technologies.

Anark helps market leaders such as Boeing, Lockheed Martin, Raytheon, Tyco Electronics, Honeywell, Rockwell Collins, and the US Department of Defense successfully unlock the potential of their 3D design assets and manufacturing information to improve and accelerate product development, reduce material waste, and to collaborate and communicate more effectively and securely with their suppliers and customers. For more information about Anark please visit www.anark.com.

Anark empowers its customers to ***Unleash the Model Based Enterprise™***.

About Anark Core

Anark Core is an automated, easy to deploy, enterprise software platform that enables manufacturers to leverage valuable engineering design data and manufacturing information to deliver highly effective downstream visual communication and collaboration applications and solutions.

Anark Core allows organizations to effectively reuse their 3D Product Definition content and Manufacturing Process content by automatically combining CAD-PLM with ERP-MES content through captured business rules to create context specific, graphically rich, manufacturing, inspection and supplier documents and

applications for use throughout the enterprise and extended supply-chain.

Unlike other PLM or ERP applications, Anark's platform does not require organizations to duplicate their CAD or PLM data within their ERP system, or their MES or ERP data within their PLM system, and it is the only authoring and publishing solution available today that can provide completely accurate, high fidelity 3D PDF and 3D HTML engineering release and manufacturing process documents from virtually any CAD, PLM, or ERP data source.

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