

Configuration & Data Management



TriVector's C/DM Engineers and Subject Matter Experts provide depth and breadth of *experience* in all aspects of C/DM. From large programs to small, we have developed and implemented C/DM programs and processes, executed proper data management, performed formal configuration auditing, maintained status accounting, and ensured configuration control. Our C/DM Team is focused on providing exceptional technical *performance* and superior *value* to our customers.

C/DM Processes & Procedures

- ▶ Configuration Identification and Control
- ▶ Functional and Physical Configuration Auditing (FCA, PCA)
- ▶ Data Management Tools and Processes for Traceability
- ▶ Experience utilizing MIL-HDBK-61, MIL-STD-31000, MIL-STD-961, MIL-STD-962, MIL-STD-963, MIL-HDBKL-245, SAE GEIA-649, SAE GEIA-859 and ASME Y 14.100 ANSI/EIA-649-1998 & NASA MPR 8040.1 Compliant

Our C/DM Awards

- ▶ NASA MIPSS C/DM Subcontractor of the Year
- ▶ NASA Manned Flight Awareness (Silver Snoopy) Awards (Multiple)
- ▶ NASA MSFC Director and Group Achievement Commendations

Our People

- ▶ 20+ Years Experience (minimum) for all SMEs
- ▶ CDM, PQM, BPR Certified
- ▶ Technical expertise in DOORS, ICE/PTC Windchill, DDMS, ICMS, EDMS, ICAPP, Atlassian Jira, Liferay, and JEDMICS

Our Customers

- ▶ NASA: MSFC Space Launch System (SLS)
- ▶ MDA: Ground Based Mid-Course Defense
- ▶ Program Executive Office (PEO) Missiles & Space: Integrated FIres Mission Command (IFMC)

Controlling the Configuration...Ensuring Consistent Performance



NASA Space Launch System (SLS) Core Stage (CS) CM

With 90+ years combined experience, the TriVector CM Team managed the SLS CS CM baseline, interfaces, and associated CM processes. We developed and maintained the CM Plan and developed the SLS Element Interface Control Plan that defines the change management process for SLS element-to-element Interface Control Documents (ICDs). We provided system-level Control Board administration for four Element Control Boards. Our Team developed a CS-specific Configuration Status Accounting database to enhance change processing, status updating, and reporting. We support SLS CM task teams to include the SLS Functional Configuration Audit Plan for the conduct of the Program FCA and subordinate element requirements. Our TriVector NASA CM Team received the 2017 Marshall Integrated Program Support Services (MIPSS) Subcontractor Award of Excellence.

Ground Based Mid-Course Defense (GMD) CM Plan Development

TriVector provided Subject Matter Expert (SME) support in developing a CM Plan for the GMD organization. The CM Plan defined the GMD implementation and execution of the five tenants of C/DM, as developed for use at the Program, Element, and contractor levels. The CM Plan established and defined the processes associated with flow down of Program-level CM requirements to lower level Elements, baseline control of those requirements, and the interactions required between the Program and the Elements. The CM Plan was levied on the prime contractor and provided guidance to the contractor for interfacing with the GM Program.



Integrated Fires Mission Command (IFMC)

TriVector supports the IFMC program by providing CM, DM, Status Accounting Intellectual Property Management, Drafting and Modeling, Product Data Management (PDM) and Standardization support. The IFMC leans heavily on TriVector to provide recommendations, input and analysis on mechanical, electrical, and digital interfaces and systems of systems integration across multiple weapon system configurations and standards. TriVector successfully deployed the Windchill PDM system for CM. TriVector uses the DM system to maintain the most current version of documents in accordance with the IFMC Specification Tree, to consolidate documents, prepare the team for next step tasks to address Failure Review and Corrective Action System (FRACAS) and Field Configuration processing, manage new enhancements for the IFMC project office, and plan for future Systems Engineering Windchill Utilization.



NASA C/DM Program Spanning Multiple, Geographically Diverse Centers

For the SLS, NASA requires the delivery of numerous products between its Centers. However, the Centers varied widely in their levels of C/DM control. TriVector was asked to develop an efficient C/DM approach across the SLS to standardize and ensure effective product control. We developed and executed a system that created cross program agreements containing very specific product configuration information, and managed these agreements to product delivery. TriVector has managed the execution and maintained this system for over three years resulting in significantly increased configuration control of SLS product deliveries. Now, other NASA Centers have adopted TriVector's C/DM system approach for their programs.

