

CUBES³ POWERS YOUR DEVELOPMENT!



ADS – AVIONIC DESIGN SERVICE

Want to know more about our portfolio and how we can help you to achieve your goals?

Contact us for a personal meeting and let us show you how you can benefit from our extensive experience in aerospace projects.



Source: LepoHalla, Wikimedia Commons

Engineering development projects are predominantly subject to a multitude of standards, tools and stakeholder interests; this is especially true for the aeronautical, defence, space, healthcare and automotive domains.

There are various system development models established in the industry such as V-MODELL[®] XT, IEEE1220, ISO26262, CMMI, SPICE, DOD-Standards, or company specific development standards (Blue-Books etc.). However, these Development Standards do not (or only partially) cover the Project Management Processes and Commercial Processes giving rise to inconsistencies and misinterpretations between the Processes for:

Process Definition and
Project relevant Tailoring

System Definition

Systems Engineering

System Qualification

Project Management

Financial Management

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PROCESS TAILORING AND MANAGEMENT SOLUTION

to develop
standard compliant products



INNOVATION MOTOR

Development of Software Tools, to support Engineering Activities



PROJECT & PROCESS MANAGEMENT

Project & Process Management – Consulting Services, Training and Support for your PMO



AIRWORTHINESS & QUALIFICATION

Consulting Services, Training and Support for your Qualification Activities



SYSTEMS & SOFTWARE ENGINEERING

Development Activities, focused on Aerospace Products



VERIFICATION & VALIDATION

Creation and Analysis of Specifications; Testing Activities (Embedded Systems)



DESIGN & STRESS ENGINEERING

Mechanical Engineering



ENGINEERING

Function / System / Qualification



VIEW 1 Function / Feature / Requirement

A Function is an intended system behavior based on a consistent set of requirements, regardless of the method of implementation [ARP4754]. Customers require special functions and capabilities of a system to fulfill their missions. The Functions are described in a hierarchical set of documents, depending on the selected Development Model. Functions are processed by physical items such as components, subsystems or systems.



VIEW 2 System

A group of components/sensors/equipment's can be assembled to form a subsystem, a group of subsystems can be assembled to create a system and a collection of systems create the end product. For each component a statement of work is established in CUBES³ to describe the development activities.



VIEW 4 Qualification

The Qualification View identifies all artefacts and their status relevant for the Qualification/Certification process. CUBES³ supports the reviews to be held at the end of each development phase by showing each artefact and its current status. In the integration phase the status of each test and its results can be traced providing transparency in "real time".



VIEW 3 Process

The CUBES³ is pre-loaded with a set of processes (e.g. V-MODELL[®] XT, IEEE1220, MIL-STD's, etc.) to produce and manage the development of a product. CUBES³ can be customised to adopt a company specific development model. Processes are the key drivers of the entire project and specify: all development steps; all management activities; all integration steps. Consequently, processes are the key drivers for the development costs.



VIEW 5 Project Management

The Project Management View provides the project plan and progress to Project Managers and Line Managers. Change Management is realised in CUBES³ by adding or removing work packages to the already planned work packages; schedule impacts are directly determined and displayed. CUBES³ enables the Resource Management Process and the workload estimations to help line managers to provide the right resource at the right time.



MANAGEMENT

Process / Project Management / Costs



VIEW 6 Financial Management (Costs)

The Cost View generates up-to-date costing data to Project Controllers and Project Managers and compares this to planned costs providing immediate feedback of potential discrepancies. It is recommended to gather the financial data from a customer system installation like SAP to avoid inconsistencies in the monitoring and control process. CUBES³ will provide information such as Earned Value Management (EVM) for reporting purposes and present this information as KPI matrices.

