

Partnering for Success

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Abstract

In order for the Airbus Concurrent Engineering (ACE) project, and subsequently the next major Aircraft program to achieve ambitious targets of time and cost reduction, it was recognised that a substantially different and closer relationship with our IT Partners would be necessary. Partnerships were initially discussed with Computervision and Hewlett Packard, the aspiration of win-win scenarios and comfortable relationships proved difficult to achieve. In the early years of the ACE project (95-98) a lot was learnt by all involved about what Partnerships really were and the considerable effort and conciliation required by all involved to make them effective.

The ACE project has recently undergone a major re-organisation (1stQtr99) which has coincided with the widening of the project to include other IT Partners to support our objective of delivering process improvements across the entire A/C Lifecycle from product concept to demise.

This presentation now monopolises upon the learning of the past three years. I shall attempt to communicate our vision of a generic Partnership Operating Framework, which will be contractually binding for both Airbus and our IT Partners and is the process reference standard against which our mutual engagement and respective performance in support of the Partnership modus operandi will be measured.

The Airbus Business

Background

Airbus Industrie is a grouping of mutual economic interest set up under French law in December 1970 in order to oversee co-operation between Europe's major aeronautical concerns involved in the Airbus project. The Airbus Industrie Partner members are:

- **Aerospatiale (France)** **37.9%**
- **Daimler Chrysler Aerospace Airbus (Germany)** **37.9%**
- **British Aerospace (UK)** **20.0%**
- **CASA (Spain)** **4.2%**

Airbus Industrie and its Partners have established a sophisticated relationship between them with the aim of developing and manufacturing the Airbus product line to the full benefit of its customers.

Airbus Industrie' declared strategic objective to achieve a 50% share of the global civil aircraft market (100 seats and above) has now been achieved, our next challenge is to increase our productivity and dramatically reduce the associated cost and time to market of our next major A/C project.

Airbus Industrie is now poised to make its most significant organizational change since its conception. The Partners have declared their intent to reform the present partnership of four companies into a single operating company by the end of the millennium.

In this context Airbus Industrie and its Partners commenced a common "Concurrent Engineering" project (called ACE) in 1995, which was and still is one of the major initiatives aimed at facilitating our business objectives.

Airbus Concurrent Engineering (ACE) project

Mission statement

'The ACE mission is to develop a 'Best In Class' Concurrent Engineering infrastructure and progressively implement new and innovative methodologies and processes enabled by the IT technology jointly developed with our IT Partners. '

Vision and objectives

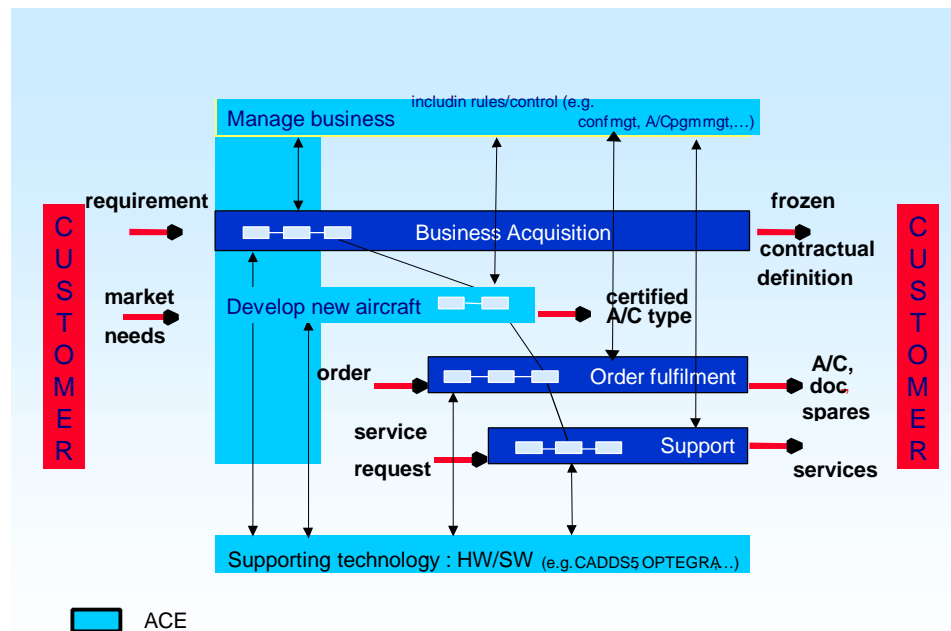
The ACE team is championing an approach that drives the development of tools, techniques and working practices to achieve simultaneous and interactive engineering within the extended enterprise. Their published vision and objectives are listed as follows:

- Our vision is a concurrent engineering environment achieved through the development of processes associated with tools people and data. Interface with Customer/Airlines shall be emphasized.

- In order to define a Road - Map towards the vision, it is necessary to identify those processes that are required for future collaborative Aircraft projects.
- It is intended that the process requirements will be achieved by the development of working practices within the extended enterprise and the development of people and tools.
- The role of the ACE core team is to co-ordinate these developments so that with Partner collaboration minimum development costs and time scale are achieved.
- A key objective is to ensure the use of tools provided by strategic partners is maximized across all phases of Airbus projects.
- The ACE core team will prioritize process implementation and tool development programs including strategic partners.

Scope

The ACE domain is shown in the following figure.



Enabling technology

The ACE project has developed its partnerships with the expectation of obtaining best in class technology to enable the radical change required for the introduction of concurrent engineering methods.

Due to the direct link of ACE deliveries and aircraft programs milestones the timely delivery of appropriate technology is of paramount importance for the achievement of the above goals.

Engagement model

Overview

The model now in use within the ACE project is, as discussed earlier, the result of the experience gained during the first 2.5 years of the project.

The model has three distinct processes:-

Process 1 - Strategy Alignment

Visibility of our respective medium / long term strategic objectives is recognised as essential to ensure all parties can understand and plan future business and product directions. This will be achieved by an annual Airbus Technology conference where Airbus will share its vision for enhancing its business process in the 5 – 10 year timescales. The IT Partners would reciprocate by discussing with all parties where they believe technology opportunities will present themselves.

Process 2 - Technology Development

As a result of either the Strategy Alignment process or specific developments being identified by Airbus, the second process in the engagement becomes effective.

This process identifies business need from within Airbus, the ACE matrix organisation consisting of A/C technical process teams and IT tools teams develop a business 'Use Case' this use case is then discussed and refined in conjunction with the appropriate IT Partner to ensure full understanding of the requirement. The use case is then converted primarily by the IT Partner into a software specification, this specification is jointly reviewed by both ACE and the IT Partner for correct interpretation prior to product development commencing.

The engagement during development will vary depending upon the complexity and criticality of the product to Airbus. It may require regular workshops and reviews, alternatively the first engagement post requirement agreement may be at say 'Beta Test'. As a pre-requisite prior to the commencement of a development, the level of engagement shall be defined for each discrete development to ensure the appropriate resources are planned and achievable by all parties.

The end of Process 2 and the start of Process 3 overlap, this represents the testing activity which is performed both in the ACELab (described later) and at the Airbus Partners own sites, success in this activity enables the termination of Process 2 the move into Process 3.

Process 3 – Deployment & Support

Each ACE Version is a collection of, processes, IT Tools and Procedures that govern their consistent usage within Airbus. These are coordinated in such a way as to enable as near as possible simultaneous deployment into the business, so as to minimise disruption, co-ordinate training and ensure supporting documentation is available at all locations.