

INTAKE EXPERIENCE /

Air tight / program description

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Introduction

The project, Intake Experience, is an immersive environment for the delivery of experiences relating to the Airbus A380. The main intention of the program is to communicate to the potential customer, or the public in some controlled cases, how design and engineering make this aircraft an unparalleled choice in jet travel. The IE project will demonstrate Airbus' willingness to experiment with design and engineering techniques to make lighter, safer, more economical, and more comfortable airplanes with greater seating capacity. In a market with few options, the smallest detail or difference can become a prominent feature. In essence, the IE itself will represent design intelligence and will be the biggest single factor to selling the aircraft, so therefore, it becomes the first and most prominent programmatic element: the precision and beauty of its crafted objecthood.

Programs / Codes

Total Size: Interior conditioned space: +/-700sqm

SITE PLAN

The plane and the IE will sit on a flat, open tarmac, near the Assembly factory in Toulouse. Like the factory interior, the tarmac around the plane may be inscribed with lines, pathways, lighting, ect. as a way to extend the design of the IE into a purely 2D system. The graphic program of the landscape is open. It may be used abstractly or as a surface to "read" or interact with, ie text or educational info may be a part of the surface. Lighting may be installed in the surface, but should only be installed with a lens flush to the floor surface. These lights may be graphic only or they may light the plane and the IE.

You may determine the specific solar orientation of the plane.

You must pick a point on the tarmac within 100 ft of the entrance to the IE where buyers and visitors will be dropped to approach the IE on foot. Concern for what one sees from this POV will be very important as it will start the scripted pathway of experience. On rainy days or for handicapped people, you can assume that a bus, car, or limousine will drop off at the entrance.

IE FOOTPRINT

No more than 30% of the IE floor area may be below an elevation of 3.00m.

IE ENTRANCE

The IE is a building that does NOT use the tarmac surface as part of the interior floor area. Therefore, the threshold to enter must step or ramp up to a minimum raised floor level constructed on or above the ground plane. The building must be entirely handicap accessible. Ramps (1:12 slope), handicap lifts (can be vertical or diagonal), or elevators must be used to accommodate this. Stairs and escalators may be used for general vertical circulation. If you employ lifts or escalators, please draw and model these based on dimensions and images from product literature.

A380 ENTRANCE

You may use **any two** doors to enter and exit the plane. The IE must connect and touch the plane only at these points. You **may** choose to enter and leave the plane through the same door. However, in exiting the IE, the visitor should not pass through previously experienced spaces.

ZONING / SETBACKS

The IE *should* be deployed or positioned within a 60 meter radius with the plane. This may be broken depending on the logic of a proposed scheme. The plane is to be directly centered in the circle. The height limitation is 22m. This will allow vertical schemes that can be an axial counterpoint to the horizontality of the plane. No part of the IE may break this 22m plane.

Except for entering and exiting the plane, the IE **MUST** come *within* 1.5m of any part or surface of the plane on **TWO** occasions, no more, no less. However, the IE must not touch the plane. The program for these moments

calls for a close inspection of the plane through a window or aperture of some kind (ie skin off, looking at structure and mechanics, looking into cockpit, looking at winglet, a cropped view of plane graphics, etc.).

CONTENT DELIVERY

Somewhere between a sales office and an interactive museum exhibit, the IE uses engagement as a way to connect the visitor to the brand content of Airbus and to the detailed description of the A380. For our purposes here, we are trying to open up Airbus and its identity to larger markets. As such, the company will present itself as the leader in globalized exchange. As lifestyles and brands become connected more and more, Airbus has decided to vary its marketing strategy to appeal to the changing corporate environment.

As an architect, you are asked to develop a project that shows how Airbus understands design as a cultural phenomena and that architecture, while drastically different than a plane typically, may be seen to have deep connections to the aerospace industry through its construction techniques.

INTERIOR SPACES

- **Entrance/ Orientation.** In considering the point at which one (or a group) enters the IE, it is important to organize and choreograph the movement of people. Single file through a 2meter wide opening with automatic sliding doors or a 7meter long opening with an air-curtain are different ways to design the threshold between inside and outside. Think of the different attachments to a vacuum cleaner here (actually, as a product, one of the best analogues for this projects). Up to 100 people will enter at one time. They must be able to gather at the entrance for a brief oral orientation (everyone standing) or the orientation space may be linked to an entrance pathway.
- **A scale model of the plane is to be displayed w/ a transparent outer skin.** People should be able to move around the model and interact with it. It will be a “working” model showing infrastructure like ductwork and control systems in the wings, etc. The plane itself will be approx 10m long (1:10 perhaps). It is another reminder of the ideas of scale shift. It can be wrapped in it's own space or part of an open landscape. The model will be lit from within, above, and below, but space around it can be as bright. The centerline of the fuselage should be 1.2m above the viewing (floor) surface. Model must be supported from below. Structure and electrical will be connected from the floor.
- **IE theater for 100 people.** Floor may be flat, raked (sloped), or stepped (back row may be used for HA seating). Seating is to be fixed. Use 1.3 sqm per person as a guide. Spacing between seats or rows should be slightly larger than normal. Main screen size MUST be 3m hi x 8m wide. You must control the ingress and egress ergonomically. The space does not need to be acoustically separated from other spaces, however, light and sound must be controlled for proper AV conditions. Groups from 15-100 people use this space. A 15 minute film covering most aspects of the plane will be screened. Other mediatized surfaces may be used in the space such as LED's etc. These spaces need zero reverberation, so soft, absorbent materials must be used in the space; think custom carpets wrapping surfaces, etc. Screen must be flat, not arced. Plan layout of the seating may vary, but sightlines must work. Space must have two ways out at least 10m apart if the space is enclosed. Unmanned digital projection will be used from the rear of the space.
- **Small VIP Screening space for 10 people.** Used primarily for high end customers (corporate buyers, etc.). Use approx. 3 sqm per person for this space. Large reclining seating. Digital projection system will be used.
- **Server room and IT office**
- **Conference Room**
- **Design Studio**
- **Staff Offices**
- **Interactive zone (touch screens, 3 simulators).** 10 individual interfaces (standing only) should be deployed within the IE. These may be in one zone or along circulation paths, or in smaller groups. Touchscreen and voice activation will be used. Simulators are glass enclosed vessels that allow for a customer to experience and control HUD vision systems. Imaging occurs within special laminated glass / 2sqm each.
- **Immersive circulation.** All circulation should consider lighting effects, interior surface materials, branding, and geometry. Movement through the IE is a major part of the project.
- **The Airbus Brand.** Airbus has given you license, within the IE, to redesign the look and feel of the graphic identity of the company. Like the Prada Epicenter stores, here a different design exhibits a more design oriented identity. Only the Airbus Logo must be reused. All colors, icons, and typography are open. Color(s) has a function. It suggests something within the overall appearance of the IE. This allows for all color options and for the use of 2d design systems to affect the space /object. Cf Braniff Airlines.
- **Toilets.** W/M @ 12sqm each for public.

- **Mechanical.** 50sqm/ 35sqm mech /15sqm electrical. Should include connection to exterior for exhaust and intake. All ductwork will feed from this room. (Plenum spaces, shafts, chases, etc. should be incorporated into the spatial concept of the IE.) This room can be accessed from the exterior of the IE (ie through a man door in the surface, etc. Mobile lift can be used.)
- **Service opening.** An aperture, operable door, hatch, at least 3m x 3m must be provided for furniture/equipment service, etc.

Notes:

- a) All of the above should loosely fit into 700 sqm. You may set up the sequence of events as you wish, but the idea is that only one group or client will be in the IE at once, leaving open the idea that you may articulate functions with or without separation (walls... embossed surfaces that partially articulate functional zones may be used.) However, in all cases, they will see the film (in small or large screening areas or perhaps both) and the model BEFORE entering the plane. If you set up the individual interfaces as an afterplane exp., then that will determine the organization of the scheme. ALL components of the IE may be experienced before entering the plane as well. How you move a larger group vs smaller is part of the problems as well. Fixed spaces (theater), linear movement spaces, and potentially random movement spaces (mini-fields) are types of zones you will be looking at.
- b) The skin. Special attention should be paid to the use of perforations, openings, windows, performative glass, etc. While the IE is a hyper controlled environment, it uses the plane and the hangar as it's context.
- c) Structure / Wall and Floor thickness. Please be aware of construction methods. Cantilevering, mech zones, etc. all require close consideration, all of which affects the overall form.