

Component Location User Guide

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Approval list

Responsibilities	Name - Function	Department - Company	Date	Signature
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1 Overview

Welcome to Component Location as an Aircraft Visit product.

This application is used as a support device for maintenance training.

It allows the user to:

- Visit a virtual Airbus aircraft
- Locate the main Airbus aircraft components

The main functionalities of the Component Location are:

- Freely visit aircraft inside and outside
- Identification of aircraft components into the different parts of the aircraft
- Id-card accessible for each item with real photo and comments



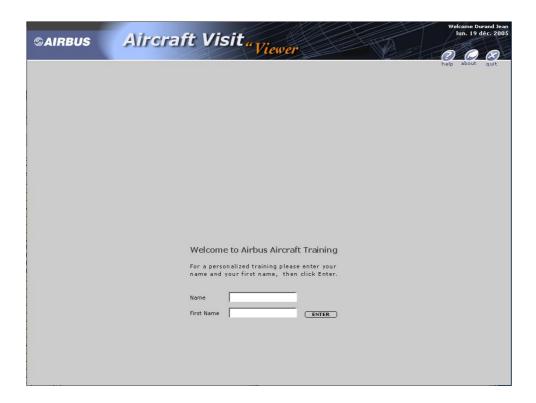
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2 Interface presentation

2.1 Home page screen



Home Page

The Home page asks for your name and first name to log your visits. After filling the two fields, click on the Enter button to start.

See also: Visit management functionalities

Banner

The banner is made up in the following way:

- Your surname and first name are shown in the top left corner
- A Quit button to leave the program is found on the right hand side
- A Help button is on the right hand side to access the "Help index"
- A About button to access the "About page".



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2.2 Visit management screen



Select a visit

The visit management screen displays the list of visits available.

Visits, which have already been started during a previous using, are marked with an asterisk (*).

Once you have chosen a visit, there are two cases:

• If the visit has never been made before, a start button appears to launch it.



• If it has already been started, Restart and Resume buttons appear to, either resume it there where it has been stopped, or to start it again from the beginning.





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Visit information

The Visit Information zone gives further information regarding the selected visit.

Name: name of the visit

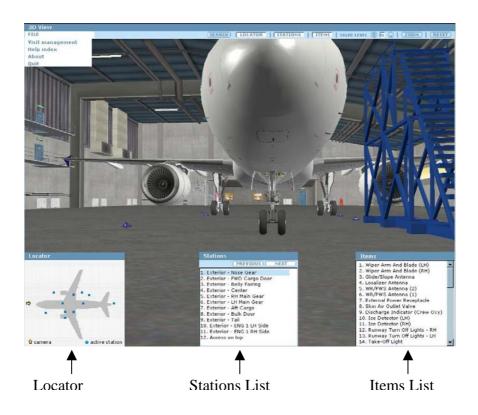
Type: type of the visit (mandatory or free)

• State: state of the visit (never visited or already visited)

Description: description text of the visit.

2.3 3D View

The 3D view is the main screen of the application. It shows the virtual tour of the aircraft.



See also: Navigation, Locator, Stations list, Items list



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Windowed mode

It may happen that your application has been configured in windowed mode by your administrator.

In that case, the child windows are displayed and located in a predefined position.





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3 Functionnalities

The "Component Location Visit" is designed for maintenance operations. This visit is to teach the user to locate items.

Navigation is the same as for the "Free Visit" mode of the Walk Around with the possibility of free movement about the aircraft, choosing the stations in the order you want. The active station being the station nearest to you in the 3D view.

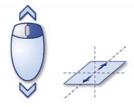
As in the other visits, the stations and items already checked will appear in grey in the stations and items lists and shown as a white square with a green outline in the station locator. You can move closer to an item by clicking on it.

3.1 Navigation

There is more than one way to navigate in the 3D environment, depending on the situation.

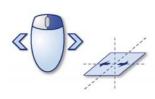
3.1.1 Free navigation

This allows free movement about the aircraft and uses the two buttons of the mouse or the arrow keys.



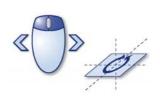
Right button pushed and up/down movement or <up>/<down> arrows keys

Forwards or backwards camera movement, "forward or back". The further you move the mouse upwards or downwards with the right button pushed, the faster the movement.



Right button pushed and right/left movement or <right>/<left> arrow keys

To shift the camera to the left or right, "sidestep left or right". The further you move the mouse to the left or right with the right button pushed, the faster the movement.



Right and Left buttons pushed and right/left movement or <right>/<left> arrow keys + <CTRL>

To turn the camera left or right, "turn left or right". The further you move the mouse to the left or right with the right and left buttons pushed, the faster the movement.

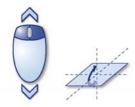


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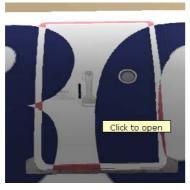
Right and Left buttons pushed and up/down movement or <up>/<down> arrow keys + <CTRL>

To turn the camera upwards or downwards, "look up or look down". The further you move the mouse upwards or downwards with the right and left buttons pushed, the faster the movement.

3.1.2 Access to inside and outside specific areas

In the Component Location Visit, you can get access to inside and outside specific areas of the aircraft such as the cabin, the cockpit, avionics and cargo compartments, landing gear bays and engines.

To gain access to these Aircraft areas, click on the door that leads to the area you want to visit. A tag "Click to open" appears on operable doors.



When the door is opened, a tag "Click to access" appears inside, you can then click in the area to gain access.





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To go back to the main aircraft exterior, click outside in the door opening where a "Click to access" tag appears.



If the visited area is situated outside the fuselage (e.g. Engine), you can return to the main aircraft exterior by clicking on the ghost of the aircraft.

A message box asks you to confirm and if you click OK, the camera positions itself outside the area in the main aircraft exterior display with the same orientation.



3.1.3 Navigation utilities



Sight Level Function



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The sight level function is composed of three buttons.

With the sight level function, the user can change vertical position with these three icons:

The right hand icon corresponds to a reclining position (about. 50cm),

SIGHT LEVEL

The middle icon corresponds to the crouching position (about. 1m10),

SIGHT LEVEL

The left hand icon corresponds to standing up (about. 1m70).

When a position is not available, the corresponding icon is deactivated.

Notes: The choice of camera position has no effect on the navigation mode or zoom. When you click on a station to reposition yourself automatically, the vertical position of the camera can be changed when necessary.

Zoom Function

The zoom button shows the state of the zoom function (applied or not).

This function is particularly useful to view elements placed up high.

The zoom function is controlled by the mouse scroll wheel.

scroll-up to make the camera zoom in.

scroll-down to make the camera zoom out.

When a zoom is applied, the zoom button situated on the top right hand corner of the 3D view screen is pushed.

To cancel any zoom applied and return to a normal view, click on the pushed zoom button to release it.

Reset Function

The reset function restores the sight level and normal field of vision (zoom) of the user. It also cancels turns and tilts to bring the camera straight.

The default sight level is the standing position (if this position is available).



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3.2 Locator



This window shows the navigation zone from above.

The Locator displays:

- The position and direction of the camera, symbolised here by an arrow.
- The exact location of the stations and their status:
 - a blue square for unvisited stations,
 - a white square for visited stations,
 - a blue circle for the nearest station.

A station is considered as having been visited when all of its items have been checked, that is to say all the Id Cards consulted.

Navigation by mouse

You can visit all the stations in the 3D environment by clicking on the appropriate squares.

See also: Stations list, Items list



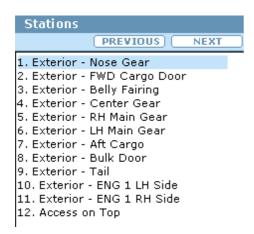
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3.3 Stations List



The station window contains the list of stations available.

The stations appear by default in black, the selected stations are highlighted in blue and those stations where items have already been checked are grey.

In the "Free Visit" independent exploration mode, you can move to a station by clicking on it, move to the next station by clicking on Next, or to go back to the one before by clicking on Previous. By double-clicking on a station, you access the station IdCards.

The "Mandatory Visit" guided tour mode works in the same way except that you must follow the pre-defined order of the stations. You may only click on the next station name or use the previous or next buttons after having checked all the items of the current station.

See also: Items list, IdCard.

3.4 Items List

1. DRIVE-WXR ANTENNA 2. ANTENNA-WEATHER RADAR 3. LOCALIZER 1/2 4. BAT 1 and 2 VENTILATION OUTLE 5. ICE DETECTOR (1) 6. ICE DETECTOR (2) 7. SENSOR-TAT 1 8. SENSOR-TAT 2 9. PROBE-PITOT 1 10. PROBE-PITOT 2 11. PROBE-PITOT 3 12. SENSOR-ANGLE OF ATTACK 1



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The item window is activated when a station is selected. It contains the list of the items to check or locate.

This list of items is limited to the current 3D view.

A click on the item moves the camera closer to it. By double-clicking on it, you see its idCard.

When the item then appears in grey on the list, it is considered checked.

When all the items of a station have been checked, the station itself is considered checked.

See also: Stations list, IdCard

3.5 Search function

The integrated search engine enables to access items from the whole list of aircraft items. To search an item, click on the SEARCH button in the upper part of the general toolbar.



Click on the SEARCH button to get the whole list of items.

Filter

To filter information, type its FIN code, ATA code, zone or Label in the corresponding fields. Then click on the SEARCH button.

Found items are displayed in the list showing their ATA, FIN, Label and Zone.

Sort



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Listed items can be sorted by ATA, FIN, Label or Zone by clicking on the corresponding title on top of the list.

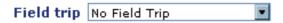


Direct Access

You can double click on an item in the list to see it in its environment. The camera then positions itself in front of the item wherever the area in which it is situated (i.e. a corresponding 3D view is automatically loaded if needed)

Field Trip session

The search function can be restricted to items included in particular Field trip session (which is a particular set of items). To do this, select your field trip session in the Field trip box.



Then click on the SEARCH button.

3.6 Id Card

IdCards can be consulted from different manner:

- by double-clicking on a station or item title from the corresponding list
- by double-clicking on the elements representing them in the 3D environment.



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Station IdCard



A Station IdCard contains the list of items associated to it.

In the Walk around Visit, actions to perform are associated to each item.

See also: Stations list, Items List

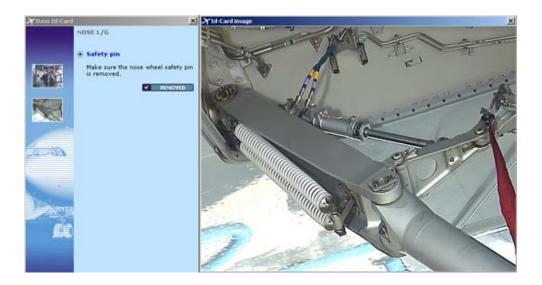


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Items idCard



The item IdCard contains an explanatory text and an associated series of miniature pictures. These can be made bigger with a single click.