PA-28-181 ARCHER III

ELECTRONIC FLIGHT BAG (EFB)

Just Flight™

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This manual is specifically for the Electronic Flight Bag (EFB) installed in the Just Flight and Thranda Design PA-28-181 Archer III for X-Plane 12.

CONTENTS

EFB OVERVIEW

The Archer III for X-Plane 12 is equipped with a tablet computer that houses the controls of a vast array of configuration options to customise your experience.

Hidden clickspots in the 3D cockpit and on the tablet's bezel allow you to place the tablet on either side of the windscreen or on either yoke. Clicking on the left windscreen clickspot when the tablet is in that position will hide the tablet entirely.

The bezel around the tablet has four clickspots:

1. Left-click the left bezel to toggle the 2D pop-up window of the tablet. This can be ‘popped out’ and moved to a different monitor if desired.
2. Left-click and drag the top bezel to rotate and tilt the tablet.
3. The Home button can be used to return to the Home screen. Alternatively, with an app in the EFB open, you can click on the app icon at the top left corner of the page to return to the Home screen.
4. Left-click the bottom bezel to cycle the tablet through its various cockpit positions.

The Home page displays a list of apps that are available for use. Left-clicking on one of the app icons will open the respective app. A slider allows you to adjust the brightness of the EFB backlight.

AIRCRAFT OPTIONS

Selecting the AIRCRAFT OPTIONS icon on the Home page will launch the Aircraft Options app, which allows you to control various aircraft options. These options include:

CABIN DOOR – opens and closes the cabin door.

PILOT WINDOW – opens and closes the pilot's storm window.

BAGGAGE DOOR – opens and closes the rear baggage door.

WINDOW REFLECTIONS – toggles the window reflections on/off.

INSTRUMENT REFLECTIONS – toggles the reflective glass faces of the individual instruments on/off.

COCKPIT LIGHTS – toggles the cockpit and panel lighting on/off.

SWAP PILOTS – swaps between the male and female pilot models in the cockpit.

LEFT TIE DOWN – toggles the left wing tie down, preventing aircraft movement.

RIGHT TIE DOWN – toggles the right wing tie down, preventing aircraft movement.

NOSE CHOCK – toggles the nose-wheel chock, preventing aircraft movement.

LEFT CHOCK – toggles the left main wheel chock, preventing aircraft movement.

RIGHT CHOCK – toggles the right main wheel chock, preventing aircraft movement.

WHEEL FAIRINGS – toggles the optional nose and main gear aerodynamic fairings.

TOW BAR – toggles the tow bar on the nose gear.

WEIGHT AND BALANCE

Left-clicking the WEIGHT & BALANCE icon on the Home page will launch the Weight and Balance app, which allows you to control the aircraft's fuel load and payload.

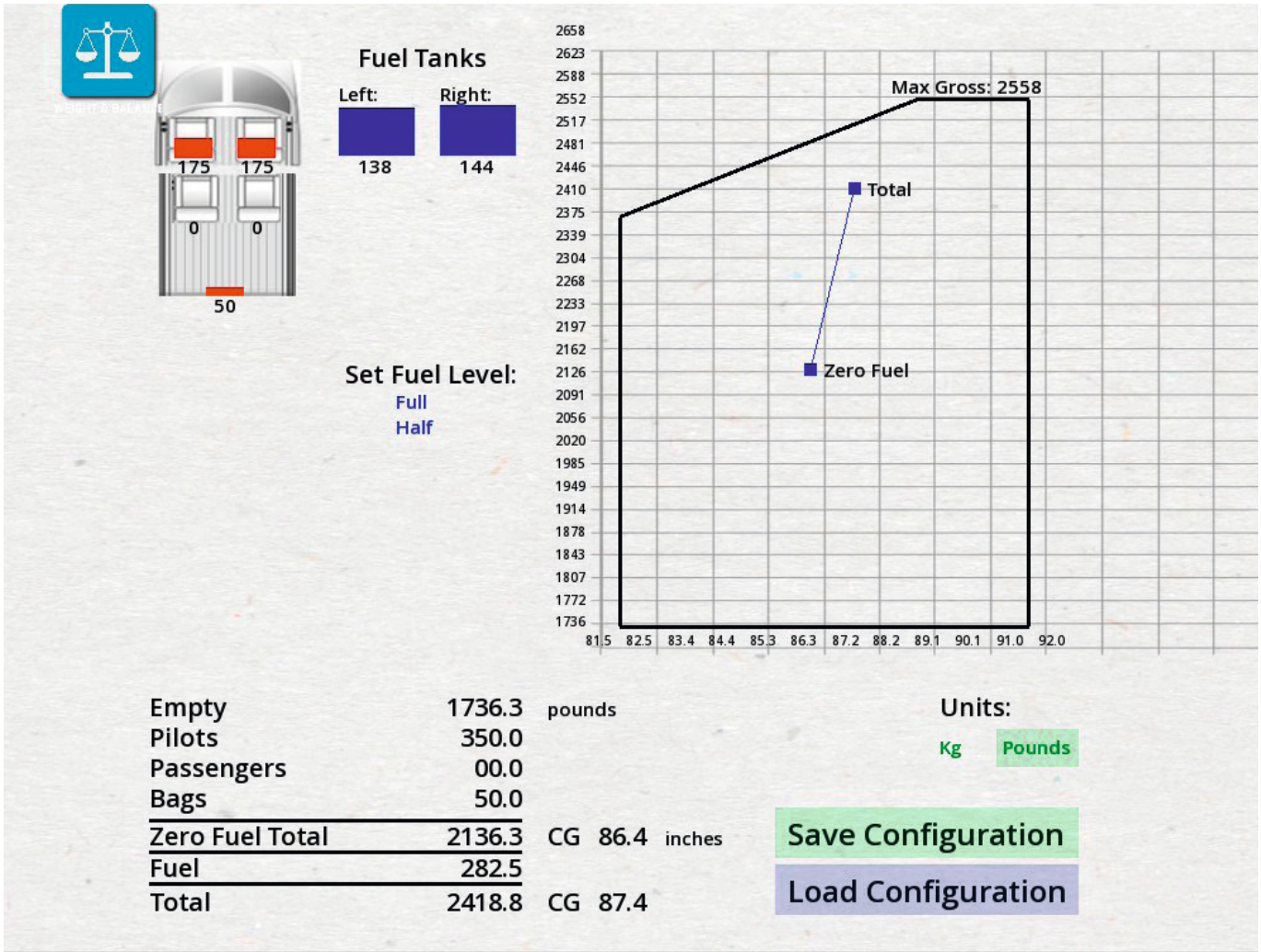
This app opens the X-Plane Weight and Balance Configuration page which allows you to control the load in the aircraft via the aircraft image on the left side of the page. It also displays a loading envelope graph and loading data which update automatically based on the aircraft's current fuel and payload.

The weight in each seat and in the baggage area can be adjusted by using the mouse scroll wheel to adjust the weight in five-pound increments. Changes are applied to the aircraft immediately.

Fuel levels in each tank can be set in the same way or by clicking the 'Full' and 'Half' buttons to set the total fuel level.

The displayed units can be toggled between Kg and Pounds in the lower right corner.

Clicking the 'Save Configuration' button will save the current settings to disk. Clicking 'Load Configuration' will load the previously saved configuration.



INSTRUMENT OPTIONS

Left-clicking the INSTR OPTIONS icon on the Home page will launch the Instrument Options app, which allows you to open pop-up windows for the instruments fitted to the aircraft and toggle 3D integration for the RealityXP GNS/GTN or TDS GTNXi, if installed.

GNS 530 POPUP – toggles the 2D pop-up of the GNS 530 GPS unit.

STEC 55 POPUP – toggles the 2D pop-up of the STEC 55 autopilot unit.

GNS530 / GTN750 – toggles the 3D integration of the Reality XP GNS530/GTN750 (if installed).

TDS GTN POPUP – toggles the 2D pop-up of the TDS GTN (if installed).

ENGINE CONFIGURATION

Left-clicking the ENGINE CONFIG icon on the Home page will launch the Engine Configuration app, which allows you to view data on the aircraft's electrical system and engine(s) as well as providing various options such as enabling advanced engine simulation.

Clicking the REFILL button will automatically fill all fuel tanks and clicking the RECHARGE button will top up the battery voltage.

In addition to supporting X-Plane's own failures system, our simulations include a few of the more common failures found on these aircraft:

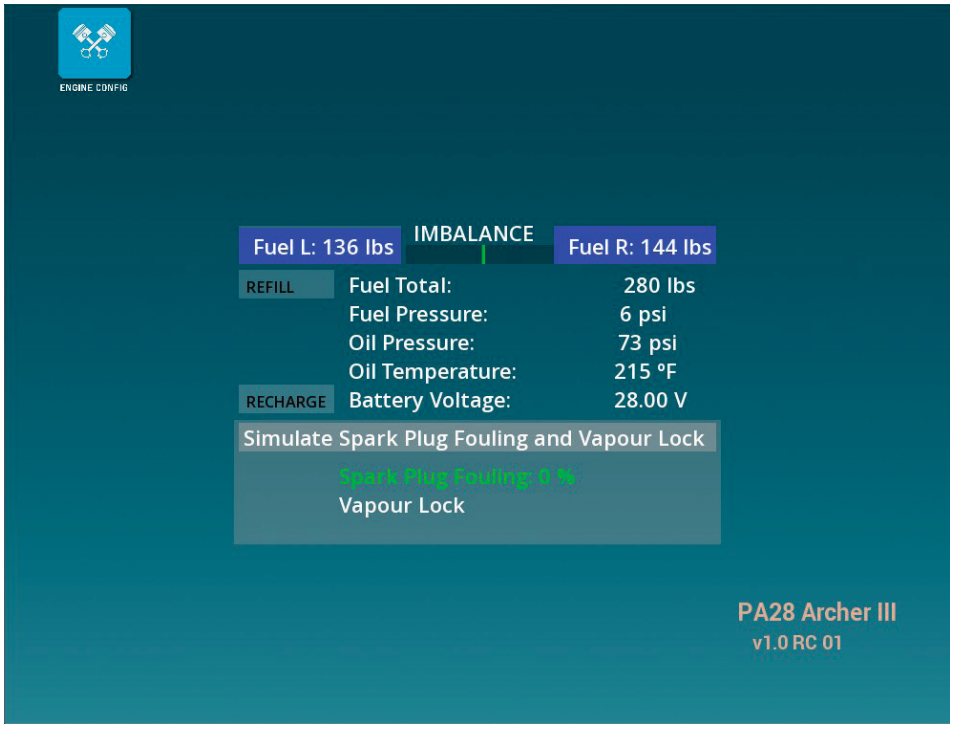
Spark plug fouling – this can occur if the engine is kept at low RPM for prolonged periods and symptoms include rough running with a subsequent increase in cockpit vibration. If fouling occurs, increase engine RPM and aggressively lean the mixture. This can be done at low power settings on the ground without harming the engine.

Vapour lock – this can occur for up to approximately 30 minutes after the engine has been shut down. After shutdown, fuel vapour can remain within the fuel lines as the result of high temperatures. This vapour disrupts the operation of the fuel system and creates an incompatible mix of air and fuel, so you might need a few attempts at starting the engine before ignition occurs. This problem is more likely to occur when operating in high temperatures. If vapour lock is suspected, operate the electric fuel pump for 20-30 seconds with the mixture in the idle cut-off position, then repeat the engine starting attempt.

Battery failure – the battery can be quickly drained, either by leaving electrical systems switched on without the engine (and therefore alternator) running, or by repeated attempts to start the engine. The battery can be recharged using the RECHARGE button.

These failures can be enabled/disabled by clicking on 'Simulate Spark Plug Fouling and Vapour Lock'.

The symbol in the upper right corner allows this page to be popped out into its own separate 2D window.



STATIC LIVERIES

Left-clicking the STATIC LIVERIES icon on the Home page will launch the Static Liveries app, which allows you to cycle through and apply the various liveries that are included in the ‘Liveries’ folder of the aircraft.

Scrolling the mouse wheel over the aircraft image or clicking the PREV and NEXT buttons at the bottom of the page cycles through the available liveries, and clicking APPLY will load the selected livery. There may be a pause of several seconds during loading.

The ‘Dirt’ value can be adjusted by hovering the mouse cursor over the value and scrolling the mouse wheel. Clicking on the value toggles it between 0 and 100. This adjusts how clean or dirty the exterior of the aircraft appears to be.

CONFIGURATION

Left-clicking the CONFIGURATION icon on the Home page will launch the Configuration app, which includes options such as the ability to instantly start or shut down the engine(s) and to adjust the aircraft's handling characteristics via DynaFeel.

Two general configuration options are featured on this page:

ENGINES RUNNING – toggles the aircraft between a cold and dark state and an engines-running state. Clicking this will cause X-Plane to reload the plane and restart the flight.

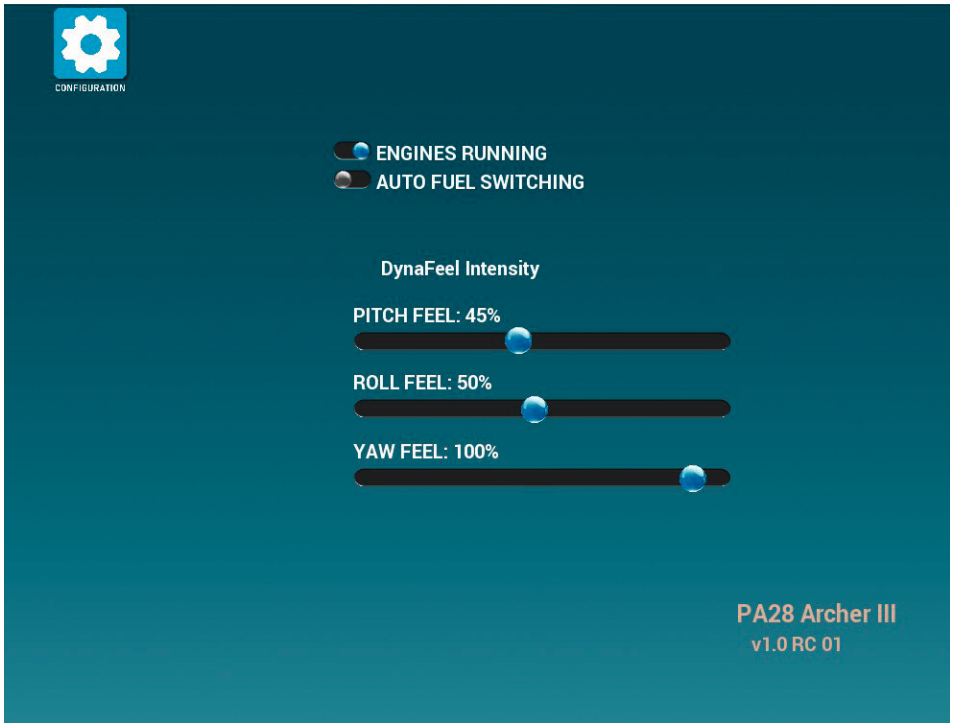
AUTO FUEL SWITCHING – toggles automatic switching of the selected fuel tank every 20 minutes.

Thranda DynaFeel

Thranda's DynaFeel system simulates the 'heaviness' of the controls in flight, while still allowing you to deflect the controls fully. X-Plane already allows us to limit the total control deflections as speed increases, which helps simulate the 'heaviness' of the controls in the real aircraft, but this limitation means it is not possible to reach full control deflection at speed, which affects the ability to perform slips and accelerated stalls.

The DynaFeel system dynamically adjusts the rate at which the controls deflect, based on airspeed and how much the control is deflected. This means that the controls will feel light and responsive at low speeds and with small deflections, but will get progressively heavier as airspeed increases.

The controls in the pop-up control the intensity of this effect and can be adjusted in real time as you fly. The aircraft has been carefully tuned to respond correctly at 100%, but the intensity can be adjusted anywhere between 0% and 200%. 0% disables the system entirely and causes the controls to always feel light, while 200% will have an exaggerated heavy effect.



LOG BOOK

Left-clicking the LOG BOOK icon on the Home page will launch X-Plane's built-in Log Book window, which allows you to view your recently logged flights in the simulator.

CHECKLIST

Left-clicking the CHECKLIST icon on the Home page will launch the Checklist app, which will open an interactive checklist covering the aircraft's procedures.

Each item can be clicked to turn it green as a visual reminder that it has been completed.

The arrow buttons at the bottom of the page navigate to the previous and next pages.

GROUND HANDLING

Left-clicking the GROUND HANDLING icon on the Home page will launch X-Plane's built-in Ground Handling window, which allows you to request ground services and push back the aircraft.

DYNAMIC LIVERIES

Liveries have long been an enjoyable and accessible way for users to express creativity in flight simulation, but modern tools and complex workflows have made it harder for casual users to get involved. To make livery creation easier again, the **Dynamic Liveries** app was developed and offers an intuitive, non-technical way to customise aircraft paint schemes.

Left-clicking the DYNAMIC LIVERIES icon on the Home page will launch the Dynamic Liveries app.

A visual preview of the current scheme is prominently displayed in the window.

Left-clicking on the STYLE field immediately below the image allows you to toggle between three different templates: FACTORY, FLOW LINES and CLASSIC.

The paint scheme is divided into multiple different sections of the aircraft, which are listed on the right side of the page. Clicking on a section will select it, indicated by a small red circle.

Once a section is selected, the colours can be adjusted via the colour wheel or the 'R', 'G' and 'B' clickspots on the left by left-clicking and using the mouse scroll wheel. A preview of the colour is shown in the adjacent large square. The selected colour can be copied and pasted into another section by using the buttons next to the preview.

Additionally, the metallicity and roughness of the section can be set via the 'Metal' and 'Rough' clickspots to the right of the colour preview. For best results we recommend keeping the 'Metal' values less than about 26 for non-metallic materials and above about 245 for metallic materials.

The REGISTRATION No field allows you to select the registration / tail number for editing, just like the above items. Additionally, the text field can be used to edit the current registration / tail number. Press the 'Enter' key on your keyboard after typing in the registration and then click APPLY to set it.

The 'Dirt' value can be adjusted by hovering your mouse cursor over the value and scrolling the mouse wheel. Clicking on the value toggles it between 0 and 100. This adjusts how clean or dirty the exterior of the aircraft appears to be.

At the bottom right of the page there are three options:

Delay – controls how many frames X-Plane waits between creating texture files. A higher delay helps prevent errors and gives the simulator time to process tasks smoothly. Most systems work best with a delay of over 100 frames. Lowering it may speed things up but could cause issues – adjust with caution!

Texture – allows you to control the resolution of the new livery output.

- **8k** – highest quality, large file size.
- **4k** – balanced quality and performance.
- **2k** – lower quality, better FPS.
- **1k** – fastest export, ideal for a quick preview.

CPU/GPU – controls whether texture processing is handled by your computer's CPU or GPU. While GPU processing is usually faster, it can sometimes cause issues with certain graphics systems such as Zink or Vulkan/ Metal. If problems occur, switching to CPU processing is recommended.

Three options at the bottom of the page allow you to add, save and remove liveries:

ADD – clicking this will copy the current livery configuration into a new livery index at the end of the list.

REM (remove) – deletes the current livery configuration from the list.

SAVE LIVERY PREVIEW – saves any changes you have made to the current livery configuration.

Controls at the bottom of the page allow you to cycle to the previous (PREV) and next (NEXT) livery configurations in the list.

Clicking APPLY at the bottom of the page will save the current livery configuration and generate the paint scheme. Please note this can take up to a few minutes due to the large size of the livery textures that must be generated. Between steps, pop-up windows will become visible, giving useful information about the process, and optional settings.

After applying a dynamic livery successfully, a pop-up window will prompt the user to save or discard the dynamic livery as a static livery. If 'Yes' is selected, the plugin will automatically create a sub-folder in the 'liveries' folder, give it the name of the tail number given to this livery, and store the textures in their appropriate sub-folder. X-Plane may show a warning when you change planes or exit the simulator, due to issues with registering new liveries mid-flight. This warning is harmless and can be resolved by simply restarting the simulator.

The list of dynamic livery configurations is saved in the X-Plane 12 aircraft folder in the following file directory: '…\liveries\DynamicLiveryResources\DynLivPresets.json'.

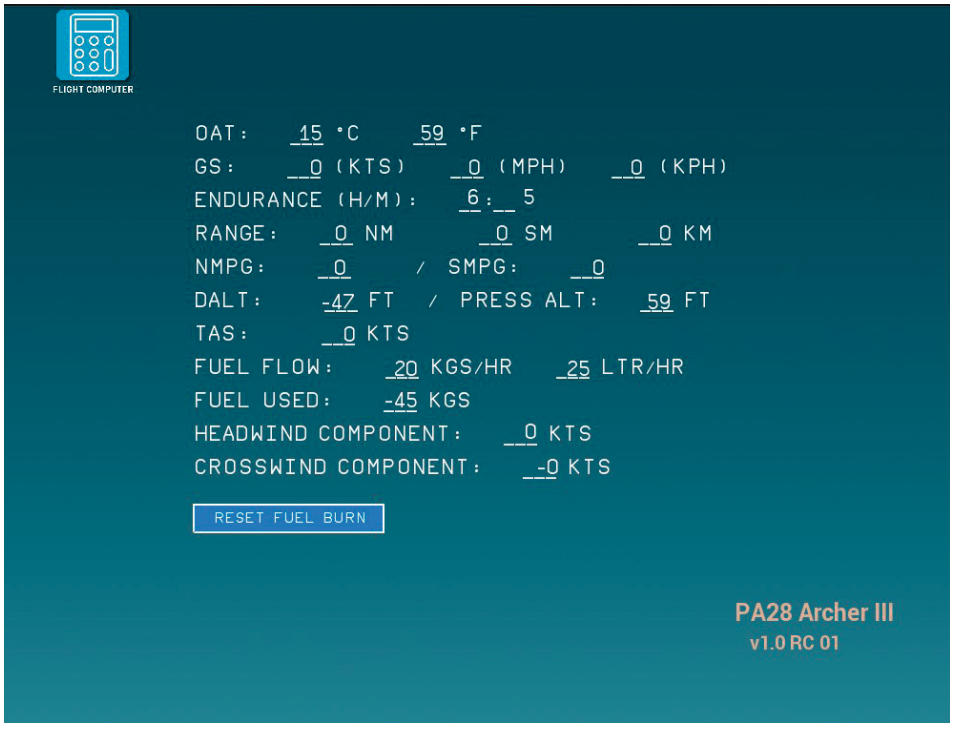
FLIGHT COMPUTER

Left-clicking the FLIGHT COMPUTER icon on the Home page will launch the Flight Computer app. This lets you view a variety of information:

- Outside air temperature (OAT) – Celsius and Fahrenheit
- Groundspeed (GS) – nautical miles per hour, statute miles per hour and kilometres per hour
- Endurance – hours and minutes
- Range – nautical miles, statute miles, kilometres
- Nautical miles per gallon and statute miles per gallon
- Density altitude and pressure altitude (feet)
- True airspeed (knots), track (degrees) and drift (degrees)
- Fuel flow – kilograms and litres per hour
- Fuel used – kilograms and litres
- Headwind/tailwind component (knots)
- Crosswind component (knots)

The total fuel burn can be reset by clicking on the RESET FUEL BURN button.

The symbol in the upper right corner allows this window to be popped up into its own separate 2D window.



AVITAB (IF INSTALLED)

If the AviTab plugin has been installed in the user's X-Plane 'plugins' folder, an additional app will become available on the Home page, allowing access to the entire AviTab feature set.

CREDITS

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