

Sim-Avionics

Professional Flightdeck Avionics Solutions

Custom Design
Integration
and
Support

High Fidelity Display Systems

SMOOTH AND FLUID OPEN-GL DISPLAYS FOR PRECISION FLYING

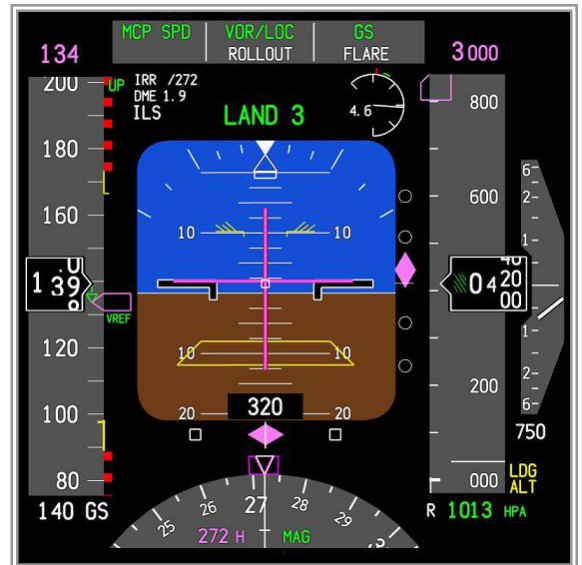
Sim-Avionics 'Flight deck Avionics' are designed to simulate the avionics and systems of a modern glass cockpit aircraft and currently available in four type specific versions: B737NG, B737Max, B777 and B787

The avionics applications are compatible with Windows OS and can be run on single or multiple computer setups, across a network using a TCP Protocol.

The software suite is a fully integrated addon for Multi Simulator Platforms including FSX and P3D.

All Autopilot, Navigation, Warnings and System functions are handled within the applications to provide a fully immersive simulation experience.

This makes the system extremely versatile and can be used in a conventional flight deck setup utilizing physical hardware interfaced to the software, or the possibility to run the cockpit on touch screen monitors.



COMPLETE SIMULATOR SOLUTIONS

- Accurate Type Specific Modeling
- Smooth, Fluid Display Systems
- Autopilot, FMS, Systems Modeled
- Touch screen or Hardware Integration
- Detailed Sound Modeling
- Instructor Station with Failure Models
- Full Setup and Maintenance Support

flexible solutions for your project

LICENSING

The software is available under three separate license schemes:

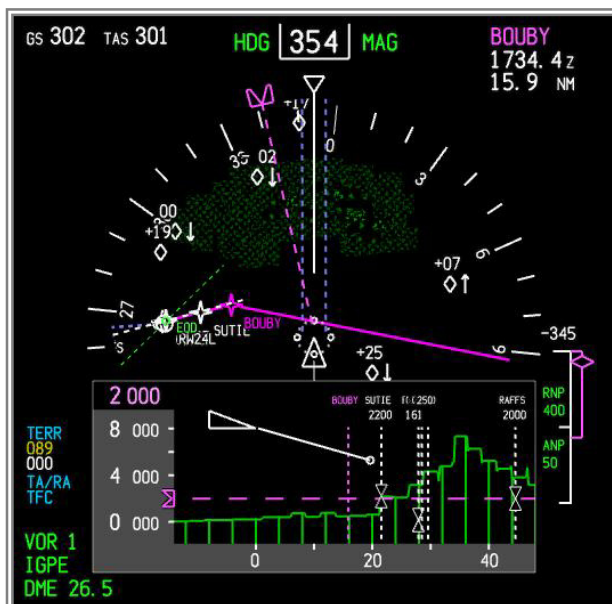
- Professional Revenue
- Professional Non-Revenue
- Private-User.

Please contact Sim-Avionics sales for any form of professional usage or application

CONTACT US

Please contact us if you require any further information about the software and how Sim-Avionics can help you.

Email : support@sim-avionics.com



All pictures in this document are generated from screenshots of the software.

Integration Options

HARDWARE / SOFTWARE INTEGRATION

There are several ways to interface with the software:

- Software Graphical User Interface Control
- Hardware Interface Control
- Custom Integration



SOFTWARE GRAPHICAL USER INTERFACE

These GUI's allow the aircraft systems to be controlled on screen by clicking on the graphical buttons. This solution is ideal for simulators without physical hardware or for use in touch screen applications.



ACCURATE SYSTEMS MODELLING

Simulated B777 and B737 Systems Including:

- Electrical
- Hydraulics
- Fuel
- Pneumatics
- Pressurization
- IRS / ADIRU
- Flight Management System
- Autopilot / LNAV / VNAV
- Terrain and Weather Radar

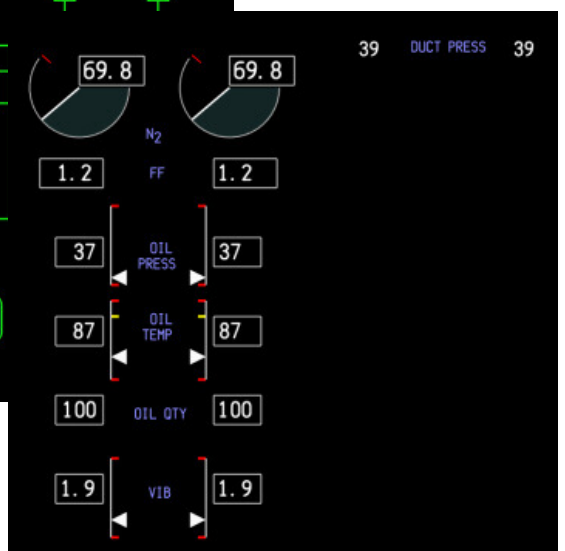
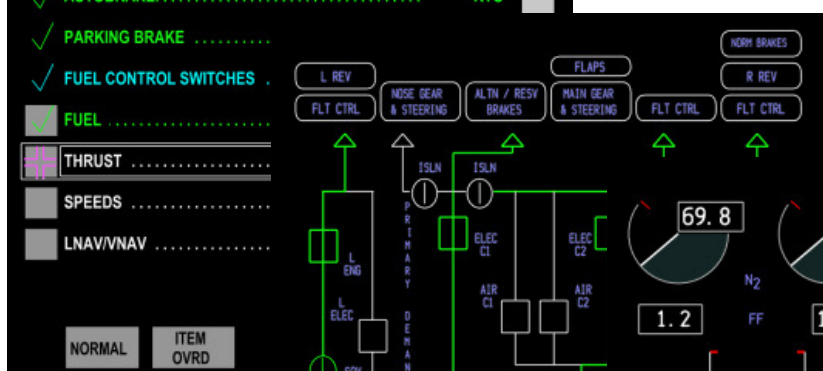
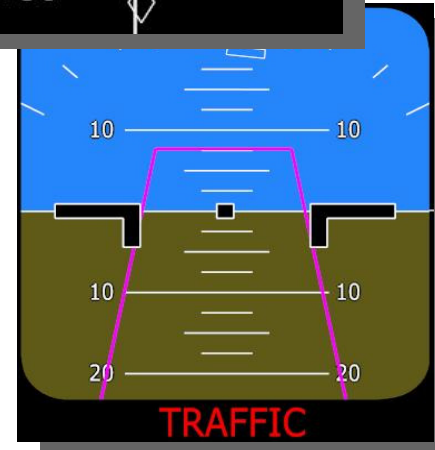
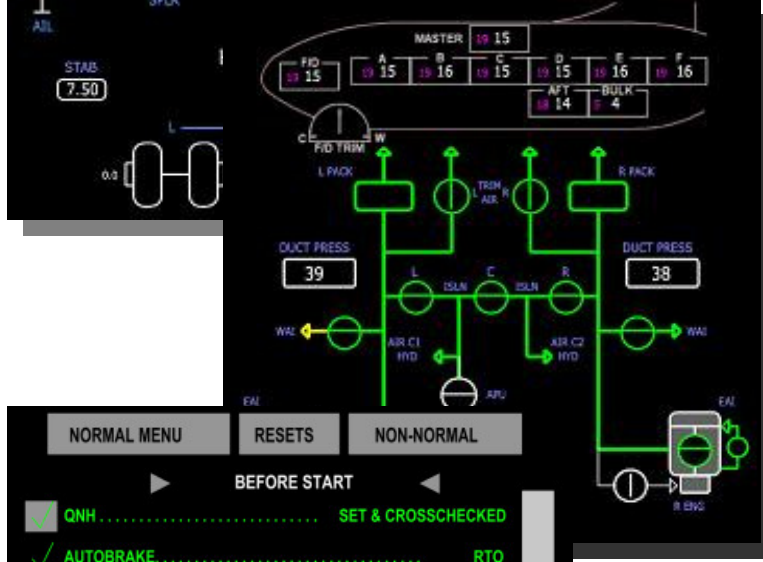
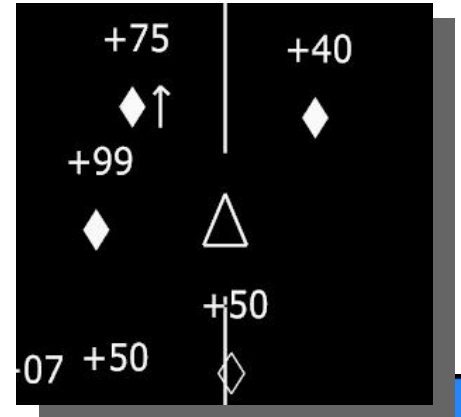


System Detail

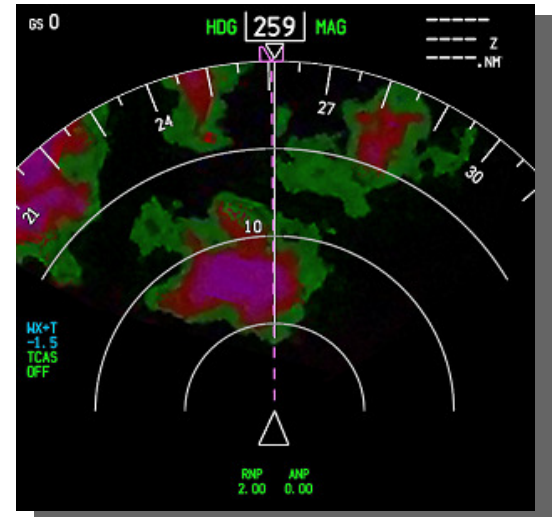
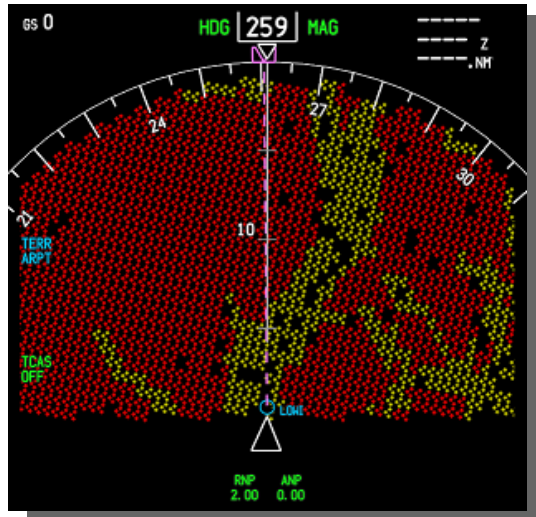
ADDITIONAL SYSTEMS INCLUDE

TCAS Advisory and Resolution

777 MFD Synoptic Examples

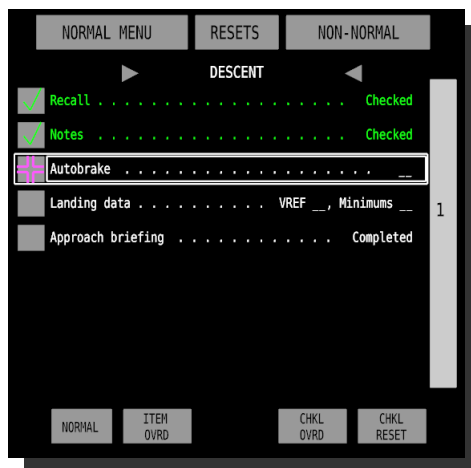


Integrated Terrain and Weather Radar



777 / 787 Integrated Checklist

SAMPLE SCREENSHOTS FROM THE 777 NORMAL CHECKLIST

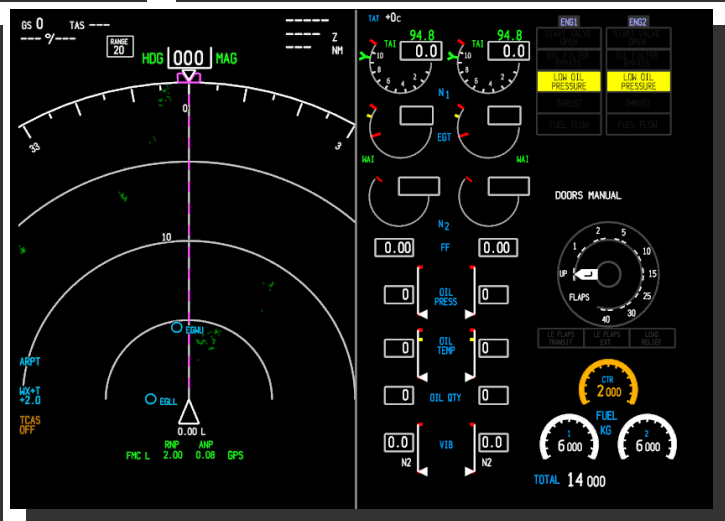
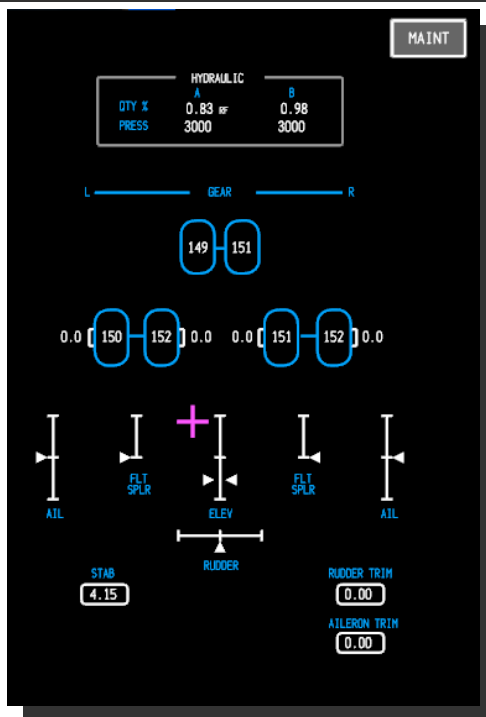
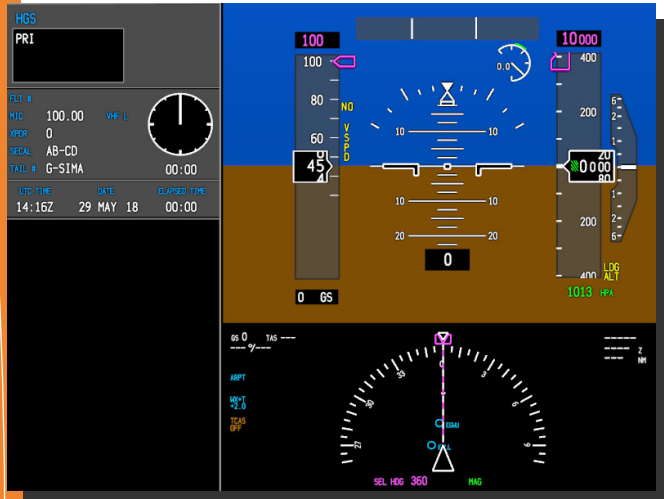


SAMPLE SCREENSHOTS FROM THE 787 NORMAL CHECKLIST



737Max Displays

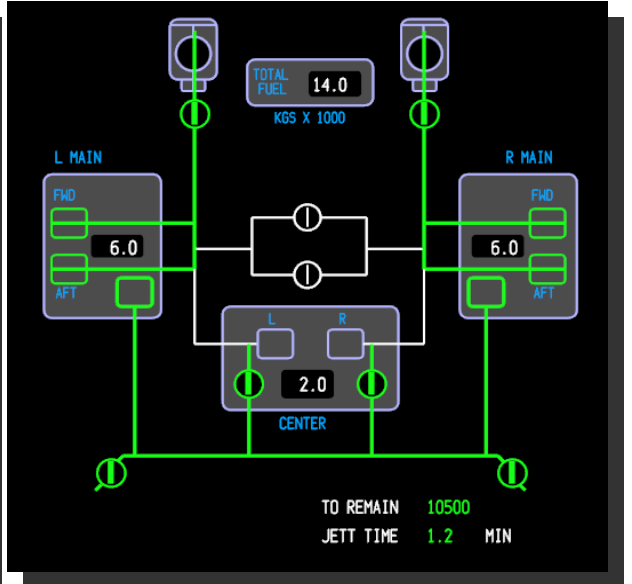
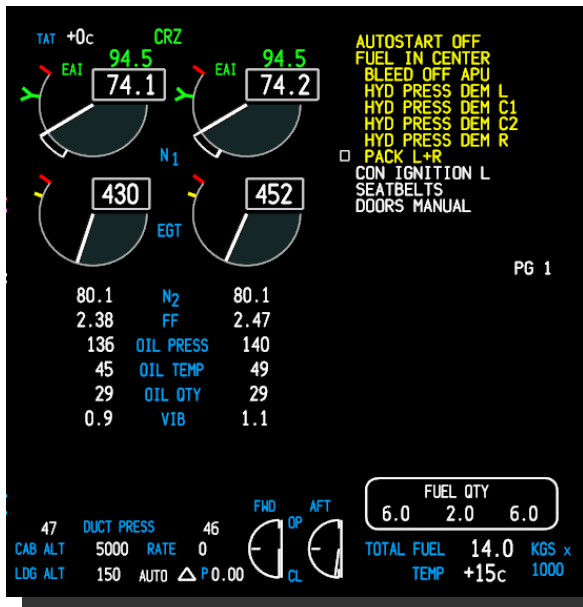
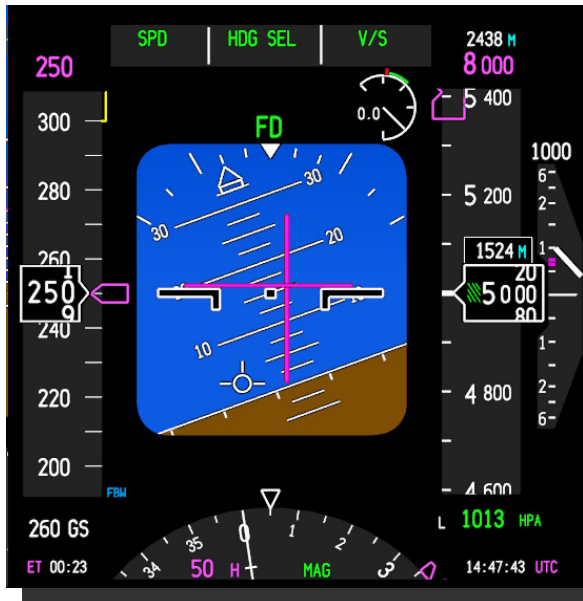
SAMPLE SCREENSHOTS FROM THE 737MAX



	SYS MENU	STATUS	MAINT DATA PGS	MAINT CTRL PGS	ONBD MAINT
ATA SYSTEM			REAL	MANUAL	AUTO
21 AIR CONDITIONING		DISPLAY	SHOW LIST	SHOW LIST	SHOW LIST
27 FLIGHT CONTROL		DISPLAY	SHOW LIST	SHOW LIST	SHOW LIST
27 SMYD		DISPLAY	SHOW LIST	SHOW LIST	SHOW LIST
31 MDS		DISPLAY			
32 PSEU		DISPLAY	SHOW LIST	SHOW LIST	SHOW LIST
36 AIR SUPPLY		DISPLAY	SHOW LIST	SHOW LIST	SHOW LIST
49 APU		DISPLAY	SHOW LIST	SHOW LIST	SHOW LIST
71 PERFORMANCE		DISPLAY	SHOW LIST	SHOW LIST	SHOW LIST
71 EPCS		DISPLAY	SHOW LIST	SHOW LIST	SHOW LIST
71 ENGINE 1 EXCEEDANCE					DISPLAY
71 ENGINE 2 EXCEEDANCE					DISPLAY

777 Displays

SAMPLE SCREENSHOTS FROM THE 777

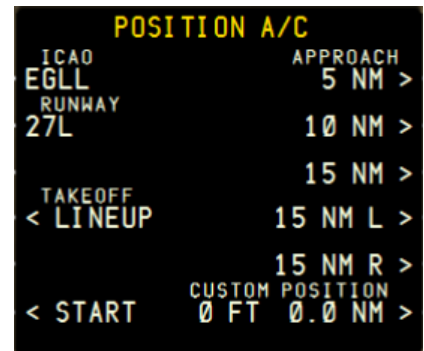
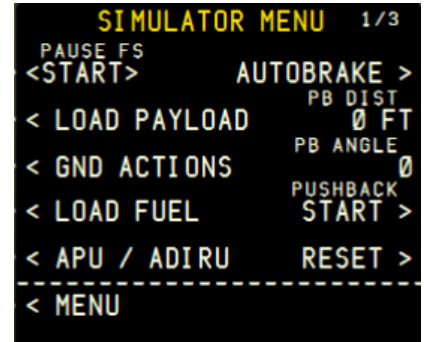


CDU / FMC

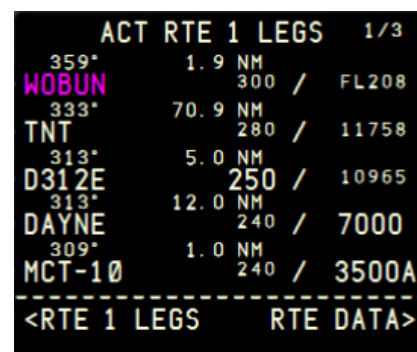
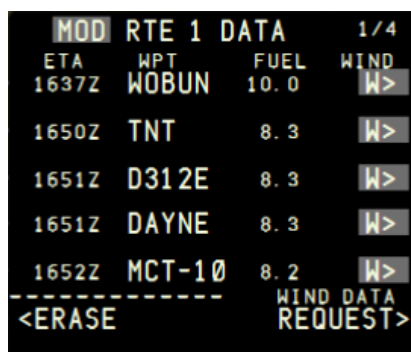
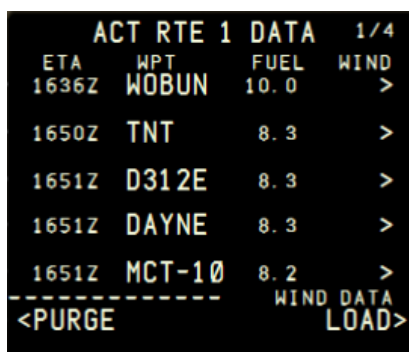
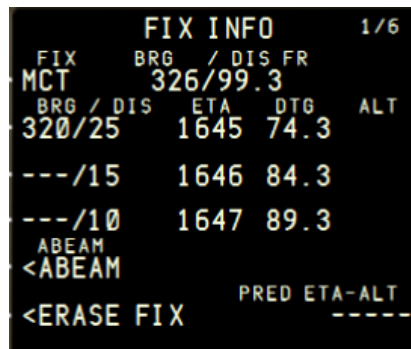
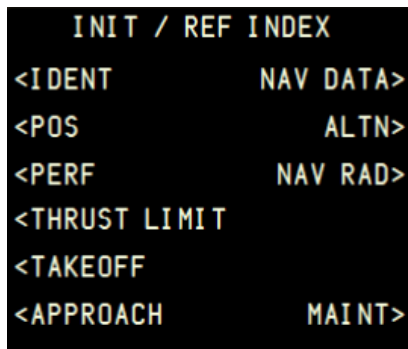
CDU B777 GRAPHICAL USER INTERFACE



VARIOUS CDU SIMULATOR CONTROL MENUS



SOME SAMPLE SCREENSHOTS SHOWING VARIOUS CDU SCREENS



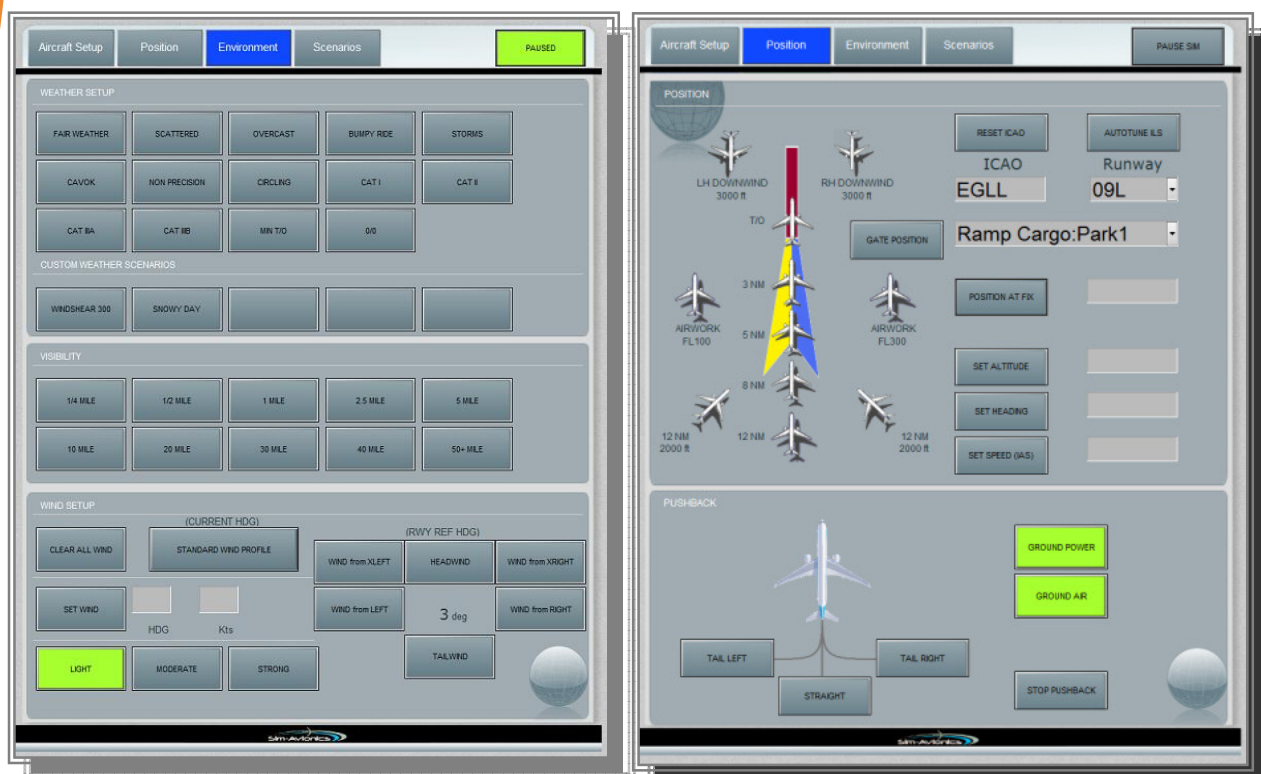
Web Instructor Station

BASIC INSTRUCTOR STATION – IDEAL TO RUN ON AN IPAD OR SIMILAR TABLET

Features

CONTAINING

- Save and Recall Preset Scenarios
- Ancillary Control
 - EXT PWR / GND Air
 - ADIRU / IRS Rapid Align
- System Setup
 - Fuel Loading
 - Door Control
 - Pushback Control
- Aircraft Position Set
 - via specified ICAO
 - Takeoff, Approach, Circuits, Airborne, Gate
- Environment Controls
 - Weather Presets
 - Wind / Visibility Layers
 - Time of Day



Additional Software Modules

ADDITIONAL SOFTWARE INCLUDED WITH SIM-AVIONICS TO COMPLETE YOUR SIMULATION

Main Server

CONTAINING

- Full Autopilot Logic
- Overhead / Systems Logic
- Integrated FSUIPC I/O Interfacing
- TCAS / GPWS / RAAS logic
- Look Ahead Terrain
- Huge number of avionics options

Simulated Avionics Gauges

CONSISTING OF

- PFD / ND
- EICAS / MFD
- 777/737 Standby GAUGES: ISFD / Attitude / Altitude / Airspeed / RMI
- CDU
- Clocks, Flaps, Compass, Analogue Trim Indicator

Other Modules

CONSISTING OF

- Sound Module – Generating detailed cockpit sounds
- MCP / EFIS Panel Graphical User Interface
- Overhead Panel Graphical User Interface
- Dispatch Console – Basic Instructor Station Controller
- Web based basic Instructor Station Controller
- Editable Performance Database
- Monthly navigation database updates available via www.navigraph.com

Detailed Specification

AVIONICS DISPLAYS

Open GL Graphics

Position / Resize over multiple monitors

Works over a Single or Multi PC network

Frame smoothing algorithms for fluid graphics

Run multiple clients simultaneously

PFD

Pitch, Bank, Altitude, Airspeed,

Mach,

HDG TRU/MAG TRK

Slip Ind, Radio Altitude,

Angle of attack

MTRS, FPV, Nav Aid Info

Full systems integrated FMA's

MCP Altitude, Airspeed, HDG

bugs

Flap Retraction Bugs

TCAS Resolution Indications

Flight Directors

RNP / ANP Indicators

Baro INs / HPA / STD

Minimums

ND

Map / Plan / VOR / APP modes

Centered mode

Turn Trend Indicator

ARPT, WPT, STA, Data, Terr, WXR

Integrated EGPWS Terrain display

Integrated WXR radar simulation

FMC Route Display

VNAV Descent Profile Indicator

HDG / TRK modes and indications

Wind Indication

Tuned NAV Radio indication

Tuned Radio Needles

TCAS Display

ADIRU Alignment mode

MFD Active

Vertical Situation Display

EICAS

GE90/RR display option

Secondary Engine Instruments:

N2, FF, Oil Temp, Oil Press, Vib

Analogue / Digital Fuel Displays

Air Synoptic

Gear Indication / Stuck Gear Indication

Flaps Indication

Integrated EICAS System Messaging

Cancel / Recall

FMC Thrust Reference

Throttle Position Indicator

737 ALTN Engine Display

MFD

777 / 787 System Integrated Synoptics

ELEC FUEL HYD AIR

ENG STAT GEAR DOOR

FLCTL NAV CHK CAM

System Integrated 777 / 787 Electronic Checklist with Normal and Non-Normal Menus

737 System Integrated Synoptics

ELEC SYS INFO MAINT

CDU / FMC

All Primary CDU Pages Including:

RTE LEGS HOLD DEP/ARR PROG POS IDENT NAV RAD

PERF THRUST LIM TAKEOFF VNAV MENU APPROACH FIX

Fully Integrated LNAV / VNAV

Additional Simulator Setup Controls via CDU Menu Pages

Full screen enabled for Hardware Integration

Visual CDU Graphic for Touch screen Operation

ACARS UPLINKS via Sim-Brief Flight Plans or from Instructor Station

INTEGRATED MCP FUNCTIONALITY

Fully Function Autopilot as per aircraft type

A/T SPD and Thrust Ref Modes

HDG/TRK SEL + HOLD, ALT HOLD, V/S, FPA, Flight Level Change

LNAV / VNAV FMC Integration

Bank Angle Limiter

LOC / APP Modes

Full Autoland Capability

Rudder Auto-Coordination

777 Thrust Asym Compensation

A/T Stall Protection

737 Control Wheel Steering Modes

SOUND MODULE

Adds Flight Deck : Ambient Aural and Warning Sounds

Allows for implementing Multiple Sound Sources

TERRAIN AND WEATHER RADAR

Worldwide Terrain Radar based on real world elevation data

Look-Ahead Terrain display showing predicted terrain incursions

Weather Radar images based on the current simulator weather conditions

Active Sky weather radar integration

MCP AND OVERHEAD GUI'S

Fully resizable Open GL Graphics

777 and 737 versions

Allows for full control of MCP and Overhead systems

DISPATCH CONSOLE

Simple Instructor Station

Save and Recall Preset Scenarios

Aircraft Positioning and System Setup

Control EXT PWR, GND Air, Doors, Pushback

Basic Weather, Cabin Calls, Re-Fuelling

IRS Quick Align

INTEGRATED CORE SYSTEMS

FSX / P3D Compatible via FSUIPC

TCPIP / UDP Client/Server setup

Scalable to fit any PC Network

B777, B737NG, B737Max, B787 Type Specific Variants

Separate Captain and FO displays supporting full dual seat devices

Full DU Display switching

Individual Display Dimming

Fully integrated Overhead System Logic

EGPWS / TCAS

Custom Autopilot Control Algorithms

Individual customizable avionics option files

Full scenario saving

Integrated Pushback Functions

Individual 737, 777, 787-GE, 787-RR Performance Databases

Monthly Nav Data AIRAC's available for purchase via www.navigraph.com,

HARDWARE COMPATIBILITY

The software is fully compatible with FSUIPC and all simulator functions can be mapped to FSUIPC offsets for complete I/O integration and flexibility..

In addition the software is compatible with many commercially available products.

Current Hardware compatibility include:

Flight Deck Solutions :	All products
CPFlight :	MCP Pro + EFIS + Radio + Xpndr + MIP
Open Cockpit :	Modules via FSUIPC Assignments
Goflight :	MCP/EFIS Pro
CockpitforYou	737 TQ
FSC	737 TQ
Flight Illusion Gauges	737 Overhead/Main Instrument Panel
Polulo Servo Card	For panel gauges
Phidgets	Various Phidgets IO + Servo Cards
Any FSUIPC Compatible Interface	

Sample Portfolio Pictures



QUALITY DESIGN INTEGRATION AND SUPPORT

Sim-Avionics was first release in 2008 and during that time the avionics has grown from a home use product into a extensive commercial software package used in projects such as :

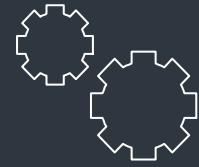
- Flight Experience Centers
- Fear of Flying Sessions
- TV and Movies
- Research Laboratories
- Product Demonstrators
- Flight Training

We specialize in custom projects and our aircraft avionics portfolio is expanding, so don't hesitate to contact us to discuss any custom requirement your project requires.

support@sim-avionics.com

WEBSITE : www.sim-avionics.com

EMAIL : support@sim-avionics.com



CUSTOM SOLUTIONS

Sim-Avionics has partnered with many leading aerospace companies, to develop customized avionics solutions for various demonstration, research and training projects on time and on budget.



REMOTE SETUP AND TRAINING SOLUTIONS

Using remote access we are able to offer quick setup and maintenance assistance via an internet connection.

This provides you with piece of mind that there will always be someone available to help you.

No matter where you are located.



SUPPORT SOLUTIONS

After choosing Sim-Avionics you are not alone.

Many questions are answered by visiting our support forum with friendly feedback provided by our support team and our growing user community.

email us at :

support@sim-avionics.com