

# **LIONWORKS**

## ***Standards***

All work of Lionworks will be done with these standards!

### ***for Sceneries***

- > Original flight charts + photos and international airport data as draft
- > Satellite pictures will be used as back ground pictures for the design
- > Original settings of all airport data
- > Using of preferably original looking textures (if possible photo real)
- > Surface distribution of taxiways / aprons like the original
- > Taxiways with turning curves down
- > Taxiway center lines with turning curves down and night lighted (green)
- > Terminal preferably based on the original, if existing with all gates
- > Original control tower with preferably photo real textures
- > All antennas: Radar, VOR, NDB, ILS (GS & Loc), Radio
- > All streets at and around the airport & parking lot
- > All hanger and building (but not to small) in preferably original design
- > Detailed apron environments (Lampe post, Trees, Signs ect.)
- > Runway holding points at the taxiways + minimum of taxiway signs
- > ATIS + ATC with all known frequencies, includes approach assignment
- > Airport equipment + marshalled or docking system
- > Original static aircrafts (if available painted by Udo Entenmann)
- > If required original dynamic Aircrafts (by Pablo Schultze-Rhonhof)
- > 3D Objects primary designed by Pablo Schultze-Rhonhof or Jürgen Mewes
- > Photo real trees and bushes (no default palms!!)
- > Adjustment of the airport environment (city + houses, rivers, mountains, coastline)
- > So few as possible default buildings (only as gap filler and for cities)

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### ***for Aircrafts***

- > All settings like original data of the aircraft types and subtypes
  - > Data base of the Physics-University-Wuerzburg & of the aircraft companies
- > All basic measurements, weights & performance data in to the Air file (Specifications) listed
  - > Viewpoint – set to the correct position of the flight deck (Pilot seat)
  - > Exact distribution of the fuel tanks and the correct position in the aircraft
  - > Exact settings of the gear position (trace, wheel base...) and scrap points
  - > Original number of flaps positioned, original flaps spool time and flaps lift
  - > Basic weight set to original weight (with full fuel tanks = maximum ramp weight)
  - > Detailed settings of the wings (aerofoil) -> (wingspan, wing area, dihedral, aspect ratio)
  - > Settings of the horizontal tail (ailerons) -> (wingspan, area, position)
  - > Fine adjustment of the airframe / Aerodynamic drag
    - > so that given flight data and performance can be achieved during the flight

- > Video Data serves as guideline
- > Engine performance: setting of original thrust of the used engine type
  - > Reverse thrust setting (on 7 to 12 %)
  - > setting of the spool time and engine idle speed
  - > exact setting of the fuel consumption and exhaust gas temperature
  - > exact setting of the engine position on the aircraft
- > Setting of the wing angle and the position of the spoiler

**Paint:**

- > Detailed paint with original logos, registration, original livery and smoothed writings

>> all aircraft will be tested in a check flight and as the case may be with fine adjustments following

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***for Panels:***

Every panel, made or edited by Lionworks must have the following equipment:

- > Nav-Instruments (Radio compass o. Pilot Flying Display) + RMI (VOR, ADF) + DME
- > Fuel Instruments (for all tanks / total fuel) >> optional "Fuel Management Gauge"
- > Autopilot (CAT III capable)
- > Engine Instruments (N1 and FF must be for direct reading, preferably digital)
- > Air Speed Indicator – starts with "0", preferably digital and includes Mach Speed
- > Enough Standby Instruments (ASI, Altimeter, HSI, Whiskey Compass)
- > Radio for all required frequencies (Com, Nav1, Nav2, ADF, and Transponder) at the main panel
- > Thrust Lever on main panel
- > Radar Altimeter or / and Callout, or GPWS, or FMC with the same function
- > GPS or INS
- > Autopilot-Off Warning
- > Digital Spoiler Positions Display
- > Wind speed Indicator
- > Outboard Temperature Indicator (OAT) and may be True Air Temperature (TAT)
- > Flight Control Surface + Trim display (Trim preferably digital)
- > Auto brakes / Auto brake Switch
- > Switches for: Landing-Lights, Flashlights/Strobe, Pilot heat/Anti-Ice, Panel-Light
- > Air Condition Switch
- > Engine Start Switches + Fuel Pump Switches
- > Switch for Cabin Signs (Passenger Aircrafts only)
- > X-Feet Switch + as the case may be Tank Selector
- > Functional and preferably digital clock (Chronometer)
- > Gear Wind Sound Gauge
- > As far as possible Ground Speed Indicator
- > If required (DC-10, B727, Military Aircrafts) Auto coordination's-Switch (on/off)
- > TCAS

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**Date: April 2008**