Offset		FSUIPC value	access
		FSUIPC standard offsets	
0020		Ground altitude in Metres x 256.	r
0238		Hour of local time in FS (0–23)	r
0239		Minute of local time in FS (0–59)	r
023A		Second of time in FS (0-59)	r
023B		Hour of Zulu time in FS (also known at UTC or GMT)	rw
023C		Minute of Zulu time in FS2	rw
023E		Day number in Year in FS (counting from 1)	rw
0240		Year in FS	rw
0246		Local time offset from Zulu (minutes). +ve = behind Zulu, -ve = ahead	r
0262		Pause the sim	rw
0264		Pause indicator (0=Not paused, 1=Paused)	r
0274		Frame rate is given by 32768/this value	r
0280	1	Operates NAV, Taxi, Panel and Wing light (but only reflects NAV settings). See \$0D0C for more control	r
0281		Operates Strobe and Beacon Lights. See \$0D0C for more control	rw
028C		Operates Landing Lights. See \$0D0C	rw
029C		Pitot Heat switch (0=off, 1=on)	rw
02A0	2	Magnetic variation (signed, –ve = West). For degrees *360/65536.	r
02B4	4	GS: Ground Speed, as 65536*metres/sec	r
02B8		TAS: True Air Speed, as knots * 128	r
02BC		IAS: Indicated Air Speed, as knots * 128	r
02C4		Barber pole airspeed, as knots * 128	r
02C8	4	Vertical speed, signed, as 256 * metres/sec.	r
02CC	8	Whiskey Compass, degrees in 'double' floating point format (FLOAT64)	r
02D4		[FS2004 only] ADF2 Frequency: main 3 digits, in Binary Coded Decimal. See also offset 02D6. A frequency of 1234.5 will have 0x0234 here and 0x0105 in offset 02D6.	rw
02D6		[FS2004 only] Extended ADF2 frequency. The high byte contains the 1000's digit and the low byte the fraction, so, for a frequency of 1234.5 this offset will contain 0x0105.	
02D8	2	FS2004 only] ADF2: relative bearing to NDB ( *360/65536 for degrees, –ve left, +ve right)	r
02DC		ADF2 IDENTITY (string supplied: 6 bytes including zero terminator)	r
0300	2	VOR1 DME distance, 16-bit integer, nm * 10 [FS2002+]	r
0306	2	VOR2 DME distance, 16-bit integer, nm * 10 [FS2002+]	r
		Vertical speed, copy of offset 02C8 whilst airborne, not updated whilst the "on ground" flag (0366) is set. Can be used to check hardness of touchdown (but watch out for bounces	S
030C	4	which may change this). [FS2002+]	r
0330		Altimeter pressure setting (Kollsman window). As millibars (hectoPascals) * 16	rw
		ADF1 Frequency: main 3 digits, in Binary Coded Decimal. See also offset 0356. A frequency of 1234.5 will have 0x0234 here and 0x0105 in offset 0356.	
034C		(See also offset 0389)	rw
034E	2	COM1 frequency, 4 digits in BCD format. A frequency of 123.45 is represented by 0x2345. The leading 1 is assumed.	rw
0350	2	NAV1 frequency, 4 digits in BCD format. A frequency of 113.45 is represented by 0x1345. The leading 1 is assumed. (See also offset 0388)	rw
0352	2	NAV2 frequency, 4 digits in BCD format. A frequency of 113.45 is represented by 0x1345. The leading 1 is assumed. (See also offset 0388)	rw
0354		Transponder setting, 4 digits in BCD format: 0x1200 means 1200 on the dials.	rw
0356		Extended ADF1 frequency. The high byte contains the 1000's digit and the low byte the fraction, so, for a frequency of 1234.5 this offset will contain 0x0105.	
0366		Aircraft on ground flag (0=airborne, 1=on ground)	r
036C		Stall warning (0=no, 1=stall)	r
036D	1	Overspeed warning (0=no, 1=overspeed)	r
036E	1	Turn co-ordinator ball position (slip and skid). –128 is extreme left, +127 is extreme right, 0 is balanced.	r
0378		DME1 or DME2 select (1=DME1, 2=DME2)	rw
037C		Turn Rate (for turn coordinator). 0=level, -512=2min Left, +512=2min Right	r
04C8	2	Dew point as degrees C *256, for the surface temperature layer, FS2k/CFS2 read only	r

04CB	1 Precipitation rate, 0–5, FS2k/CFS2 read only. Note that in FS2004, rate 0 = light drizzle. Type=0 is no rain/snow	r
04CB	1 Precipitation type, 0=none, 1=rain, 2=snow, FS2k/CFS2 read only.	r
04CC	2 Precipitation control: write hi-byte=type 0–2 (see above), low byte=rate 0–5.	rw
04D2	2 Dew point control: degrees C * 256. Sets surface layer dewpoint only	rw
0404	2 Dew point control. degrees of 250. Octs surface tayer dewpoint only	1 44
04D8	2 Surface layer wind speed, in knots (FS2k/CFS2). This may be different to the current wind speed at the aircraft—see offset 0E90. This also provides wind_surf_vel for FS2k Adventures.	r
0400	Surface layer wind direction, *360/65536 to get degrees MAGNETIC (FS2k/CFS2). This may be different to the current wind direction at the aircraft—see offset 0E92. This also provides wind_surface layer wind direction, at the aircraft—see offset 0E92. This also	<del>- '-</del>
04DA	2 provides wind surf direction, 300/00000 to get degrees whome no (1 32x/01 32). This may be direction to the current wind direction at the and all—see onset 0192. This also	'l r
04E0	88 PM Offsets	rw
0558	4 Initial position with airSpeed [FSX]	W
055C	4 Initial position set [FSX]	W
0560	8 Latitude of aircraft in FS units. Multiply by 90.0/(10001750.0 * 65536.0 * 65536.0)	1
		rw
0568	8 Longitude of aircraft in FS format. Multiply by 360.0/(65536.0 * 65536.0 * 65536.0)  8 Altitude in material m	rw
0570	8 Altitude, in metres and fractional metres. The units are in the high 32-bit integer (at 0574) and the fractional part is in the low 32-bit integer (at 0570).  Pitch, *360/(65536*65536) for degrees. 0=level, -ve=pitch up, +ve=pitch down	rw
0570		
0578	4 [Can be set in slew or pause states]	rw
	Bank, *360/(65536*65536) for degrees. 0=level, -ve=bank right, +ve=bank left	
057C	4 [Can be set in slew or pause states]	rw
	Heading, *360/(65536*65536) for degrees TRUE.	
0580	4 [Can be set in slew or pause states]	rw
05DC	2 Slew mode (indicator and control), 0=off, 1=on. (See 05DE also).	rw
0609	1 Engine type: 0=Piston (and some FS2004 Helos), 1=Jet, 2=Sailplane, 3=Helo, 4=Rocket, 5=Turboprop	r
060C	2 Gear type. 0=non-retractable standard, 1=retractable, 2=slides	+-'-
0764	4 Autopilot available	r
0768	4 Autopilot V/S hold available	+
076C	4 Autothrottle airspeed hold available	+
0770	4 Autothrottle mach hold available	+
077C	4 Stall horn available	r
0780	4 Engine mixture available	r
0784	4 Carb heat available	<del> </del>
0788	4 Pitot heat available	<del>                                     </del>
078C	4 Spoiler available	+
0790	4 Aircraft is tail dragger	<del>                                     </del>
0794	4 Strobes available	<del>                                     </del>
0798	4 Prop type available	+
079C	4 Toe brakes available	+
079C	4 NAV1 available	r
07A0	4 NAV2 available	r
07A4 07BC	4 Autopilot Master switch Autopilot Master switch 0 = Off, 1 = CWS, 2 = On	rw
07C0	4 Autopilot wing leveller	rw
07C0	4 Autopilot NAV1 lock	rw
07C4 07C8	4 Autopilot NAV Flock  4 Autopilot heading lock	rw
07CC	2 Autopilot heading value, as degrees*65536/360	rw
0,00	בון ישיטף וויני וויבעמוויון דמושי, מא שבין ויבי איניים וויניים בין וישיטים וויניים בין וישיטים וויניים בין וישיטים בין וויניים בין בין וויניים בין וויניים בין וויניים בין	1 77

07D0	4 Autopilot altitude lock	rw
07D0	4 Autopilot altitude lock  4 Autopilot altitude value, as metres*65536	rw
07D4 07D8	4 Autopilot attitude value, as metres 65556	1 00
07D8	4 Autophot attitude noid 4 Autophot airspeed hold	rw
07E2	2 Autopilot airspeed value, in knots	rw
07E2	4 Autopilot mach hold	rw
07E8	4 Autopilot mach value, as Mach*65536	rw
07EC	4 Autopilot vertical speed hold	_
07EC	2 Autopilot vertical speed value, as ft/min	rw
0800	4 Autopilot Approach hold. See the note above, for offset 07FC.	rw
	4 Autopilot Back course hold. The note for offset 07FC may also apply here.	rw
0804 0808	4 Yaw damper	rw
	4 Autothrottle TOGA (take off power)	rw
080C		
0810	4 Autothrottle Arm	rw
0840	2 Crashed flag	r
0842	Vertical speed in metres per minute, but with –ve for UP, +ve for DOWN. Multiply by 3.28084 and reverse the sign for the normal fpm measure. This works even in slew mode (excep in FS2002).	r
0844	2 NAV2 ILS localiser inverse runway heading if VOR2 is ILS. Convert to degrees by *360/65536. This is 180 degrees different to the direction of flight to follow the localiser. [FS2002+]	r
0846	2 NAV2 ILS glideslope inclination if VOR2 is ILS. Convert to degrees by *360/65536. [FS2002+]	r
0848	2 Off-runway crash detection	
084A	2 Can collide with dynamic scenery	
084C	4 VOR2 Latitude, as in 085C above, except when NAV2 is tuned to an ILS, in which case this gives the localiser Latitude. [FS2002 and later]	r
0850	4 [FS2002/4 only]: VOR2 Longitude, as in 0864 above, except when NAV2 is tuned to an ILS, in which case this gives the localiser Longitude.	r
0854	4 [FS2002/4 only]: VOR2 Elevation, as in 086C above, except when NAV2 is tuned to an ILS, in which case this gives the localiser Elevation.	r
0858	4 VOR2 Latitude in FS form. Convert to degrees by *90/10001750. If NAV2 is tuned to an ILS this gives the glideslope transmitter Latitude.	r
085C	4 VOR1 Latitude in FS form. Convert to degrees by *90/10001750.If NAV1 is tuned to an ILS this gives the glideslope transmitter Latitude.	r
0860	4 VOR2 Longitude in FS form. Convert to degrees by *360/(65536*65536). If NAV2 is tuned to an ILS this gives the glideslope transmitter Longitude.	r
0864	4 VOR1 Longitude in FS form. Convert to degrees by *360/(65536*65536). If NAV1 is tuned to an ILS this gives the glideslope transmitter Longitude.	r
0868	4 VOR2 Elevation in metres. If NAV2 is tuned to an ILS this gives the glideslope transmitter Elevation.	r
086C	4 VOR1 Elevation in metres. If NAV1 is tuned to an ILS this gives the glideslope transmitter Elevation.	r
0870	2 NAV1 ILS localiser inverse runway heading if VOR1 is ILS. Convert to degrees by *360/65536. This is 180 degrees different to the direction of flight to follow the localiser.	r
0872	2 NAV1 ILS glideslope inclination if VOR1 is ILS. Convert to degrees by *360/65536	r
0874	4 VOR1 Latitude, as in 085C above, except when NAV1 is tuned to an ILS, in which case this gives the localiser Latitude. [FS2002 and later]	r
0878	4 [FS2002/4 only]: VOR1 Longitude, as in 0864 above, except when NAV1 is tuned to an ILS, in which case this gives the localiser Longitude.	r
087C	4   FS2002/4 only : VOR1 Elevation, as in 086C above, except when NAV1 is tuned to an ILS, in which case this gives the localiser Elevation.	r
088C	2 Engine 1 Throttle lever, –4096 to +16384	rw
088E	2 Engine 1 Prop lever, -4096 to +16384	rw
0890	2 Engine 1 Mixture lever. 0 – 16384	rw
0000	Engine 1 Starter switch position (Magnetos),	
0892	2 Jet/turbo: 0=Off, 1=Start, 2=Gen; Prop: 0=Off, 1=right, 2=Left, 3=Both, 4=Start	rw
0894	2 Engine 1 combustion flag (TRUE if engine firing)	r
0896	2 Engine 1 Jet N2 as 0 – 16384 (100%).	r
0898	2 Engine 1 Jet N1 as 0 – 16384 (100%), or Prop RPM.	r
0000	Engine 1 Throttle lever, -4096 to +16384, same as 088C above except that values written here are treated like axis inputs and are disconnectable via offset 310A, and have the last	+ '-
089A	2 written value obtainable from offset 3330	rw
08A0	2 Engine 1 Fuel Flow PPH SSL (pounds per hour, standardised to sea level)	r
08B2	2 Engine 1 Anti-Ice or Carb Heat switch (1=On)	rw
08B8	2 Engine 1 Oil temperature, 16384 = 140 C	r
08BA	2 Engine 1 Oil pressure, 16384 = 55 psi.	r
08BC	2 Engine 1 Pressure Ratio (where calculated): 16384 = 1.60	r

08BE	2 Engine 1 EGT, 16384 = 860 C. X-Plane deg C	r
08C0	2 Engine 1 Manifold Pressure: Inches Hg * 1024	r
08C8	2 Engine 1 RPM Scaler: For Props, use this to calculate RPM – see offset 0898	r
08D0	4 Engine 1 Oil Quantity: 16384 = 100% On FS2000 FSUIPC usually has to derive this from a leakage value as it isn't provided directly.	r
	Engine 1 Vibration: 16384 = 5.0. This is a relative measure of amplitude from the sensors on the engine which when too high is an indication of a problem. The value at which you	
	should be concerned varies according to aircraft and engine.	
08D4	4 Works only with x737	r
08D8	4 Engine 1 Hydraulic pressure: appears to be 4*psi	r
08DC	4 Engine 1 Hydraulic quantity: 16384 = 100%	r
08E8	8 Engine 1 CHT, degrees F in double floating point (FLOAT64)	r
0908	4 Engine 1 Rotor RPM % (16384=100%): for helos	
0918	8 Engine 1 Fuel Flow Pounds per Hour, as floating point double (FLOAT64)	r
0920	4 Engine 1 Torque, in FLOAT32 format, probably in ft-lbs. (not jets)	r
0924	2 Engine 2 Throttle lever, -4096 to +16384	rw
0926	2 Engine 2 Prop lever, -4096 to +16384	rw
0928	2 Engine 2 Mixture lever, 0 – 16384	rw
	Engine 2 Starter switch position (Magnetos),	
092A	2 Jet/turbo: 0=Off, 1=Start, 2=Gen; Prop: 0=Off, 1=right, 2=Left, 3=Both, 4=Start	rw
092C	2 Engine 2 combustion flag (TRUE if engine firing)	r
092E	2 Engine 2 Jet N2 as 0 – 16384 (100%).	r
0930	2 Engine 2 Jet N1 as 0 – 16384 (100%)	r
	Engine 2 Throttle lever, -4096 to +16384, same as 088C above except that values written here are treated like axis inputs and are disconnectable via offset 310A, and have the last	
0932	2 written value obtainable from offset 3332	rw
0938	2 Engine 2 Fuel Flow PPH SSL (pounds per hour, standardised to sea level)	r
094A	2 Engine 2 Anti-Ice or Carb Heat switch (1=On)	rw
0950	2 Engine 2 Oil temperature, 16384 = 140 C	r
0952	2 Engine 2 Oil pressure, 16384 = 55 psi	r
0954	2 Engine 2 Pressure Ratio (where calculated): 16384 = 1.60	r
0956	2 Engine 2 EGT, 16384 = 860 C.	r
0958	2 Engine 2 Manifold Pressure: Inches Hg * 1024	r
0960	2 Engine 2 RPM Scaler: For Props, use this to calculate RPM – see offset 0930	r
0968	4 Engine 2 Oil Quantity: 16384 = 100% On FS2000 FSUIPC usually has to derive this from a leakage value as it isn't provided directly.	r
	Engine 2 Vibration: 16384 = 5.0. This is a relative measure of amplitude from the sensors on the engine which when too high is an indication of a problem. The value at which you	
	should be concerned varies according to aircraft and engine.	
096C	4 Works only with x737	r
0970	4 Engine 2 Hydraulic pressure: appears to be 4*psi	r
0974	4 Engine 2 Hydraulic quantity: 16384 = 100%	r
0980	8 Engine 2 CHT, degrees F in double floating point (FLOAT64)	r
09B0	8 Engine 2 Fuel Flow Pounds per Hour, as floating point double (FLOAT64)	r
09B8	4 Engine 2 Torque, in FLOAT32 format, probably in ft-lbs. (not jets)	r
	Engine 3 Throttle lever, -4096 to +16384	
09BC	2 [Programs controlling throttle directly from user inputs should write to 09CA instead if the input should be disconnectable via offset 310A/B (e.g. for auto-throttle management)]	rw
09BE	2 Engine 3 Prop lever, -4096 to +16384	rw
09C0	2 Engine 3 Mixture lever, 0 – 16384	rw
	Engine 3 Starter switch position (Magnetos),	
09C2	2 Jet/turbo: 0=Off, 1=Start, 2=Gen; Prop: 0=Off, 1=right, 2=Left, 3=Both, 4=Start	rw
09C4	2 Engine 3 combustion flag (TRUE if engine firing)	r
09C6	2 Engine 3 Jet N2 as 0 – 16384 (100%)	r
09C8	2 Engine 3 Jet N1 as 0 – 16384 (100%)	r
	Engine 3 Throttle lever, -4096 to +16384, same as 088C above except that values written here are treated like axis inputs and are disconnectable via offset 310A/B, and have the la	
09CA	2 written value obtainable from offset 3334	rw

09D0 09E2	2 Engine 3 Fuel Flow PPH SSL (pounds per hour, standardised to sea level). Don't know units, but it seems to match some gauges if divided by 128. Not maintained in all cases.	r
09E2		
	2 Engine 3 Anti-Ice or Carb Heat switch (1=On)	rw
09E8	2 Engine 3 Oil temperature, 16384 = 140 C.	r
09EA	2 Engine 3 Oil pressure, 16384 = 55 psi.	r
09EC	2 Engine 3 Pressure Ratio (where calculated): 16384 = 1.60	r
09EE	2 Engine 3 EGT, 16384 = 860 C.	r
09F0	2 Engine 3 Manifold Pressure: Inches Hg * 1024	r
09F8	2 Engine 3 RPM Scaler: For Props, use this to calculate RPM – see offset 09C8	r
0A00	4 Engine 3 Oil Quantity: 16384 = 100% On FS2000 FSUIPC usually has to derive this from a leakage value as it isn't provided directly.	r
	Engine Vibration: 16384 = 5.0. This is a relative measure of amplitude from the sensors on the engine which when too high is an indication of a problem. The value at which you	
0A04	4 should be concerned varies according to aircraft and engine.	
0A08	4 Engine 3 Hydraulic pressure: appears to be 4*psi	r
0A0C	4 Engine 3 Hydraulic quantity: 16384 = 100%	r
0A18	8 Engine 3 CHT, degrees F in double floating point (FLOAT64)	r
0A48	8 Engine 3 Fuel Flow Pounds per Hour, as floating point double (FLOAT64)	r
0A50	4 Engine 3 Torque, in FLOAT32 format, probably in ft-lbs. (not jets)	r
	Engine 4 Throttle lever, -4096 to +16384	
0A54	2 [Programs controlling throttle directly from user inputs should write to 0A62 instead if the input should be disconnectable via offset 310A/B (e.g. for auto-throttle management)]	rw
0A56	2 Engine 4 Prop lever, -4096 to +16384	rw
0A58	2 Engine 4 Mixture lever, 0 – 16384	rw
	Engine 4 Starter switch position (Magnetos),	<del> </del>
0A5A	2 Jet/turbo: 0=Off, 1=Start, 2=Gen; Prop: 0=Off, 1=right, 2=Left, 3=Both, 4=Start	rw
0A5C	2 Engine 4 combustion flag (TRUE if engine firing)	r
0A5E	2 Engine 4 Jet N2 as 0 – 16384 (100%)	r
0A60	2 Engine 4 Jet N1 as 0 – 16384 (100%),	r
07.00		<del>                                     </del>
	Engine 4 Throttle lever, -4096 to +16384, same as 088C above except that values written here are treated like axis inputs and are disconnectable via offset 310A/B, and have the last	
0A62	2 written value obtainable from offset 3336	rw
07.102		<del> </del>
0A68	2 Engine 4 Fuel Flow PPH SSL (pounds per hour, standardised to sea level). Don't know units, but it seems to match some gauges if divided by 128. Not maintained in all cases.	r
0A7A	2 Engine 4 Anti-Ice or Carb Heat switch (1=On)	rw
0A80	2 Engine 4 Oil temperature, 16384 = 140 C.	r
07.00		<del></del>
0A82	2 Engine 4 Oil pressure, 16384 = 55 psi. Not that in some FS2000 aircraft (the B777) this can exceed the 16-bit capacity of this location. FSUIPC limits it to fit, i.e.65535 = 220 psi	r
0A84	2 Engine 4 Pressure Ratio (where calculated): 16384 = 1.60	r
07.10 1	Engine 4 EGT, 16384 = 860 C. [Note that for Props this value is not actually correct. For FS2004 at least you will get the correct value from 3930. In FS2004 the value here has been derived by	<del> </del>
0A86	2 FSUIPC to be compatible with FS2002 et cetera ]	r
0A88	2 Engine 4 Manifold Pressure: Inches Hg * 1024	r
0A90	2 Engine 4 RPM Scaler: For Props, use this to calculate RPM – see offset 0A60	r
0A98	4 Engine 4 Oil Quantity: 16384 = 100% On FS2000 FSUIPC usually has to derive this from a leakage value as it isn't provided directly.	r
07.00	Engine Vibration: 16384 = 5.0. This is a relative measure of amplitude from the sensors on the engine which when too high is an indication of a problem. The value at which you	<del></del>
0A9C	4 should be concerned varies according to aircraft and engine.	
0AA0	4 Engine 4 Hydraulic pressure: appears to be 4*psi	r
0AA4	4 Engine 4 Hydraulic quantity: 16384 = 100%	r
0AB0	8 Engine 4 CHT, degrees F in double floating point (FLOAT64)	r
0AE0	8 Engine 4 Fuel Flow Pounds per Hour, as floating point (1 EO/T/04)	r
0AE8	4 Engine 4 Torque, in FLOAT32 format, probably in ft-lbs. (not jets)	r
0AEC	2 Number of engines	r
	2 Fuel weight as pounds per gallon * 256	r
0AF4	ZIFUEI WEIGHT AS DOUNGS DET GAIION " 256	

transposed into FS2k/CFS2).   OB74		r
OB4C   2   Ground altitude (metres). See 0020 for more accuracy.		
DB65		r
DB65		
DB66		rw
DB66		rw
Fail mode: 0 ok, COM1 radio inoperable = 1   Fail mode: 0 ok, Engine inoperable = 1, extended for FS2000/CFS2 for up to 1 transposed into FS2k/CFS2).   OB74		rw
Fail mode: 0 ok, Engine inoperable = 1, extended for FS2000/CFS2 for up to 1 transposed into FS2k/CFS2).   OB74		rw
Fail mode: 0 ok, Engine inoperable = 1, extended for FS2000/CFS2 for up to 1 transposed into FS2k/CFS2).  0B74		rw
transposed into FS2k/CFS2).   OB74	4 individual engines: bit 0 =Engine 1 bit 3= Engine 4. (but note that this may not work for FS98 aircraft	
Fuel: centre tank capacity: US Gallons (see also offsets 1244– for extra FS2 0B7C    Fuel: left main tank level, % * 128 * 65536	, , , , , , , , , , , , , , , , , , ,	rw
DB7C 4 Fuel: left main tank level, % * 128 * 65536  DB80 4 Fuel: left aux tank level, % * 128 * 65536  DB84 4 Fuel: left aux tank level, % * 128 * 65536  DB88 4 Fuel: left aux tank level, % * 128 * 65536  DB88 4 Fuel: left tank tank capacity: US Gallons  DB8C 4 Fuel: left tip tank level, % * 128 * 65536  DB90 4 Fuel: right main tank level, % * 128 * 65536  DB90 4 Fuel: right main tank level, % * 128 * 65536  DB90 4 Fuel: right main tank level, % * 128 * 65536  DB90 4 Fuel: right aux tank level, % * 128 * 65536  DB90 4 Fuel: right aux tank level, % * 128 * 65536  DB90 4 Fuel: right aux tank level, % * 128 * 65536  DB90 4 Fuel: right tip tank capacity: US Gallons  DB90 4 Fuel: right tip tank level, % * 128 * 65536  DBA0 4 Fuel: right tip tank level, % * 128 * 65536  DBA0 2 Inner Marker: activated when TRUE  DBA1 2 Middle Marker: activated when TRUE  DBB2 2 Elevator control input: -16383 to +16383  DBB4 2 Elevator position indicator (maybe adjusted from input!)  DBB6 2 Aileron control input: -16383 to +16383  DBB8 2 Aileron position indicator (maybe adjusted from input!)  DBBA 2 Elevator position indicator (maybe adjusted from input!)  DBBA 2 Elevator position indicator (maybe adjusted from input!)  DBBA 2 Elevator position indicator (maybe adjusted from input!)  DBBA 2 Elevator position indicator (maybe adjusted from input!)  DBBA 2 Elevator position indicator (maybe adjusted from input!)  DBBA 2 Elevator position indicator (maybe adjusted from input!)  DBBA 2 Elevator position indicator (maybe adjusted from input!)  DBBC 2 Rudder position indicator (maybe adjusted from input!)  DBBC 2 Elevator trim control input: -16383 to +16383  DBC 2 Elevator trim indicator (follows input)  Left brake application read-out (0 off, 16383 full: parking brake=16383). You keypress.  Right brake application read-out (0 off, 16383 full: parking brake=16383). You keypress.  DBCC 2 Elevator trim indicator (0 off, 16383 full: parking brake=16383). You keypress.		rw
0B80       4       Fuel: left main tank capacity: US Gallons         0B84       4       Fuel: left aux tank level, % * 128 * 65536         0B88       4       Fuel: left taux tank capacity: US Gallons         0B8C       4       Fuel: left tip tank level, % * 128 * 65536         0B90       4       Fuel: right tip tank capacity: US Gallons         0B94       4       Fuel: right main tank level, % * 128 * 65536         0B98       4       Fuel: right main tank capacity: US Gallons         0B90       4       Fuel: right aux tank level, % * 128 * 65536         0BA0       4       Fuel: right aux tank capacity: US Gallons         0BA0       4       Fuel: right tip tank level, % * 128 * 65536         0BA4       4       Fuel: right tip tank capacity: US Gallons         0BA2       2       Inner Marker: activated when TRUE         0BA2       2       Inner Marker: activated when TRUE         0BB2       2       Elevator control input: -16383 to +16383         0BB4       2       Elevator position indicator (maybe adjusted from input!)         0BBA       2       Aileron position indicator (maybe adjusted from input!)         0BBA       2       Rudder control input: -16383 to +16383         0BBA       2       Rudder position indicator (maybe adjus	s/CFS2 fuel tanks)	r
0B80       4       Fuel: left aux tank level, % * 128 * 65536         0B84       4       Fuel: left aux tank level, % * 128 * 65536         0B88       4       Fuel: left taux tank capacity: US Gallons         0B8C       4       Fuel: left tip tank level, % * 128 * 65536         0B90       4       Fuel: right main tank level, % * 128 * 65536         0B94       4       Fuel: right main tank capacity: US Gallons         0B98       4       Fuel: right main tank capacity: US Gallons         0B90       4       Fuel: right aux tank level, % * 128 * 65536         0BA0       4       Fuel: right aux tank capacity: US Gallons         0BA0       4       Fuel: right tip tank level, % * 128 * 65536         0BA4       4       Fuel: right tip tank capacity: US Gallons         0BA4       4       Fuel: right tip tank capacity: US Gallons         0BAC       2       Inner Marker: activated when TRUE         0BAE       2       Middle Marker: activated when TRUE         0BB0       2       Outer Marker: activated when TRUE         0BB2       2       Elevator control input: -16383 to +16383         0BB4       2       Elevator position indicator (maybe adjusted from input!)         0BBA       2       Rudder control input: -16383 to +16383	,	rw
0B84 4 Fuel: left aux tank level, %* 128 * 65536  0B8C 4 Fuel: left tip tank level, %* 128 * 65536  0B90 4 Fuel: left tip tank level, %* 128 * 65536  0B90 4 Fuel: right main tank level, %* 128 * 65536  0B98 4 Fuel: right main tank level, %* 128 * 65536  0B98 4 Fuel: right main tank level, %* 128 * 65536  0B98 4 Fuel: right aux tank level, %* 128 * 65536  0B90 4 Fuel: right aux tank level, %* 128 * 65536  0B90 4 Fuel: right aux tank level, %* 128 * 65536  0B90 4 Fuel: right aux tank level, %* 128 * 65536  0BA0 4 Fuel: right tip tank level, %* 128 * 65536  0BA0 5 Fuel: right tip tank level, %* 128 * 65536  0BA1 6 Fuel: right tip tank level, %* 128 * 65536  0BA2 6 Inner Marker: activated when TRUE  0BA2 7 Inner Marker: activated when TRUE  0BB3 9 Courter Marker: activated when TRUE  0BB4 1 Elevator control input: -16383 to +16383  0BB4 2 Elevator position indicator (maybe adjusted from input!)  0BB6 1 Alleron position indicator (maybe adjusted from input!)  0BBA 2 Rudder control input: -16383 to +16383  0BB4 2 Elevator position indicator (maybe adjusted from input!)  0BB5 2 Aileron position indicator (maybe adjusted from input!)  0BB6 2 Rudder position indicator (maybe adjusted from input!)  0BB6 2 Rudder position indicator (maybe adjusted from input!)  0BBC 2 Rudder position indicator (maybe adjusted from input!)  0BBC 2 Elevator trim control input: -16383 to +16383, but only when —Applyl  0BC0 2 Elevator trim indicator (follows input)  Left brake application read-out (0 off, 16383 full: parking brake=16383). You 2 keypress.  0BC6 2 keypress.		r
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0B8C 4 Fuel: left tip tank level, % * 128 * 65536 0B90 4 Fuel: left tip tank capacity: US Gallons 0B94 4 Fuel: right main tank level, % * 128 * 65536 0B98 4 Fuel: right main tank capacity: US Gallons 0B9C 4 Fuel: right aux tank level, % * 128 * 65536 0BA0 4 Fuel: right aux tank level, % * 128 * 65536 0BA0 4 Fuel: right tip tank capacity: US Gallons 0BA4 5 Fuel: right tip tank level, % * 128 * 65536 0BA8 6 Fuel: right tip tank capacity: US Gallons 0BAC 1 Inner Marker: activated when TRUE 0BAE 2 Middle Marker: activated when TRUE 0BB0 2 Outer Marker: activated when TRUE 0BB0 2 Outer Marker: activated when TRUE 0BB2 2 Elevator control input: -16383 to +16383 0BB4 2 Elevator position indicator (maybe adjusted from input!) 0BB6 2 Aileron control input: -16383 to +16383 0BB8 2 Aileron position indicator (maybe adjusted from input!) 0BBA 2 Rudder control input: -16383 to +16383 0BB4 2 Elevator position indicator (maybe adjusted from input!) 0BBB 2 Aileron position indicator (maybe adjusted from input!) 0BB8 2 Aileron position indicator (maybe adjusted from input!) 0BBC 2 Rudder position indicator (maybe adjusted from input!) 0BBC 2 Rudder position indicator (maybe adjusted from input!) 0BBC 2 Rudder position indicator (maybe adjusted from input!) 0BBC 2 Rudder position indicator (maybe adjusted from input!) 0BC0 2 Elevator trim control input: -16383 to +16383, but only when —Applyl 0BC0 2 Elevator trim control input: -16383 to +16383 0BC2 2 Elevator trim indicator (follows input) 0BC4 2 Keypress. 0BC6 2 Keypress. 0BC7 2 Parking brake: 0=off, 32767=on		r
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0B94 4 Fuel: right main tank level, % * 128 * 65536 0B98 4 Fuel: right main tank capacity: US Gallons 0B9C 4 Fuel: right aux tank level, % * 128 * 65536 0BA0 4 Fuel: right aux tank capacity: US Gallons 0BA4 4 Fuel: right tip tank level, % * 128 * 65536 0BA8 4 Fuel: right tip tank level, % * 128 * 65536 0BA8 4 Fuel: right tip tank capacity: US Gallons 0BAC 2 Inner Marker: activated when TRUE 0BAE 2 Middle Marker: activated when TRUE 0BB0 2 Outer Marker: activated when TRUE 0BB2 2 Elevator control input: -16383 to +16383 0BB4 2 Elevator position indicator (maybe adjusted from input!) 0BB6 2 Aileron control input: -16383 to +16383 0BB8 2 Aileron position indicator (maybe adjusted from input!) 0BBA 2 Rudder control input: -16383 to +16383 0BB4 2 Elevator position indicator (maybe adjusted from input!) 0BBB 2 Aileron position indicator (maybe adjusted from input!) 0BBB 2 Aileron position indicator (maybe adjusted from input!) 0BBC 2 Rudder position indicator (maybe adjusted from input!) 0BBC 2 Rudder position indicator (maybe adjusted from input!) 0BBC 2 Elevator trim control: -16383 to +16383, but only when —Applyl OBC0 2 Elevator trim indicator (follows input) 0BC2 2 Elevator trim indicator (follows input) 0BC3 2 Elevator trim indicator (follows input) 0BC4 2 Keypress. 0BC6 2 Keypress. 0BC6 2 Reader 20-off, 32767=on		r
OB9C 4 Fuel: right aux tank level, % * 128 * 65536  OBA0 4 Fuel: right aux tank capacity: US Gallons  OBA4 4 Fuel: right tip tank level, % * 128 * 65536  OBA8 4 Fuel: right tip tank capacity: US Gallons  OBAC 2 Inner Marker: activated when TRUE  OBAE 2 Middle Marker: activated when TRUE  OBB0 2 Outer Marker: activated when TRUE  OBB2 2 Elevator control input: -16383 to +16383  OBB4 2 Elevator position indicator (maybe adjusted from input!)  OBB6 2 Aileron control input: -16383 to +16383  OBB8 2 Aileron position indicator (maybe adjusted from input!)  OBBA 2 Rudder control input: -16383 to +16383  OBB4 2 Elevator position indicator (maybe adjusted from input!)  OBBA 2 Rudder control input: -16383 to +16383  OBB4 2 Elevator position indicator (maybe adjusted from input!)  OBBB 2 Aileron position indicator (maybe adjusted from input!)  OBBB 2 Elevator position indicator (maybe adjusted from input!)  OBBC 2 Rudder position indicator (maybe adjusted from input!)  OBBC 2 Elevator trim control input: -16383 to +16383 to +16383, but only when —Applytomation of the position indicator (follows input)  OBC0 2 Elevator trim control input: -16383 to +16383  OBC2 2 Elevator trim indicator (follows input)  Left brake application read-out (0 off, 16383 full: parking brake=16383). You keypress.  Right brake application read-out (0 off, 16383 full: parking brake=16383). You because of the parking brake application read-out (0 off, 16383 full: parking brake=16383). You keypress.		rw
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OBBC 2 Rudder position indicator (maybe adjusted from input!)  OBBE 2 Helo pitch (elevator) trim control: –16383 to +16383, but only when —Applyl  OBCO 2 Elevator trim control input: –16383 to +16383  OBC2 2 Elevator trim indicator (follows input)  Left brake application read-out (0 off, 16383 full: parking brake=16383). You  OBC4 2 keypress.  Right brake application read-out (0 off, 16383 full: parking brake=16383). You  OBC6 2 keypress.  OBC8 2 Parking brake: 0=off, 32767=on		r
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OBC2 2 Elevator trim indicator (follows input)  Left brake application read-out (0 off, 16383 full: parking brake=16383). You  OBC4 2 keypress.  Right brake application read-out (0 off, 16383 full: parking brake=16383). You  OBC6 2 keypress.  OBC8 2 Parking brake: 0=off, 32767=on		rw
Left brake application read-out (0 off, 16383 full: parking brake=16383). You 2 keypress.  Right brake application read-out (0 off, 16383 full: parking brake=16383). You 0BC6 2 keypress.  0BC8 2 Parking brake: 0=off, 32767=on		r
OBC4 2 keypress.  Right brake application read-out (0 off, 16383 full: parking brake=16383). You obcome the properties of the parking brake of the parking b	can apply a fixed brake pressure here, or else use the byte at 0C01 to apply brakes emulating the	•
Right brake application read-out (0 off, 16383 full: parking brake=16383). You obcome the properties of the parking brake of 16383 full: parking brake=16383). You obcome the parking brake of 16383 full: parking brake=16383. You obcome the parking brake of 16383 full: parking brake=16383. You obcome the parking brake of 16383 full: parking brake=16383. You obcome the parking brake of 16383 full: parking brake=16383. You obcome the parking brake=16383 full:	and apply a moderation processes to the control of	rw
0BC6 2 keypress.  0BC8 2 Parking brake: 0=off, 32767=on	u can apply a fixed brake pressure here, or else use the byte at 0C00 to apply brakes emulating the	
0BC8 2 Parking brake: 0=off, 32767=on	and an analysis of the state of	rw
5255 <u> </u>		rw
0BCA 2 Parking brake indicator		r
OBCC 4 Spoilers arm (0=off, 1=arm for auto deployment)		rw
Spoilers control, 0 off, 4800 arm, then 5620 (7%) to 16383 (100% fully deplo	ved).	
	it below, 4800 do nothing. The percentage extension is the proportion of the distance in the range 4800 to	
16383, even though values 4800 to 5619 cannot be used—7% seems to be		
OBDO 4 [These details have now been verified on FS2000, FS2002 and FS2004.]		rw
OBD4 4 Spoiler Left position indicator (0-16383)		r

0BD8	4 Spoiler Right position indicator (0-16383)	r
0BDC	4 Flaps control, 0=up, 16383=full deflection	rw
0BE0	4 Flaps position indicator (left), 16383=full deflection.	r
0BE4	4 Flaps position indicator (right). 16383=full deflection.	r
0BE8	4 Gear control: 0=Up, 16383=Down	rw
0BEC	4 Gear position (nose): 0=full up, 16383=full down	r
0BF0	4 Gear position (right): 0=full up, 16383=full down	r
0BF4	4 Gear position (left): 0=full up, 16383=full down	r
02	, and positive (very) a sample section and the	
0C02	2 Aileron trim value/control: –16383 to +16383	rw
0C04	2 Rudder trim value/control: –16383 to +16383	rw
0C18	2 International units: 0=US, 1=Metric+feet, 2=Metric+metres	rw
0C1A	2 Simulation rate *256 (i.e. 256=1x)	rw
0C20	9 Local time in character format: "hh:mm:ss" (with zero terminator)	r
0C29	5 DME1 distance as character string, either "nn.n" or "nnn." (when > 99.9 nm).	r
0C2E	5 DME1 speed as character string, "nnn" followed by either space then zero or just zero.	r
0C33	5 DME2 distance as character string, either "nn.n" or "nnn." (when > 99.9 nm).	r
0C38	5 DME2 speed as character string, "nnn" followed by either space then zero or just zero.	r
0C3E	2 Gyro drift amount ( *360/65536 for degrees).	rw
0C48	1 NAV1 Localiser Needle: –127 left to +127 right	r
0C49	1 NAV1 Glideslope Needle: –127 up to +127 down	r
	NAV1 Back Course flags:	
	0BC available	
	1Localiser tuned in	
	2On Back Course (?)	
0C4A	1 7Station active (even if no BC)	r
0C4B	1 NAV1 To/From flag: 0=not active, 1=To, 2=From	r
0C4C	1 NAV1 GS flag: TRUE if GS alive	r
	NAV1 code flags, bits used as follows:	
	0 DME available	
	1 TACAN	
	2 Voice available	
	3 No signal available	
	4 DME transmitter at GS transmitter	
	5 No back course	
	6 GS available	
	7 This is a localiser (else it's a VOR)	
0C4D	1 [FS2002+, Not yet tested]	r
0C4E	2 NAV1 OBS setting (degrees, 0–359)	rw
0C50	2 NAV1 radial ( *360/65536 for degrees)	r
	NAV1 signal strength:	
	For Localisers, seems to be either 0 or 256	
0C52	4 For VORs varies from 0 to over 1,000,000 when really close!	r
0C56	2 NAV1: relative bearing to VOR1, in degrees (0–359)	r
0C59	1 NAV2 Localiser Needle: –127 left to +127 right	r
	NAV2 Back Course flags:	
	0BC available	
	1Localiser tuned in	
	2On Back Course (?)	
0C5A	1 TStation active (even if no BC)	r

0C5B	1	NAV2 To/From flag: 0=not active, 1=To, 2=From	r
0C5C		NAV2: relative bearing to VOR2, in degrees (0–359)	r
0C5E		NAV2 OBS setting (degrees, 0–359)	rw
0C60	2	NAV2 radial ( *360/65536 for degrees)	r
0000		NAV1 signal strength:	
		For Localisers, seems to be either 0 or 256	
0062	4	For VORs varies from 0 to over 1,000,000 when really close!	_
0C62 0C6A		ADF1: relative bearing to NDB ( *360/65536 for degrees, –ve left, +ve right)	r r
		NAV2 Glideslope Needle: –127 up to +127 down [FS2002+]	•
0C6E 0C6F	1	NAV2 Gildeslope Needle: –127 up to +127 down [FS2002+] NAV2 GS flag: TRUE if GS alive [FS2002+]	r
UCOF	ı	NAV2 GS flags. TRUE if GS alive [FS2002+] NAV2 code flags, bits used as follows:	r
		DME available	
		TACAN	
		Voice available	
		No signal available	
		DME transmitter at GS transmitter  No back course	
		GS available	
0070	4	This is a localiser (else it's a VOR)	_
0C70	1	[FS2002+, Not yet tested] Lights (FS2k/CFS2), a switch for each one (bits from lo to hi):	Г
		0 Navigation	
		1 Beacon	
		2 Landing	
		3 Taxi	
		4 Strobes	
		5 Instruments	
		6 Recognition	
		7 Wing	
0000		8 Logo	
0D0C		9 Cabin	rw
0E8A		Current visibility (Statue miles * 100)	rw
0E8C		Outside Air Temperature (OAT), degrees C * 256	r
0E90	2	Ambient wind speed (at aircraft) in knots	r
		Ambient wind direction (at aircraft), *360/65536 to get degrees Magnetic or True.	
	_	For compatibility with FS98, the direction is Magnetic for surface winds (aircraft below the altitude set into offset 0EEE), but True for all upper winds. See offset 02A0 for magnetic	
0E92		variation and how to convert.	r
0E9A		Upper cloud layer ceiling in metres AMSL	rw
0E9C	2	Upper cloud layer base in metres AMSL	rw
	_		
0E9E		Upper cloud layer coverage, 65535 = 8 oktas, 32768= 4 oktas 0 = clear	rw
0EA0		Upper cloud layer, cloud altitude variation (metres)	
0EA2	2	Lower cloud layer ceiling in metres AMSL	rw
0EA4	2	Lower cloud layer base in metres AMSL	rw
	_	0.700 4.41.	
0EA6	2	Lower cloud layer coverage, 65535 = 8 oktas, 32768= 4 oktas 0 = clear	rw
0EA8		Lower cloud layer, cloud altitude variation (metres)	
0EC0		Surface Temperature in degrees C * 256	r
0EC6		Pressure (QNH) as millibars (hectoPascals) *16.	r
0ECA	2	Upper wind ceiling, metres AMSL	

0ECC	2 Upper wind base, metres AMSL	
0ECE	2 Upper wind base, metres Awist. 2 Upper wind speed, knots	1
0ED0	2 Upper wind direction, *360/65536 gives degrees True	1
0ED0 0ED2	2 Upper wind turbulence setting, 0 none, 64, 128, 192, 224, 255 worst	1
0ED2 0ED4	2 Upper wind turbulence setting, 0 none, 64, 128, 192, 224, 255 worst 2 Upper wind gusts, enabled if True.	1
	2 Middle wind ceiling, metres AMSL	
0ED6 0ED8	2 Middle wind base, metres AMSL	<u> </u>
	2 Middle wind speed, knots	<del> </del>
0EDA	2 Middle wind direction, *360/65536 gives degrees True	r
0EDC	2 Middle wind turbulence setting, 0 none, 64, 128, 192, 224, 255 worst	r
0EDE		r
0EE0	2 Middle wind gusts, enabled if True.	<b> </b>
0EE2	2 Lower wind ceiling, metres AMSL	
0EE4	2 Lower wind base, metres AMSL	
0EE6	2 Lower wind speed, knots	r
0EE8	2 Lower wind direction, *360/65536 gives degrees True	r
0EEA	2 Lower wind turbulence setting, 0 none, 64, 128, 192, 224, 255 worst	r
0EEC	2 Lower wind gusts, enabled if True.	r
0EEE	2 Surface wind ceiling, metres AMSL	ļ
0EF0	2 Surface wind speed, knots. [See also 04D8]	r
0EF2	2 Surface wind direction, *360/65536 gives degrees Magnetic (!). [See also 04DA]	r
0EF4	2 Surface wind turbulence setting, 0 none, 64, 128, 192, 224, 255 worst	r
0EF6	2 Surface wind gusts, enabled if True.	r
0F48	2 Pressure (QNH) as millibars (hectoPascals) *16.	rw
0F4C	2 Upper wind ceiling, metres AMSL	
0F4E	2 Upper wind base, metres AMSL	
0F50	2 Upper wind speed, knots	
0F52	2 Upper wind direction, *360/65536 gives degrees True	
0F54	2 Upper wind turbulence setting, 0 none, 64, 128, 192, 224, 255 worst	
0F56	2 Upper wind gusts, enabled if True.	
0F58	2 Middle wind ceiling, metres AMSL	
0F5A	2 Middle wind base, metres AMSL	
0F5C	2 Middle wind speed, knots	rw
0F5E	2 Middle wind direction, *360/65536 gives degrees True	rw
0F60	2 Middle wind turbulence setting, 0 none, 64, 128, 192, 224, 255 worst	rw
0F62	2 Middle wind gusts, enabled if True.	rw
0F64	2 Lower wind ceiling, metres AMSL	
0F66	2 Lower wind base, metres AMSL	ļ
0F68	2 Lower wind speed, knots	rw
0F6A	2 Lower wind direction, *360/65536 gives degrees True	rw
0F6C	2 Lower wind turbulence setting, 0 none, 64, 128, 192, 224, 255 worst	rw
0F6E	2 Lower wind gusts, enabled if True.	rw
0F70	2 Surface wind ceiling, metres AMSL	
0F72	2 Surface wind speed, knots. [See also 04D8]	rw
0F74	2 Surface wind direction, *360/65536 gives degrees Magnetic (!). [See also 04DA]	rw
0F76	2 Surface wind turbulence setting, 0 none, 64, 128, 192, 224, 255 worst	rw
0F78	2 Surface wind gusts, enabled if True.	rw
11BA	2 G Force: units unknown, but /625 seems to give quite sensible values.	r
	Angle of Attack. This is actually a relative value, giving in %*32767 the difference between the current AofA and the maximum angle of attack for the current aircraft. For a relative	
11BE	2 measure of AofA calculate 100-(100*#/32767), where # is this number.	r
11C6	2 Mach speed *20480.	r
11D0	2 Total Air Temperature (TAT), degrees Celsius * 256	r
		_

1244	4 Fuel: centre 2 tank level, % * 128 * 65536 [FS2k/CFS2 only]	rw
1248	4 Fuel: centre 2 tank capacity: US Gallons [FS2k/CFS2 only]	r
124C	4   Fuel: centre 3 tank level, % * 128 * 65536 [FS2k/CFS2 only]	rw
1250	4 Fuel: centre 3 tank capacity: US Gallons [FS2k/CFS2 only]	r
132C	4 NAV/GPS switch, in FS2000 & FS2002, 0=NAV, 1=GPS	rw
1400	48 A set of Payload Station data, 48 bytes for each payload station	rw
	Write-only area for a TCAS_DATA structure, used to add entries to the TCAS data tables—see offset, below, and the section on TCAS earlier in this document.	
1F80	* The length of data written here is determined by the size of the TCAS_DATA structure, currently 40 bytes (but read this from offset F000).	
2000	8 Turbine Engine 1 N1 value (%) as a double (FLOAT64). This is for jets and turboprops—it has no meaning on reciprocating prop aircraft.	r
2008	8 Turbine Engine 1 N2 value (%) as a double (FLOAT64). This is for jets and turboprops—it has no meaning on reciprocating prop aircraft.	r
2018	8 Turbine Engine 1 corrected N2 value (%) as a double (FLOAT64). This is for jets and turboprops—it has no meaning on reciprocating prop aircraft.	r
2028	8 Turbine Engine 1 max torque fraction (range 0.0–1.0) as a double (FLOAT64).	r
2030	8 Turbine Engine 1 EPR as a double (FLOAT64). This is for jets and turboprops.	r
2038	8 Turbine Engine 1 ITT (interstage turbine temperature) in degrees Rankine, as a double (FLOAT64). This is for jets and turboprops.	r
208C	4 Turbine Engine 1 Ignition Switch	rw
2100	8 Turbine Engine 2 N1 value (%) as a double (FLOAT64). This is for jets and turboprops—it has no meaning on reciprocating prop aircraft.	r
2108	8 Turbine Engine 2 N2 value (%) as a double (FLOAT64). This is for jets and turboprops—it has no meaning on reciprocating prop aircraft.	r
2118	8 Turbine Engine 2 corrected N2 value (%) as a double (FLOAT64). This is for jets and turboprops—it has no meaning on reciprocating prop aircraft.	r
2128	8 Turbine Engine 2 max torque fraction (range 0.0–1.0) as a double (FLOAT64).	r
2130	8 Turbine Engine 2 EPR as a double (FLOAT64). This is for jets and turboprops.	r
2138	8 Turbine Engine 2 ITT (interstage turbine temperature) in degrees Rankine, as a double (FLOAT64). This is for jets and turboprops.	r
218C	4 Turbine Engine 2 Ignition Switch	rw
2200	8 Turbine Engine 3 N1 value (%) as a double (FLOAT64). This is for jets and turboprops—it has no meaning on reciprocating prop aircraft.	r
2208	8 Turbine Engine 3 N2 value (%) as a double (FLOAT64). This is for jets and turboprops—it has no meaning on reciprocating prop aircraft.	r
228C	4 Turbine Engine 3 Ignition Switch	rw
2300	8 Turbine Engine 4 N1 value (%) as a double (FLOAT64). This is for jets and turboprops—it has no meaning on reciprocating prop aircraft.	r
2308	8 Turbine Engine 4 N2 value (%) as a double (FLOAT64). This is for jets and turboprops—it has no meaning on reciprocating prop aircraft.	r
238C	4 Turbine Engine 4 Ignition Switch	rw
2400	8 Propeller 1 RPM as a double (FLOAT64). This value is for props and turboprops and is negative for counter-rotating propellers.	r
2408	8 Propeller 1 RPM as a fraction of the maximum RPM. (double)	r
2410	8 Propeller 1 thrust in pounds, as a double (FLOAT64). This is for props and turboprops.	r
2500	8 Propeller 2 RPM as a double (FLOAT64). This value is for props and turboprops and is negative for counter-rotating propellers.	r
2508	8 Propeller 2 RPM as a fraction of the maximum RPM. (double)	r
2510	8 Propeller 2 thrust in pounds, as a double (FLOAT64). This is for props and turboprops.	r
281C	4 Master battery switch (1=On, 0=Off)	rw
2AAC	4 NAV1 course deviation needle (CDI), 32-bit float value, -127.0 left to +127.0 right	r
2AB0	4 NAV1 glideslope needle (CDI), 32-bit float value, -127.0 up to +127.0 down	r
2AB4	4 NAV2 course deviation needle (CDI), 32-bit float value, -127.0 left to +127.0 right	r
2AB8	4 NAV2 glideslope needle (CDI), 32-bit float value, -127.0 up to +127.0 down	r
2E80	4 Master avionics switch (0=Off, 1=On)	rw
2E98	8 Elevator deflection, in radians, as a double (FLOAT64). Up positive, down negative.	r
2EA0	8 Elevator trim deflection, in radians, as a double (FLOAT64). Up positive, down negative.	rw
2EA8	8 Aileron deflection, in radians, as a double (FLOAT64). Right turn positive, left turn negative.	r
2EB0	8 Aileron trim deflection, in radians, as a double (FLOAT64). Right turn positive, left turn negative.	r
2EB8	8 Rudder deflection, in radians, as a double (FLOAT64).	r
2EC0	8 Rudder trim deflection, in radians, as a double (FLOAT64).	rw
2EC8	4 Prop sync active (1=Active, 0=Inactive)	rw
2ED0	8 Incidence "alpha", in radians, as a double (FLOAT64). This is the aircraft body angle of attack (AoA) not the wing AoA.	r
2ED8	8 Incidence "beta", in radians, as a double (FLOAT64). This is the side slip angle.	r
2EE0	4 Flight Director Active, control and indicator. 1=active, 0=inactive. [FS2000–FS2004 only]	rw
2EE8	8 Flight director pitch value, in degrees. Double floating point format, only when FD is active. [FS2000–FS2004 only]	r

2EF0	8 Flight director bank value, in degrees. Double floating point format, right is negative, left positive. [FS2000–FS2004 only]	r
2EF8	8 CG percent, as a double (FLOAT64). This is the position of the actual CoG as a fraction (%/100) of MAC (X-Plane: CoG in meters)	rw
2F70	8 Attitude indicator pitch value, in degrees. Double floating point format.	r
2F78	8 Attitude indicator bank value, in degrees. Double floating point format.	r
	PANEL AUTOBRAKE SWITCH	
	Read to check setting, write to change it.	
2F80	1 0=RTO, 1=Off, 2=brake1, 3=brake2, 4=brake3, 5=max	rw
3000	6 VOR1 IDENTITY (string supplied: 6 bytes including zero terminator)	r
3006	25 VOR1 name (string supplied: 25 bytes including zero terminator)	r
301F	8 VOR2 IDENTITY (string supplied: 6 bytes including zero terminator)	r
3025	25 VOR2 name (string supplied: 25 bytes needed including zero terminator)	r
303E	6 ADF1 IDENTITY (string supplied: 6 bytes including zero terminator)	r
3044	25 ADF1 name (string supplied: 25 bytes including zero terminator)	
3060	32	
3060	8 X (lateral, or left/right) acceleration in ft/sec/sec relative to the body axes.	r
3068	8 Y (vertical, or up/down) acceleration in ft/sec/sec relative to the body axes.	r
3070	8 Z (longitudinal, or forward/backward) acceleration in ft/sec/sec relative to the body axes.	r
3078	8 Pitch acceleration in radians/sec/sec relative to the body axes	r
3080	8 Roll acceleration in radians/sec/sec relative to the body axes (see Note at end of table). This is in double floating point format (FLOAT64). [FS2000 and later]	r
3088	8 Yaw acceleration in radians/sec/sec relative to the body axes (see Note at end of table). This is in double floating point format (FLOAT64). [FS2000 and later]	r
3090	8 Z (longitudinal, or forward/backward) GS-velocity in ft/sec relative to the body axes. This is in double floating point format (FLOAT64). [FS2000 and later]	rw
3098	8 X (lateral, or left/right) GS-velocity in ft/sec relative to the body axes. This is in double floating point format (FLOAT64). [FS2000 and later]	r
30A0	8 Y (vertical, or up/down) GS-velocity in ft/sec relative to the body axes. This is in double floating point format (FLOAT64). [FS2000 and later]	r
30A8	8 Pitch velocity in rads/sec relative to the body axes (see Note at end of table ). This is in double floating point format (FLOAT64). [FS2000 and later]	r
30B0	8 Roll velocity in rads/sec relative to the body axes (see Note at end of table). This is in double floating point format (FLOAT64). [FS2000 and later]	r
30B8	8 Yaw velocity in rads/sec relative to the body axes (see Note at end of table). This is in double floating point format (FLOAT64). [FS2000 and later]	r
30C0	8 Current loaded weight in lbs. This is in double floating point format (FLOAT64). [FS2000 and later]	r
30E0	2 [FS2002/4 only]: Trailing edge left inboard flap extension as a percentage of its maximum, with 16383 = 100%	
30E2	2 [FS2002/4 only]: Trailing edge left outboard flap extension as a percentage of its maximum, with 16383 = 100%	
30E4	2 [FS2002/4 only]: Trailing edge right inboard flap extension as a percentage of its maximum, with 16383 = 100%	
30E6	2 [FS2002/4 only]: Trailing edge right outboard flap extension as a percentage of its maximum, with 16383 = 100%	
30E8	8	
30E8	2 [FS2002/4 only]: Leading edge left inboard flap extension as a percentage of its maximum, with 16383 = 100%	r
30EA	2 [FS2002/4 only]: Leading edge left outboard flap extension as a percentage of its maximum, with 16383 = 100%	r
30EC	2[FS2002/4 only]: Leading edge right inboard flap extension as a percentage of its maximum, with 16383 = 100%	r
30EE	2[FS2002/4 only]: Leading edge right outboard flap extension as a percentage of its maximum, with 16383 = 100%	r
30F0	2 [FS2002/4 only]: Trailing edge left inboard flap extension in degrees * 256.	r
30F2	2 [FS2002/4 only]: Trailing edge left outboard flap extension in degrees * 256.	r
30F4	2 FS2002/4 only]: Trailing edge right inboard flap extension in degrees * 256.	r
30F6	2 FS2002/4 only]: Trailing edge right outboard flap extension in degrees * 256.	r
30F8	2 [FS2002/4 only]: Leading edge left inboard flap extension in degrees * 256.	
30FA	2 [FS2002/4 only]: Leading edge left outboard flap extension in degrees * 256.	
30FC	2 [FS2002/4 only]: Leading edge right inboard flap extension in degrees * 256.	
30FE	2 [FS2002/4 only]: Leading edge right outboard flap extension in degrees * 256.	
3101	7	
3101	1 Alternator (1 = on, 0 = off), read for state, write to control	rw
3102	1 Battery (1 = on, 0 = off), read for state, write to control	rw
3103	1 Avionics (1 = on, 0 = off), read for state, write to control [FS2000+]	rw
3104	1  Fuel pump (1 = on, 0 = off), read for state, write to control	rw

1		
	Controls the joystick connection to the main flight controls. Normally all zero, set the following bits to actually disconnect the specific joystick axes (from least significant bit = 0):	
	0Elevator	
	1Aileron	
	2Rudder	
	Throttles (all).	
	See below (throttle sync control)	
	Elevator trim	
	Throttle #1	
	Throttle #2 (see next byte for others)	
	If the user option is set to automatically disconnect the trim axis in FS A/P vertical modes, the disconnection of Elevator inputs via bit 0 above also disconnects Trim even if bit 5 is not	
	also set. This allows existing A/P or fly-by-wire applications to work with those user implementations using a trim axis.	
	Additionally, bit 2'4 is available to switch "throttle sync" on. In this mode all throttles are driven from the main throttle or throttle 1 inputs, and other throttle inputs are discarded. (The	
	same option can also be used from an optional Hot Key).	
	See also offset 3109 above, and also offsets 3328–3339, which provide the live axis values, post calibration. These would have been applied to FS if not prevented by the flags above.	
310A	1 Applications can use these facilities to provide a responsive "fly-by-wire" control.	rw
310B	1	
3118	16	
3118	2 COM2 frequency (FS2002+ only), 4 digits in BCD format. A frequency of 123.45 is represented by 0x2345. The leading 1 is assumed.	rw
311A	2 COM1 standby frequency (FS2002+ only), 4 digits in BCD format. A frequency of 123.45 is represented by 0x2345. The leading 1 is assumed.	rw
311C	2 COM2 standby frequency (FS2002+ only), 4 digits in BCD format. A frequency of 123.45 is represented by 0x2345. The leading 1 is assumed.	rw
311E	2 NAV1 standby frequency (FS2002+ only), 4 digits in BCD format. A frequency of 113.45 is represented by 0x1345. The leading 1 is assumed. 2 NAV2 standby frequency (FS2002+ only), 4 digits in BCD format. A frequency of 113.45 is represented by 0x1345. The leading 1 is assumed.	rw
3120		rw
	Radio audio switches (FS2002+ only). Read/write bit settings as follows:  2^7 COM1 transmit	
	2/4 COM/Litransmit	
	2.45 COM receive both	
	2 <sup>rd</sup> NAV1 sound	
	2 <sup>A</sup> NAV2 sound	
	2^2 Marker sound	
	2 <sup>-1</sup> DME sound	
3122	1 2/0 ADF1 sound	rw
	Radio Use/Standby swap toggles (FS2002+ only), Write bits to operate toggles. Don't bother to read it, there's no meaning to anything read.	1
	2 <sup>3</sup> COM1 swap	1
	2^2COM2 swap	
	2^1NAV1 swap	
3123	1 2 <sup>0</sup> NAV2 swap	rw
3130	12 ATC flight number string for currently loaded user aircraft. This is limited to a maximum of 12 characters, including a zero terminator. [FS2002+ only]	rw
313C	12 ATC identifier (tail number) string for currently loaded user aircraft. This is limited to a maximum of 12 characters, including a zero terminator. [FS2002+ only]	rw
3148	24 ATC airline name string for currently loaded user aircraft. This is limited to a maximum of 24 characters, including a zero terminator. [FS2002+ only]	rw
3160	24 ATC aircraft type string for currently loaded user aircraft. This is limited to a maximum of 24 characters, including a zero terminator. [FS2002+ only]	rw
31A0	8 Y (vertical, or up/down) GS-velocity in ft/sec relative to world axes. This is in double floating point format (FLOAT64). [FS2000+]	r
31A8	8 Pitch velocity in rads/sec relative to world axes in double floating point format (FLOAT64).	r
31B0	8 Roll velocity in rads/sec relative to world axes in double floating point format (FLOAT64).	r
31E4	4 Radio altitude in metres * 65536	r

31F0	4 Pushback status (FS2002+). 3=off, 0=pushing back, 1=pushing back, tail to swing to left (port), 2=pushing back, tail to swing to right (starboard). Works only with Xpushback plugin	r
31F4	4 Pushback control (FS2002+). Write 0–3 here to set pushback operation, as described for the status, above. Works only with Xpushback plugin	rw
0114	Text display control word. You can display messages from an external program just like an Adventure. Write the message as a zero-terminated string to offset 3380 (see below), subject to the maximum of 128 characters including the zero terminator, then write a number to this offset, 32FA, as follows:  0 display till replaced	1 ***
32FA	2)+n display for n seconds, or until replaced	rw
32FC	2	
3300	2 Additional radio and autopilot status indicators (read only access)	r
3304	4 FSUIPC Version	r
3308	2 FS Version	r
	This is the altimeter reading in feet (or metres, if the user is running with the preference for altitudes in metres), as a 32-bit signed integer. Please check offset 0C18 to determine when	
3324	4 metres are used (0C18 contains '2').	r
3328	2 Elevator Axis input value, post calibration, just before being applied to the simulation (if allowed to by the byte at offset 310A).	r
332A	2 Aileron Axis input value, post calibration, just before being applied to the simulation (if allowed to by the byte at offset 310A).	r
332C	2 Rudder Axis input value, post calibration, just before being applied to the simulation (if allowed to by the byte at offset 310A).	r
	Throttle Axis input value, post calibration, just before being applied to the simulation (if allowed to by the byte at offset 310A). This is the single throttle, applied to whichever engines	
332E	2 are denoted by the bits in offset 0888.	
3330	2 Throttle 1 Axis input value, post calibration, just before being applied to the simulation (if allowed to by the byte at offset 310A).	r
3332	2 Throttle 2 Axis input value, post calibration, just before being applied to the simulation (if allowed to by the byte at offset 310A).	r
3334	2 Throttle 3 Axis input value, post calibration, just before being applied to the simulation (if allowed to by the byte at offset 310A).	r
3336	2 Throttle 4 Axis input value, post calibration, just before being applied to the simulation (if allowed to by the byte at offset 310A).	r
	FS2004 —Ready to Fly indicator. This is non-zero when FS is loading, or reloading a flight or aircraft or scenery, and becomes zero when flight mode is enabled (even if the simulator is	
3364	1 paused or in Slew mode).	r
	In Menu or Dialogll flag. This byte is non-zero when FS is effectively paused because the user accessed the Menu, or is in a dialogue resulting from menu or other selection activity. The non-zero values are:  1 = FS frozen because of menu activity  2 = FS frozen because of modal dialogue  Both bits may be set in dialogues accessed through the menu. Note that the 2 bit may flicker a little on exit from the dialogue, due to the way it is detected.  In FS2004 the byte at 3364 should also be considered when using this flag—there are some conditions, like reloading scenery or aircraft or flights, which effectively freeze the sim in	
3365	1 ways not detectable except by the method used for the —ready to flyll indicator.	r
337D	1 Structural de-ice switch, (1 = on, 0 = off), read for state, write to control [FS2002+]	rw
337E	2 XPUIPC activity count. Simply a number that is incremented every time XPUIPC receives a call or message from Flight Simulator	r
	Message text area. This can be useful for programs wishing to display the adventure texts on a separate PC, via XPWideFS (the freeware ShowText.exe is an example).  The text is truncated if longer than 127 characters, there always being a zero terminator provided.  You can also write messages to this area, always zero terminated, for display on the FS windshield. After placing the message text, you must write the 16-bit timer value to offset 32FA	
3380	128 to make XPUIPC send the message through to X-Plane (see 32FA above).	rw
34A0	8 Sea level pressure (QNH), double float (FS2002+)	r
3541	This operates the FSUIPC —freeze flight position facility. This keeps the aircraft at the same latitude and longitude for as long as it is engaged. The altitude and attitude of the aircraft is free to change, and, in fact, the aircraft flies as normal except for not changing its position over the ground. This is apparently a very useful facility for training environments.	rw
3542	2 Standby altimeter pressure setting ("Kollsman" window). As millibars (hectoPascals) * 16. [This is used by FSUIPC to maintain offset 3544. It is not used by FS at all]	
3590	4 Engine 1 Fuel Valve, 1 = open, 0 = closed. Can write to operate. [FS2002+] X-Plane 9.00+	rw
3594	4 Engine 2 Fuel Valve, 1 = open, 0 = closed. Can write to operate. [FS2002+] X-Plane 9.00+	rw
35B0	8 Engine 4 cowl flap position, as a double float: 0.0=fully closed, 1.0=fully open. Can be used to handle position and set it. [FS2000–FS2004 only]	rw

3670	8 Engine 3 cowl flap position, as a double float: 0.0=fully closed, 1.0=fully open. Can be used to handle position and set it. [FS2000–FS2004 only]	rw
3728	8 Reciprocating engine 2 manifold pressure, in lbs/sqft, as a double (FLOAT64). Divide by 70.7262 for inches Hg.	r
3730	8 Engine 2 cowl flap position, as a double float: 0.0=fully closed, 1.0=fully open. Can be used to handle position and set it [FS2000–FS2004 only]	rw
37E8	8 Reciprocating engine 1 manifold pressure, in lbs/sqft, as a double (FLOAT64). Divide by 70.7262 for inches Hg.	r
37F0	8 Engine 1 cowl flap position, as a double float: 0.0=fully closed, 1.0=fully open. Can be used to handle position and set it. [FS2000–FS2004 only]	rw
3930	8 General engine 4 EGT in degrees Rankine, as a double (FLOAT64). Convert to Fahrenheit by Rankine – 459.67. FS default gauges show Centigrade.	r
3938	4 Engine 4 generator switch, a 32-bit BOOL (0 = off, 1= on) [FS2000–FS2004 only]	rw
3958	4 Engine 4 fuel pump switch, a 32-bit BOOL (0 = off, 1= on) [FS2000–FS2004 only]	rw
39F0	8 General engine 3 EGT in degrees Rankine, as a double (FLOAT64). Convert to Fahrenheit by Rankine – 459.67. FS default gauges show Centigrade.	r
39F8	4 Engine 3 generator switch, a 32-bit BOOL (0 = off, 1= on) [FS2000–FS2004 only]	rw
3A18	4 Engine 3 fuel pump switch, a 32-bit BOOL (0 = off, 1= on) [FS2000–FS2004 only]	rw
3AB0	8 General engine 2 EGT in degrees Rankine, as a double (FLOAT64). Convert to Fahrenheit by Rankine – 459.67. FS default gauges show Centigrade.	r
3AB8	4 Engine 2 generator switch, a 32-bit BOOL (0 = off, 1= on) [FS2000–FS2004 only]	rw
3AD8	4 Engine 2 fuel pump switch, a 32-bit BOOL (0 = off, 1= on) [FS2000–FS2004 only]	rw
3B70	8 General engine 1 EGT in degrees Rankine, as a double (FLOAT64). Convert to Fahrenheit by Rankine – 459.67. FS default gauges show Centigrade.	r
3B78	4 Engine 1 generator switch, a 32-bit BOOL (0 = off, 1= on) [FS2000–FS2004 only]	rw
3B98	4 Engine 1 fuel pump switch, a 32-bit BOOL (0 = off, 1= on) [FS2000–FS2004 only]	rw
	Flaps détente increment. The full range of flap movement is 0-0x3FFF (16383). Each détente position or —notchli is spaced equally over this range, no matter what flap angle is	
	represented—a table in the AIR file gives those. To obtain the number of détentes, divide this increment value into 16383 and add 1. For example 2047 (0x7FF) would be the	
3BFA	2 increment for 9 positions as on the default FS2K 737.	r
3BFC	4 Zero Fuel Weight, lbs * 256. This is the aircraft weight plus the payload weight, minus fuel. In FS2004 this changes as the payload is adjusted.	rw
3E00	8 Path of the Flight Simulator installation, down to and including the FS main folder and a following \ character.	r
	6D88-6DAF Reserved for XPUIPC	
6D88	1 Wiper Speed: 0=off,1=25%speed,2=50%speed,3=100%speed.	rw
6D8A	2 Steering command actually enacted by the gear, degrees positive right. Devide by 100 to get degrees	r
6D8C	1 Transponder mode (off=0,stdby=1,on=2,test=3)	rw
6D8E	1 Igniter engine 1 on yes/no	W
6D8F	1 Igniter engine 2 on yes/no	W
6D90	8 Latitude of aircraft e.g 50.123456 as double float (FLOAT64), write to reposition aircraft (see also 560); read 560	W
6D98	8 Longitude of aircraft e.g. 13.123456 as double float (FLOAT64), write to reposition aircraft (see also 568); read 568	W
6DA0	4 Altitude in feet as signed 32 bit integer, write to reposition aircraft (see also 570); read 570	W
	32 x Failure generation Bit 0: Microburst Bit 1: Bird strike Bit 2: Engine 1 separation Bit 3: Engine 2 separation Bit 4: Engine 1 hung start Bit 5: Engine 2 hungs start Bit 6: Engine 1 hot	t
	start Bit 7: Engine 2 hot start Bit 8: Engine 1 fire Bit 9: Engine 2 fire Bit 10: Engine 1 compressor stall Bit 11: Engine 2 compressor stall Bit 12: Engine_Seizure_eng1 Bit 13:	:
	Engine_Seizure_eng2 Bit 14: Oil_Pump_eng1 Bit 15: Oil_Pump_eng2 Bit 16: Fuel_Flow_Fluct_eng1 Bit 17: Fuel_Flow_Fluct_eng2 Bit 18: Brake_Left Bit 19: Brake_right Bit 20:	:
6DA4	4 Tire_Nose Bit 21: Tire_Left Bit 22: Tire_Right Bit 23: Gear_Actuator_Nose Bit 24: Gear_Actuator_Left Bit 25: Gear_Actuator_Right	rw
6DA8	1 Runway condition 0=clean&dry 1=dump 2=wet	rw
6DA9	1 APU starter switch 0 = off, 1 = on, 2 = start	rw
6DAA	1 Reset all failures set in 6DA4.	rw
6DAF	1 The percentage of thunderstorms present. 0100	rw
	6F00-6FFF Reserved for XPUIPC	
6F00	2 Nosewheel speed * 10, signed +forward -backward	r
6F02	1 Wheel skid, 0=inactive, 1=active	
6F03	8 XPUIPC Version string with 0 terminator	r
6F0B	1 Anti-Ice left wing 0 = Off 1 = On	rw
6F0C	1 Anti-Ice right wing 0 = Off 1 = On	rw
6F0D	1 Reload scenery, write a 0-1 here (positive edge) will reload the scenery	rw
6F0E	1 Reload datarefs, write a 0-1 here (positive edge) will reload the datarefs	rw
6F0F	2 Middle cloud layer ceiling in metres AMSL	rw
6F11	2 Middle cloud layer base in metres AMSL	rw
l l		
6F13	2 Middle cloud layer coverage, 65535 = 8 oktas, 32768= 4 oktas 0 = clear	rw

6F14	1 Real weather file in use 0=no, 1=yes	rw
6F15	1 PTT if set to 1 => PTT pressed, 0 => PTT released	rw
6FFF	1 X-Plane flag, is set to 1 if X-Plane is active, you can use this to determine if xpuipc or fsuipc is running, see also 0x6F03 for version	r
	FS2004 style NWI (—New Weather Interfacell) areas, allowing both local and global weather data to be read and written.	
	C000–C3FF = Interpolated weather at aircraft (READ)*	
	C400–C7FF = Global weather —"GLOB"(READ)**	
	C800–CBFF = Weather writing area (WRITE)	
	For GLOB or ICAO ID as specified.	
	CC00-CFFF = Weather at requested location (READ)	
C000	4096 For ICAO ID or Lat/Lon* as specified.	r
D840	20 Additional A.I. Airborne traffic	r
F000	128 A.I. Airborne traffic	r
F080	40 A.I. Airborne traffic	r
	Xsquawkbox Offsets 0x10000-0x1024C	
10000	1 Xsquawkbox: Subscribe to XSB VATSIM, write a 1 here to subscribe, 0 to unsubscribe	rw
10001	1 Xsquawkbox: Connect to XSB to VATSIM, write a 1 here to connect, 0 to disconnect	rw
10002	1 Xsquawkbox: Check connection status: 0=disconnected, 1=connecting, 2=connected	r
10003	1 Xsquawkbox: Show the login box if you write a 1 here, will be reset by xpuipc	rw
10004	10 Xsquawkbox: Set the callsign in XSB VATSIM, write the callsign here as a string, e.g. "LH4711" This is limited to a maximum of 10 characters, including a zero terminator.	rw
1000E	30 Xsquawkbox: Set the server in XSB VATSIM, write the DNS address or IP here as a string, e.g. "server1" This is limited to a maximum of 30 characters, including a zero terminator.	rw
1002C	2 Xsquawkbox: Set the port in XSB VATSIM, write the port of server here as a integer	rw
1002E	30 Xsquawkbox: Set the login pilot ID in XSB VATSIM, write the login pilot ID here as a string, e.g. "123456" This is limited to a maximum of 30 characters, including a zero terminator.	rw
	Xsquawkbox: Set the login password in XSB VATSIM, write the login password here as a string, e.g. "123456" This is limited to a maximum of 30 characters, including a zero	
1004C	30 terminator.	rw
1006A	30 Xsquawkbox: Set the login real name in XSB VATSIM, write the realname here as a string, e.g. "Hans Wurst" This is limited to a maximum of 30 characters, including a zero terminator.	rw
10088	30 Xsquawkbox: Set the login model in XSB VATSIM, write the model here as a string, e.g. "B737 NG" This is limited to a maximum of 30 characters, including a zero terminator.	rw
	Xsquawkbox: Set the flight type for flightplan in XSB VATSIM, write the ascii code here e.g. 0x56 for V	
	V = VFR	
	I = IFR	
	S = SVFR	
100A6	2 D	rw
	Xsquawkbox: Set the TCAS type for flightplan in XSB VATSIM, write the ascii code here e.g. 0x54 for T	
	0 = None	
	T = TCAS	
	H = Heavy	
	B = Heavy/TCAS	
	F = B757	
100A8	2 L = B757/TCAS	rw

		Xsquawkbox: Set the NAV type for flightplan in XSB VATSIM, write the ascii code here e.g. 0x54 for T	
		A = DME/Mode C	
		B = DME/No Mode C	
		C = LORAN/No Mode C	
		D = DME/No Squawk	
		E = FMS+MAP	
		F = FMS	
		G = GPS	
		I = LORAN/Mode C	
		M = Tacan/No Squawk	
		N = Tacan/No Mode C	
		P = Tacan/Mode C	
		Q = RNP+RVSM	
		R = RNP	
		T = No DME/No Mode C	
		U = No DME/Mode C	
		W = RVSM	
		X = No DME/No Squawk	
100AA		Y = LORAN/No Squawk	rw
100AC	2	Xsquawkbox: Set the speed in knots for flightplan in XSB VATSIM as an integer	rw
		Xsquawkbox: Set the ICAO Code of depature airport for flightplan in XSB VATSIM, write the ICAO Code of depature airport here as a string, e.g. "EDDT" This is limited to a maximum	
100AE		of 6 characters, including a zero terminator.	rw
100B4	2	Xsquawkbox: Set the depature time for flightplan in XSB VATSIM, write the departure time here as zulu time, e.g. 1340 = 13:40, integer	rw
100B6	2	Xsquawkbox: Set the depature time actual for flightplan in XSB VATSIM, write theactual departure time here as zulu time, e.g. 1340 = 13:40, integer	rw
		Xsquawkbox: Set the cruise altitude for flightplan in XSB VATSIM, write the cruise altitude here as a string, e.g. FL360" or "36000" This is limited to a maximum of 6 characters,	
100B8	6	including a zero terminator.	rw
		Xsquawkbox: Set the ICAO Code of arrival airport for flightplan in XSB VATSIM, write the ICAO Code of arrival airport here as a string, e.g. "EDDM" This is limited to a maximum of 6	
100BE		characters, including a zero terminator.	rw
100C4		Xsquawkbox: Set the enroute hours for flightplan in XSB VATSIM, write the enroute hours here as hours integer	rw
100C6		Xsquawkbox: Set the enroute mins for flightplan in XSB VATSIM, write the enroute mins here as minutes integer	rw
100C7	2	Xsquawkbox: Set the fuel hours for flightplan in XSB VATSIM, write the fuel hours here as hours integer	rw
100C9	1	Xsquawkbox: Set the fuel mins for flightplan in XSB VATSIM, write the fuel mins here as minutes integer	rw
		Xsquawkbox: Set the ICAO Code of alternate airport for flightplan in XSB VATSIM, write the ICAO Code of alternate airport here as a string, e.g. "EDDF" This is limited to a maximum	
100CA	6	of 6 characters, including a zero terminator.	rw
100D0	100	Xsquawkbox: Remark for flightplan in XSB VATSIM, write a remark here as a string, e.g. "BlaBla Bla" This is limited to a maximum of 100 characters, including a zero terminator.	rw
		Xsquawkbox: Route for flightplan in XSB VATSIM, write a the route here as a string, e.g. "LUCOS.SEY067.SEY.PARCH.CCC.ROBER" This is limited to a maximum of 500 characters,	
10134		including a zero terminator.	rw
10328		Xsquawkbox: Set the mic status: 0=mute the mic, 1=let XSB decide, 2=force to open	rw
10329		Xsquawkbox: Check mic status: 0=closed, 1=open	r
1032A	1	Xsquawkbox: Sends the flightplan to ATC if you write a 1 here, will be reset by xpuipc	rw
T		XSquawkbox: Message status	
		Bit 0: METAR message arrived	
		Bit 1: Text message arrived	
1032B		Bit 2:	r
1032C		Xsquawkbox: METAR message, read the METAR message here. This is a maximum of 256 char zero terminated string. If you read here METAR message bit will be reset	r
1042C	512	Xsquawkbox: Text message, read the Text message here. This is a maximum of 512 char zero terminated string. If you read here Text message bit will be reset	r
11000		External flightmodel control via lat/lon/pitch/bank/heading	rw
11025	256	Hidden UNC path for the clients, will mapped to 3E00 on the client	

		Here you can write a dataref directly in <b>one write</b> (120bytes) of a fsuipc process, as follows:	
		char datarefString[100]; // 099 byte => 100 byte => e.g.: sim/graphics/scenery/airport_light_level as null terminated string you want to write	
		unsignedint8 broadcast; // 100101 byte => 1 byte => 0 = only written on local machine, 1 = will be broadcasted to all machines in the IP segment	
		unsignedint8 datarefIndex; // 102103 byte => 1 byte => If dataref has an index (e.g. XPLMSetDatavi) write it here	
		int32 interger32Value; // 104107 byte => 4 byte => If dataref is a integer value (e.g. XPLMSetDatavi or XPLMSetDatai) write it here	
		float floatValue; // 108111 byte => 4 byte => If dataref is a float value (e.g. XPLMSetDatavf or XPLMSetDataf) write it here	
		double doublefloatValue; // 112119 byte => 8 byte => If dataref is a double float value (e.g. XPLMSetDatad) write it here	
		You must use the obove structure. Minimum time between two writes is 100 ms. Values will be recognised depending which type of dataref (int, float, etc.). Values not	
11125	120	needed are ignored.	w
		Write the dataref and optional index you want to read here:	
		char datarefString[100]; // 099 byte => 100 byte => e.g.: sim/graphics/scenery/airport_light_level as null terminated string you want to read	
		unsignedint8_datarefIndex; // 100101 byte => => 1 byte => If dataref has an index (e.g. XPLMSetDatavi) write it here	
1119D	101	The result can be found in offset 0x11202. Minimum time between two writes is 100 ms.	w
		int32 interger32Value; // 03 byte => 4 byte => If dataref is a integer value (e.g. XPLMSetDatavi or XPLMSetDatai) read it here	<del> </del>
		float floatValue; // 47 byte => 4 byte => If dataref is a float value (e.g. XPLMSetDatav) or XPLMSetDatav) read it here	
11202	16	double doublefloatValue; // 815 byte => 8 byte => If dataref is a double float value (e.g. XPLMSetDatad) read it here	r
11202	10	2000-0 2000-0-0-0-0-0-0-0-0-0-0-0-0-0-0-	+ '-
			+
		EC135 Offsets 0x12000-0x12076	+
		EC135 Engine Start Panel	+
12000	1	EC135: Engine Start Panel FADEC I	rw
12001		EC135: Engine Start Panel FADEC II	rw
12002		EC135: Engine Start Panel ENG I, FLIGHT	rw
12003		EC135: Engine Start Panel ENG I, OFF	rw
12004	1	EC135: Engine Start Panel ENG II, FLIGHT	rw
12005		EC135: Engine Start Panel ENG II, OFF	rw
12006		EC135: Engine Start Panel GEN I, NORM	rw
12007		EC135: Engine Start Panel GEN I, RESET	rw
12008		EC135: Engine Start Panel GEN II, NORM	rw
12009	1	EC135: Engine Start Panel GEN II, RESET	rw
1200A		EC135: Engine Start Panel BAT MSTR, ON	rw
1200B		EC135: Engine Start Panel BAT MSTR, RESET	rw
		EC135 CAD	
1200C	1	EC135: CAD SELECT (CAD)	rw
1200D		EC135: CAD SCROLL (CAD)	rw
1200E	1	EC135: CAD BRT + (CAD)	rw
1200F	1	EC135: CAD BRT - (CAD)	rw
12010		EC135: CAD OFF (CAD)	rw
		EC135 SMD45 Pilot	
12011		EC135: OFF (PFD Pilot)	rw
12012	1	EC135: OFF (ND Pilot)	rw
		EC135 SMD45 Copilot	
12013		EC135: OFF (PFD Co)	rw
12014	1	EC135: OFF (ND Co)	rw
		EC135 VEMD	
12015	1	EC135: RESET (VEMD)	rw
12016		EC135: SCROLL (VEMD)	rw
12017		EC135: + (VEMD)	rw
12018		EC135: - (VEMD)	rw
12019		EC135: SELECT (VEMD)	rw
1201A	1	EC135: BRT + (VEMD)	rw

1201B	1 EC135: BRT - (VEMD)	rw
1201C	1 EC135: OFF 1 (VEMD)	rw
1201C	1 EC135: OFF 1 (VEMID)  1 EC135: OFF 2 (VEMID)	rw
1201E	1 EC135: ENTER (VEMD) => Not used	rw
12016	EC135 Fire Warning Unit	1 W
1201F	1 EC135: EMER OFF 1	rw
12017	1 EC135: EMER OFF 1  1 EC135: EMER OFF 2	_
12020	EC135 Grip	rw
40004	1 EC135: CDS/Audio Reset	
12021	1 EC135: CD5/Audio Reset	rw
12022		rw
12023	1 EC135: Beep trim right	rw
12024	1 EC135: Beep trim forward	rw
12025	1 EC135: Beep trim afterward	rw
12026	1 EC135: Force Trim release*	rw
12027	1 EC135: P&R/YAW RST	rw
12028	1 EC135: P&R/YAW RST	rw
12029	1 EC135: AP/SAS DCPL	rw
	EC135 Collective	
1202A	1 EC135: Limit	rw
1202B	1 EC135: Landing Light	rw
	EC135 Instrument Control Panel (ICP)	
1202C	1 EC135: ND	rw
1202D	1 EC135: einfacher Pfeil	rw
1202E	1 EC135: doppelter Pfeil	rw
1202F	1 EC135: EXT	rw
12030	1 EC135: NAV	rw
12031	1 EC135: PFD	rw
12032	1 EC135: ZOOM IN	rw
12033	1 EC135: ZOOM OUT	rw
	EC135 AUTOMATIC FLIGHT CONTROL SYSTEM	
12034	1 EC135: AP	rw
12035	1 EC135: A TRIM	rw
12036	1 EC135: APP	rw
12037	1 EC135: NAV	rw
12038	1 EC135: ALT A (Druck auf Drehknopf)	rw
12039	1 IEC135: AS	rw
1203A	1 EC135: HDG (Druck auf Drehknopf)	rw
1203B	1 EC135: VS	rw
1203C	1 EC135: ALT	rw
1203E	1 EC135: BC	rw
1203F	1 EC135: APMD DCPL (am Stick)	rw
12040	1 EC135: GS	rw
12041	1 EC135: GA (am Collective)	rw
12041	1 EC135: TEST	rw
12072	EC135 Overheadpanel	1 1 1 1 1
12043	1 EC135: EXT WARN 1	rw
12043	1 EC135: EXT WARN 1	rw
12044	1 EC135: WARN UNIT	_
12045	1 EC135: WARN UNIT	rw
	1 EC135: WARN UNIT	rw
12047	1 EC135: SYS 2 1 EC135: SYS 2	rw
12048	1 EO 100. 01 0 2	rw

12049	1 EC135: INV 1	
12049 1204A	1 EC135: INV 2	rw
		rw
1204B	1 EC135: AVIONIC 2 1 EC135: STBY/HOR	rw
1204C		rw
1204D	1 EC135: STBY/HOR	rw
1204E	1 EC135: COPL	rw
1204F	1 EC135: PILOT	rw
12050	1 EC135: BLD EMER/NORM	rw
12051	1 EC135: BLD EMER/NORM	rw
12052	1 EC135: XFER F	rw
12053	1 EC135: XFER A	rw
12054	1 EC135: PRIME I	rw
12055	1 EC135: PRIME II	rw
12056	1 EC135: Rotor brake	rw
	Warning panel	
12057	1 AP A.TRIM	r
12058	1 LOW FUEL 1	r
12059	1 LOW FUEL 2	r
1205A	1 ROTOR RPM	r
1205B	1 BAT TEMP	r
1205C	1 BAT DISCH	r
1205D	1 XMSN OIL P	r
1205E	1 CARGO SMOKE sowie alle Dummies (X)	r
1205F	1 FIRE (TW1)	r
12060	1 ACTIVE (TW1)	r
12061	1 FIRE (TW2)	r
12062	1 ACTIVE (TW2)	r
12063	1 MASTER CAUTION	r
12064	1 HI NR	r
12065	1 HI NR control lamp	r
12000	Analog Instruments	<del>† '</del>
12066	4 N2 TW1 - Wert bei 100 %: 5928.00	r
1206A	4 N2 TW2 - Wert bei 100 %: 5928.00	r
1206E	4 Rotor RPM - Wert bei 100 %: 395.00	r
12002	4 Instrument brightness pfd pilot	rw
12072	4 Instrument brightness nd pilot	rw
12070	4 Instrument originaless no prior	I VV
	James Offsets 0x14000-0x15FFF => 8191 Bytes	+
14000	50 X-PlaneFailuresByName Set	- DAY
	50 X-PlaneFailuresByName Clear	rw
14050	1 PilotEdgeConnectStatus 0=no 1=yes	rw
14100		r
14101	1 PilotEdgeReceivingStatus 0=not 1=receiving	r
14102	1 PilotEdgeTransmitStatus 0=not 1=transmitting	r
14103	1 PilotEdge Connect/Disconnect. Send 0 to disconnect, 1 to connect	rw

	x737 Lights without plugin (ver 4.8.2+), a switch for each one (bits from lo to hi):	
	Navigation	
	Beacon (ACL)	
	LeftFixedLanding	
	LeftRetLanding	
	RightFixedLanding	
	RightRetLanding	
	Recognition	
	Taxi	
	Wing	
	Logo	
	LeftTurnoff	
	RightTurnoff	
1410A	2 Strobes	rw
	Enricos Offsets 0x16000-0x17FFF => 8191 Bytes	
16000	20 IP adress of X-Plane where XPUIPC is running as a null terminated string	r
16014	16 Computername of X-Plane where XPUIPC is running as a null terminated string	r
16024		
17FFF		