Offset Mapping for PMDG 777X

PLEASE READ THIS FIRST:

Developers using FSUIPC to interface with the PMDG line of products must be aware of and comply with certain restrictions designed to prevent the use of PMDG products in a for-hire or pilot training environment. Please see the PMDG EULA that accompanies the NGX, 777X and 747 line of products for details.

Subject to the above condition, the facilities for reading the PMDG 777X data direct from FSUIPC4 offsets are included with kind permission of PMDG.

To enable the data communication output from the PMDG aircraft, you will need to open the file 777X_Options.ini (located in the FSX folder PMDG\PMDG 777X, and add the following lines to the end of the file:

```
[SDK]
EnableDataBroadcast=1
```

Please also note that the offsets are only populated with data whilst the PMDG 777X is running *and* SimConnect is supplying the "Client Data". At the time of release it appears that there is a problem, either with SimConnect or with the 777X, which stops the flow of data for either all re-loads of the NGX after the first, or every alternate load. Reports differ on this. Some say that re-connecting with SimConnect fixes it, though this doesn't work for me either. If you want to try this you can assign a button or keypress to FSUIPC's special re-connection control:

```
Re-simconnect
```

and use this after reloading the NGX.

Notes for programmers

All offsets are READ ONLY. To change values please use the Events (known as "controls" in FSUIPC) as listed in the "PMDG_777X_SDK.h" file which you can find in the PMDG 777X SDK. The numerical values of those controls can be used directly in button and key assignments in the FSUIPC4.INI file, or from Lua plug-ins using the ipc.control function.

The list here is simply a version of the full list in the PMDG_777X_SDK.h file with the hexadecimal offset, size in bytes, and type of value added.

Offset	Size	Data type	Name	Notes
Overhead maintenance panel				
BACKUP WINDOW HEAT				
6420	2	BYTE x 2	ICE_WindowHeatBackUp_Sw_OFF[2]	Boolean Backup window heat
STANDBY POWER				
6422	1	BYTE	ELEC_StandbyPowerSw	0 OFF, 1 AUTO, 2 BAT
FLIGHT CONTROLS HYDRAULIC VALVE POWER				
6423	3	BYTE x 3	FCTL_WingHydValve_Sw_SHUT_OFF[3]	Booleans Left/Right/Centre
6426	3	BYTE x 3	FCTL_TailHydValve_Sw_SHUT_OFF[3]	Booleans Left/Right/Centre
6429	3	BYTE x 3	FCTL_annunTailHydVALVE_CLOSED[3]	Booleans Left/Right/Centre
642C	3	BYTE x 3	FCTL_annunWingHydVALVE_CLOSED[3]	Booleans Left/Right/Centre
APU MAINT				
642F	1	BYTE	APU_Power_Sw_TEST	Boolean
EEC MAINT				
6430	2	BYTE x 2	ENG_EECPower_Sw_TEST[2]	Booleans
ELECTRICAL				
6432	1	BYTE	ELEC_TowingPower_Sw_BATT	Boolean
6433	1	BYTE	ELEC_annunTowingPowerON_BATT	Boolean
CARGO TEMP SELECTORS				
6434	2	BYTE	AIR_CargoTemp_Selector[2]	aft / bulk 0=OFF 1=LOW 2=HIGH AFT/BULK
Overhead panel				
ADIRU				
6436	1	BYTE	ADIRU_Sw_On	Boolean
6437	1	BYTE	ADIRU_annunOFF	Boolean
6438	1	BYTE	ADIRU_annunON_BAT	Boolean
FLIGHT CONTROLS				
6439	1	BYTE	FCTL_ThrustAsymComp_Sw_AUTO	Boolean
643A	1	BYTE	FCTL_annunThrustAsymCompOFF	Boolean
ELECTRICAL				
643B	1	BYTE	ELEC_CabUtilSw	Boolean
643C	1	BYTE	ELEC_annunCabUtilOFF	Boolean
643D	1	BYTE	ELEC_IFEPassSeatsSw	Boolean
643E	1	BYTE	ELEC_annunIFEPassSeatsOFF	Boolean
643F	1	BYTE	ELEC_Battery_Sw_ON	Boolean
6440	1	BYTE	ELEC_APUGen_Sw_ON	Boolean
6441	1	BYTE	ELEC_APU_Selector	0 OFF,1 ON,2 START
6442	1	BYTE	ELEC_annunAPU_FAULT	Boolean
6443	2	BYTE x 2	ELEC_BusTie_Sw_AUTO[2]	Boolean
6445	2	BYTE x 2	ELEC_annunBusTieISLN[2]	Boolean

6447	2	BYTE x 2	ELEC_ExtPwrSw[2]	primary/secondary MOMENTARY SWITCHES
6449	2	BYTE x 2	ELEC_annunExtPowr_ON[2]	Boolean
644B	2	BYTE x 2	ELEC_annunExtPowr_AVAIL[2]	Boolean
644D	2	BYTE x 2	ELEC_Gen_Sw_ON[2]	Boolean
644F	2	BYTE x 2	ELEC_annunGenOFF[2]	Boolean
6451	2	BYTE x 2	ELEC_BackupGen_Sw_ON[2]	Boolean
6453	2	BYTE x 2	ELEC_annunBackupGenOFF[2]	Boolean
6455	2	BYTE x 2	ELEC_IDGDiscSw[2]	Boolean MOMENTARY SWITCHES
6457	2	BYTE x 2	ELEC_annunIDGDiscDRIVE[2]	Boolean
WIPER SELECTORS				
6459	2	BYTE x 2	WIPERS_Selector[2]	left/right 0: OFF 1: INT 2: LOW 3: HIGH
EMERGENCY LIGHTS				
645B	1	BYTE	LTS_EmerLightsSelector	0 OFF, 1 ARMED, 2 ON
SERVICE INTERPHONE				
645C	1	BYTE	COMM_ServiceInterphoneSw	Boolean
PASSENGER OXYGEN				
645D	1	BYTE	OXY_PassOxygen_Sw_On	Boolean
645E	1	BYTE	OXY_annunPassOxygenON	Boolean
WINDOW HEAT				
645F	4	BYTE x 4	ICE_WindowHeat_Sw_ON[4]	L-Side/L-Fwd/ R-Fwd/R-Side
6463	4	BYTE x 4	ICE_annunWindowHeatINOP[4]	L-Side/L-Fwd/ R-Fwd/R-Side
HYDRAULICS				
6467	1	BYTE	HYD_RamAirTurbineSw	Boolean
6468	1	BYTE	HYD_annunRamAirTurbinePRESS	Boolean
6469	1	BYTE	HYD_annunRamAirTurbineUNLKD	Boolean
646A	2	BYTE x 2	HYD_PrimaryEngPump_Sw_ON[2]	Boolean
646C	2	BYTE x 2	HYD_PrimaryElecPump_Sw_ON[2]	Boolean
646E	2	BYTE x 2	HYD_DemandElecPump_Selector[2]	0 OFF, 1 AUTO, 2 ON
6470	2	BYTE x 2	HYD_DemandAirPump_Selector[2]	0 OFF, 1 AUTO, 2 ON
6472	2	BYTE x 2	HYD_annunPrimaryEngPumpFAULT[2]	Boolean
6474	2	BYTE x 2	HYD_annunPrimaryElecPumpFAULT[2]	Boolean
6476	2	BYTE x 2	HYD_annunDemandElecPumpFAULT[2]	Boolean
6478	2	BYTE x 2	HYD_annunDemandAirPumpFAULT[2]	Boolean
PASSENGER SIGNS				
647A	1	BYTE	SIGNS_NoSmokingSelector	0 OFF, 1 AUTO, 2 ON
647B	1	BYTE	SIGNS_SeatBeltsSelector	0 OFF, 1 AUTO, 2 ON
FLIGHT DECK LIGHTS				
647C	1	BYTE	LTS_DomeLightKnob	Position 0...150
647D	1	BYTE	LTS_CircuitBreakerKnob	Position 0...150
647E	1	BYTE	LTS_OvereadPanelKnob	Position 0...150
647F	1	BYTE	LTS_GlareshieldPNLlKnob	Position 0...150
6480	1	BYTE	LTS_GlareshieldFLOODKnob	Position 0...150
6481	1	BYTE	LTS_Storm_Sw_ON	Boolean
6482	1	BYTE	LTS_MasterBright_Sw_ON	Boolean
6483	1	BYTE	LTS_MasterBrigntKnob	Position 0...150
6484	1	BYTE	LTS_IndLightsTestSw	0 TEST, 1 BRT, 2 DIM

EXTERIOR LIGHTS				
6485	3	BYTE x 3	LTS_LandingLights_Sw_ON[3]	Booleans Left/Right/Nose
6488	1	BYTE	LTS_Beacon_Sw_ON	Boolean
6489	1	BYTE	LTS_NAV_Sw_ON	Boolean
648A	1	BYTE	LTS_Logo_Sw_ON	Boolean
648B	1	BYTE	LTS_Wing_Sw_ON	Boolean
648C	2	BYTE x 2	LTS_RunwayTurnoff_Sw_ON[2]	Boolean
648E	1	BYTE	LTS_Taxi_Sw_ON	Boolean
648F	1	BYTE	LTS_Strobe_Sw_ON	Boolean
APU AND CARGO FIRE				
6490	2	BYTE x 2	FIRE_CargoFire_Sw_Arm[2]	FWD/AFT
6492	2	BYTE x 2	FIRE_annunCargoFire[2]	FWD/AFT
6494	1	BYTE	FIRE_CargoFireDisch_Sw	Boolean MOMENTARY SWITCH
6495	1	BYTE	FIRE_annunCargoDISCH	Boolean
6496	1	BYTE	FIRE_FireOvhtTest_Sw	Boolean MOMENTARY SWITCH
6497	1	BYTE	FIRE_APUHandle	0: IN (NORMAL) 1: PULLED OUT 2: TURNED LEFT 3: TURNED RIGHT (2 & 3 are momnentary positions)
6498	1	BYTE	FIRE_APUHandleUnlock_Sw	Boolean MOMENTARY SWITCH
6499	1	BYTE	FIRE_annunAPU_BTL_DISCH	Boolean
ENGINE				
649A	2	BYTE x 2	ENG_EECMode_Sw_NORM[2]	Boolean
649C	2	BYTE x 2	ENG_Start_Selector[2]	0: START 1: NORM
649E	1	BYTE	ENG_Autostart_Sw_ON	Boolean
649F	2	BYTE x 2	ENG_annunALTN[2]	Boolean
64A1	1	BYTE	ENG_annunAutostartOFF	Boolean
FUEL				
64A2	1	BYTE	FUEL_CrossFeedFwd_Sw	Boolean
64A3	1	BYTE	FUEL_CrossFeedAft_Sw	Boolean
64A4	2	BYTE x 2	FUEL_PumpFwd_Sw[2]	Booleans
64A6	2	BYTE x 2	FUEL_PumpAft_Sw[2]	Booleans
64A8	2	BYTE x 2	FUEL_PumpCtr_Sw[2]	Booleans
64AA	2	BYTE x 2	FUEL_JettisonNozle_Sw[2]	Booleans
64AC	1	BYTE	FUEL_JettisonArm_Sw	Boolean
64AD	1	BYTE	FUEL_FuelToRemain_Sw_Pulled	Boolean
64AE	1	BYTE	FUEL_FuelToRemain_Selector	0: DECR 1: Neutral 2: INCR
64AF	1	BYTE	FUEL_annunFwdXFEED_VALVE	Boolean
64B0	1	BYTE	FUEL_annunAftXFEED_VALVE	Boolean
64B1	2	BYTE x 2	FUEL_annunLOWPRESS_Fwd[2]	Boolean
64B3	2	BYTE x 2	FUEL_annunLOWPRESS_Aft[2]	Boolean
64B5	2	BYTE x 2	FUEL_annunLOWPRESS_Ctr[2]	Boolean
64B7	2	BYTE x 2	FUEL_annunJettisonNozleVALVE[2]	Boolean
64B9	1	BYTE	FUEL_annunArmFAULT	Boolean
ANTI-ICE				
64BA	1	BYTE	ICE_WingAntiIceSw	0 OFF, 1 AUTO, 2 ON
64BB	2	BYTE x 2	ICE_EngAntiIceSw[2]	0 OFF, 1 AUTO, 2 ON

AIR CONDITIONING				
64BD	2	BYTE x 2	AIR_Pack_Sw_AUTO[2]	Boolean
64BF	2	BYTE x 2	AIR_TrimAir_Sw_On[2]	Boolean
64C1	2	BYTE x 2	AIR_RecircFan_Sw_On[2]	Boolean
64C3	2	BYTE x 2	AIR_TempSelector[2]	flt deck / cabin 0: C ... 60: W ... 70: MAN (flt deck only)
64C5	1	BYTE	AIR_AirCondReset_Sw_Pushed	Boolean MOMENTARY
64C6	1	BYTE	AIR_EquipCooling_Sw_AUTO	Boolean
64C7	1	BYTE	AIR_Gasper_Sw_On	Boolean
64C8	2	BYTE x 2	AIR_annunPackOFF[2]	Boolean
64CA	2	BYTE x 2	AIR_annunTrimAirFAULT[2]	Boolean
64CC	1	BYTE	AIR_annunEquipCoolingOVRD	Boolean
BLEED AIR				
64CD	2	BYTE x 2	AIR_EngBleedAir_Sw_AUTO[2]	Boolean
64CF	1	BYTE	AIR_APUBleedAir_Sw_AUTO	Boolean
64D0	2	BYTE x 2	AIR_IsolationValve_Sw[2]	Boolean
64D2	1	BYTE	AIR_CtrIsolationValve_Sw	Boolean
64D3	2	BYTE x 2	AIR_annunEngBleedAirOFF[2]	Boolean
64D5	1	BYTE	AIR_annunAPUBleedAirOFF	Boolean
64D6	2	BYTE x 2	AIR_annunIsolationValveCLOSED[2]	Boolean
64D8	1	BYTE	AIR_annunCtrIsolationValveCLOSED	Boolean
PRESSURISATION				
64D9	2	BYTE x 2	AIR_OutflowValve_Sw_AUTO[2]	Boolean
64DB	2	BYTE x 2	AIR_OutflowValveManual_Selector[2]	fwd / aft 0: OPEN 1: Neutral 2: CLOSE
64DD	1	BYTE	AIR_LdgAlt_Sw_Pulled	Boolean
64DE	1	BYTE	AIR_LdgAlt_Selector	0: DECR 1: Neutral 2: INCR
64DF	2	BYTE x 2	AIR_annunOutflowValve_MAN[2]	Boolean

Forward panel

CENTRE				
64E1	1	BYTE	GEAR_Lever	0: UP, 1: DOWN
64E2	1	BYTE	GEAR_LockOvrd_Sw	Boolean
64E3	1	BYTE	GEAR_AltnGear_Sw_DOWN	Boolean
64E4	1	BYTE	GPWS_FlapInhibitSw_OVRD	Boolean
64E5	1	BYTE	GPWS_GearInhibitSw_OVRD	Boolean
64E6	1	BYTE	GPWS_TerrInhibitSw_OVRD	Boolean
64E7	1	BYTE	GPWS_GSInhibit_Sw	Boolean
64E8	1	BYTE	GPWS_annunGND_PROX_top	Boolean
64E9	1	BYTE	GPWS_annunGND_PROX_bottom	Boolean
64EA	1	BYTE	BRAKES_AutobrakeSelector	0: RTO 1: OFF 2: DISARM 3: "1" ... 5: MAX AUTO

STANDBY - ISFD				
64EB	1	BYTE	ISFD_Baro_Sw_Pushed	Boolean, momentary
64EC	1	BYTE	ISFD_RST_Sw_Pushed	Boolean, momentary
64ED	1	BYTE	ISFD_Minus_Sw_Pushed	Boolean, momentary
64EE	1	BYTE	ISFD_Plus_Sw_Pushed	Boolean, momentary
64EF	1	BYTE	ISFD_APP_Sw_Pushed	Boolean, momentary
64F0	1	BYTE	ISFD_HP_IN_Sw_Pushed;	Boolean, momentary
LEFT				
64F1	1	BYTE	ISP_Nav_L_Sw_CDU	Boolean
64F2	1	BYTE	ISP_DsplCtrl_L_Sw_Altn	Boolean
64F3	1	BYTE	ISP_AirDataAtt_L_Sw_Altn	Boolean
64F4	1	BYTE	DSP_InbdDspl_L_Selector	0: ND 1: NAV 2: MFD 3: EICAS
64F5	1	BYTE	EFIS_HdgRef_Sw_Norm	Boolean
64F6	1	BYTE	EFIS_annunHdgRefTRUE	Boolean
64F8	4	DWORD	BRAKES_BrakePressNeedle	0...100 (corresponds to 0...4000 PSI)
64FC	1	BYTE	BRAKES_annunBRAKE_SOURCE	Boolean
RIGHT				
64FD	1	BYTE	ISP_Nav_R_Sw_CDU	Boolean
64FE	1	BYTE	ISP_DsplCtrl_R_Sw_Altn	Boolean
64FF	1	BYTE	ISP_AirDataAtt_R_Sw_Altn	Boolean
6500	1	BYTE	ISP_FMC_Selector	0: LEFT 1: AUTO 2: RIGHT
6501	1	BYTE	DSP_InbdDspl_R_Selector	0: EICAS 1: MFD 2: ND 3: PFD
LEFT & RIGHT SIDEWALLS				
6502	2	BYTE x 2	AIR_ShoulderHeaterKnob[2]	Position 0...150
6504	2	BYTE x 2	AIR_FootHeaterSelector[2]	0 OFF, 1 LOW, 2 HIGH
6506	1	BYTE	LTS_LeftFwdPanelPNLKnob	Position 0...150
6507	1	BYTE	LTS_LeftFwdPanelFLOODKnob	Position 0...150
6508	1	BYTE	LTS_LeftOutbdDsplBRIGHTNESSKnob	Position 0...150
6509	1	BYTE	LTS_LeftInbdDsplBRIGHTNESSKnob	Position 0...150
650A	1	BYTE	LTS_RightFwdPanelPNLKnob	Position 0...150
650B	1	BYTE	LTS_RightFwdPanelFLOODKnob	Position 0...150
650C	1	BYTE	LTS_RightInbdDsplBRIGHTNESSKnob	Position 0...150
650D	1	BYTE	LTS_RightOutbdDsplBRIGHTNESSKnob	Position 0...150
CHRONOMETERS				
650E	2	BYTE x 2	CHR_Chr_Sw_Pushed[2]	Boolean, momentary
6510	2	BYTE x 2	CHR_TimeDate_Sw_Pushed[2]	Boolean, momentary
6512	2	BYTE x 2	CHR_TimeDate_Selector[2]	0: UTC 1: MAN
6514	2	BYTE x 2	CHR_Set_Selector[2]	0: RUN 1: HLDY 2: MM 3: HD
6516	2	BYTE x 2	CHR_ET_Selector[2]	0: RESET (MOMENTARY spring-loaded to HLD) 1: HLD 2: RUN

Glareshield

EFIS SWITCHES				
6518	2	BYTE x 2	EFIS_MinsSelBARO[2]	Boolean
651A	2	BYTE x 2	EFIS_BaroSelHPA[2]	Boolean
651C	2	BYTE x 2	EFIS_VORADFSel1[2]	0 VOR,1 OFF,2 ADF
651E	2	BYTE x 2	EFIS_VORADFSel2[2]	0 VOR,1 OFF,2 ADF
6520	2	BYTE x 2	EFIS_ModeSel[2]	0: APP 1: VOR 2: MAP 3: PLAN
6522	2	BYTE x 2	EFIS_RangeSel[2]	0: 10 ... 6: 640
6524	2	BYTE x 2	EFIS_MinsKnob[2]	0..99
6526	2	BYTE x 2	EFIS_BaroKnob[2]	0..99
6528	2	BYTE x 2	EFIS_MinsRST_Sw_Pushed[2]	Boolean
652A	2	BYTE x 2	EFIS_BaroSTD_Sw_Pushed[2]	Boolean
652C	2	BYTE x 2	EFIS_ModeCTR_Sw_Pushed[2]	Boolean
652E	2	BYTE x 2	EFIS_RangeTFC_Sw_Pushed[2]	Boolean
6530	2	BYTE x 2	EFIS_WXR_Sw_Pushed[2]	Boolean
6532	2	BYTE x 2	EFIS_STA_Sw_Pushed[2]	Boolean
6534	2	BYTE x 2	EFIS_WPT_Sw_Pushed[2]	Boolean
6536	2	BYTE x 2	EFIS_ARPT_Sw_Pushed[2]	Boolean
6538	2	BYTE x 2	EFIS_DATA_Sw_Pushed[2]	Boolean
653A	2	BYTE x 2	EFIS_POS_Sw_Pushed[2]	Boolean
653C	2	BYTE x 2	EFIS_TERR_Sw_Pushed[2]	Boolean
MCP VARIABLES				
6540	4	FLT32	MCP_IASMach	Mach if < 10.0
6544	1	BYTE	MCP_IASBlan	Boolean
6546	2	WORD	MCP_Heading	
6548	2	WORD	MCP_Altitude	
654A	2	Signed short	MCP_VertSpeed	
654C	4	FLT32	MCP_FPA	
6550	1	BYTE	MCP_VertSpeedBlank	Boolean
MCP SWITCHES				
6551	2	BYTE x 2	MCP_FD_Sw_On[2]	Boolean
6553	2	BYTE x 2	MCP_ATArm_Sw_On[2]	Boolean
6555	1	BYTE	MCP_BankLimitSel	0: AUTO 1: 5 2: 10 ... 5: 25
6556	1	BYTE	MCP_AltIncrSel	Boolean false: AUTO true: 1000
6557	1	BYTE	MCP_DisengageBar	Boolean
6558	1	BYTE	MCP_Speed_Dial	0 ... 99
6559	1	BYTE	MCP_Heading_Dial	0 ... 99
655A	1	BYTE	MCP_Altitude_Dial	0 ... 99
655B	1	BYTE	MCP_VS_Wheel	0 ... 99
655C	1	BYTE	MCP_HDGDial_Mode	Boolean 0: Dial shows HDG 1: Dial shows TRK
655D	1	BYTE	MCP_VSDial_Mode	Boolean 0: Dial shows VS, 1: Dial shows FPA

MCP MOMENTARY SWITCHES				
655E	2	BYTE x 2	MCP_AP_Sw_Pushed[2]	Boolean
6560	1	BYTE	MCP_CLB_CON_Sw_Pushed	Boolean
6561	1	BYTE	MCP_AT_Sw_Pushed	Boolean
6562	1	BYTE	MCP_LNAV_Sw_Pushed	Boolean
6563	1	BYTE	MCP_VNAV_Sw_Pushed	Boolean
6564	1	BYTE	MCP_FLCH_Sw_Pushed	Boolean
6565	1	BYTE	MCP_HDG_HOLD_Sw_Pushed	Boolean
6566	1	BYTE	MCP_VS_FPA_Sw_Pushed	Boolean
6567	1	BYTE	MCP_ALT_HOLD_Sw_Pushed	Boolean
6568	1	BYTE	MCP_LOC_Sw_Pushed	Boolean
6569	1	BYTE	MCP_APP_Sw_Pushed	Boolean
656A	1	BYTE	MCP_Speeed_Sw_Pushed	Boolean
656B	1	BYTE	MCP_Heading_Sw_Pushed	Boolean
656C	1	BYTE	MCP_Altitude_Sw_Pushed	Boolean
656D	1	BYTE	MCP_IAS_MACH_Toggle_Sw_Pushed	Boolean
656E	1	BYTE	MCP_HDG_TRK_Toggle_Sw_Pushed	Boolean
656F	1	BYTE	MCP_VS_FPA_Toggle_Sw_Pushed	Boolean
MCP ANNUNCIATORS				
6570	2	BYTE x 2	MCP_annunAP[2]	Boolean
6572	1	BYTE	MCP_annunAT	Boolean
6573	1	BYTE	MCP_annunLNAV	Boolean
6574	1	BYTE	MCP_annunVNAV	Boolean
6575	1	BYTE	MCP_annunFLCH	Boolean
6576	1	BYTE	MCP_annunHDG_HOLD	Boolean
6577	1	BYTE	MCP_annunVS_FPA	Boolean
6578	1	BYTE	MCP_annunALT_HOLD	Boolean
6579	1	BYTE	MCP_annunLOC	Boolean
657A	1	BYTE	MCP_annunAPP	Boolean
DISPLAY SELECT PANEL				
657B	1	BYTE	DSP_L_INBD_Sw	Boolean, momentary
657C	1	BYTE	DSP_R_INBD_Sw	Boolean, momentary
657D	1	BYTE	DSP_LWR_CTR_Sw	Boolean, momentary
657E	1	BYTE	DSP_ENG_Sw	Boolean, momentary
657F	1	BYTE	DSP_STAT_Sw	Boolean, momentary
6580	1	BYTE	DSP_ELEC_Sw	Boolean, momentary
6581	1	BYTE	DSP_HYD_Sw	Boolean, momentary
6582	1	BYTE	DSP_FUEL_Sw	Boolean, momentary
6583	1	BYTE	DSP_AIR_Sw	Boolean, momentary
6584	1	BYTE	DSP_DOOR_Sw	Boolean, momentary
6585	1	BYTE	DSP_GEAR_Sw	Boolean, momentary
6586	1	BYTE	DSP_FCTL_Sw	Boolean, momentary
6587	1	BYTE	DSP_CAM_Sw	Boolean, momentary
6588	1	BYTE	DSP_CHKL_Sw	Boolean, momentary
6589	1	BYTE	DSP_COMM_Sw	Boolean, momentary
658A	1	BYTE	DSP_NAV_Sw	Boolean, momentary
658B	1	BYTE	DSP_CANC_RCL_Sw	Boolean, momentary
658C	1	BYTE	DSP_annunL_INBD	Boolean, momentary
658D	1	BYTE	DSP_annunR_INBD	Boolean, momentary
658E	1	BYTE	DSP_annunLWR_CTR	Boolean, momentary
MASTER WARNING / CAUTION				
658F	2	BYTE x 2	WARN_Reset_Sw_Pushed[2]	Boolean, momentary

6591	2	BYTE x 2	WARN_annunMASTER_WARNING[2]	Boolean
6593	2	BYTE x 2	WARN_annunMASTER_CAUTION[2]	Boolean

Other panels

FORWARD AISLE STAND PANEL				
6595	1	BYTE	ISP_DsplCtrl_C_Sw_Altn	Boolean
6596	1	BYTE	LTS_UpperDsplBRIGHTNESSKnob	Position 0...150
6597	1	BYTE	LTS_LowerDsplBRIGHTNESSKnob	Position 0...150
6598	1	BYTE	EICAS_EventRcd_Sw_Pushed	Boolean, momentary
CDU (left/right/centre)				
6599	3	BYTE x 3	CDU_annunEXEC[3]	Boolean
659C	3	BYTE x 3	CDU_annunDSPY[3]	Boolean
659F	3	BYTE x 3	CDU_annunFAIL[3]	Boolean
65A2	3	BYTE x 3	CDU_annunMSG[3]	Boolean
65A5	3	BYTE x 3	CDU_annunOFST[3]	Boolean
65A8	3	BYTE x 3	CDU_BrtKnob[3]	Boolean
CONTROL STAND				
65AB	1	BYTE	FCTL_AltnFlaps_Sw_ARM	Boolean
65AC	1	BYTE	FCTL_AltnFlaps_Control_Sw	0 RET,1 OFF,2 EXT
65AD	1	BYTE	FCTL_StabCutOutSw_C_NORMAL	Boolean
65AE	1	BYTE	FCTL_StabCutOutSw_R_NORMAL	Boolean
65AF	1	BYTE	FCTL_AltnPitch_Lever	0: NOSE DOWN 1: NEUTRAL 2: NOSE UP
65B0	1	BYTE	FCTL_Speedbrake_Lever	Position 0...100 0: DOWN, 25: ARMED, 26...100: DEPLOYED
65B1	1	BYTE	FCTL_Flaps_Lever	0 UP, 1 1, 2 5, 3 15, 4 20, 5 25, 6 30
65B2	2	BYTE x 2	ENG_FuelControl_Sw_RUN[2]	Boolean
65B4	1	BYTE	BRAKES_ParkingBrakeLeverOn	Boolean
AUDIO CONTROL PANELS				
Comm Systems: 0=VHFL 1=VHFC 2=VHFR 3=FLT 4=CAB 5=PA 6=HFL 7=HFR 8=SAT1 9=SAT2 10=SPKR 11=VOR/ADF 12=APP				
65B5	3	BYTE x 3	COMM_SelectedMic[3]	0=capt, 1=F/O, 2=observer values: 0..9 (VHF..SAT2) as listed above; -1 if no MIC is selected
65B8	3	BYTE x 3	COMM_ReceiverSwitches[3]	0=capt, 1=F/O, 2=observer values: Bit flags for selector receivers 0...12 (VHFL..APP) as listed above
65BB	1	BYTE	COMM_OBSAudio_Selector	0 CAPT 1 NORMAL 2 F/O
RADIO CONTROL PANELS (0=capt, 1=F/O, 2=observer)				
65BC	3	BYTE x 3	COMM_SelectedRadio[3]	0: VHFL 1: VHFC 2: VHFL 3: HFL 5: HFR (4 not used)

65BF	3	BYTE x 3	COMM_RadioTransfer_Sw_Pushed[3]	Boolean, Momentary
65C2	3	BYTE x 3	COMM_RadioPanelOff[3]	Boolean
65C5	3	BYTE x 3	COMM_annunAM[3]	Boolean
TCAS PANEL				
65C8	1	BYTE	XPDR_XpndrSelector_R	true: R, false: L
65C9	1	BYTE	XPDR_AltSourceSel_ALTN	true: ALTN false: NORM
65CA	1	BYTE	XPDR_ModeSel	0 STBY 1 ALT RPTG OFF 2 XPNDR 3 TA ONLY 4 TA/RA
65CB	1	BYTE	XPDR_Ident_Sw_Pushed	Boolean, Momentary
ENGINE FIRE				
65CC	2	BYTE x 2	FIRE_EngineHandle[2]	0: IN (NORMAL) 1: PULLED OUT 2: TURNED LEFT 3: TURNED RIGHT (2 & 3 are momenentary)
65CE	2	BYTE x 2	FIRE_EngineHandleUnlock_Sw[2]	Boolean, Momentary
65D0	2	BYTE x 2	FIRE_annunENG_BTL_DISCH[2]	Boolean
AILERON & RUDDER TRIM				
65D2	1	BYTE	FCTL_AileronTrim_Switches	0: LEFT WING DOWN 1: NEUTRAL 2: RIGHT WING DOWN (both switches move together)
65D3	1	BYTE	FCTL_RudderTrim_Knob	0: NOSE LEFT 1: NEUTRAL 2: NOSE RIGHT
65D4	1	BYTE	FCTL_RudderTrimCancel_Sw_Pushed	Boolean, Momentary
EVACUATION PANEL				
65D5	1	BYTE	EVAC_Command_Sw_ON	Boolean
65D6	1	BYTE	EVAC_PressToTest_Sw_Pressed	Boolean
65D7	1	BYTE	EVAC_HornSutOff_Sw_Pulled	Boolean
65D8	1	BYTE	EVAC_LightIlluminated	Boolean
AILSE STAND PNL/FLOOD & FLOOR LIGHTS				
65D9	1	BYTE	LTS_AisleStandPNLKnob	
65DA	1	BYTE	LTS_AisleStandFLOODKnob	
65DB	1	BYTE	LTS_FloorLightsSw	
DOOR STATES Possible values are, 0: open, 1: closed, 2: closed and armed, 3: closing, 4: opening				
65DC	16	BYTE	DOOR_state[16]	0: Entry 1L, 1: Entry 1R, 2: Entry 2L, 3: Entry 2R, 4: Entry 3L, 5: Entry 3R, 6: Entry 4L, 7: Entry 4R, 8: Entry 5L, 9: Entry 5R, 10: Cargo Fwd, 11: Cargo Aft, 12: Cargo Main, 13: Cargo Bulk, 14: Avionics Access, 15: EE Access
65EC			End of first area	

Second area: Additional Variables

6C00	2	BYTE x 2	ENG_StartValve[2]	Boolean, true if open
6C04	8	FLT32 x 2	AIR_DuctPress[2]	PSI
6C0C	4	FLT32	FUEL_QtyCenter	LBS
6C10	4	FLT32	FUEL_QtyLeft	LBS
6C14	4	FLT32	FUEL_QtyRight	LBS
6C18	4	FLT32	FUEL_QtyAux	LBS
6C1C	1	BYTE	IRS_aligned	Boolean, at least one IRS
6C1D	1	BYTE	AircraftModel	1: -200 2: -200ER 3: -300 4: -200LR 5: 777F 6: -300ER
6C1E	1	BYTE	WeightInKg	True KG, False LBS
6C1F	1	BYTE	GPWS_V1CallEnabled	Boolean
6C20	1	BYTE	GroundConnAvailable	Boolean
6C21	1	BYTE	FMC_TakeoffFlaps	degrees, 0 if not set
6C22	1	BYTE	FMC_V1	knots, 0 if not set
6C23	1	BYTE	FMC_VR	knots, 0 if not set
6C24	1	BYTE	FMC_V2	knots, 0 if not set
6C25	1	BYTE	FMC_LandingFlaps	degrees, 0 if not set
6C26	1	BYTE	FMC_LandingVREF	knots, 0 if not set
6C28	2	WORD	FMC_CruiseAlt	ft, 0 if not set
6C2A	2	signed short	FMC_LandingAltitude	ft, -32767 if not set
6C2C	2	WORD	FMC_TransitionAlt	Ft
6C2E	2	WORD	FMC_TransitionLevel	ft
6C30	1	BYTE	FMC_PerfInputComplete	Boolean
6C34	4	FLT32	FMC_DistanceToTOD	nm 0.0 if passed, negative if n/a
6C38	4	FLT32	FMC_DistanceToDest	nm negative if n/a
6C3C	9	STR[9]	FMC_flightNumber[9]	
6C45	168	BYTE x 168	Reserved (for expansion?)	
6CED			Last byte of second reserved area for PMDG 777X	