project magenta

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Please send an e-mail (support@projectmagenta.com) with your unanswered questions or any hints you think may be useful to others. Thank you.

These offsets are **FSUIPC offsets** for communication with MSFS 98/2000, 2002, 2004, 2022, FSX, ESP and Prepar3D as well as X-Plane with XPUIPC. You will find the **FSUIPC SDK** on www.schiratti.com/dowson.html
They are all 2 bytes long, unless otherwise stated.

- To check whether the A/T is disconnected, use 0x310A bit 3 (as per FSUIPC documentation)
- To interface to the MCP or FCU, ideally use the button commands as described in 0x4F2, not the bit toggles.
- Changelog (starting August 2011) at the end of the file

0x (hex) Addresses

Project Magenta Lower Offsets 0x4E0 - 0x537

Offset	Size	Use
04E0	2	MCP/FCU IAS (Read Only) 250 = 250 Knots IAS (1:1)
04E2	2	MCP/FCU Heading (Read Only)
04E4	2	MCP/FCU Altitude (Read Only) (100 of feet, i.e. 3000 ft = 30, 31000 ft = 310)
04E6	2	MCP/FCU Selected Vertical Speed (Read Only) FCU - FPA in 100s, i.e. 0.9 = 90, -1.4 = -140
04E8	2	MCP/FCU Mach (Read Only) (70 = 0.7 Mach) Please see offset 0x5406 for "Write" addresses
04EA	2	CDU Thrust N1 (Read Only) (Project Magenta Internal)
04EC	2	MCP/FCU Thrust N1 (Read Only) (Project Magenta Internal)
04EE	2	MCP/FCU Thrust Mode (Read Only) (Project Magenta Internal)
04F0	2	MCP/FCU Lights (Read Only) **Boeing-Type MCP** Bit Light 0 A/P Master L (1) 1 A/P Master C (2) 2 VS

		3 ALT HLD 4 APP 5 LOC 6 LNAV 7 HDG 8 FLCH 9 SPD 10 THR 11 A/T 12 F/D 13 A/P Master R 14 VNAV 15 Mach **Airbus -Type FCU** Bit Light 0 AP 1 1 AP 2 2 VS 3 ALT HLD 4 APP 5 LOC 6 Managed Heading (LNAV/LAT) 7 HDG 8 LVL CH 9 SPD 10 THR 11 AT 12 FD 13 Managed Speed (VNAV) 14 Managed Altitude (VNAV) 15 Mach
04F2	2	MCP/FCU Throughpass (See MCPcodes at the end) (Read/Write) Example: Write Value 33 to engage AP2 (K033 ELAN Code). Once read, the MCP resets the value to 0 and is ready for another read. Only last three digits are used, you can use the thousands to indicate the key has been pressed again (state change), i.e. 4033 and 7033 do the same Use 121 for TOGA (without N1) DisableRemoteMCP must be set to OFF in the INI file for this to work.
04F4	2	Glass Cockpit ND Modes (Write Only) (*was* Read as well) **Sending 100+(value) controls First Officer Display** (e.g. 170 enables weather on Copilot ND) Only last three digits are used, you can use the thousands to indicate the key has been pressed again (state change), i.e. 2150 and 5150 do the same Please note, these commands go directly to the Glass Cockpit, if you do not want the MCP or FCU to override them, then please use the MCP commands in 0x4F2 or 0x5520. **(Values, not bits!)** **Airbus** **1 MAP (Captain Side, 101 F/O side)** **2 NAV (Captain Side, 102 F/O side)** **3 VOR (Captain Side, 103 F/O side)** **4 PLAN (Captain Side, 104 F/O side)** **5 ILS Mode**

		Boeing **'Classic Modes'** **1 MAP ARC** **2 MAP CTR** **3 VOR** **4 MAP PLAN** **New ND Modes (!)** **1 MAP** **3 VOR** **4 PLN** **5 APP** **6 CTR Pushbutton** **7 Force display to 8 Modes (APP/VOR/MAP/PLN)** **8 Show Controls in EICAS/ECAM** **9 Hide Controls in EICAS/ECAM** **10 PFD/ND -> PFD -> ND (like pressing F4,F1,F2 in GC)** **11 PFD/EICAS** **12 EICAS with Standby** **13 EICAS without Standby** **14 FPV (Boeing)** **15 Standby Displays OFF** **16 Sets EICAS on ND in F4 and F5 pages** **17 VSD (vertical profile) On** **18 VSD Off** **19 Toggle Controls in EICAS/ECAM** **20 Incr Engine Page** **21 Decr Engine Page** **22 Toggle No Smoking** **23 Toggle Seatbelts** **24 Toggle Overview Page** **25 Toggle RMI/HSI display in Boeing-Type ND MAP ARC** **26 Metric Toggle** **28/29 ND Mode INC/DEC for Airbus** **30 Engine Page (Primary) 0** **31 Engine Page 1** **32 Engine Page 2** **..** **39 Engine Page 9 (if defined)** **40 Range 5 NM** (added Aug 27 '03) **41 Range 10 NM** **42 Range 20 NM** **43 Range 40 NM** **44 Range 80 NM** **45 Range 160 NM** **46 Range 320 NM** **47 Range 640 NM** **48 Range DEC** **49 Range INC** **50 TCAS Off** **51 TCAS Alt** **52 TCAS Callsign** **53 TCAS All** **54 Toggle TCAS Off/Alt** **55 Show MCP Values in EICAS (Boeing) (Special PFC Display)** **56 Hide MCP Values in EICAS (Boeing) (Special PFC Display)**

		57 PLAN mode next waypoint **58 PLAN mode previous waypoint** **60 Show Overview Page in ND** **61 Hide Overview Page in ND** **62 Set/Reset Timer (AB Glass Cockpit ND Chronometer)** **63 Set/Reset Timer (AB Glass Cockpit Main Timer)** **Boeing** **Captain** **62 INHG** **63 HPA** **64 DH** **65 MDA** **F/O** **162 INHG** **163 HPA** **164 DH** **165 MDA** **70 Show WXR** **71 Hide WXR** **72 Toggle WXR** **73 VORADFL OFF** **74 ADFL ON** **75 VORL ON** **76 VORADFR OFF** **77 ADFR ON** **78 VORR ON** **80 Terrain Display On** **81 Terrain Display Off** **82 Toggle Terrain Display** **83 TOPO Map On** **84 TOPO Map Off** **85 SVT Mode (Off, Opaque, See-through)** **86 SVT Off** **(Terrain is EGPWS only since October 2026: the old type, colour, size and 3D modes are gone)** **90 STA** **91 VOR** **92 NDB** **93 WPT** **94 ARPT** **95 DATA** **96 POS** **321 Decrease Synoptic/System Display Page** **322 Increase Synoptic/System Display Page** (Airbus) Secondary EICAS pages and functions AB **301 ENG** **302 BLEED** **303 PRESS** **304 ELEC (A330/340 EL/AC)** **305 HYD** **306 FUEL** **307 APU** **308 COND**

		309 DOOR **310 WHEEL** **311 F/CTL** 313 ALL 314 CLR **315 STS** 316 RCL 317 CLR **318 EL/DC (A330/340)** **319 C/B (A330/340)** **333 Captain ND shows ECAM** **334 F/O ND shows ECAM** **Boeing 737** 331 - 336 Upper Engine page direct selection 340 Increment Upper Engine page by 1 341 ENG Key Lower EICAS (N2/Blank) 342 SYS Key Lower EICAS (SYS/Blank) **Boeing 737 Transponder Mode** 350 OFF/STBY 351 ALT RPTG 352 XPDR 353 TA ONLY 354 TA/RA **360/1/2 StbyRMI1 VOR ADF OFF** **363/4/5 StbyRMI2 VOR ADF OFF** **390/1 ADFANT1 Off/On** **392/3 ADFANT2 Off/On** **395 Standby QNH STD (ISIS)** **380/1 WXR/Radar Test On/Off** **382/3 NAV1 Test On/Off** **384/5 NAV2 Test On/Off** **408 T.O CONFIG** **410 STS** (Boeing) Secondary EICAS pages and functions 747 301 ENG 302 STAT 303 ELEC 304 FUEL 305 ECS 306 HYD 307 DRS 308 GEAR **318 CANC** **319 RCL** (Boeing) Secondary EICAS pages and functions 777 301 ENG 302 STAT 303 ELEC 304 HYD

		305 FUEL 306 AIR 307 DOORS 308 GEAR 309 FCTL **318 CANC** **319 RCL** (Boeing) 401 Caution On (see 0x4FE) 402 Caution Reset 411 Show FuelUsed Toggle 412 ShowFuelUsed On 413 ShowFuelUsed Of 414 Reset FuelUsed = 0 (Both) 421 Toggle No Smoking 422 No Smoking On 423 No Smoking Off 424 Toggle Seatbelts 425 Seatbelts On 426 Seatbelts OfF **Airbus Page Switch** 601 Captain PFD/ND normal 602 Captain PFD/ND switched 621 Copilot PFD/ND normal 622 Copilot PFD/ND switched **Airbus TCAS Modes** 611 Below 612 TCAS ALL 613 Above 641 TCAS Range 5 NM 642 10 NM 643 20 NM 644 40 NM 651 TCAS Mode TEST 652 STBY 653 XPDR 654 TA ONLY 655 TA/RA **Main Boeing-Type Display Unit Captain** Captain Main DU 600 + switch position from 0 Copilot Main DU 610 + switch position from 0 Captain Engine DU 620 + switch position from 0 Copilot Engine DU 630 + switch position from 0 Works on F6 page Expanded 21000 + Tilt / 2 22000 + Gain / 2 20001 Wx+TERR 20002 WXR 20003 WXR (VAR) 20004 MAP 20005 TEST

		Reset to 0 by the Glass Cockpit (this can be *any* glass cockpit in the network), latest within 500 ms
04F6	2	Navaids and modes active in MAP... Captain Mode (please note, the MCP may overwrite these values) see offset 5526 for the first officer (Read Only, as the value is written by the MCP/FCU whenever the EFIS selector is clicked on) Bit 0 VOR 1 NDB 2 ARP 3 WPT 4 Plan Data boeing - CSTR for airbus 5 VOR1 needle Active 6 VOR2 needle Active **10 Airbus LS Mode Active** **11 Airbus TRK/FPA Active** **12 Airbus EXPED Active** 14 Airbus EXPED Active (old offset, for FS panel compatibility)
04F8	2	ND Map Range / Scale 0 = 5 1 = 10, 2 = 20, 3 = 40 ... (Read/Write) Captain Side See 0x5524 for Copilot
04FA	2	Captain Decision Height (10s of feet, 200 ft = 20, 1050 ft = 105, negative value is MDA) (Read/Write)
04FC	2	Selected Waypoint in PLAN Mode (CDU Writes) (Project Magenta Internal)
04FE	2	PFD Various (Read Only) Bit 0 Windshear 1 Below G/S 2 Caution 3 Warning 4 Stab Out Of Trim (Boeing only and TrimMax/TrimMin have to be set) **6 Eight Mode ND Active** 7 Seatbelt Sign 8 No Smoking Sign 9 **Weather Radar (Captain)** 10 **EGPWS/Terrain (Captain)** 11 **TCAS Active (Captain)** 13 TCAS WARNING 14 TCAS ALERT
0500	2	AP Mode 1 (MCP/FCU active, F/D, TO/GA, FCU Gate selection) (Read Only) Non-Zero (dec 10000) FCU/MCP active, reset to 0 on program exit. For Boeing, divide by 10 with no rest **MCP** Bit 0 Mach Active 1 Captain F/D 2 F/O F/D 3 PM Autopilot Active (always on with X-Plane) 4 CWS Roll 5 CWS Pitch 6 Stab Disconnect Manual 7 FD Light Left

		8 FD Light Right 9 CWS A 10 CWSB non-zero if MCP is active **FCU** Flags (third digit from the right) **REMOVED, please see 0x5528** Flags (second digit from the right) Bit 0 Mach Active 1 Captain F/D 2 F/O F/D Selected Throttle Gate (rightmost digit) 0 TOGA 1 FLX 2 CLB 3 IDLE 4 REV IDLE 5 MAX REV E.g. F/D and TOGA and CLB would be 10032 decimal
0502	2	AP Mode 2 (Annunciator Standby Values) (Read Only) Hex Value of anunciator Channels, 15 values possible per channel, encoded as follows: Thrust Channel Standby Mode (Speed modes) Vertical Channel Standby Mode (ALT etc.) Horizontal Channel Standby Mode (HDG etc.) 0xThr * 0X100 + 0xVer * 0x10 + 0xHor For a list of the anunciator values, please go to http://www.schiratti.com/docs/AircraftType.html, as the meaning varies according to the type file. This is also the case for AP Mode 3. This value is just an anunciation, i.e. it doesn't set any mode!
0504	2	AP Mode 3 (Annunciator Values) (Read Only) Autopilots Active (Bits 0 = none or any combination of 1, 2, 3 (bit 3), i.e. value 5 would be A/P 1 and 3 active) Thrust Channel (Speed modes) Vertical Channel (ALT etc.) Horizontal Channel (HDG etc.) 0xAuto * 0x1000 + 0xThr * 0X100 + 0xVer * 0x10 + 0xHor This value is just an anunciation, i.e. it doesn't set any mode!
0506	2	Engine Warning Modes Engine 1/2 (Read/Write)
0508	2	(Engine N/Engine N + 1) Bit 0/8 - Start Valve Open Bit 1/9 - Oil Filter Bypass Bit 2/10 - Low Oil Pressure (set by Glass Cockpit if minimum Oil Pressure Value is defined in the Aircraft.TXT file)
050A	2	MCP Commands (Read/Write) (commands to the MCP) Bit 0 (TO/GA switch)

		Bit 1 (A/P disconnect) Bit 2 (A/T disconnect) Boeing Type Bit 3 (MCP Instruction - Do not write throttle value to FS offset) (check 0x5528 bit 8 [i.e. 5529 bit 0] to see if it is active) Bit 4 (A/T Detach for moving autothrottles, as an override of the MCP writing to the FS throttle offset) Bit3 and Bit 4 do the same (from V414 on) The above are bit toggles, i.e. the value changing from off to on switch the mode. **Output Bypass, writes to 5840 etc...** **Bit 5 Elevator** **Bit 6 Elevator Trim** **Bit 7 Aileron** **Bit 8 Throttle** The above are bit sets, i.e. has to be 1 to deactivate control Bit 13 Stab Trim Override
050C	2	PM AP Parameter Handling [internal]
050E	2	WideFS in compatibility mode = 1
0510	2	Electrical Systems Inop Bit 0 All Bit 1 Capt PFD Bit 2 Capt ND Bit 3 Upper EICAS/ECAM Bit 4 Lower EICAS/ECAM Bit 5 F/O PFD Bit 6 F/O ND Bit 7 Reserved Bit 8 Standby Bit 9 CDU/MCDU Bit 10 RCDU/RMCDU (rmcdu needs to be updated by me) Bit 11 MCP/FCU (*hardware only) = 1 (Glass Cockpit Reads, switches off when bit is 1)
0512	2	CDU "Load Type Data" Switch (Project Magenta Internal) (read only)
0514	2	CDU "Load Flight Plan Info" Switch (Project Magenta Internal)
0516	2	CDU Climb N1 (Project Magenta Internal)
0518	2	CDU TO N1 (Project Magenta Internal)
051A	2	CDU Set Value (Project Magenta Internal)
051C	2	MCP Indications (Read Only) Bit 0 Blank V/S Bit 1 Blank SPD Bit 2 TOGA *mode* Active Bit 3 QNH set to HPA Bit 4 Metric Display

		Bit 5, 6 VOR/ADF/OFF Left 00 - undefined (default), 10 - OFF, 01 - ADF, 11 - VOR Bit 7, 8 VOR/ADF/OFF Right 00 - undefined (default), 10 - OFF, 01 - ADF, 11 - VOR Bit 9 MAP CTR active, AB TRK/FPA Bit 10 (Boeing TOGA Mode, added 20 knts) (Airbus LS Switch Captain) Bit 11 Alt Acquire Mode Bit 12 **AB SPD Managed Mode** Bit 13 MCP is Minimized Bit 14 GA Mode (MCP)
051E	2	GC ND Selected Mode (Read Only - For FS Panels) **Boeing** Captain Bit 0 APP Bit 1 NAV Bit 2 MAP Bit 3 PLAN Bit 4 CTR **First Officer** Bit 8 APP Bit 9 NAV Bit 10 MAP Bit 11 PLAN Bit 12 CTR 51E .0 CaptainTerrainOn 51D .0 CopilotTerrainOn
0520	2	CDU Speed (Project Magenta Internal)
0522	2	CDU Altitude (Project Magenta Internal)
0524	2	CDU VertSpeed (Project Magenta Internal)
0526	2	CDU Mode (Project Magenta Internal)
0528	2	CDU Mach (Project Magenta Internal)
052A	2	CDU Heading (Project Magenta Internal)
052C	2	CDU Lights (Read Only) Bit 0 (EXEC) Bit 1 (MSG) Bit 2 (FAIL) Bit 3 (OFST) Bit 4 **Autotune active** Bit 5 Next Waypoint Bit 6 Climb Bit 7 Cruise Bit 8 Descent Bit 9 TOD in 50 Miles Bit 10 TOD Bit 11 TOD less than 50 Miles Bit 12 BCDU is minimized Bit 12 AB Approach Phase Bit 14 AB Position Init Completed ATT/MAP off - **ALIGN IRS set in MCDU**
052E	2	CDU Path Data (Project Magenta Internal)
0530	2	Altitude Request (Weather, CDU Writes) (Project Magenta Internal)
0532	2	Request Complete (non-zero) (Weather, CDU Reads) (Project Magenta Internal)

0534	2	Wind Direction (degrees true) (Weather, CDU Reads) (Project Magenta Internal)
0536	2	Wind Speed (Knots) (Weather, CDU Reads) (Project Magenta Internal)

HCSDT Offsets: 0x48F0- (all read-only)

Offset	Size	Use
48F0	1	Elect Off Glass Cockpit
48F1	1	Elect Off MCDU
48F2	1	**Airbus** Thrust Gate Value (0=Control Off, 1=MREV, 2=Rev Idle, 3=Idle, 4=CLB, 5=THR MCT, 6 = TOGA) Value 10 Disables Current Setting, forces setting via Trust Lever 2 Value 11 Disables Current Setting, forces setting via Trust Lever 4 (the Values 10 and 11 can be used to switch back and forth to MREV and REV IDLE while using the lever position for the other settings) **Boeing** Bits 0 APRst 1 ATRst 2 FMCFail 3 APFault 4 ATFault
48F3	1	Var. Bits (Alpha Floor Bit 1) MAN PITCH TRIM ONLY (bit 2) USE MAN PITCH TRIM (bit 3) TOGA LOCK (bit 4) Disable AB Controls (bit 5) Disable Gate Setting (bit 6)
48F4	2	ZFW + Block in 100s LBS (* 0.4536 for KG) (x 100)
48F6	2	FLEX temp set in MCDU
48F8	2	Takeoff Flap setting (1=1, 2=1+F, 3 = 2, 4 = 3)
48FA	2	MCDU Runway Altitude
48FC	2	pmFBW Flags 48FC 1 Bit 0 FBW running Bit 1 FBW enabled (does not mean active) Bit 2 Pitch PriorityMode enabled (does not mean active) Bit 3 FBW Active 48FD 1 Bit 0 Disable FBW Bit 1 Enable FBW Bit 2 Disable Pitch Priority Bit 3 Enable Pitch Priority Bit 4 Alternate Law Bit 5 Direct Law If you disable and want to enable, then you have to set bit 0 back to 0, then bit 1 to 1 and back to 0 to give control back to FBW

Project Magenta Upper offsets: 0x5400-0x55FF

Offset	Size	Use
5400	2	Glass Cockpit Build Number (Read Only)
5402	2	MCP/FCU Build Number (Read Only)
5404	2	CDU/MCDU Build Number (Read Only)
5406	2	MCP/FCU IAS Set (Write)
5408	2	MCP/FCU Heading Set (Write)
540A	2	MCP/FCU Altitude Set (Write)
540C	2	MCP/FCU V/S Set (Write) FCU - FPA in 100s, i.e. 0.9 = 90, -1.4 = -140
540E	2	MCP/FCU Mach Set (Write) (72 = 0.72 mach) (MCP Build 307+: These values can be written to the MCP, but the MCP has the last word whether they are used, depending on the active modes, use offset 0x4E0 etc. to read the actual values)
5410	4	**Important Note: It is preferable if offsets 0x5410 to 0x5424 are not used anymore, please use the MCP throughpass (0x4F2 instead) as well as the offsets 0x5406 to 0x540E.** MCP/FCU Buttons B00-31 (Read/Write) ---- Bit0-Bit9 (free, ideally kept free) SPDP Bit10 (SPD pushbutton 747 MCP) HDGP Bit11 (heading SEL pushbutton 747 MCP) ALTP Bit12 (ALT pushbutton 747 MCP) ---- B13-16 (free) F/D Copilot On B17 F/D Copilot Off B18 ATON Bit19 (switch on) ATFF Bit20 (switch off) THR Bit21 SPD Bit22 MACH Bit23 (spd/mach toggle... C/O, SEL) FLCH Bit24 HDG Bit25 VNAV Bit26 LNAV Bit27 LOC Bit28 APP Bit29 ALT Bit30 (ALT HOLD!) VS Bit31 For external programs, toggled. **Important Note:** Toggled means that the BIT CHANGE sets the mode, not just setting it to one, setting the bit back to 0 changes the state! DisableRemoteMCP must be set to OFF in the INI file for this to work.
5414	4	MCP/FCU Buttons B32-63 (Read/Write) AP1 Bit0 AP2 Bit1 ---- Bit2-Bit3 (free) AP3 Bit4 FDON Bit5 (switch on) Captain FDFF Bit6 (switch off) Captain

		---- Bit7 (free) APDI Bit8 (AP Disengage - not used in 747-400 and 777MCP) <--- 737 APEN Bit9 (AP Engage - not used in 747-400 and 777 MCP) <--- 737 APOF Bit10 (AP Disconnect, discreet OFF for 747-400 and 777 MCP) VS Bit11 (same as Bit31 previous offset) --- Bit12-Bit15 (free) ALS Bit16 (AB LS Button First Officer) ALS Bit17 (AB LS Button Captain) ASTI Bit18 (AB STD/QNH push) ASTO Bit19 (AB STD/QNH pull -> STD BARO 29.92 in) ASPI Bit20 (AB Speed Button push - managed speed mode) ASPO Bit21 (AB Speed Button pull) AHDI Bit22 (AB Heading Button push - managed heading mode) AHDO Bit23 (AB Heading Button pull) AALI Bit24 (AB Altitude Button push - managed altitude mode) AALO Bit25 (AB Altitude Button pull) AVSI Bit26 (AB VS Button push - managed altitude mode) AVSO Bit27 (AB VS Button pull) AEXP Bit28 (AB EXPED Button) ATFP Bit29 (AB TRKFPA Button) ---- B31 (free) For external programs, toggled. **Important Note:** Toggled means that the BIT CHANGE sets the mode, not just setting it to one, setting the bit back to 0 changes the state!
5418	4	MCP/FCU Knobs/Selectors S00-31 (Read/Write) DH- Bit0 (10) DH+ Bit1 (10) HDG- Bit2 (1) HDG+ Bit3 (1) HDG- Bit4 (10) HDG+ Bit5 (10) ALT- Bit6 (100) ALT+ Bit7 (100) ALT- Bit8 (1000) ALT+ Bit9 (1000) SPD- Bit10 (1) (mach .01) SPD+ Bit11 (1) (mach .01) SPD- Bit12 (10) (mach .01) SPD+ Bit13 (10) (mach .01) VS- Bit14 (100) VS+ Bit15 (100) CRS- Bit16 (1) CRS+ Bit17 (1) QNH- Bit18 (0.01/1 depending on mode) QNH+ Bit19 (0.01/1 depending on mode) CRNG- Bit20 (Captain ND range -) CRNG+ Bit21 (Captain ND range +) CNDM- Bit22 (Captain ND mode -) CNDM- Bit23 (Captain ND mode +) *FRNG- Bit24 (F/O ND range -)* *FRNG+ Bit25 (F/O ND range +)* *FNDM- Bit26 (F/O ND mode -)* *FNDM- Bit27 (F/O ND mode +)* For external programs, set to one, when it applies, reset to 0 by the MCP. DisableRemoteMCP must be set to OFF in the INI file for this to work.
541C	4	MCP/FCU Knobs/Selectors S32-63 (Captain ND Modes) (Read/Write)

		ILS Bit0 (reserved for Airbus ILS mode) **Boeing** New ND modes CTR Bit0 (Captain Side ND controls) (also forces new controls) APP Bit1 VOR Bit2 MAP Bit3 PLN Bit4 **541C** Old ND Modes MAP ARC Bit1 (Captain Side ND controls) MAP CTR Bit2 ROSE Bit3 MAP PLAN Bit4 R10 Bit5 R20 Bit6 R40 Bit7 **541D** R80 Bit8 R160 Bit9 R320 Bit10 R640 Bit11 VOR Bit12 NDB Bit13 WPT Bit14 ARPT Bit15 **541E** DATA Bit16 POS Bit17 VOR1on Bit18 ADF1on Bit19 VORADF1off Bit20 VOR2on Bit21 ADF2on Bit22 VORADF2off Bit23 **541F** METRIC Bit24 HDGVS/TRKFPA Bit25 **Airbus** **THR TOGA Bit 26** **THR FLX/MCT Bit 27** **THR CLB Bit 28** **THR IDLE Bit 29** **THR REV IDLE Bit 30 (THR MAX REV if the current status id THR IDLE REV)** ***THR MAX REV Bit 31*** For external programs, toggled. **Important Note:** Toggled means that the BIT CHANGE sets the mode, not just setting it to one, setting the bit back to 0 changes the state! DisableRemoteMCP must be set to OFF in the INI file for this to work.
5420	4	MCP/FCU Knobs/Selectors S64-96 (First Officer ND Modes) (Read/Write) **ILS Bit0 (reserved for Airbus ILS mode)** MAP ARC Bit1 (Captain Side ND controls) MAP CTR Bit2 VOR Bit3

		MAP PLAN Bit4 R10 Bit5 R20 Bit6 R40 Bit7 R80 Bit8 R160 Bit9 R320 Bit10 R640 Bit11 VOR Bit12 NDB Bit13 WPT Bit14 ARPT Bit15 DATA Bit16 POS Bit17 VOR1on Bit18 ADF1on Bit19 VORADF1off Bit20 VOR2on Bit21 ADF2on Bit22 VORADF2off Bit23 METRIC Bit24 For external programs, toggled. DisableRemoteMCP must be set to OFF in the INI file for this to work.
5424	4	Glass Cockpit Selectors (Read/Write) Bit 0 Show Controls on engine page 1 Show Standby Gauge on engine page 2 Engine Page Decrement 3 Engine Page Increment 4 Synoptic Page Decrement 5 Synoptic Page Increment 6 PLAN mode selected waypoint Decrement 7 PLAN mode selected waypoint Increment ... For external programs, set to one, when it applies, reset to 0 by the Glass Cockpit.
5428	2	CDU "Keyboard Interface" (2 bytes) low byte, ascii character high byte shift = Bit0, Ctrl = Bit1, Alt = Bit2 ... other bits must change if you have two same characters after the other... . (period) = 190 / (slash) = 191 + (plus) = 107 DELETE = 46 CLR = 8 The space key is not supported for the time being This can be used to write characters to the scratchpad of the CDU and to manipulate the LSK and function keys - FX keys from Ascii 112+(X-1) Special ASCII 220 - automatic navaid selection/ autotune (no high byte = enable, shift = disable, ctrl = toggle) (open to suggestions) **RCDU Extension:** Setting bit 6 of the high byte, using the same rules as above, you can send

		keyboard commands to the RCDU. E.g. Sending "A" to the CDU is value 65, to the RCDU it is (256 * 2^6) + 65 = 256 * 64 + 65 = 16449 (this command will then of course be ignored by the CDU) *Updated 14-12-2006*
542A	2	Glass Cockpit and General Aviation IFR "Keyboard Interface" (2 bytes) low byte, ascii character high byte shift = Bit0, Ctrl = Bit1, Alt = Bit2 ... other bits must change if you have two same characters after the other... high byte target GC All = no further bit set, Captain Bit 4, Copilot Bit 5, EICAS/ECAM Bit 6 (F3 Page) This can be used to write characters to the scratchpad of the CDU and to manipulate the LSK and function keys - FX keys from Ascii 112+(X-1)
542C	2	QuickMap "Keyboard Interface" (2 bytes) low byte, ascii character high byte shift = Bit0, Ctrl = Bit1, Alt = Bit2 ... other bits must change if you have two same characters after the other... This can be used to write characters to the scratchpad of the CDU and to manipulate the LSK and function keys - FX keys from Ascii 112+(X-1)
542E	2	WhazzUp "Keyboard Interface" (2 bytes) low byte, ascii character high byte shift = Bit0, Ctrl = Bit1, Alt = Bit2 ... other bits must change if you have two same characters after the other... This can be used to write characters to the scratchpad of the CDU and to manipulate the LSK and function keys - FX keys from Ascii 112+(X-1)
5430	2	**CDU Remote (PM Internal about 64 bytes)** 5430 RemoteLoadPage 5432 RemoteCommand 5434 RemotePageSet (8 bytes) 543D RemotePageActive (8 bytes) 5446 RemoteScratchPad (24 bytes) - 545F 5460 Empty
5460	24	Lat/Lon/Info Type (to be written in intervals > 1 second) Read/Write 3 x 8 bytes
5478	2	Free (Check)
547A	6	Selex Offset DWORD+WORD (4+2) DWORD Info WORD Value
5480	16	Flow Command (Internal)
5490	4	**Airbus Separate Gates (Please Use This)** 5490 Gate Engine 1 5491 Gate Engine 2 Thrust Gate Value (0=Control Off, 1=MREV, 2=Rev Idle, 3=Idle, 4=CLB, 5=THR MCT, 6 = TOGA) Value 10 Disables Current Setting, forces setting via Trust Lever 2 Value 11 Disables Current Setting, forces setting via Trust Lever 4 (the Values 10 and 11 can be used to switch back and forth to MREV and REV IDLE while using the

		lever position for the other settings)
5494	12	VOR SIM Offsets Frq Crs Alt Defl From/To
54A0	32	pmSystems Message handling (bits) –54BF
54F8	2	Last PFC Hardware Button Pressed
5500	2	**PFC.DLL Version**
5508	2	**737 Speed Reference Dial s V1 (5509 Selector AUTO=0 V1=1 VR=2 WT=3 VREF=4 ???=5 SET=6) 5508 (Value)**
550A	2	**737 N1 Reference Selector (Selector AUTO=0 1=1 2=2 3=Both)**
550C	2	**737 N1 Reference Value * 10**
550E	2	**CDU Set Transition Alt**
5510	2	PM Speeds V1 (set by CDU/MCDU) (Read Only)
5512	2	Vr (set by CDU/MCDU) (Read Only)
5514	2	V2 (set by CDU/MCDU) (Read Only)
5516	2	Vref (set by CDU/MCDU) (Read Only)
5518	2	GreenDot Speed (Airbus-Type, source ABGC)
551A	2	CDU Timer (time value of CDU/MCDU)
551C	2	Min Speed
551E	2	Max Speed
5520	2	VORL/VORL Modes L+R 2 bytes (Write)
5522	2	VORL/VORL Modes L+R 2 bytes (Write) Copilot
5524	2	Map Range / Scale Copilot 0 = 5 1 = 10, 2 = 20, 3 = 40 ... (Read/Write)
5526	2	ND display Modes Selected in ND **Copilot/First Officer**(Read) e.g. STA, WPT etc. (written by MCP/FCU) Bit 0 VOR Bit 1 NDB Bit 2 ARP Bit 3 WPT Bit 4 Plan Data boeing - CSTR for airbus Bit 5 VOR1 needle Active Bit 6 VOR2 needle Active Bit 7 QNH set to HPA Bit 8 Metric Display Bit 9 STD mode active Bit 10 LS Mode Active Bit 11 QNH is HPA
5528	2	FCU Dashed Display / Boeing MCP Trim Wheel and FD Lights (read only) **Airbus**

		Bit 0 Speed Dashed 1 Heading Dashed 2 V/S dashed 3 QNH is set to STD **Boeing** Bit 0 AP PRST (MIP Button Input is K090, i.e. 0x4F2 value 90) Bit 1 AT PRST (MIP Button Input is K091, i.e. 0x4F2 value 91) Bit 2 FMC PRST (MIP Button Input is K092, i.e. 0x4F2 value 92) MCP Trim Movement Write (for wheel motor) Bit 4 Trim Value Decrease Bit 5 Trim Value Stable Bit 6 Trim Value Increase **7 TRK/FPA is active (Airbus)** Bit 8 A/T is Detached (for moving throttles, Boeing) **Airbus** **Bit 9 FD Light Left** **Bit 10 FD Light Right** **Bit 11 LS Light Left** **Bit 12 LS Light Right** **Boeing** **Bit 13 Stab Trim Override and indicator** **14 F/O QNH is set to STD**
552A	2	**Selected Reference Bank Angle for Autopilot** (will be set to 25 if it is 0, the value 1 is "AUTO")
552C	2	Secondary/Lower Engine Page Same as offset 4F4 301-319 (minus 300, thus 1 would be ENG, 2 BLEED etc.) 5542 Offset is used for Pilot selected page, if it is 0, then auto-switching (DOORS/FCTL
552E	2	**Copilot QNH (same format as FS 0x330, active if non-zero)**
5530	2	Glareshield Anunciators/Panel B737 This offset is handled by the sysvar.txt file, please check it as a reference.
5532	2	**Copilot Decision Height (10s of feet, 200 ft = 20, 1050 ft = 105, negative value is MDA) (Read/Write)** (!) 552E has to be set for this to work
5534	1	**Offset for Buttons ThroughPass (with PFC Hardware)** Bit 0 Captain Caution Bit 1 Captain Fire Bit 2 F/O Caution Bit 3 F/O Fire
5536	**2**	**Captain Side Temp QNH (IN*100)** CRJ Fail Flags Captain Side Bits 0 ATT 1 IAS 2 ALT 3 VS

		4 FAIL PFD 5 ATT1 Select 6 ATT2 Select 7 AIR DATA1 Select 5537 Bit 0 AIR DATA2 Select 5537 Bit 1 Revert Capt PFD 5537 Bit 5 Oil1 Fail
5538	**2**	**First Officer Side Temp QNH** CRJ Fail Flags Captain Side 4 FAIL Copilot PFD 5539 Bit 1 Revert F/O PFD 5539 Bit 5 Oil2 Fail
553A	2	Thrust setting when A/T is detached (see 5528 and 50A)
553C	2	Temperature Setting in FMC (derate)
553E	2	Standby Altimeter QNH (read/write)
5540	2	Glareshield Anunciators/Panel B737 (Conditional Display – Custom)
5542	2	**Secondary/Lower Engine Page Pilot Selected (selected by Pilot on ECAM Page selector panel) For lights and internal logics, to set the page, please use 0x4F4 (read only)**
5544	2	AB ECAM Selected Page Lights (hard selected)
5546	1	FMC Flight Phase
5547	1	Airbus Page Phase (Phases 1-10)
5548	2	**pmSystems Connected to Hardware** Bit0 (Phidgets) Bit1 (PFC Overhead) Bit2 (InterfaceIT) Bit4 (CPFlight 737) Bit5 (EHID)
554A	1	**MCP Connected to hardware** Bit0 (PFC MCP) Bit1 (CPFlight MCP) Bit2 (ELAN basic protocol) Bit3 (Aerosoft MCP) Bit4 (EHID) Bit5 (FSC TQ) Bit6 (FSC MIP) Bit7 MCP software running (bit changes state every 3 seconds)
554B	2	**RCDU Connected** Bit0 (Connected to FS) Bit1 (Connected to Master CDU)
554D	1	**Autopilot Type (assumes all other components are of same type)** Value 2 320 Value 3 737 Value 4 747 Value 7 777

		Value 10 CRJ Value 11 CRJ 700 Value 20 ERJ
554E	1	
5550	2	Standalone Version
5552	2	Standalone Set Mode
5554	2	ADF2 * 10 (KHz) (pre-FS2002)
5556	2	Standalone Set Value
5558	2	Standalone Set Value2
5560	2	pmSounds Version
5562	2	pmSounds Inhibit bits Bit 0 Inhibit GPWS (or whatever is defined in the pmSounds.INI) Bit 1 Inhibit Gear Warning Bit 2 Inhibit Flaps Warning
5564 5566 5568	2 2 1	reserved pmsounds byte pmsounds set flags 1 byte bit 0 Takeoff Warning pmSounds NAV and Marker Sounds same as and bypassing 0x3122 Byte
556A	2	pmReplay 2 bytes
556D	1	FSUIPC/PFCDLL Stickshaker command
556E	2	0 FSUIPC okay 1 COM port okay 2 Aileron ok 3 Elevator ok 4 Rudder ok 5 Throttle quadrant okay (N.B. I just accept 2 good axes from 6) 6 Avionics/radio stack okay (this is the controller in the central console) 7 MCP okay (whether PM or PFC.DLL controlled) 8 CDU okay (I accept either or both of CDU and RCDU) 9 -- 10 -- 11 -- 12 -- 13 Checks completed apart from any user requested retries 14 Checks fully completed -- FS will resume within seconds
5570	2	pmSystems Version
5572	4	pmSystems Flags - 557F (internal)
5580	2	pmInstructor Version
5582	4	pmInstructor Flags - 558F (internal) 5584 Flags to pmInstructor (decimal, two bytes) 10001 MENU 10002 POSITION 10003 ENVIRONMENT 20101 Freeze 20102 Flight Freeze 20301 Pushback 20302 20303 20401 Position Runway 20402 Position 10 NM 20403 Position 7 NM

		20404 Airwork 10000 ft 20405 ILS App 2500 FT (L)
55B0	10	pmBrakes Section (Handled by MCP/FCU) 55B0 1 pmAutoBrake same as 0x2F80 only that autobrakes are handled by PM 55B1 1 Bit0 use following offsets to handle brakes 55B2 2 Left Brake 1 55B4 2 Right Brake 1 55B6 2 Left Brake 1 55B8 2 Right Brake 1
55D0	2	Jeppesen Interface Active (CP) + commands
55D2	4	Failure Flags Bit 0 LOC fail Bit 1 G/S fail
55E0	2	Hyd Press 1 display override (same factors as in FS) for 0 use value 1
55E2	2	Hyd Press 2 display override
55E4	2	Hyd Press 3 display override
55E6	2	Hyd Press 4 display override
55E8	2	Airbus Thrust Gate Engine 2 (if Axis can't be used, use only *either* 2 *or* 4) - this is scaled like the thrust/axis offsets of FS - only used for gate selection, then value is copied to engine 2 or engine 4 offset
55EA	2	Airbus Thrust Gate Engine 4
55EC	2	Failure Bits 737 Bit 0 Pilot AT panel Speedbrake Do Not Arm Bit 1 Brake panel Anti Skid Bit 2 Autobrake Disarm
55EF	2	EliminaCode FSC Offset
55F0	6	Dimmer Implemented for Airbus and Boeing Glass Cockpit display brightness, Bytes 0 - Captain PFD 1 - Captain ND 2 - Upper ECAM 3 - Lower ECAM 4 - F/O ND 5 - F/O PFD 0 - INOP, 1 Dark -100 Bright **Important:** Bitmap Frames must be disabled
55F6	1	Dimmer Implemented for Airbus pmSystemsdisplay brightness, Byte 0 - INOP, 1 Dark -100 Bright
55F7-FA	1	7 MCP 8 FMC 9 RFMC

		A ISIS Internal 0 - INOP, 1 Dark -100 Bright
5600	0x100	**pmSystems Offsets (to56FF) see pmSystems sysvar.txt file**
5700	0x100	**pmSystems Offsets (to57FF) see pmSystems sysvar.txt file**
57E0	0x14	**Reserved for the A220 (to 57F3): free220_01 - free220_20, one byte each, decimal. Declared in pmSystems sysvar.txt. Do not allocate in this range (added August 2026)**
5800	0x100	**Overrides** **2 Bytes Override Active (5800)** **8 bytes N1 4 Engines *10 (5802-08)** **8 bytes N2 4 Engines *10 (580A-5810)** **8 bytes EGT 4 Engines *10 (5812-5818)** **8 bytes VIB 4 Engines *10 (581A-5820)** **8 bytes FF 4 Engines (5822-5828)** **(fuel flow not multiplied by 10)** **5830 2 N1x10 scaled output 4x2 bytes** **5838 2 N2x10 scaled output 4x2 bytes** **Check offset 50A for overrides** **5840 2 Elevator Control AP Output** **5842 2 Elevator Trim AP Output** **5844 2 Aileron AP Output** **5846 2 Throttle (one value for all 4 throttles)** **584A 2 bytes Elevator Control Input for FSBUS FBW** **584C 2 bytes Aileron Control Input for FSBUS FBW** **Note: 584A (has to be non-zero for both values to be read, i.e. minimum value 1)** **5850 1 byte, Overrides MCP set 310A (disable only)** **5851 1 byte, Overrides MCP set 310B (disable only)** **5852 Oil Pressure Eng 1 (2 bytes FS format)** **5854 Oil Temp Eng 1** **5856 Oil Pressure Eng 2 (2 bytes FS format)** **5858 Oil Temp Eng 2** **(implemented for engines 1 and 2, Boeing Glass Cockpit)**
5860-58AF	80	**GAGC Waypoint info and Flags**
58B0-58BF	16	**pmAutopilot Pitch and Bank (double)**
58FC	2	**FBW Flags (internal)**
5900 **5902** **5904** **5906**	2 2 2 2	**pmControls Flags** **Throttles** **Throttle1 (as per 0x3330)** **Throttle2 (as per 0x3332)**
5910	1	**External Throttle Hardware Active Flags (read by the FCU)**

		Bit 0 Non-Zero – Active Bit 1 Spoiler Is In Armed Position
5911	1	**Airbus Flap Position, starting with 1 = UP (for Airbus 5 positions UP-1-2-3-FULL)**
5912	2	**Single Throttle (does not really apply, as at least 2 throttles are expected)**
5914	2	**Throttle1 (0 - 16383)**
5916	2	**Throttle2 (0 - 16383)**
5918	2	**Throttle3 (0 - 16383)**
591A	2	**Throttle4 (0 - 16383)**
591C	2	**Spoiler (0 - 16383)** **These offsets have been defined so throttle hardware manufacturers do not have to bother about the setting of offset 310A**
5B00	128	**NetDir 128 bytes (Null Terminated)**

5400-5BFF "reserved"
5C00-5EFF RFMC Transfer

Reserved 5D00-5FFF

MCP/FCU Codes / MCP/FCU Interface (initially defined by ELAN Informatique)

The serial communication settings are 19200,N,8,1 Telegrams are all in ascii... where all telegrams are followed by a ASCII 0h I.e. when the HDG button is pressed, the MCP hardware sends to MCP.EXE (Basic Style Language): "K025" + chr(0X0)

The MCP Throughpass (Offset 0x4F2) can use the following codes as well, e.g. to send K020 set value in 0x4F2 to 20decimal. When read, the MCP sets 0x4F2 back to 0.

Switches send following telegrams (hardware to program):

SPDP K010 (SPD pushbutton 747 MCP, Speed Intervention on B737 MCP)
HDGP K011 (heading SEL pushbutton 747 MCP, use K025 for HDG HOLD, K025 for HDG SEL on the 737)
ALTP K012 (ALT pushbutton 747 MCP, Altitude Intervention on 737 MCP)
ATDISC K016 (disconnect autothrottle) from MCP build
FDON K017 (switch on RIGHT)
FDFF K018 (switch off RIGHTF/D)
ATON K019 (switch on)
ATFF K020 (switch off)
THR/N1 K021
TOGA Throttle Button K121
SPD K022
FLCH K024
MACH K023
HDG K025
VNAV K026
LOC K028
LNAV K027
APP K029
ALT K030
VS K031
AP1 K032
AP2 K033
CWSA K034
CWSB K035
AP3 K036
FDON K037 (switch on LEFT F/D)
FDFF K038 (switch off LEFT F/D)
APDI K099 (AP Disengage - defined for 747-400 MCP)
APDI K040 (AP Disengage - not used in 747-400 MCP)
APEN K041 (AP Engage - not used in 747-400 MCP)
FPV K044
FPV K144 Copilot
MTRS K045
MTRS K145 Copilot
CTRND K046
TFC K047 (TCAS)
TFC K147 (Copilot TCAS)
RST K048
RST K148 Copilot RST

Boeing
STD K049
STD K149 Copilot STD

Boeing VOR/ADF Selector
N11 K050 VOR1
N12 K051 ADF1
N13 K052 OFF1
N21 K053 VOR2
N22 K054 ADF2
N23 K055 OFF2
150-155 for First Officer

Airbus

STD K050 QNH
STD K150 Copilot QNH
STD K051 STD
STD K151 Copilot STD

Airbus VOR/ADF Selector
N11 K070 VOR1
N12 K071 ADF1
N13 K072 OFF1
N21 K073 VOR2
N22 K074 ADF2
N23 K075 OFF2
170-175 for First Officer

EFIS QNH and Baro/Radio/DH information
IN K062
HPA K063
setDH K064
setMDA K065
APPND K066
VORND K067
MAPND K068
PLNND K069

First Officer
IN K162
HPA K163
setDH K164
setMDA K165
APPND K166
VORND K167
MAPND K168
PLNND K169

N11 K070 VOR1 *(double for compatibility to some mixed AB/Boeing setups)*
N12 K071 ADF1
N13 K072 OFF1
N21 K073 VOR2
N22 K074 ADF2
N23 K075 OFF2
N11 K170 VOR1 *F/O*
N12 K171 ADF1
N13 K172 OFF1
N21 K173 VOR2
N22 K174 ADF2
N23 K175 OFF2

STA K080
WXR K081

DISC K099 (747 disconnect)

K170 -- Co-pilot EFIS toggle = VOR1 (periodic)
K171 -- " = ADF1
K172 -- " = OFF
K173 -- Co-pilot EFIS toggle = VOR2 (periodic)
K174 -- " = ADF2 K175 -- " = OFF
K208 -- Pilot/left master caution master pressed
K209 -- Pilot/left master caution fire warning pressed
K218 -- Copilot/right master caution master pressed
K219 -- Copilot/right master caution fire warning pressed

L1198 to switch OFF backlight
L0198 to switch ON backlight

APP/VOR/MAP/PLN rotary selector M001/M002/M003/M004 First Officer M011/M012/M013/M014
M005/M015 is the CTR pushbutton for the map mode
For these commands use the 0x4F2 offset, values 501 to 514

S000=5/S002/...S007=640 5/10/.../640 rotary selector First officer S010-S017
S008/S018 is TFC button
For these commands use the 0x4F2 offset, values 401 to 417

B001-B007 WXR/STA/WPT/ARPT/DATA/POS/TERR ... First officer B011-B017
For these commands use the 0x4F2 offset, values 301 to 317
Airbus VOR/NDB/WPT/ARPT/CSTR

Suggestion:
V10 MINS
V11 BARO
V12 Copilot MINS
V13 Copilot BARO
V101002 (increments MINS by 2 units)
V110004 (decrements BARO by 4 units) V11 [baro] 0 [dec] 004 [4 units]

Send offset and value to write in UIPC...
E0 [offset] [numbytes] [value] (value can be anything after the 7th byte, with or without leading zeroes
E00BC081234.5 writes 1234.5 in 0XBC0 8 bytes (=double)
E004F42005 writes 5 into 0x4F4 (i.e. E0 04F4 2 005)
E004F422 writes 5 into 0x4F4

CP Flight Reserved

I00
J00
G00
H00

Airbus-Type Extensions
ALS K049 (AB LS Button)
ALS K149 (AB LS Button) (Copilot)
ASTI K050 (AB STD/QNH push)
ASTO K051 (AB STD/QNH pull -> STD BARO 29.92 in)
ASPI K052 (AB Speed Button push - managed speed mode)
ASPO K053 (AB Speed Button pull)
AHDI K054 (AB Heading Button push - managed heading mode)
AHDO K055 (AB Heading Button pull)
AALI K056 (AB Altitude Button push - managed altitude mode)
AALO K057 (AB Altitude Button pull)
AVSI K058 (AB VS Button push - managed altitude mode)
AVSO K059 (AB VS Button pull)
AEXP K060 (AB EXPED Button)
ATFP K061 (AB TRKFPA Button)
IN K062 (AB QNH INHG)
HPA K063 (AB QNH HPA)
VN1 K071 (AB VOR1OFF)

Serial communication, string K025(Null) ["K025"+chr(0)] "presses" HDG MCP hardware to program (telegrams)

V01 123(0) left course selector value from MCP (course 123)
V02 245(0) speed indicator value 245 knots
V03 320(0) heading value (320 degrees)
V0412000(0) altiitude value (12000ft)
V05-1800(0) vertical speed (-1800 ft/min)
V06 232(0) right course selector
V08 400(0) decision height Lights activation... from program to hardware: the last two digits are sent as identifier
V09 25(0) Set bank angle in degrees e.g. V0925
L0125(0) switches the HDG light on

L1125(0) switches it off Values from program to hardware:
D01 123(0) sets left course selector to course 123 on MCP
D02 245(0) speed indicator value 245 knots
D03 320(0) heading value (320 degrees)
D0412000(0) altiitude value (12000ft)
D05-1800(0) vertical speed (-1800 ft/min)
D05 +00(0) sets vertical speed to 0 (!!!important exception)
D06 232(0) right course selector
D08 200(0) decision height set

X1105 switches V/S display on
X1005 switches V/S display off
X1102 switches SPD display on
X1002 switches SPD display off

Airbus Lights (from Sysvar.Txt)

56F7 .0 MasterCaution (lights)
56F7 .2 MasterWarning

56F8 .0 MasterCautionSwitch (buttons)
56F8 .2 MasterWarningSwitch

5718 .1 StickPriority11 (lights)
5718 .2 StickPriority12
5718 .3 StickPriority21
5718 .4 StickPriority22

5719 .0 AutoLandFail (light)

Failure and Fire Codes

Fire Status Variable 0x5648 1 FireStatus one byte offset, value
Failures Variable 0x5750 1 FailureCode, one byte offset, value

Boeing

Description	**FireStatus**	**Comments**
Fire Fault Test	21	
Fire Detector Test	22	
Fire Bottles Test	23	
Engine 1 Fire	51	
Engine 2 Fire	52	
APU Fire	55	
Description	**FailureCode**	**Comments**
IAS/Pitot Fail	10	
Hot Start Engine 1	71	
Hot Start Engine 2	72	
Hung Start Engine 1	81	
Hung Start Engine 2	82	

Airbus

Description	**FireStatus**	**Comments**
Engine 1 Fire	51	
Engine 2 Fire	52	
APU Fire	55	
Description	**FailureCode**	**Comments**
IAS/Pitot Fail	10	
Glareshield Autoland	11	Red Auto Land Light
APU Fail	50	
Forward 1 Pump	61	fwd1pumpfault sysvar
Forward 2 Pump	62	fwd2pumpfault
Centre 1 Pump	63	
Centre 2 Pump	64	
Aft 1 Pump Fault	65	
Aft 2 Pump Fault	66	
Hot Start Engine 1	71	
Hot Start Engine 2	72	
Hung Start Engine 1	81	
Hung Start Engine 2	82	
AC BUS 1 Fault	91	
AC BUS 2 Fault	92	
Hi Oil Temp Engine1	111	
Hi Oil Temo Engine2	112	
CB PRESS SYS FAULT	120/121	

FWC1Fault 31 FWC2Fault 32 FWC1+2Fault 33

Flaps Locked 20

CRJ

Description	FireStatus	Comments
Engine 1 Fire	41	
Engine 2 Fire	42	

Changelog:

- Added 4F4 Command for Boeing Tilt, Gain and WXR modes

- Added 5542 offset to show Pilot Selected ECAM Page (Airbus)
- Cleaned up Failures information and set it inside a table
- Minor graphic cleanup
- Added Changelog
- Added new CPFlight FCU Glareshield Commands
- Added 57E0-57F3 reserved range for the A220 (free220_01-20, one byte each, decimal) - August 2026
- 0x4F4: 83/84 TOPO Map On/Off, 85 SVT Mode, 86 SVT Off, 17/18 VSD On/Off (the CDU/MCDU TERRAIN page); old terrain type/colour/size/3D codes removed, EGPWS only - October 2026