**CCA COMMON**

This common is maintained by GSFC for their production.
The only variables controlled by MIT are the logical switches LPLS.

| | | |
|---|---|---|
| LSYS(32) | L1 | system switching vector for GSFC. |
| LMAG(32) | L1 | magswitching vector. |
| LPLS(32) | L1 | Plasma switching vector used in MIT processing. (See :hdref refid=ft02.). |
| WORK(25-30) | | **spares** |
| IBAD | | # of 48 sec ave deleted from mag hourly average |
| IPCH | I4 | # of mag hourly average cards punched |
| SCN1 | I4 | ID of spacecraft data in EDR1 |
| SCN2 | I4 | ID of spacecraft data in EDR2 |
| TIME2 | R8 | Time of record in EDR2 |
| IY2 | | Year of data in EDR2 |
| IDAY2 | | Day of data in EDR2 |
| MSEC2 | | Millisecond of data in EDR2 |
| TIME1 | R8 | Decimal day of data in EDR1 |
| WORK(432-500) | | **spares** |

**CDOCP COMMON**

This common controls the creation of the proto HA array, and the averaging of the data to make the hourly average tape.
These variables can be changed by &RUNNT, see :hdref refid=FT02..

| | | |
|---|---|---|
| INB | I4 | Number of entries in IB |
| IB(9) | I4 | Indices of variables in DOCP VAR array that involve the B field. |
| NP(2) | I4 | NP(ITLMOD) gives the number of entries in table IAP, IAPOFF, and ICP for mode ITLMOD |
| IAP(60,2) | I4 | ANS( IAP( I, ITLMOD)) is the source of the data for DOCP, see :hdref refid=STDCALL.. If IAP( I, ITLMOD) < 0 special processing is done. |
| ICP(60,2) | I4 | VAR( ICP( I, ITLMOD)) is the destination for the data for DOCP. ICP( I, ITLMOD) is th position in the Hourly Average Array, see :hdref refid=HA.. |
| IAPOFF(60,2) | I4 | Fill data is used by DOCP if ANS array does not have IAPOFF( I, ITLMOD) + IAP( I, ITLMOD) valid data values. |
| NA | I4 | Maximium used index in VAR array. |
| LANG(100) | L4 | True if corresponding value in VAR, proto HA array, is to be treated as an angle when taking hourly averages. |
| LTESTA(100) | L4 | If TRUE then this value will not be averaged under certain data conditions. |
| NAR(2) | I4 | Maximium used index in VAR array. First value for normal data, second for GS-5 data with short L Mode. |

**CMODE COMMON**

CMODE is an MIT-only common and should be avoided if at all possible. It is loaded by most but not all versions of NXTMOD. The standard calling sequence (:hdref refid=STDCALL.) gives most of these variables in a more reliable manner.

| VARIABLE | TYPE | DEFINITION |
|---|---|---|
| IYR | I4 | Year of data. |
| IDOY | I4 | Day of year. |
| IHR | I4 | Hour of day. |
| IMIN | I4 | Minute of hour. |
| SEC | R4 | Second of minute including fraction. |
| ICLK | I4 | Integration time flag.<br>1 60 millisec<br>2 240 millesec<br>3 960 millisec |
| ISTAT | I4 | Status word. |
| ICOMM | I4 | Command word? |
| IDATAN(4,144) | I4 | Digital currents. |
| ITLMOD | I4 | Flag to indicate type of mode.<br>1 L-mode<br>2 M-mode<br>3 E1-mode<br>4 E2-mode |
| TEMP(3) | R4 | Temperature of instrument in degrees C. |
| IENGDN(10) | I4 | Engineering counts? |
| MODTAL | I4 | Count of the mode. |
| IKINDS | A4 | Spacecraft type? |
| MINDEX | I4 | Minimum channel number returned for M-mode. |

**LPLS COMMON**

This common is used by SELSUM, the SELECT for Summary tape production, and by DOCAL. In the former case it keeps a record of the number and reasons for rejecting spectra.
In both cases it controls the writing of the spectral tape.

| | | |
|---|---|---|
| IUNIT | I4 | Fortran unit number that the spectal tape is written out on. If IUNIT > 20 then a long spectral record is written. |
| LDMP(2) | L4 | Controls if the record is to be dumped. |
| LED(16) | L1 | Indicates that the corresponding test failed. |
| LMAX(16) | L1 | ! |

**MITRUN COMMON**

This common is only used in the MIT production. Set with namelist &RUNNT.
It controls the type of processing to be done.
For a more complete definition of the variables, see :hdref refid=ft02..

| | |
|---|---|
| IUNIT(10) | I/O unit numbers for MIT processing. |
| TJUMP | Time data jump test |
| FACT | ? |
| GAPSEC(20) | Expected time gap between data points |
| FITMOD | Fitmod |
| SKPODD | ? |

**NDYCOM COMMON**

This common is to support DODP. Read in on unit 5.

| | |
|---|---|
| NYRF | Year of first data to be plotted. |
| NDAYF | Day of first data to be plotted. |
| NEXT | Number of days to be overlapped on Nday plots. |

**PLCONS COMMON**

The block data for this common are loaded with PLSBEG. The variables that can be changed are changed by PLSNT and are marked *&PLSNT*.
See :hdref refid=ft02..

| | |
|---|---|
| IDSRN(15) | I/O unit numbers for selective printing. *&PLSNT* |
| ISC | ! |
| VJNE(16,2) | E mode voltage at middle of step |
| DVDE(16,2) | E mode voltage across step |
| CJN(16,2) | One dimensional distribution function = CURRNT*CJN/(VJNE**SN*DVDE) |
| VOLTSC | Not used = 0.01 |
| J1E(2) | Min channel number used in calculating flux or distribution function |
| J2E(2) | Max channel number used in calculation flux etc. |
| FON(2) | Conversion factor for current in femto amps to |
| flux in | $/cm^2/sec$. |
| J3E(2) | Min channel number used in calculating temp |
| J4E(2) | Max channel number used in calculating temp |
| EN(2) | TEMP = EN*(VOLT(LOW)**2-VOLT(HI)**2)/ALOG10(DIST(HI)/DIST(LO)) |
| SN(2) | See CJN above (defaulted to 1., 1.) |
| FAC(3) | Square root of ratio of integration times |
| SIGNOI | Signal noise level |
| DCRTN(256) | DC return current conversion table |
| VJNL(16) | L Mode voltage at middle of step |
| VJWL(17) | L Mode voltage at lower edge of step |
| VJNM(128) | M Mode voltage at middle of step |
| VJWM(129) | M Mode voltage at lower edge of step |
| II | Spacecraft ID, 1 Voyager 1, 0 Voyager 2 from SUMMARYT *&PLSNT* |
| IEND | Maximum # of calls to FNCDRV *&PLSNT* |
| EPS | Wanted fractional error in $\chi^2$ |
| FLAM | Normal starting value $\Lambda$ for nonlinear fit *&PLSNT* |
| QK(4,2) | ! |
| NK(4,2) | ! |
| SK(4,2) | ! |

| | | |
|---|---|---|
| WK(4,2) | ! | |
| VK(4,2) | ! | |
| DELTAL(2) | ! | |
| IPQF(2,2) | # channels up from peak for alphas | *&PLSNT* |
| IPRF(2,2) | # channels down form peak for alphas | *&PLSNT* |
| IPQ(4,2) | # channels up from peak for protons | *&PLSNT* |
| IPR(4,2) | # channels down from peak for protons | *&PLSNT* |
| CN(4,3) | Directional cosines of cups | |
| COSB(3) | Cosine of angle between cup and B field | |
| COS2B(3) | Square of cosine of angle between cup and B field | |
| SIN2B(3) | Square of sine of angle between cup and B field | |
| CALCUR(12) | ! | |
| CLOCK(3) | Plasma cup integration time in sec. | |
| CAP(2) | Integration capacitance in microfarads | |
| GAIN(2) | Gain of amplifier | |
| VO | Voltage for first step of modulator. Set in PLSBEG | |
| ALPHA | $N_\alpha/N_p$ threshold for alpha analysis | *&PLSNT* |
| NQ(4) | ! | |
| MASS(4) | ! | |
| KEY(4) | ! | |
| LANIS(4) | ! | |
| NCOM(2) | ! | |
| NVAR(2) | ! | |
| FNOIS | ! | |
| CSIG | Multiplier of CNOISE to get minimum current for analysis | *&PLSNT* |
| FSIG | ! | *&PLSNT* |
| NS | Number of spectra to be averaged together | *&PLSNT* |
| xtras(243) | Spares | |

**PSTUFF COMMON**

This common is used by DODP.
It is loaded by the namelist SCALE from unit 5.
For a description of DODP and its input see the DODP write up.

| | |
|---|---|
| F | Horizontal scale factor |
| X12 | Length of xaxis |
| SCNAME | Spacecraft name |
| IDSRN | Data set number |
| NUMDAY | Number of days per panel. One for a day plot. |
| NOROT | Print solar rotation number |
| TPTYPE | ! |