

Overview

The Hipparcos and Tycho Catalogues are the primary products of the European Space Agency's astrometric mission, Hipparcos. The satellite, which operated for four years, returned high quality scientific data from November 1989 to March 1993.

Each of the catalogues contains a large quantity of very high quality astrometric and photometric data. In addition there are associated annexes featuring variability and double/multiple star data, and solar system astrometric and photometric measurements. In the case of the Hipparcos Catalogue, the principal parts are provided in both printed and machine-readable form (on CDROM). In the case of the Tycho Catalogue, results are provided in machine-readable form only (on CDROM). Although in general only the final reduced and calibrated astrometric and photometric data are provided, some auxiliary files containing results from intermediate stages of the data processing, of relevance for the more-specialised user, have also been retained for publication. (Some, but not all, data files are available from the Centre de Donnees astronomiques de Strasbourg.)

The global data analysis tasks, proceeding from nearly 1000 Gbit of raw satellite data to the final catalogues, was a lengthy and complex process, and was undertaken by the NDAC and FAST Consortia, together responsible for the production of the Hipparcos Catalogue, and the Tycho Consortium, responsible for the production of the Tycho Catalogue. A fourth scientific consortium, the INCA Consortium, was responsible for the construction of the Hipparcos observing programme, compiling the best-available data for the selected stars before launch into the Hipparcos Input Catalogue. The production of the Hipparcos and Tycho Catalogues marks the formal end of the involvement in the mission by the European Space Agency and the four scientific consortia.

For much more information about this catalog, such as fuller descriptions of the parameters, the user is urged to check the Hipparcos and Tycho Catalogs website at <http://www.rssd.esa.int/Hipparcos/catalog.html>

Catalog Bibcode

[1997A&A...323L..49P](#)

References

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Provenance

This database table was created by the HEASARC in April 2000 based on [CDS Catalog I/239](#) file hip_main.dat.gz, the Hipparcos Main Catalog. It was updated in October 2002 to fix some entries which were missing coordinates.

HEASARC Parameter Names

The following is a correlation table of the Hipparcos Catalog fields, the parameter names as implemented by the CDS, and the HEASARC names for these parameters:

Hipparcos Cat. Field	CDS Name	HEASARC Name	Description
--	* New *	Name	/Catalog Designation
H0	Catalog	* Not Displayed *	/Catalogue (H=Hipparcos)
H1	HIP	HIP_Number	/Identifier (HIP number)

H2	Proxy	Prox_10asec	/Proximity flag
H3	RAhms	RA	/RA in h m s, ICRS (J1991.25)
H4	DEdms	Dec	/Dec in deg ' ", ICRS (J1991.25)
H5	Vmag	Vmag	/Magnitude in Johnson V
H6	VarFlag	Var_Flag	/Coarse variability flag
H7	r_Vmag	Vmag_Source	/Source of magnitude
H8	RAdeg	RA_Deg	/RA in degrees (ICRS, Epoch-J1991.25)
H9	DEdeg	Dec_Deg	/Dec in degrees (ICRS, Epoch-J1991.25)
H10	AstroRef	Astrom_Ref_Dbl	/Reference flag for astrometry
H11	Plx	Parallax	/Trigonometric parallax
H12	pmRA	pm_RA	/Proper motion in RA
H13	pmDE	pm_Dec	/Proper motion in Dec
H14	e_RAdeg	RA_Error	/Standard error in RA*cos(Dec_Deg)
H15	e_DEdeg	Dec_Error	/Standard error in Dec_Deg
H16	e_Plx	Parallax_Error	/Standard error in Parallax
H17	e_pmRA	pm_RA_Error	/Standard error in pmRA
H18	e_pmDE	pm_Dec_Error	/Standard error in pmDE
H19	DE:RA	Crl_Dec_RA	/(DE over RA)xCos(delta)
H20	Plx:RA	Crl_Plx_RA	/(Plx over RA)xCos(delta)
H21	Plx:DE	Crl_Plx_Dec	/(Plx over DE)
H22	pmRA:RA	Crl_pmRA_RA	/(pmRA over RA)xCos(delta)
H23	pmRA:DE	Crl_pmRA_Dec	/(pmRA over DE)
H24	pmRA:Plx	Crl_pmRA_Plx	/(pmRA over Plx)
H25	pmDE:RA	Crl_pmDec_RA	/(pmDE over RA)xCos(delta)
H26	pmDE:DE	Crl_pmDec_Dec	/(pmDE over DE)
H27	pmDE:Plx	Crl_pmDec_Plx	/(pmDE over Plx)
H28	pmDE:pmRA	Crl_pmDec_pmRA	/(pmDE over pmRA)
H29	F1	Reject_Percent	/Percentage of rejected data
H30	F2	Quality_Fit	/Goodness-of-fit parameter
H31	---	* Not Displayed *	/HIP number (repetition)
H32	BTmag	BT_Mag	/Mean BT magnitude
H33	e_BTmag	BT_Mag_Error	/Standard error on BTmag
H34	VTmag	VT_Mag	/Mean VT magnitude
H35	e_VTmag	VT_Mag_Error	/Standard error on VTmag
H36	m_BTmag	BT_Mag_Ref_Dbl	/Reference flag for BT and VTmag
H37	B-V	BV_Color	/Johnson BV colour
H38	e_B-V	BV_Color_Error	/Standard error on BV
H39	r_B-V	BV_Mag_Source	/Source of BV from Ground or Tycho
H40	V-I	VI_Color	/Colour index in Cousins' system
H41	e_V-I	VI_Color_Error	/Standard error on VI
H42	r_V-I	VI_Color_Source	/Source of VI
H43	CombMag	Mag_Ref_Dbl	/Flag for combined Vmag, BV, VI
H44	Hpmag	Hip_Mag	/Median magnitude in Hipparcos system
H45	e_Hpmag	Hip_Mag_Error	/Standard error on Hpmag
H46	Hpscat	Scat_Hip_Mag	/Scatter of Hpmag
H47	o_Hpmag	N_Obs_Hip_Mag	/Number of observations for Hpmag
H48	m_Hpmag	Hip_Mag_Ref_Dbl	/Reference flag for Hpmag
H49	Hpmax	Hip_Mag_Max	/Hpmag at maximum (5th percentile)
H50	HPmin	Hip_Mag_Min	/Hpmag at minimum (95th percentile)
H51	Period	Var_Period	/Variability period (days)
H52	HvarType	Hip_Var_Type	/Variability type
H53	moreVar	Var_Data_Annex	/Additional data about variability
H54	morePhoto	Var_Curv_Annex	/Light curve Annex
H55	CCDM	CCDM_Id	/CCDM identifier
H56	n_CCDM	CCDM_History	/Historical status flag
H57	Nsys	CCDM_N_Entries	/Number of entries with same CCDM
H58	Ncomp	CCDM_N_Comp	/Number of components in this entry
H59	MultFlag	Dbl_Mult_Annex	/Double and or Multiple Systems flag
H60	Source	Astrom_Mult_Source	/Astrometric source flag
H61	Qual	Dbl_Soln_Qual	/Solution quality flag
H62	m_HIP	Dbl_Ref_ID	/Component identifiers
H63	theta	Dbl_Theta	/Position angle between components
H64	rho	Dbl_Rho	/Angular separation of components
H65	e_rho	Rho_Error	/Standard error of rho
H66	dHp	Diff_Hip_Mag	/Magnitude difference of components
H67	e_dHp	dHip_Mag_Error	/Standard error in dHp
H68	Survey	Survey_Star	/Flag indicating a Survey Star
H69	Chart	ID_Chart	/Identification Chart
H70	Notes	Notes	/Existence of notes
H71	HD	HD_Id	/HD number <III 135>
H72	BD	BD_Id	/Bonner DM <I 119>, <I 122>
H73	CoD	CoD_Id	/Cordoba Durchmusterung (DM) <I 114>
H74	CPD	CPD_Id	/Cape Photographic DM <I 108>
H75	(V-I)red	VI_Color_Reduct	/VI used for reductions
H76	SpType	Spect_Type	/Spectral type
H77	r_SpType	Spect_Type_Source	/Source of spectral type
--	* New *	Class	/HEASARC BROWSE classification

Parameters

Name

Name of the star in the recommended format for Hipparcos stars, as created by concatenating the prefix 'HIP ' and the Hip_Number identifier in the

original catalog. Entries in the Hipparcos (HIP) Catalog have exactly the same identifier as in the Hipparcos Input Catalog (HIC), notice.

RA

Right ascension in the specified equinox for epoch J1991.25. This was given in the ICRS reference system (J2000 equator) in the original Hipparcos Catalog, and thus equinox 2000 should be specified to avoid inaccuracies due to the non-rigorous HEASARC coordinate precession algorithm. This parameter was given to a truncated precision of 0.01 seconds of time in the original Hipparcos Catalog. If the 'precise' RA is desired, one should use the value of the parameter RA_deg which contains the complete RA in decimal degrees.

Dec

Declination in specified equinox for epoch J1991.25. This was given in the ICRS reference system (J2000 equator) in the original Hipparcos Catalog, and thus equinox 2000 should be specified to avoid inaccuracies due to the non-rigorous HEASARC coordinate precession algorithm. This parameter was given to a truncated precision of 0.1 arcseconds in the original Hipparcos Catalog. If the 'precise' declination is desired, one should use the value of the parameter Dec_deg which contains the complete declination in decimal degrees.

LII

Galactic longitude.

BII

Galactic latitude.

HIP_Number

The Hipparcos Catalog running number, which is the same as the that in the Hipparcos Input Catalog. The star entries are, with a few exceptions, ordered by increasing HIP number, which basically follows the order of the object's right ascension (Equinox J2000) independent of declination.

Prox_10asec

A proximity flag which provides a coarse indication of the presence of nearby objects within 10 arcseconds of the position of the given star. If non-blank, it indicates that there are one or more distinct Hipparcos ('H') or Tycho ('T') Catalog entries; if both 'H' and 'T' apply, then 'H' is the adopted value, notice.

Vmag

The magnitude in Johnson V band, given to a precision of 0.01 magnitudes in the original Hipparcos Catalog.

Var_Flag

A coarse variability flag which indicates if the entry (or one of the components in the case of a multiple system) is variable in its Hipparcos magnitude Hip_mag at the level of:

1: < 0.06mag ; 2: 0.06-0.6mag ; 3: >0.6mag

Vmag_Source

The source of the V magnitude:

G: ground-based multicolor photometry, either directly in or reduced to the Johnson UBV system
H: Hipparcos magnitude Hip_mag, combined with information on the color index (either V-I or BT_mag-VT_mag), in combination with the luminosoty class
T: Tycho photometry, i.e., VT_mag and BT_mag-VT_mag
 : no data available

RA_Deg

The right ascension expressed in degrees for epoch J1991.25 (JD2448349.0625 (TT)) in the ICRS (International Celestial Reference System, consistent with J2000) reference system, and given to a precision of 10^{-8} degrees in the original Hipparcos Catalog. There are 263 cases where these fields are missing (no astrometric solution could be found).

Dec_Deg

The declination expressed in degrees for epoch J1991.25 (JD2448349.0625 (TT)) in the ICRS (International Celestial Reference System, consistent with J2000) reference system, and given to a precision of 10^{-8} degrees in the original Hipparcos Catalog. There are 263 cases where these fields are missing (no astrometric solution could be found)

Astrom_Ref_Dbl

Reference flag for astrometric parameters of double and multiple systems. This flag indicates that the astrometric parameters refer to:

A, B etc: the letter indicates the specified component of a double or multiple system
*: the photocentre of a double or multiple system included in Part C of the Double and Multiple Systems Annex
+: the centre of mass: for such an entry, an orbit is given in Part O of the Double and Multiple Systems Annex

Parallax

The trigonometric parallax pi in units of milliarcseconds: thus to calculate the distance D in parsecs, $D = 1000/\pi$. The estimated parallax is given

for every star, even if it appears to be insignificant or negative.

PM_RA

The proper motion component in the RA direction expressed in milliarcseconds per Julian year (mas/yr), and given with respect to the ICRS reference system: $\mu_{RA}^* = \mu_{RA} \times \cos(\text{declination})$.

PM_Dec

The proper motion component in the declination direction expressed in milliarcseconds per Julian year (mas/yr), and given with respect to the ICRS reference system.

RA_Error

The standard error in the Right Ascension given at the catalog epoch, J1991.25, and expressed in milliarcseconds: $\sigma_{RA}^* = \sigma_{RA} \times \cos(\text{declination})$.

Dec_Error

The standard error in the declination given at the catalog epoch, J1991.25, and expressed in milliarcseconds.

Parallax_Error

The standard error in the parallax given in milliarcseconds.

PM_RA_Error

The standard error in the proper motion component in the RA direction expressed in milliarcseconds per Julian year (mas/yr): $\sigma_{\mu_{RA}}^* = \sigma_{\mu_{RA}} \times \cos(\text{declination})$.

PM_Dec_Error

The standard error in the proper motion component in the declination direction expressed in milliarcseconds per Julian year (mas/yr), $\sigma_{\mu_{\text{declination}}}$.

Crl_Dec_RA

The correlation coefficient expressed as a real numerical value (in the printed catalog this is expressed in per cent, notice): (declination over RA).

Crl_Plx_RA

The correlation coefficient expressed as a real numerical value (in the printed catalog this is expressed in per cent, notice): (parallax over RA).

Crl_Plx_Dec

The correlation coefficient expressed as a real numerical value (in the printed catalog this is expressed in per cent, notice): (parallax over declination).

Crl_Pmra_RA

The correlation coefficient expressed as a real numerical value (in the printed catalog this is expressed in per cent, notice): (proper motion in RA over RA).

Crl_Pmra_Dec

The correlation coefficient expressed as a real numerical value (in the printed catalog this is expressed in per cent, notice): (proper motion in RA over declination).

Crl_Pmra_Plx

The correlation coefficient expressed as a real numerical value (in the printed catalog this is expressed in per cent, notice): (proper motion in RA over parallax).

Crl_Pmdec_RA

The correlation coefficient expressed as a real numerical value (in the printed catalog this is expressed in per cent, notice): (proper motion in declination over RA).

Crl_Pmdec_Dec

The correlation coefficient expressed as a real numerical value (in the printed catalog this is expressed in per cent, notice): (proper motion in declination over declination).

Crl_Pmdec_Plx

The correlation coefficient expressed as a real numerical value (in the printed catalog this is expressed in per cent, notice): (proper motion in declination over parallax).

Crl_Pmdec_Pmra

The correlation coefficient expressed as a real numerical value (in the printed catalog this is expressed in per cent, notice): (proper motion in declination over proper motion in RA).

Reject_Percent

The percentage of data that had to be rejected in order to obtain an acceptable solution.

Quality_Fit

The goodness-of-fit statistic: this number indicates the goodness of fit of the astrometric solution to the accepted data (i.e., excluding the rejected

data). For good fits, this should approximately follow a normal distribution with zero mean value and unit standard deviation. Values exceeding, say +3, thus indicate a bad fit to the data.

BT_Mag

The mean magnitude in the Tycho photometric system, B_T.

BT_Mag_Error

The standard error of the B_T magnitude, BT_mag.

VT_Mag

The mean magnitude in the Tycho photometric system, V_T.

VT_Mag_Error

The standard error of the V_T magnitude, VT_mag.

BT_Mag_Ref_Dbl

a reference flag for BT_mag and VT_mag which indicates, for non-single stars, the component measured in Tycho photometry, or indicates that several components have been directly measured together by Tycho, or have had their Tycho data combined. The flag takes the following values:

- A, B, etc. : the Tycho photometry refers to the designated Hipparcos Catalog component
- * : the Tycho photometry refers to all components of the relevant Hipparcos entry
- : the Tycho photometry refers to a single-pointing triple or quadruple system, for which only a close pair has been observed by Tycho, the other components being too faint to be detected by Tycho

BV_Color

The (B-V) color index in, or reduced to, the Johnson UBV system.

BV_Color_Error

The standard error of the (B-V) color index, BV_Color.

BV_Mag_Source

The source of the (B-V) color index, BV_Color:

- G: indicates that it was taken from ground-based observations
- T: indicates that it was determined from the transformed Tycho (B_T-V_T) data
- : indicates that no data are available

VI_Color

the (V-I) color index in Cousins' photometric system; it represents the best available (V-I) value at the time of the Hipparcos Catalog publication.

VI_Color_Error

The standard error in the (V-I) color index, VI_Color.

VI_Color_Source

The Source of the (V-I) color index, VI_Color (see Section 1.3, Appendix 5 of the published Hipparcos Catalog for full details):

- 'A' :for an observation of V-I in Cousins' system;
- 'B' to 'K' :when V-I derived from measurements in other bands/photoelectric systems
- 'L' to 'P' :when V-I derived from Hipparcos and Star Mapper photometry
- 'Q' :for long-period variables
- 'R' to 'T' :when colours are unknown

Mag_Ref_Dbl

A reference flag for the (B-V) and (V-I) color indices and the V magnitude Vmag (and all their standard errors) which is set to '*' when they refer to the combined light of double or multiple systems which are otherwise resolved by the main mission astrometry and photometry.

HIP_Mag

The median magnitude H_P in the Hipparcos photometric system, and defined on the basis of the accepted observations (or field transits) for a given star. Note that the Hipparcos magnitude could not be determined for 14 stars.

HIP_Mag_Error

The standard error of the median magnitude H_P.

Scat_HIP_Mag

The scatter of the H_P observations.

N_Obs_HIP_Mag

The number of H_P observations: this is the number of photometric observations (or field transits) used for the construction of the median, standard error, and scatter in H_P.

HIP_Mag_Ref_Dbl

A reference flag for the Hipparcos photometric parameters. For a double or multiple entry, this flag indicates that the photometry refers to:

- A, B, etc. : the specified component of a double or multiple system
- * : combined photometry of a double system, corrected for attenuation by the detector's instantaneous field of view profile response
- : combined photometry of a double system, NOT corrected for attenuation by the detector's instantaneous field of view profile response

HIP_Mag_Max

The observed magnitude at maximum luminosity. This is defined as the 5th percentile of the epoch photometry.

HIP_Mag_Min

The observed magnitude at minimum luminosity. This is defined as the 95th percentile of the epoch photometry.

Var_Period

The variability period, or a provisional estimate of such a period, derived on the basis of the Hipparcos data (possibly in combination with ground-based observations) and expressed in days, with a precision of 0.01 days.

HIP_Var_Type

The variability type: the sources of scatter in the photometric data are various, and this flag indicates the origin of the extra scatter, which may be astrophysical, or, in some cases, instrumental. See Section 1.3, Appendix 2 of the published Hipparcos Catalog for a more detailed description. Amongst astrophysical sources of variability, this parameter only distinguishes between 'M' (micro-variables), 'P' (periodic variables), and 'U' (unsolved variables). Further variability details for the periodic or unsolved variables are included in the Variability Annex. The flag takes the following values:

- C : no variability detected ("constant")
- D : duplicity-induced variability
- M : possibly micro-variable, with amplitude < 0.03 mag (stars classified with high confidence as micro-variable are flagged U)
- P : periodic variable
- R : the V-I colour index was revised during the variability analysis
- U : unsolved variable which does not fall in the other categories; this class also includes irregular or semi-regular variables, and possibly variables with amplitude > or ~ 0.03 mag
- : a blank indicates that the entry could not be classified as variable or constant with any degree of certainty

Var_Data_Annex

A Variability Annex flag indicating the existence of additional tabular data in the Variability Annex, where '1' means that additional data are provided in a table of periodic variables, and '2' means that additional data are provided in a table of 'unsolved' variables.

Var_Curv_Annex

A Variability Annex flag indicating the existence of a light curve, or a folded light curve, in the Variability Annex, where 'A' means the light curve is folded, and 'B' or 'C' mean that the light curve is NOT folded.

CCDM_ID

The Catalog of Components of Double and Multiple Stars (CCDM) identifier.

CCDM_History

The historical status of the CCDM identifier. The flag takes the following values:

- H : system determined as double or multiple by the Hipparcos observations, and was previously unknown as double or multiple
- I : system previously identified as multiple, as given in Annex 1 of the Hipparcos Input Catalog (HIC)
- M : miscellaneous (system had been previously identified, after publication of the HIC, using other more recently available catalogs and compilations)

CCDM_N_Entries

The number of separate catalog entries with the same CCDM identifier.

CCDM_N_Comp

The number of components into which the entry was resolved as a result of the satellite observations and data reductions.

Dbl_Mult_Annex

The Double and Multiple Systems Annex flag. This indicates that further details of this system are given in one of the 5 (mutually exclusive) parts of the Double and Multiple Systems Annex labelled as follows:

C : solutions for the components
G : acceleration or higher order terms
O : orbital solutions
V : variability-induced movers (apparent motion arises from variability of one of the components of a double system)
X : stochastic solution (probably astrometric binaries of short period)

Astrom_Mult_Source

A flag for the source of the absolute astrometry. This parameter qualifies the source of the astrometric parameters for some of the entries with a value of 'C' for the parameter Dbl_Mult_Annex. The values are as follows:

P : primary target of a 2- or 3-pointing system
F : secondary or tertiary of a 2- or 3-pointing 'fixed' system (common parallax and proper motions)
I : secondary or tertiary of a 2- or 3-pointing 'independent' system (no constraints on parallax or proper motions)
L : secondary or tertiary of a 2- or 3-pointing 'linear' system (common parallax)
S : astrometric parameters from 'single-star merging' process.

Dbl_Soln_Qual

A solution quality flag which indicates the reliability of the double or multiple star solution, and is set for all entries in Part C of the Double and Multiple Systems Annex. The flags can be understood as follows:

A: 'good', or reliable solution
B: 'fair', or moderately reliable solution
C: 'poor', or less reliable solution
D: uncertain solution
S: suspected non-single, i.e., possible double or multiple, although no significant or convincing non-single star solution was found

Dbl_Ref_ID

Component designation for the double star parameters, Dbl_theta, dbl_rho, etc. The first letter gives the 'reference' component, and the second letter gives the subsidiary component. In the case of the Hipparcos observations, the reference component is always defined to be the brighter component (in median H_P) such that the magnitude difference between the components (Diff_Hip_Mag) is always positive.

Dbl_Theta

The rounded value for the position angle between the components specified in the Dbl_Ref_id field, expressed in degrees (in the usual sense measured counterclockwise from North).

Dbl_Rho

The rounded value for the angular separation between the components specified in the Dbl_Ref_id field, expressed in arcseconds.

Rho_Error

The standard error of the angular separation, Dbl_Rho, given in arcseconds.

Diff_HIP_Mag

The Hipparcos magnitude difference of the components specified in the Dbl_Ref_id field, expressed in magnitudes.

Dhip_Mag_Error

The standard error of the Hipparcos magnitude difference, expressed in magnitudes.

Survey_Star

A flag indicating a 'survey' star. The 'survey' was the basic list of bright stars added to and merged with the total list of proposed stars, to provide a stellar sample (almost) complete to well-defined limits. A flag 'S' indicates that the entry is contained within this 'survey', whose limiting magnitude is a function of the stars's spectral type and galactic latitude b and is defined by:

$$V \leq 7.9 + 1.1 \times |\sin b| \text{ for spectral types earlier or equal to G5}$$
$$V \leq 7.3 + 1.1 \times |\sin b| \text{ for spectral types later than G5}$$

If no spectral data were available, the break was taken at $(B-V) = 0.8$ mag.

ID_Chart

A flag indicating an identification chart. Where identification of a star using ground-based telescopes might prove difficult or ambiguous, identification charts were constructed and are available in Volume 13 of the printed catalog. Charts correspond to the object observed by the satellite (i.e., at the position given in this catalog), even if it was not the intended target. The flag takes the following values: 'D' for charts produced directly from the STScI Digitized Sky Survey (776 entries) or 'G' for charts constructed from the Guide Star Catalog (10877 entries).

Notes

A flag indicating a note is given at the end of the volume(s) in the printed catalog. The flag has the following meaning:

D : double and multiple systems note only (Volume 10)
G : general note only (Volumes 5-9)
P : photometric (including variability) notes only (Volume 11)
W : D + P only
X : D + G only
Y : G + P only
Z : D + G + P

HD_ID

HD/HDE/HDEC identifier (CDS Catalog <III 135>).

BD_ID

Bonner Durchmusterung (BD) identifier (CDS Catalogs <I 119>, <I 122>). BD identifiers, unlike the CoD and CPD identifiers, may carry a suffix letter for additional stars, i.e., stars with suffixes 'A', 'B', 'P', or 'S': these stars were added to the BD Catalog after the original numbering was made, and such suffixes do not imply that the entry is a component of a double or multiple system.

CoD_ID

Cordoba Durchmusterung (CoD) identifier (CDS Catalog <I 114>).

CPD_ID

Cape Photographic Durchmusterung (CPD) identifier (CDS Catalog <I 108>).

VI_Color_Reduct

The (V-I) color index used for the photometric processing (not necessarily the same as the 'final' value given in the parameter VI_mag).

Spect_Type

The MK or HD spectral type acquired from ground-based compilations and primarily taken from the Hipparcos Input Catalog, with some updates, especially for variable stars.

Spect_Type_Source

The source of the spectral type. The flag indicates the source as follows:

1 : Michigan catalogue for the HD stars, vol. 1 (Houk+, 1975) <III/31>
2 : Michigan catalogue for the HD stars, vol. 2 (Houk, 1978) <III/51>
3 : Michigan Catalogue for the HD stars, vol. 3 (Houk, 1982) <III/80>
4 : Michigan Catalogue for the HD stars, vol. 4 (Houk+, 1988) <III/133>
G : updated after publication of the HIC <I/196>
K : General Catalog of Variable Stars, 4th Ed. (Kholopov+ 1988) <II/139>
S : SIMBAD database at <http://cdsweb.u-strasbg.fr/Simbad.html>
X : Miscellaneous
 : A blank entry has no corresponding information.

Class

The Browse classification created by the HEASARC based on the value of the spect_type parameter.

Contact Person

Questions regarding the HIPPARCOS database table can be addressed to the [HEASARC User Hotline](#).

Page Author: [Browse Software Development Team](#)

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HEASARC Director: Dr. Alan P. Smale
NASA Official: Phil Newman
Web Curator: [J.D. Myers](#)
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