V/50 Bright Star Catalogue, 5th Revised Ed. (Hoffleit+, 1991)

The Bright Star Catalogue, 5th Revised Ed. (Preliminary Version)
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<Astronomical Data Center, NSSDC/ADC (1991)>
=1964BS....C......0H

ADC_Keywords: Combined data ; Stars, bright

Description (prepared by Wayne H. Warren Jr., 1991 June 28):

The Bright Star Catalogue (BSC) is widely used as a source of basic astronomical and astrophysical data for stars brighter than magnitude 6.5. The catalog contains the identifications of included stars in several other widely-used catalogs, double- and multiple-star identifications, indication of variability and variable-star identifiers, equatorial positions for B1900.0 and J2000.0, galactic coordinates, UBVRI photoelectric photometric data when they exist, spectral types on the Morgan-Keenan (MK) classification system, proper motions (J2000.0), parallax, radial- and rotational-velocity data, and multiple-star information (number of components, separation, and magnitude differences) for known nonsingle stars. In addition to the data file, there is an extensive remarks file that gives more detailed information on individual entries. This information includes star names, colors, spectra, variability details, binary characteristics, radial and rotational velocities for companion stars, duplicity information, dynamical parallaxes, stellar dimensions (radii and diameters), polarization, and membership in stellar groups and clusters. The existence of remarks is flagged in the main data file.

The BSC contains 9110 objects, of which 9096 are stars (14 objects catalogued in the original compilation of 1908 are novae or extragalactic objects that have been retained to preserve the numbering, but most of their data are omitted), while the remarks section is slightly larger than the main catalog. The present edition of the compilation includes many new data and the remarks section has been enlarged considerably.

This preliminary version of the fifth edition of the Bright Star Catalogue supersedes the published and machine-readable versions of Hoffleit (1982, Yale University Observatory) and is intended for use until the final version of this edition is completed. It has been made available only for dissemination on the Astronomical Data Center CD ROM.

The brief format description applies to the preliminary version of the catalog only. The format will change for the final edition.

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File Summary:

FileName	Lrecl	Records	Explanations
ReadMe	80	.	This file
catalog	197	9110	The main part of the Catalogue

notes   132   9190   Remarks

See also:
    V/36 : Supplement to the Bright Star Catalogue (Hoffleit+ 1983)

Byte-by-byte Description of file: catalog

   Bytes Format Units   Label   Explanations

   1- 4 I4   ---   HR   [1/9110]+ Harvard Revised Number
                                    = Bright Star Number
   5- 14 A10   ---   Name   Name, generally Bayer and/or Flamsteed name
  15- 25 A11   ---   DM   Durchmusterung Identification (zone in
                                    bytes 17-19)
  26- 31 I6   ---   HD   [1/225300]? Henry Draper Catalog Number
  32- 37 I6   ---   SAO   [1/258997]? SAO Catalog Number
  38- 41 I4   ---   FK5   ? FK5 star Number
      42 A1   ---   IRflag   [I] I if infrared source
      43 A1   ---   r_IRflag *[':] Coded reference for infrared source
      44 A1   ---   Multiple *[AWDIRS] Double or multiple-star code
  45- 49 A5   ---   ADS   Aitken's Double Star Catalog (ADS) designation
  50- 51 A2   ---   ADScomp ADS number components
  52- 60 A9   ---   VarID   Variable star identification
  61- 62 I2   h   RAh1900 ?Hours RA, equinox B1900, epoch 1900.0 (1)
  63- 64 I2   min   RAm1900 ?Minutes RA, equinox B1900, epoch 1900.0 (1)
  65- 68 F4.1   s   RAs1900 ?Seconds RA, equinox B1900, epoch 1900.0 (1)
      69 A1   ---   DE-1900 ?Sign Dec, equinox B1900, epoch 1900.0 (1)
  70- 71 I2   deg   DEd1900 ?Degrees Dec, equinox B1900, epoch 1900.0 (1)
  72- 73 I2   arcmin DEm1900 ?Minutes Dec, equinox B1900, epoch 1900.0 (1)
  74- 75 I2   arcsec DEs1900 ?Seconds Dec, equinox B1900, epoch 1900.0 (1)
  76- 77 I2   h   RAh   ?Hours RA, equinox J2000, epoch 2000.0 (1)
  78- 79 I2   min   RAm   ?Minutes RA, equinox J2000, epoch 2000.0 (1)
  80- 83 F4.1   s   RAs   ?Seconds RA, equinox J2000, epoch 2000.0 (1)
      84 A1   ---   DE-   ?Sign Dec, equinox J2000, epoch 2000.0 (1)
  85- 86 I2   deg   DEd   ?Degrees Dec, equinox J2000, epoch 2000.0 (1)
  87- 88 I2   arcmin DEm   ?Minutes Dec, equinox J2000, epoch 2000.0 (1)
  89- 90 I2   arcsec DEs   ?Seconds Dec, equinox J2000, epoch 2000.0 (1)
  91- 96 F6.2   deg   GLON   ?Galactic longitude (1)
  97-102 F6.2   deg   GLAT   ?Galactic latitude (1)
 103-107 F5.2   mag   Vmag   ?Visual magnitude (1)
     108 A1   ---   n_Vmag   *[HR] Visual magnitude code
     109 A1   ---   u_Vmag   [:?] Uncertainty flag on V
 110-114 F5.2   mag   B-V   ? B-V color in the UBV system
     115 A1   ---   u_B-V   [:?] Uncertainty flag on B-V
 116-120 F5.2   mag   U-B   ? U-B color in the UBV system
     121 A1   ---   u_U-B   [:?] Uncertainty flag on U-B
 122-126 F5.2   mag   R-I   ? R-I   in system specified by n_R-I
     127 A1   ---   n_R-I   [CE:?D] Code for R-I system (Cousin, Eggen)
 128-147 A20   ---   SpType   Spectral type
     148 A1   ---   n_SpType   [evt] Spectral type code
 149-154 F6.3 arcsec/yr pmRA   *?Annual proper motion in RA J2000, FK5 system
 155-160 F6.3 arcsec/yr pmDE   ?Annual proper motion in Dec J2000, FK5 system
     161 A1   ---   n_Parallax [D] D indicates a dynamical parallax,
                                    otherwise a trigonometric parallax
 162-166 F5.3   arcsec Parallax ? Trigonometric parallax (unless n_Parallax)
 167-170 I4   km/s   RadVel   ? Heliocentric Radial Velocity
 171-174 A4   ---   n_RadVel *[V?SB123O] Radial velocity comments
 175-176 A2   ---   l_RotVel   [<=>] Rotational velocity limit characters
 177-179 I3   km/s   RotVel   ? Rotational velocity, v sin i
     180 A1   ---   u_RotVel   [:v] uncertainty and variability flag on
                                    RotVel
 181-184 F4.1   mag   Dmag   ? Magnitude difference of double,
                                    or brightest multiple
 185-190 F6.1   arcsec Sep   ? Separation of components in Dmag
                                    if occultation binary.
 191-194 A4   ---   MultID   Identifications of components in Dmag
 195-196 I2   ---   MultCnt ? Number of components assigned to a multiple
     197 A1   ---   NoteFlag [*] a star indicates that there is a note

(see file notes)

Note (1): These fields are all blanks for stars removed from
the Bright Star Catalogue (see notes).
Note on r_IRflag:
Blank if from NASA merged Infrared Catalogue, Schmitz et al., 1978;
' if from Engles et al. 1982
: if uncertain identification
Note on Multiple:
A = Astrometric binary
D = Duplicity discovered by occultation;
I = Innes, Southern Double Star Catalogue (1927)
R = Rossiter, Michigan Publ. 9, 1955
S = Duplicity discovered by speckle interferometry.
W = Worley (1978) update of the IDS;
Note on n_Vmag:
blank = V on UBV Johnson system;
R = HR magnitudes reduced to the UBV system;
H = original HR magnitude.
Note on pmRA:
As usually assumed, the proper motion in RA is the projected
motion (cos(DE).d(RA)/dt), i.e. the total proper motion is
sqrt(pmRA^2^+pmDE^2^)
Note on n_RadVel:
V = variable radial velocity;
V? = suspected variable radial velocity;
SB, SB1, SB2, SB3 = spectroscopic binaries,
single, double or triple lined spectra;
O = orbital data available.

Byte-by-byte Description of file: notes

Bytes	Format	Units	Label	Explanations
2- 5	I4	---	HR	[1/9110]+= Harvard Revised (HR)
6- 7	I2	---	Count	Note counter (sequential for a star)
8- 11	A4	---	Category	*[A-Z:] Remark category abbreviation:
13-132	A120	---	Remark	Remarks in free form text

Note on Category: the following abbreviations are used:
C - Colors;
D - Double and multiple stars;
DYN - Dynamical parallaxes;
G - Group membership;
M - Miscellaneous.
N - Star names;
P - Polarization;
R - Stellar radii or diameters;
RV - Radial and/or rotational velocities;
S - Spectra;
SB - Spectroscopic binaries;
VAR - Variability;
The category abbreviation is always followed by a colon (:).

Historical Notes:
* 02-Oct-1993 at CDS (Francois Ochsenbein)
A few corrections have been inserted from the CD-ROM version
"Selected Astronomical Catalogs, Volume 1, 1991, directory
/combined/bsc5 at CDS with the agreement of Wayne H. Warren Jr:
1. The spectral type for HR 6397 is from Walborn and contained octal 032
(control-Z) characters instead of square brackets around the "n".
2. Two remarks have been added for 6985 and 8817
3. Byte 197 (NoteFlag) of "catalog" file corrected for stars
202 7126 7482 7614 8982 (removed asterisk)
285 342 841 843 991 1181 1553 1652 2269 2271 (added asterisk)
2837 3133 3962 4522 4789 6692 7076 7328 8306 8667 (added asterisk)
* 02-Nov-1995 at CDS (Francois Ochsenbein):

Documentation slightly changed to accommodate to standards, and
two lines which were inverted in "notes" have been replaced.

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(End) Francois Ochsenbein [CDS] 02-Nov-1995