Wide-Field Plate Database: A Progress Report

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Abstract: The current status of a database containing information on wide-field observations stored in plate archives all over the world is presented. The database will permit on-line access to information on nearly $2 \cdot 10^6$ wide-field ($\gtrapprox$ 1 degree) plates and films, obtained over more than a century with about 200 telescopes and cameras.

1 Introduction

The Wide-Field Plate Database (WFPDB) project started as an initiative of the IAU Commission 9 Working Group on Wide-Field Imaging in 1991. The main goals of the project are to make an inventory of all available wide-field plates and to provide on-line access to the database (Tsvetkov et al. 1994a).

2 List of Wide-Field Plate Archives

Four issues of a List of Wide-Field Plate Archives (WFPA) were distributed during the last three years (Tsvetkov 1992, Tsvetkov et al. 1994a,b). The latest version (2.0) of the WFPA contains information on 263 archives with a total of 1 764 600 wide-field plates (see Table 1), including additional information on the instrument identifier in the WFPDB and the time zone of the instrument. This and more information (such as plate size and limiting magnitude) is given in the MAIN DATA TABLE of the database (see Section 3).

Table 1. Number of wide-field plates according to archive type

Archive type	Direct plates	Spectral plates	Total
Computer-readable	542 941	19 138	562 079
Partly computer-readable	376 360	3 246	379 606
Not computer-readable	801 925	20 990	822 915
Total	1 721 226	43 374	1 764 600

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3 The Wide-Field Plate Database: Structure and Content

The structure and content of the WFPDB is as follows:

Main Data Table (Index Plate Catalogue)

- plate identifier (including instrument identifier)
- coordinates of plate centre (R.A., Dec.) for equinox J2000.0
- observation date (UT)
- object or field designation
- method of observation
- emulsion
- filter
- spectral band
- plate dimensions X and Y [cm]
- observation time (UT)
- duration of exposure [min]
- pointers to tables **Quality, Notes, Observation, Availability** and **Digitization**

Table Quality
Table Notes
Table Observation
Table Availability
Table Digitization

The main data table of the WFPDB is installed on the IBM 4381 main frame computer in the Computer Centre of the Bulgarian Academy of Sciences. At present, it contains the data from 62 wide-field plate catalogues with 365 615 plates (Table 2). This constitutes 21% of the total number of wide-field plates, currently included in the WFPDB. The Index Plate Catalogue contains 40% of all existing plate catalogues in computer-readable or partly computer-readable form. As is seen from Table 2, the main contribution in the WFPDB in its present status comes from the Sonneberg plate collection (38 catalogues with information for 217 402 plates, Bräuer et al. 1994).

A special software package was developed and is used to convert the data from the original catalogues to a uniform presentation in the WFPDB, and to transform the data. Access to WFPDB is presently possible via e-mail request to WFPA@BGEARN.BITNET. In the near future, after connection to INTERNET, on-line access will be made available. As the next step in the development of WFPDB, we intend to include information on digitized plates.

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Table 2. List of catalogues included into the WFPDB

No.	Instrument identifier	Observatory	Aperture (m)	Tel. Type	Years of operation	Number of plates
1	AAO390	Anglo-Australian	3.90	Rfl	1974-	2424
2	ASI067	Asiago	0.67/0.92	Sch	1965-	15267
3	ASI040	Asiago	0.40/0.50	Sch	1958-	18411
4	BEI060	Beijing	0.60/0.90	Sch	1963-	1509
5	BOR033	Bordeaux	0.33	Ast	1893-	4151
6	BUC038	Bucharest	0.38	Rfr	1930-1970	7222
7	BUC016	Bucharest	0.16	Cam	1930-1961	147
8	PAL122	Cracow/Palomar	1.24	Sch	-	100
9	CRI040A	Crimea-Nauchny	2x0.40	Ast	1951-1984	508
10	CRI017A	Crimea-Nauchny	0.17	Cam	1951-1953	49
11	CRI017B	Crimea-Simeis	0.17	Cam	1948-1965	570
12	CRI040C	Crimea-Simeis	0.40	Ast	1947-1950	222
13	HEI040	Heidelberg	2x0.40	Ast	1900-1981	8900
14	KIS105	Kiso	1.05/1.50	Sch	1977-	6728
15	OND004A	Ondrejov	10x0.04	Cam	1955-1977	10060
16	OND004B	Ondrejov	13x0.04	Cam	1958-1975	16060
17	PAL122	Palomar	1.22/1.83	Sch	1947-	6904
18	ROZ200	Rozhen	2.00	RCr	1979-	1995
19	ROZ050	Rozhen	0.50/0.70	Sch	1979-	7106
20	SID124	Siding Spring-ROE	1.24/1.83	Sch	1973-	14383
21	ESO100	ESO-La Silla	1.00/1.60	Sch	1969-	9432
22	SON	Sonneberg		Cam	1950-1950	48
23	SON	Sonneberg		Cam	1950-1951	204
24	SON005	Sonneberg	0.05	Cam	1950-1956	2572
25	SON006A	Sonneberg	0.06	Cam	1941-1953	3558
26	SON006B	Sonneberg	0.06	Cam	1953-1962	3194
27	SON006C	Sonneberg	0.06	Cam	1956-1962	2781
28	SON006D	Sonneberg	0.06	Cam	1956-	12066
29	SON006E	Sonneberg	0.06	Cam	1956-	12162
30	SON006F	Sonneberg	0.06	Cam	1956-	12159
31	SON006G	Sonneberg	0.06	Cam	1957-	11056
32	SON006H	Sonneberg	0.06	Cam	1958-	10840
33	SON006I	Sonneberg	0.06	Cam	1958-	8687
34	SON006J	Sonneberg	0.06	Cam	1958-	8680
35	SON006K	Sonneberg	0.06	Cam	1958-	7914
36	SON006L	Sonneberg	0.06	Cam	1958-	8299
37	SON006M	Sonneberg	0.06	Cam	1958-	8311
38	SON006N	Sonneberg	0.06	Cam	1958-	8312
39	SON006O	Sonneberg	0.06	Cam	1958-	8431
40	SON007A	Sonneberg	0.07	Cam	1958-	8972
41	SON007B	Sonneberg	0.07	Cam	1958-	8965
42	SON007C	Sonneberg	0.07	Cam	1963-1965	925
43	SON007D	Sonneberg	0.07	Cam	1963-1965	942
44	SON007E	Sonneberg	0.07	Cam	1963-1965	906
45	SON007F	Sonneberg	0.07	Cam	1963-1965	890
46	SON008A	Sonneberg	0.08	Cam	1925-1939	300
47	SON008B	Sonneberg	0.08	Cam	1926-1928	193
48	SON009	Sonneberg	0.09	Cam	1957-1963	682
49	SON010	Sonneberg	0.10	Cam	1934-1956	7080
50	SON014A	Sonneberg	0.14	Cam	1928-1969	6248
51	SON014C	Son./Babel./Windhoek	0.14	Cam	1926-1945	5256
52	SON014D	Son./Babel./Windhoek	0.14	Cam	1926-1945	1735
53	SON014E	Sonneberg	0.14	Cam	1928-1957	11176
54	SON014F	Sonneberg	0.14	Cam	1942-1945	1325
55	SON017	Sonneberg	0.17	Cam	1923-1971	7976
56	SON030	Sonneberg	0.20	Sch	1960-1976	5322
57	SON040A	Sonneberg	0.40	Ast	1938-1945	1658
58	SON040B	Sonneberg	0.40	Ast	1960-	6858
59	SON040C	Sonneberg	0.40	Ast	1961-	10719
60	TAU134	Tautenburg	1.34/2.00	Sch	1960-	8239
61	TOR060	Torun	0.60/0.90	Sch	1962-1985	2826
62	TUR050A	Turku-Tuorla	0.50/0.50	Sch	1938-1949	5000

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