

User Guidelines for Adding Targets

It has been recognized that because of changing circumstances there will be a need for observers to deviate from the target list submitted with their proposals. It is our intention with this note to provide users with guidelines for adding targets. These guidelines represent an update and a revision of those published by Boggess (1979).

Requests for deviation from the target list submitted with the proposal should be made by the principal investigator* in writing to the IUE Project Scientist. This request should include the five letter program identification code, a justification for the addition, and an Observation Specification Form containing target information including accurate 1950 coordinates. The justification shall state briefly why the requested target is compatible with the proposed observing program and why it was not included on the target list with the proposal. Instructions for completing the Observer Specification Form and a copy of a blank form are included here as an appendix.

These requests may be granted if there is no conflict with the aims and original target lists of other accepted programs. In the event of a conflict, the requester may work out collaboration directly with the principal investigator (P.I.) who had the target on his original target list provided this P.I. is willing to have his/her name revealed to the requester. A letter from the P.I. must be on file with the Project Scientist to authorize such collaboration. It should be noted that adding a target to a program does not exclude another user from adding the same target for the same purpose at a later date; only the original target list excludes later additions.

The IUE NASA Users' Committee recommended that at least 75 percent of a program's observing time be devoted to the original accepted targets (Boggess 1979). The Project Scientist will use this number as a guideline when reviewing requests for added targets.

After new targets are approved, the Project Scientist will notify the observatory staff of the approval. The staff will give this approval to the

* This request may be made by a co-investigator if the principal investigator has given prior approval to the Project Scientist.

requestor during his/her observing run. The requestor may inquire about the status of the request during a pre-visit telephone call.

Y. Kondo, IUE Project Scientist
A. Holm
1982 May 25

REFERENCES

Boggess, A. 1979, NASA IUE Newsletter No. 5, 15.

APPENDIX

Observation Specification Form

Target coordinates are to be specified in 1950 epoch, right ascension to a tenth second of time and declination to one second of arc. Valid coordinates are necessary because the accuracy of a spacecraft maneuver depends upon the positional accuracy of both the desired target and the previously observed object and because the coordinates are used to check whether there is any conflict with other accepted programs.

In filling out the forms please note the following:

- (1) The list of catalog codes to be used for specifying object names has been reduced compared to previous years' lists. In general, coding was retained for
 - a) objects whose designations are larger than 8 characters
 - b) HD, HR and NGC numbers, since their coordinates are verified from tape files at GSFC. For these it is necessary for the object numbers to be right justified with leading blanks zero-filled to the left.
- (2) "O" means the letter "oh"
"Ø" means the number "zero"
- (3) The FORMAT given in the parameter descriptions below refers to the standard FORTRAN format field specification under which the item will be read. Formats of the type F_n.0 can accept integer or floating point numbers. The decimal point, if omitted, is assumed to be to the right of the rightmost digit position in the field.

<u>PARAMETER</u>	<u>NAME</u>	<u>FORMAT</u>	<u>COLUMN</u>
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<u>Sequence Number</u>	SEQ	I3	1-3
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Integer running from 1 to N
where N is the total number
of entries.

<u>Catalog Number</u>	A	A1	4
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The preferred catalog source is the HD.

Y - Bright Star Catalog

1 - BD

2 - CD

3 - CPD

G - Boss General Catalog

H - HD Catalog

N - NGC

P - PG numbers

K - Parkes catalog numbers

Q - other extragalactic sources with designations of the form HEMM+DDM,
e.g. Byrbidge catalog of quasars

S - SAO catalog numbers

X - X-ray sources with designations of the form HEMM+DDM, e.g. 2A,
MKB, 4 U numbers,

O - other designations as chosen by the observer, e.g., RHO CAS, AR PAV,
3C120

PARAMETER	NAME	FORMAT	COLUMN
<u>Object Number/Name</u>	IDENT	A8	5-12
Eight alpha-numeric characters.			
<u>A</u>	<u>IDENT</u>		
Y	0000XXXX	XXXX is the Bright Star Catalog number	
1	+ - XX YYYY	BD number	X = declination zone
2	XX YYYYY	CD number	Y = star number
3	XX YYYYY	CPD number	
G	000XXXXX	XXXXX is the GC number	
H	00XXXXXX	XXXXXX is the HD number	
N	0000XXXX	XXXX is the NGC number	
P	XXXX ⁺ -YYY	XXXX is the RA portion of the designation	
K	XXXX ⁺ -YYY	in the form HHMM	
Q	XXXX ⁺ -YYY	YYY is the Dec portion of the designation	
X	XXXX ⁺ -YYY	in the form DDM	
S	00XXXXXX	XXXXXX is the SAO number	
O	XXXXXXXX	XXXXXXXX is specified by the observer,	
		right justified	

PARAMETER	NAME	FORMAT	COLUMN
<u>Coordinates (1950 epoch only)</u>			
RA HOURS	HR	I2	14-15
MINS	MIN	I2	17-18
SECS	SEC	I2	20-21
TENTHS OF SEC	SEC/10	I1	23
DEC SIGN	+ -	A1	25
DEGS	DEG	I2	26-27
MINS	MIN	I2	29-30
SECS	SEC	I2	32-33
<u>Spectral Type</u>	SP	A2	35-36

Spectral types are used to derive estimated exposure times.

First character--one of the Letters W, O, B, A, F, G, K, M, C, R, N, S.

Any other character will be treated as an M.

Second character--one of the digits 0-9; C or N for WC, WN

If no type is specified, B0 is assumed for exposure time estimation.

<u>Luminosity Class</u>	L	I1	38
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A single digit from 1 to 9 as follows:

Class	L
Ib	1
II	2
III	3
IV	4
V	5
SD	6
WD	7
Ia	8
Iab	9

If not specified, a default value of 5 will be assumed.

PARAMETER	NAME	FORMAT	COLUMN
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<u>Brightness Mode Indicator</u>	E / F	A1	40
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Indicates the type of information specified in the next two fields.

(blank) means VIS MAG and B-V.

E means VIS MAG and E (B-V).

F means FLUX and WAVELENGTH.

Choose the mode which you feel will produce the most accurate exposure time computation.

<u>Intensity</u>	VIS MAG/ FLUX	F6.0	
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For BRIGHTNESS MODE E or blank, specify visual magnitude. For BRIGHTNESS MODE F, specify flux in photons $\text{cm}^{-2}\text{sec}^{-1}\text{A}^{-1}$

<u>Color or Wavelength</u>	B-V/E(B-V)/ WAVELENGTH	F6.0	49-54
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For BRIGHTNESS MODE blank, specify B-V. If omitted, the target is treated as unreddened. For BRIGHTNESS MODE E, specify E(B-V). If omitted, the target is treated as unreddened.

For BRIGHTNESS MODE F, specify wavelength in A at which flux is given. This must be within the wavelength range specified with the W parameter.

<u>PARAMETER</u>	<u>NAME</u>	<u>FORMAT</u>	<u>COLUMN</u>
<u>Resolution</u>	R	I1	56
R=1 (HIGH)			
R=2 (LOW)			
R=3 (BOTH)			
<u>Wavelength Range</u>	W	I1	57
W=1 (LONG)			
W=2 (SHORT)			
W=3 (BOTH)			
<u>Day of Observation</u>	Day	F7.0	70-76
<p>Day of year for the desired time of observation. If the date and/or time of observation is scientifically critical beyond the normal availability requirements this may be specified to .001 days. The year is implied by the approximate dates of the observing episode (approx. 12 months in length) beginning in April.</p>			
<u>Object Class</u>	OBJECT CLASS	A3	78-80
<p>For each observation designate according to code (01 through 99) as supplied on enclosed description of Object Classification.</p>			

OBJECT CLASSIFICATION

Classification of Objects Used in the IUE Observation Log

00 Sun	50 R, N or S Types
01 Earth	51 Long Period Variable Stars
02 Moon	52 Irregular Variables
03 Planet	53 Regular Variables
04 Planetary Satellite	54 Dwarf Novae
05 Minor Planet	55 Classical Novae
06 Comet	56 Supernovae
07 Interplanetary Medium (and sky bkgd)	57 Symbiotic Stars
08 Great Red Spot	58 T Tauri
09	59 X-ray
10 W C	60 Shell Star
11 W N	61 ETA Carinae
12 Main Sequence O	62 Pulsar
13 Supergiant O	63 Nova-like
14 OE	64 Other
15 OF	65 Misidentified Target
16 SD O	66 Interacting binaries
17 WD O	67
18	68
19 Other strong UV sources	69
20 B0-B2 V-IV	70 Planetary Nebula + Central Star
21 B3-B5 V-IV	71 Planetary Nebula - Central Star
22 B6-B9.5 V-IV	72 H II Region
23 B0-B2 III-I	73 Reflection, Nebula
24 B3-B5 III-I	74 Dark Cloud (Absorption Spectrum)
25 B6-B9.5 III-I	75 Supernova Remnant
26 BE	76 Bing Nebula (Shock Ionized)
27 BP	77
28 SDB	78
29 WDB	79
30 A0-A3 V-IV	80 Spiral Galaxy
31 A4-A9 V-IV	81 Elliptical Galaxy
32 A0-A3 III-I	82 Irregular Galaxy
33 A4-A9 III-I	83 Globular Cluster
34 AE	84 Seyfert Galaxy
35 AM	85 Quasar
36 AP	86 Radio Galaxy
37 WDA	87 BL Lacertae Object
38 Horizontal Branch Stars	88 Emission Line Galaxy (non-Seyfert)
39 Composite spectral types	89
40 F0-F2	90 Intergalactic Medium
41 F3-F9	91
42 FP	92
43 Late-type degenerates	93
44 G V-IV	94
45 G III-I	95
46 K V-IV	96
47 K III-I	97
48 M V-IV	98 Wavelength calibration lamp
49 M III-I	99 Nulls and flat fields

