Subject: Re: Library/Functions to write configuration file for application
Posted by sirvival on Tue, 01 Feb 2011 10:17:54 GMT
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Hi,
I got a pro (not sure from where) that maybe does what you want:

```
 ;+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++ ++++++++++
++++++++

FUNCTION DATA_INPUT, key, default, FILE=file

;_Purpose:      ASCII data input from runtime file specification
;
;_Description:  This is an extension of the FITS format such that a
single
;               keyword may imply input of up to 35 data items,
provided the
;               data are non-character, and they are read from a
single input
;               line, the length of which is < 81 characters.
;               Data delimiter is a comma. The number of data items
identified
;               is equal to the number of commas found + 1.
;               Character input is constrained to a single item.
;               A '!' marks the start of a comment.
;
;_Language:     IDL V3
;
;_Input Par:    key         Keyword (FITS type) to extract
;               default     Default value assigned if key or file not
found
;
;_Keywords:     FILE        Input from specified disk file
;                           Default is 'USER.PAR'
;
;_Result:       Value(s) of data following the keyword in the input
file. The
;               data type is determined at run time.
;
;_History:      TG          28-May-93   Initial programming
;               TG          10-Feb-96   '.' recognition produces FLOAT
;
;_Copyright:    (c) FOCES project, University Observatory Munich
;
 ;------------------------------------------------------------ ------------------
```

```
line = STRING(' ',FORMAT='(A80)')                    ; Single
line format

ON_IOERROR, no_such_file
IF (NOT KEYWORD_SET(file)) THEN file = 'ORIENTATION.PAR'         ;
Default input file
GET_LUN, lun
OPENR, lun, file
k = -1

WHILE (k EQ -1) AND NOT EOF(lun) DO BEGIN                    ; Read
until EOF
  READF, lun, line
  keyword = STRMID(line, 0, 8)
  k = STRPOS(keyword, key)
  IF (k NE -1) THEN line = STRMID(line, 10, 70)      ; Extract keyword
contents
ENDWHILE

FREE_LUN, lun
IF (k EQ -1) THEN BEGIN                              ; Keyword
not found
  value = default                                    ;
Set default
  RETURN, value                      ; ... and return to
calling program
ENDIF

IF (STRPOS(line, """) EQ 0) THEN BEGIN                 ; String value
detected
  tmp = STRPOS(line, """, 1)
  IF (tmp EQ -1) THEN BEGIN                ; Second string
delimiter missing
    PRINT, '###ERROR: non-FITS format'
    PRINT, line
    STOP
  ENDIF
  value = STRMID(line, 1, tmp-1)                     ;
Extract string
ENDIF ELSE BEGIN                                     ; Number(s)
detected
  i_elem = 0
  k = -1
  i = 0
  WHILE (i NE -1) DO BEGIN
    i = STRPOS(line, ",", k+1)                       ; Detect
next comma
```

```
   j = STRPOS(line, "!", k+1)                    ; Detect
exclamation mark
   ii = i
   IF (ii EQ -1) THEN BEGIN
     ii = STRLEN(line)                           ; End of
input line
      IF (j NE -1) THEN ii = j-1                 ; End of input
with comment
   ENDIF
   tmp = STRMID(line, k+1, ii-k-1)          ; Extract substring
between commas
   CASE (1) OF                                   ; Determine
data type
     (STRPOS(tmp, 'D') NE -1): tmp = DOUBLE(tmp)
     (STRPOS(tmp, 'E') NE -1): tmp = FLOAT(tmp)
     (STRPOS(tmp, '.') NE -1): tmp = FLOAT(tmp)
     ELSE:                  tmp = LONG(tmp)
   ENDCASE
   i_elem = i_elem+1
   IF (i_elem EQ 1) THEN value = tmp ELSE value = [value,tmp]
   k = i
  ENDWHILE
ENDELSE
RETURN, value

no_such_file:                                    ; File
not found
ON_IOERROR, NULL                                      ; Reset
error status
value = default                                    ;
Set default
RETURN, value



END



e.g. name.par

!Input file for the orientation simulation giving star and
spectrograph parameters
        !
Dtel    = 1.2
Fnum    = 13.0
Groove  = 31.6e3
```

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a short introduction to the parameters

#Dtel : Diameter of the telescope in m
#Fnum : Fnumber of the telescope
#groove : of the grating in m