# The Professional

Adventure Writing System





# Function of P.A.W. Flags

The normal flags are free for use in any way in games. The auto decrement flags (2 to 10) are also free for use, but be sure you know in which situations they are reduced before using them. Other flags should mostly only be set using the appropriate action, but useful tests can be carried out on their contents.

Flag O When non zero indicates game is dark (see also object O)
Flag 1 Holds quantity of objects player is carrying (but not wearing)

The following flags are decremented if non zero by PAW;

Flag 2 When a location is described

Flag 3 When a location is described and it's dark (Flag 0 not 0)

Flag 4 When a location is described, it's dark and object 0 is absent

Flags 5 to 8 Every time frame (i.e. every phrase/timeout)

Flag 9 Every time frame that it's dark

Flag 10 Every time frame that it's dark and object 0 is absent

Flags 11 to 28 are free for use in your own games

Flag 29 holds Picture Control flags
Bit 7 - Set this to force picture to be drawn (LOOK)
Bit 6 - Set this to always draw picture (PICS ON)
Bit 5 - Set this to never draw picture (PICS OFF)
this is set by using the GRAPHIC action.

Flag 30 Score flag

- Flag 31/32 (LSB/MSB) holds number of turns player has taken (actually this is the number of phrases extracted from the players input).
- Flag 33 holds the Verb for the current logical sentence
- Flag 34 holds the first Noun in the current logical sentence

Flag 35 holds the Adjective for first Noun

- Flag 36 holds the Adverb for the current logical sentence
- Flag 37 holds maximum number of objects conveyable (initially 4) Set using ABILITY action.
- Flag 38 holds current location of player
- Flag 39 holds current top line of screen Set by the LINE action.
- Flag 40 holds screen mode (range 0 to 4..) set with MODE action. also Bit 7 Forces no change of Border
  Bit 6 Produces "More.." when screen fills
- Flag 41 holds line number for split (if not in range 4-24 then 12 used) this is set by the PROTECT action to be the current screen line.
- Flag 42 holds prompt to use (a system message number O selects

one of four randomly Set by the PROMPT action.

Flag 43 holds the Preposition in the current logical sentence

Flag 44 holds the second Noun in the current logical sentence

Flag 45 holds the Adjective for the second Noun

Flag 46 holds the current pronoun ("IT" usually) Noun

Flag 47 holds the current pronoun ("IT" usually) Adjective

Flag 48 holds Timeout duration required

Flag 49 holds Timeout Control flags

Bit 7 - Set if timeout occurred last frame

Bit 6 - Set if data available for recall (not of use to writer)

Bit 5 - Set this to cause auto recall of input buffer on timeout

Bit 4 - Set this to print buffer on exit, (for use with Bit 3).

Bit 3 - Set this to take input from lower screen

Bit 2 - Set this so timeout can occur on ANYKEY

Bit 1 - Set this so timeout can occur on "More..."

Bit 0 - Set this so timeout can occur at start of input only

Set using INPUT and TIME (as is flag 48), TIMEOUT tests Bit 7 of this flag.

- Flag 50 holds Objno. for DOALL loop. i.e. value following DOALL
- Flag 51 holds last object referenced by GET/DROP/WEAR/WHATO etc. This is the number of the currently referenced object as printed in place of any underlines in text.
- Flag 52 holds players strength (maximum weight of objects carried and worn initially 10)
  Set with ABILITY action.
- Flag 53 holds object print flags
  - Bit 7 Set if any object printed as part of LISTOBJ or LISTAT
  - Bit 6 Set this to cause continuous object listing i.e. LET 53 64 will make PAW list objects on the same line forming a valid sentence.
- Flag 54 holds the present location of the currently referenced object
- Flag 55 holds the weight of the currently referenced object
- Flag 57 is 128 if the currently referenced object is a container.
- Flag 57 is 128 if the currently referenced object is wearable
- Flag 58 when set to 128 causes PAW to match words in a subprocess (PARSE usage mainly). Cleared by Process 1/2.
- Flag 59 should be avoided as it will be used for any expansion
- Flag 60 to 255 are available for your own use.

BORDER CHARSET SAVEAT BACKAT PRINTAT	0-7 0-255 0-20	0-31	;select character set (if inserted);save current print position;return to it;set a new print position		
LISTOBJ LISTAT INVEN }	locno+		; list objects at current location ; list objects at specified location		
DESC			;restart main loop, describe HERE		
END			;Type 2, exits table to restart game		
DONE NOTDONE OK			; return to caller, done something		
SAVE !	•		;done with SM15		
LOAD RAMSAVE					
RAMLOAD	flagno				
ANYKEY PAUSE	0-255		;delay program for n/50 of a second		
PARSE NEWTEXT			convert input string to valid LS; force the loss of remaining phrases		
BEEP	0-255	0-255	;duration(1/100sec),pitch(BASIC+60/2)		
PROCESS	procno		;execute sub-response/process		
DOALL	locno+		;generate Noun(Adjective)1 for each object at Location locno.		
RESET	locno		move player and present objects, reset others to initially at -		
EXTERN	0-255		used to chain games with LOAD ;call external program		
Where: locno. is a valid location number. locno+ also allows the use of; 252 (not-created), 253 (worn), 254 (carried) and 255 which is converted into the current location of the player. mesno. is a valid message. sysno. is a valid system message. flagno. is any flag (0 to 255). procno. is a valid sub-process number. word; is a word of the required type, which is present in the vocabulary, or "_" which ensures no-word - not an anymatch as normal).					

### The CondActs

#### Conditions:

```
; ensure player at specific location
           locno
NOTAT
           locno
                               or not
                               ; higher location than specified
ATGT
           locno
                               :lower...
           locno
ATLT
                               specified object is HERE
PRESENT
           objno
                               or not
ABSENT
           objno
                               ; the object is WORN
WORN
           objno
                               ;or not
NOTWORN
           objno
                               :etc
CARRIED
           objno
           objno
NOTCARR
                               ; tests for an object at a location
                    locno+
ISAT
           objno
                               :(or not) other than HERE
ISNOTAT
           objno
                    locno+
                               ; the flag contains O!
           flagno
ZERO
                               ; guess what .... thats right NOT!
           flagno
NOTZERO
           flagno 0-255
                               the flag has a value EQual to
EQ
           flagno 0-255
                               ; NOTEQual
NOTEQ
                               :GreaterThan
           flagno 0-255
GT
           flagno 0-255
                               :LessThan
LT
           flagno flagno
                               :The SAME as
SAME
                                ; or NOT as the other number/flag
           flagno flagno
NOTSAME
                                current LS adjective 1 is
           word
ADJECT1
                                :etc
            word
ADVERB
            word
PREP
            word
NOUN2
ADJECT2
            word
                                ; random possibility of success
CHANCE
           0-99
                                ;players last input timed out
TIMEOUT
                                :Are you sure?
QUIT
Actions (Those marked { are type 4, } are type 3, | are type 1)
                                :GET specified object
            objno
GET
                                ; what they say ...
DROP
            objno
            objno
WEAR
            objno
REMOVE
CREATE
            objno
DESTROY
            objno
                                ; exchanges position.
                    objno
SWAP
            objno
                                ; puts it at the location
PLACE
                    locno+
            objno
                                ; puts the current (WHATO) object
 PUTO
            locno+
                                :for containers
                    locno
            objno
 PUTIN
 TAKEOUT {
                    locno
            objno
                                :all fall down...
 DROPALL
                                :auto versions of above
 AUTOG
```

AUTOD AUTOW AUTOR			;which do a WHATO etc
AUTOP AUTOT COPYOO	locno locno objno	objno	;make 2nd object be with 1st
COPYOF COPYFO WHATO	objno flagno	flagno objno	<pre>;copy position of object to flag ;convert Noun1(Adjective1) to</pre>
WEIGH	objno	flagno	current object; weight of object is put in flag
SET CLEAR PLUS MINUS LET ADD SUB COPYFF RANDOM MOVE	flagno flagno flagno flagno flagno flagno flagno flagno flagno flagno	0-255 flagno2 flagno2	;flag becomes 255 ;or 0 ;add value to flag ;or take away ;set to given value ;contents of flag1 added to flag2 ;or subtracted from it ;duplicated ;set to random number from 0 to 99 ;Adjust contents of flag according to the LS Verb and the Connection table entry for location, that the contents specify. (allows movement in PSIs)
GOTO WEIGHT	locno flagno		;put player at location ;weight of objects carried & worn are put in flag
ABILITY	0-255	0-255	;set conveyable objects and strength
MODE LINE GRAPHIC PROMPT INPUT TIME PROTECT	0-4 0-20 0-3 sysno 0-7 0-255	0-3	; set screen line to split picture ; prompt on input. O is random ; protect text on screen to current print line from scrolling.
PRINT TURNS SCORE CLS NEWLINE MES MESSAGE SYSMESS PICTURE PAPER INK	mesno mesno sysno locno 0-9 0-9		; display contents of flag on screen; displays no of turns taken; the score; clear the screen ; message without a newline; message with a newline; system message without newline; Display picture (without CLS)

## The system messages

The majority of system messages contain ESCC 7s to allow correct spacing on the screen.

SMO - is used instead of the location description when it is dark. SM1 - is printed by LISTOBJ if at least one object is present. SM2 to SM5 - are the four input prompts which are selected randomly unless flag 42 is set to be a valid message number. SM6 - is produced by the parser when no further phrase can be understood.

SM7 - is produced if no action was carried out (or NOTDONE was) in Response when the Verb is < 14

SM8 - is produced if no action was carried out (or NOTDONE was) in Response when the Verb is > 13

SM9 to SM11 - are printed by action INVEN.

SM12 - printed by QUIT

SM13 and 14 - are printed by the END action.

SM15 - the OK action message.

SM16 - the ANYKEY action message.

SM17 to SM20 - are the TURNS action messages.

SM21 and SM22 - are the SCORE action messages.

SM23 to SM29 - are the first of many messages produced by the object manipulating actions.

SM30 - the positive response expected by END and QUIT. SM31 - the negative response expected by END and QUIT.

SM32 - produced when a screen full of text has appeared.

SM33 - the input marker.

SM34 - the cursor

SM35 - displayed when a timeout occurs

SM36 to SM45 - are more messages produced by the object manipulating actions.

SM46 - the link between objects when listing continuously

SM47 - the final link between the last two objects when listing SM48 - the termination of a list of objects (printed by both LISTOBJ and LISTAT, so take care.)

SM49 and SM50 - yet more object messages

SM51 - the termination for a compound sentence on PUTIN/TAKEOUT (and AUTOP/AUTOT)

SM52 - a final object message.

SM53 - message for LISTAT action if no objects found. SM54 - prompt for filename for game position save/load

SM55 onwards are free to be inserted for your own use. PAW on other machines may use more messages, so bear this in mind if you intend transferring the adventure to another version. E.g. PAW under CPM uses messages 55 to 60!

## Graphics Editor Commands

Occasionally when moving the line at speed it will disappear, this is due to a beat frequency of update with screen flyback.

Moving the end of the rubber banded line is achieved with:

```
Q W E at 1 pixel per move. Alternatively
A D use Interface 2/Plus 2 joystick port 2
Z X C or Kempston interface (SYMBOL SHIFT & J)
```

Hold down the CAPS SHIFT key to accelerate to eight pixels per move.

The drawstring editing commands:

```
Cursor Right (CAPS SHIFT & 8) - Start of drawstring
Cursor Down (CAPS SHIFT & 6) - Next command
Cursor Up (CAPS SHIFT & 7) - Previous command

DELETE (CAPS SHIFT & 0) - Delete previous command
GRAPHICS (CAPS SHIFT & 9) - Delete next command
```

All the following commands require SYMBOL SHIFT to be held down unless otherwise specified.

# The toggles:

- I Inverse Toggle
  O Over Toggle
  Y Grid Toggle
  J Kempston joystick toggle.
- The next commands all insert into the database:
- Absolute Move (a PLOT with I and O selected) В Block in rectangle attribute area. Diagonal defined by line F Fill area from end of line. (See footnote) G Gosub to location number with scale X Ink (produces prompt for Ink selection) L Line fix (draws rubber banded line) C Paper Select P Plot point at end of line Relative Move point to end of line R
- S Shade an area of screen from end of line with pattern
- V Flash Select Z Bright Select
- Text character on screen, selects character and set no.

Note: Fill and Shade are not completely re-entrant. Fill is a shade with all pixels in pattern set.

ENTER on its own to finish editing session.