JOB SHEET 2-4-34
CREATING USER FUNCTIONS
Operator Input Required - Requesting Products

INTRODUCTION

Some User Functions make use of operator input to personalize a procedure for a particular situation. In this case the input is in the form of an AZRAN(S), such as 2 points specified for cross section generation. These types of User Functions are used repeatedly, changing output as the operator changes input. The end result is a One-time request of a product, rather than displaying a product.

OBJECTIVE

Create and invoke a User Function which requests a Reflectivity Cross Section through a specified storm, using operator selected points.

REFERENCES

NWS EHB 6-531-1, USERS GUIDE: PUP/RPGOP, Sections 11.0

PROCEDURE

1. From the Main Menu, type **U** and press **RETURN**.

   - The User Function Menu displays.

2. Type **D,6,REFLECT_CROSS_SECTION** and press **RETURN**.

   - This entry **(D)**efines User Function **6** entitled **REFLECT_CROSS_SECTION**. User Function 6 generates a Reflectivity Cross Section using operator selected points. These points will not be selected in the User Function. We will assumed that your points were selected **before** running the User Function.

1

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                                   MAIN MENU

COMMAND: U
FEEDBACK:

Enter command and press return.  For assistance, press the HELP button (F5).

(C)ONTROL
(S)TATUS
(D)ISPLAY
(R)OUTINE PRODUCT SET
(G)EN AND DISTRIBUTE PRODUCTS
(T)IME LAPSE
(A)RCHIVE
(U)SER FUNCTION
(AD)APTATION DATA
(M)ONITOR PERFORMANCE
(H)ELP


UNACKNOWLEDGED ALERTS                          ALPHA PRODUCT QUEUE INDICATOR
ACKNOWLEDGED ALERTS                            RPG PRODUCT REQUEST STATUS
SYSTEM STATUS
```

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                                USER FUNCTION MENU

COMMAND: U,D,6,REFLECT_CROSS_SECTION
FEEDBACK:

Enter command.

(E)XECUTE, <UF#>, <rpg>
(C)ANCEL EXECUTION
(D)EFINE, <UF#>, <title>
(EN)D DEFINE AND EXAMINE *,        (E)ND UF
                                   <UF#>,  [User Function # to receive control]
(W)AIT, <SECONDS>
(EXA)MINE,         (T)ITLES
                   <UF#> *  [Examine and edit]


   *Note:      Edit commands are available when the User Function Examine screen is
               displayed.
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AT THE GRAPHIC TABLET WITH THE **RIGHT** BUTTON:

3. Select **CROSS SECTION SELECT**.

   - The last two selected points are defined as the points of the cross section. Remember, you will pick your points before starting this User Function.

4. Select Reflectivity Cross Section **REF CROSS SECTION**.

5. Select **DEFAULT PARAMETERS**.

6. Make sure the command line, reads **U,W,5** and press **RETURN**.

   - This allows a short pause to insert your points in the parameter selection screen.

7. Select **SEND RPG REQUEST.**

   - This command sends your cross section request to the RPG.

8. Select **CLEAR SCREEN/QUAD.**

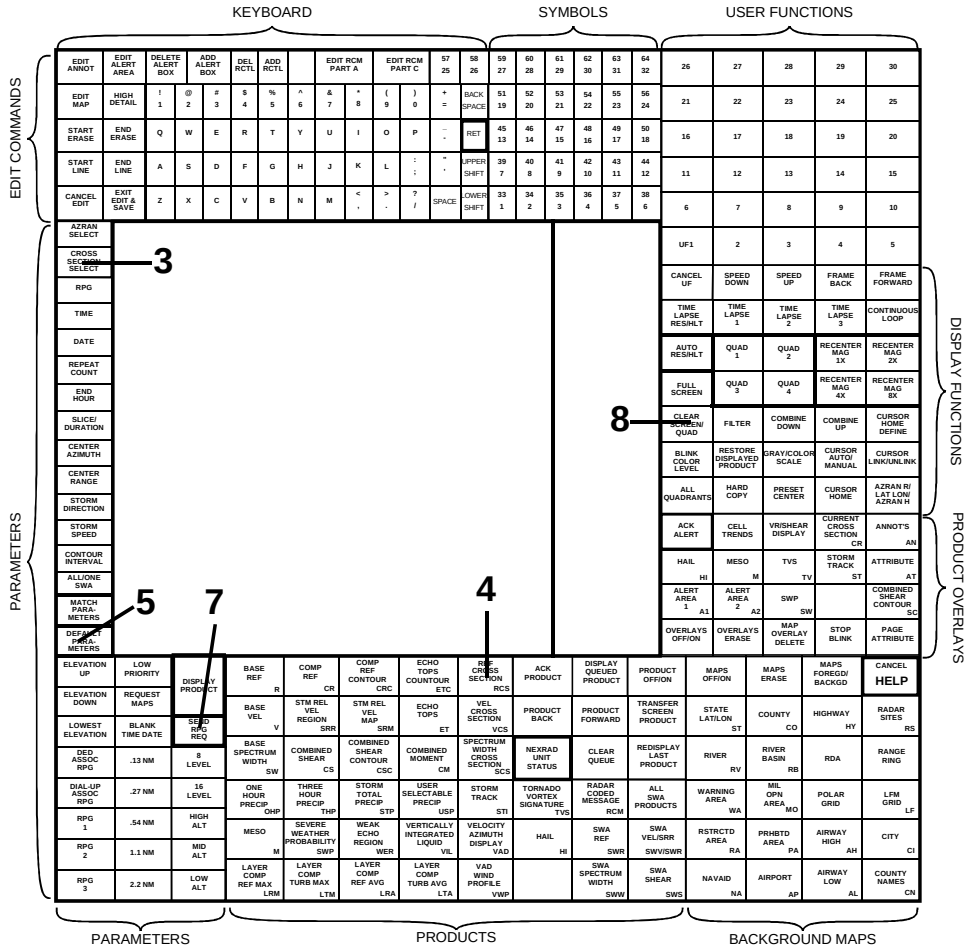
   - The screen clears allowing the cross section to display upon arrival.

9. Make sure the command line, reads **U,EN,E** and **RETURN**.

   - This ends User Function 6 definition and displays the list of commands. Notice that the Feedback line displays “UF 6 DEFINITION COMPLETE.”

   - The step left out of this User Function is the "Current Cross Section". This step allows the operator to view the cross section line before sending the request off. You could modify this User Function to allow for this step.

GRAPHIC TABLET



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EXAMINE/EDIT USER FUNCTION 6: REFLECT_CROSS_SECTION

COMMAND: **U,**

FEEDBACK: **UF 6 DEFINITION COMPLETE**

EDIT CMDS: [EACH EDIT CMD MUST BE PRECEDED BY '(U)SER FUNCTION',]
(DEL)ETE,<LINE#> (R)EPLACE END, [(E)ND OR <UF#>]
(I)NSERT,<LINE#> (REN)AME UF TITLE,<NEW TITLE>

1. CROSS SECTION SELECT R
2. REFLECTIVITY CROSS SECTION R
3. DEFAULT PARAMETERS R
4. U,W,5
5. SEND RPG REQUEST R
6. CLEAR SCREEN/QUAD R
7. **U,EN,E**

10. At the Graphic Tablet, select your favorite graphic product (VIL,R,CR,ET....) on the **LEFT** screen.

11. Select the 2 points of your cross section (through the largest VIL, reflectivity, highest echo top, along the inflow side of a storm....). The *last two* points you choose are the ones used in the request.

12. At the Graphic Tablet - Select **UF6.**

- You may use either Puck button, however the action takes place on the **RIGHT** screen, as specified in the User Function definition. When complete, the right screen is blank allowing the RCS to display on arrival. You can compare the cross section on the right screen with the product used to make the points on the left. You may want to overlay Current Cross Section on the left screen for further clarification.

END

GRAPHIC TABLET

KEYBOARD | SYMBOLS | USER FUNCTIONS

EDIT COMMANDS

EDIT ANNOT	EDIT ALERT AREA	DELETE ALERT BOX		ADD ALERT BOX		DEL RCTL	ADD RCTL		EDIT RCM PART A		EDIT RCM PART C		57 25	58 26	59 27	60 28	61 29	62 30	63 31	64 32	26	27	28	29	30
EDIT MAP	HIGH DETAIL	! 1	@ 2	# 3	$ 4	% 5	^ 6	& 7	* 8	(9	) 0	+ =	BACK SPACE	51 19	52 20	53 21	54 22	55 23	56 24	21	22	23	24	25
START ERASE	END ERASE	Q	W	E	R	T	Y	U	I	O	P	_ -	RET	45 13	46 14	47 15	48 16	49 17	50 18	16	17	18	19	20
START LINE	END LINE	A	S	D	F	G	H	J	K	L	: ;	" '	UPPER SHIFT	39 7	40 8	41 9	42 10	43 11	44 12	11	12	13	14	15
CANCEL EDIT	EXIT EDIT & SAVE	Z	X	C	V	B	N	M	< ,	> .	? /	SPACE	LOWER SHIFT	33 1	34 2	35 3	36 4	37 5	38 6		7	8	9	10

PARAMETERS

AZRAN SELECT
CROSS SECTION SELECT
RPG
TIME
DATE
REPEAT COUNT
END HOUR
SLICE/ DURATION
CENTER AZIMUTH
CENTER RANGE
STORM DIRECTION
STORM SPEED
CONTOUR INTERVAL
ALL/ONE SWA
MATCH PARA-METERS
DEFAULT PARA-METERS

11

10

12

UF1 | 2 | 3 | 4 | 5

DISPLAY FUNCTIONS

CANCEL UF	SPEED DOWN	SPEED UP	FRAME BACK	FRAME FORWARD
TIME LAPSE RES/HLT	TIME LAPSE 1	TIME LAPSE 2	TIME LAPSE 3	CONTINUOUS LOOP
AUTO RES/HLT	QUAD 1	QUAD 2	RECENTER MAG 1X	RECENTER MAG 2X
FULL SCREEN	QUAD 3	QUAD 4	RECENTER MAG 4X	RECENTER MAG 8X
CLEAR SCREEN/ QUAD	FILTER	COMBINE DOWN	COMBINE UP	CURSOR HOME DEFINE
BLINK COLOR LEVEL	RESTORE DISPLAYED PRODUCT	GRAY/COLOR SCALE	CURSOR AUTO/ MANUAL	CURSOR LINK/UNLINK
ALL QUADRANTS	HARD COPY	PRESET CENTER	CURSOR HOME	AZRAN R/ LAT LON/ AZRAN H

PRODUCT OVERLAYS

ACK ALERT	CELL TRENDS	VR/SHEAR DISPLAY	CURRENT CROSS SECTION CR	ANNOT'S AN
HAIL HI	MESO M	TVS TV	STORM TRACK ST	ATTRIBUTE AT
ALERT AREA 1 A1	ALERT AREA 2 A2	SWP SW		COMBINED SHEAR CONTOUR SC
OVERLAYS OFF/ON	OVERLAYS ERASE	MAP OVERLAY DELETE	STOP BLINK	PAGE ATTRIBUTE

PARAMETERS

ELEVATION UP	LOW PRIORITY	DISPLAY PRODUCT
ELEVATION DOWN	REQUEST MAPS	
LOWEST ELEVATION	BLANK TIME DATE	SEND RPG REQ
DED ASSOC RPG	.13 NM	8 LEVEL
DIAL-UP ASSOC RPG	.27 NM	16 LEVEL
RPG 1	.54 NM	HIGH ALT
RPG 2	1.1 NM	MID ALT
RPG 3	2.2 NM	LOW ALT

PRODUCTS

BASE REF R	COMP REF CR	COMP REF CONTOUR CRC	ECHO TOPS COUNTOUR ETC	REF CROSS SECTION RCS	ACK PRODUCT	DISPLAY QUEUED PRODUCT	PRODUCT OFF/ON	MAPS OFF/ON	MAPS ERASE	MAPS FOREGD/ BACKGD	CANCEL HELP
BASE VEL V	STM REL VEL REGION SRR	STM REL VEL MAP SRM	ECHO TOPS ET	VEL CROSS SECTION VCS	PRODUCT BACK	PRODUCT FORWARD	TRANSFER SCREEN PRODUCT	STATE LAT/LON ST	COUNTY CO	HIGHWAY HY	RADAR SITES RS
BASE SPECTRUM WIDTH SW	COMBINED SHEAR CS	COMBINED SHEAR CONTOUR CSC	COMBINED MOMENT CM	SPECTRUM WIDTH CROSS SECTION SCS	NEXRAD UNIT STATUS	CLEAR QUEUE	REDISPLAY LAST PRODUCT	RIVER RV	RIVER BASIN RB	RDA	RANGE RING
ONE HOUR PRECIP OHP	THREE HOUR PRECIP THP	STORM TOTAL PRECIP STP	USER SELECTABLE PRECIP USP	STORM TRACK STI	TORNADO VORTEX SIGNATURE TVS	RADAR CODED MESSAGE RCM	ALL SWA PRODUCTS	WARNING AREA WA	MIL OPN AREA MO	POLAR GRID	LFM GRID LF
MESO M	SEVERE WEATHER PROBABILITY SWP	WEAK ECHO REGION WER	VERTICALLY INTEGRATED LIQUID VIL	VELOCITY AZIMUTH DISPLAY VAD	HAIL HI	SWA REF SWR	SWA VEL/SRR SWV/SWR	RSTRCTD AREA RA	PRHBTD AREA PA	AIRWAY HIGH AH	CITY CI
LAYER COMP REF MAX LRM	LAYER COMP TURB MAX LTM	LAYER COMP REF AVG LRA	LAYER COMP TURB AVG LTA	VAD WIND PROFILE VWP		SWA SPECTRUM WIDTH SWW	SWA SHEAR SWS	NAVAID NA	AIRPORT AP	AIRWAY LOW AL	COUNTY NAMES CN

BACKGROUND MAPS