

## MODIFIED MUUF TO ANNAGNPS CONVERSION PROGRAM



### VOLUME 3: PROCEDURES OF MUUF DATA CONVERSION

Soil Data:				50	139		
045BE	D	0.32	0.21	5.00			
BASEHOR				L			
		12.00	15.20	0.15	0.41	0.44	0.09
		0.00	3.46	0.22	0.09		90.00
		5.80	0.01	500.00	5.00	500.00	500.00
		13.00	16.40	0.00	0.00	1.00	0.00
		0.00	0.63	0.02	0.01		90.00
		0.00	0.00	50.00	0.50	250.00	250.00
045ET	B	0.32	0.03	5.00			0
EUDORA				SIL			
		12.00	13.70	0.12	0.68	0.21	0.00
		0.00	1.10	0.29	0.08		90.00
		6.95	0.03	500.00	5.00	500.00	500.00
		72.00	16.30	0.12	0.28	0.61	0.00
		0.00	1.10	0.21	0.08		90.00
		7.50	0.01	50.00	0.50	250.00	250.00
045EV	B	0.32	0.03	5.00			1
EUDORA				SIL			
		12.00	13.70	0.12	0.68	0.21	0.00
		0.00	1.10	0.29	0.08		90.00
		6.95	0.03	500.00	5.00	500.00	500.00
		72.00	16.30	0.12	0.28	0.61	0.00
		0.00	1.10	0.21	0.08		90.00
		7.50	0.01	50.00	0.50	250.00	250.00

# **MODIFIED MUUF TO ANNAGNPS CONVERSION PROGRAM**

VOLUME 3: PROCEDURES OF MUUF DATA CONVERSION

SEPTEMBER 2003

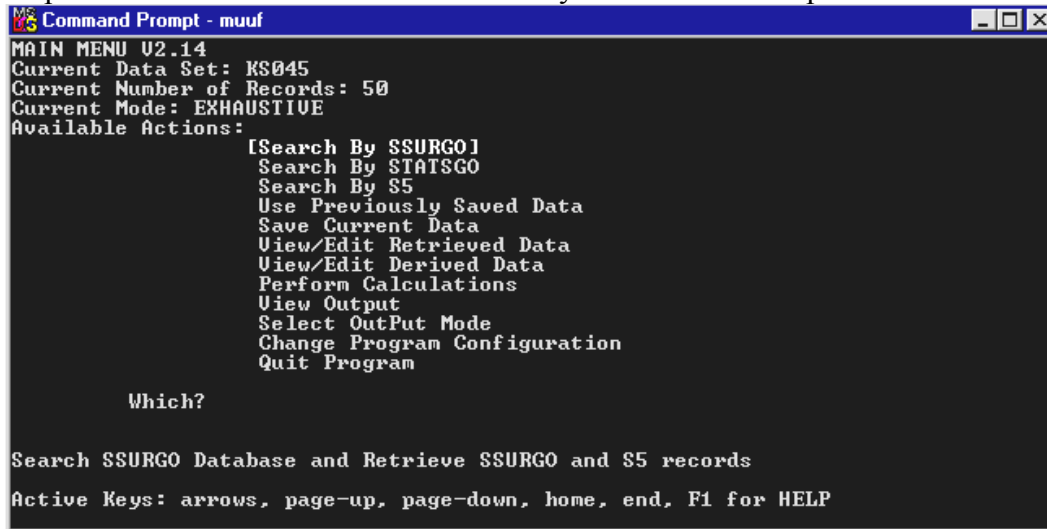
CENTRAL PLAINS CENTER FOR BIOASSESSMENT  
KANSAS BIOLOGICAL SURVEY  
AND  
KANSAS GEOLOGICAL SURVEY  
UNIVERSITY OF KANSAS  
AND  
NATURAL RESOURCES CONSERVATION SERVICE  
U.S. DEPARTMENT OF AGRICULTURE  
AND  
U.S. ENVIRONMENTAL PROTECTION AGENCY  
REGION VII

This report provides procedures for a modified MUUF to AnnAGNPS Conversion Program to allow a user to effectively prepare AnnAGNPS soil data. This programming project is funded from the U.S. Environmental Protection Agency through award number X-99797001-0 to the Kansas Biological Survey.

Mapping Unit Utility Function (MUUF Version 2.14, released on 12/14/94) is a comprehensive program for estimating physical, chemical, and hydrological characteristics and properties of most soils around the U.S. The Muuf to AnnAGNPS Program is a data conversion tool to extract the information (SSURGO) derived by MUUF into the form needed by AnnAGNPS. However, this conversion program only allows a user to extract one individual soil type each time. As one would expect, this soil preparation procedure becomes tedious when the size of a watershed increases.

To address this, the original conversion program was modified. The new program, Modified MUUF to AnnAGNPS Conversion Program (MMACP), provides the user ability to extract all of the soil types in one county and arrange them in a proper AnnAGNPS format. The program procedure is illustrated through an example of KS005 as following.

Step 1. Initiate MUUF and select Search By SSURGO. Then press ENTER.

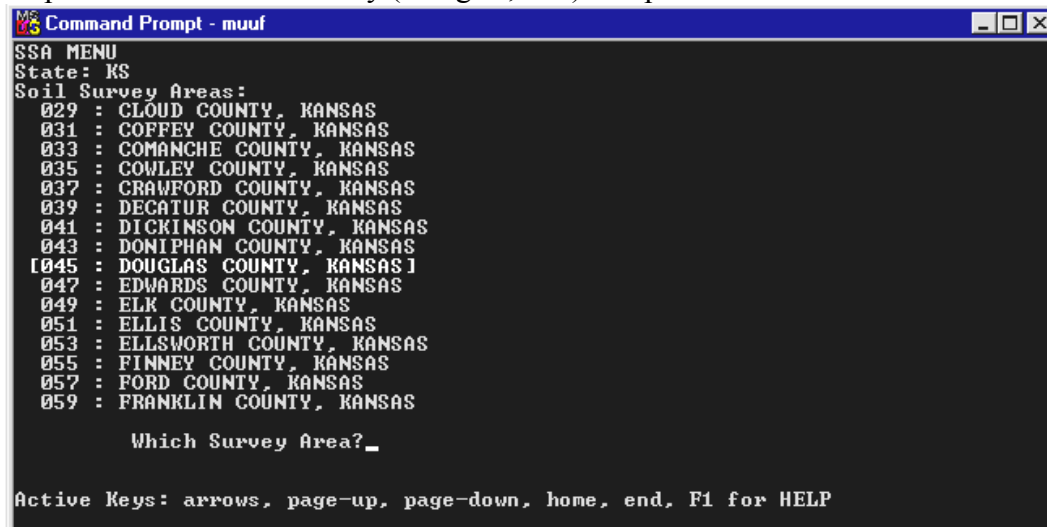


```
Command Prompt - muuf
MAIN MENU V2.14
Current Data Set: KS045
Current Number of Records: 50
Current Mode: EXHAUSTIVE
Available Actions:
    [Search By SSURGO]
    Search By STATSGO
    Search By S5
    Use Previously Saved Data
    Save Current Data
    View/Edit Retrieved Data
    View/Edit Derived Data
    Perform Calculations
    View Output
    Select OutPut Mode
    Change Program Configuration
    Quit Program

Which?

Search SSURGO Database and Retrieve SSURGO and S5 records
Active Keys: arrows, page-up, page-down, home, end, F1 for HELP
```

Step 2. Go to a desire county (Douglas, 045) and press ENTER.



```
Command Prompt - muuf
SSA MENU
State: KS
Soil Survey Areas:
 029 : CLOUD COUNTY, KANSAS
 031 : COFFEY COUNTY, KANSAS
 033 : COMANCHE COUNTY, KANSAS
 035 : COWLEY COUNTY, KANSAS
 037 : CRAWFORD COUNTY, KANSAS
 039 : DECATUR COUNTY, KANSAS
 041 : DICKINSON COUNTY, KANSAS
 043 : DONIPHAN COUNTY, KANSAS
 [045 : DOUGLAS COUNTY, KANSAS]
 047 : EDWARDS COUNTY, KANSAS
 049 : ELK COUNTY, KANSAS
 051 : ELLIS COUNTY, KANSAS
 053 : ELLSWORTH COUNTY, KANSAS
 055 : FINNEY COUNTY, KANSAS
 057 : FORD COUNTY, KANSAS
 059 : FRANKLIN COUNTY, KANSAS

Which Survey Area?_

Active Keys: arrows, page-up, page-down, home, end, F1 for HELP
```

Step 3. Select all of the soil types using SPACE bar and DOWN- ARROW ↓. Press ENTER.

```

Command Prompt - muuf
MUN MENU
State: KS
Survey Area: 045
Map Unit:
Symbol Sequence # Unit Type Number of
+LBE 1 Complex 11
+ ET 3 Consociation 1
+ EU 4 Complex 2
+ EW 5 Complex 2
+ GE 6 Consociation 1
+ GM 7 Consociation 1
+ GY 8 Consociation 1
+ JU 9 Consociation 1
+ KB 10 Consociation 1
+ KC 11 Consociation 1
+ KM 12 Consociation 1
+ LE 13 Consociation 1

Which Map Unit?_

Map Unit Name:
BASEHOR COMPLEX, 7 TO 15 PERCENT SLOPES

Active Keys: arrows, page-up, page-down, home, end, F1 for HELP
  
```

Step 4. Give a file name (KS005.dat). Press ENTER.

```

Command Prompt - muuf
***Survey Area: 045 (9373 MUN records)
-----
50 records processed

Counting Records...

About to Enter Batch Processing mode...
Existing Files:

KS005 KS045
(default = KS045)

Enter File Name: KS045.dat_
  
```

Step 5. Initiate the Modified MUUF to AnnAGNPS Conversion Program. Press ENTER.

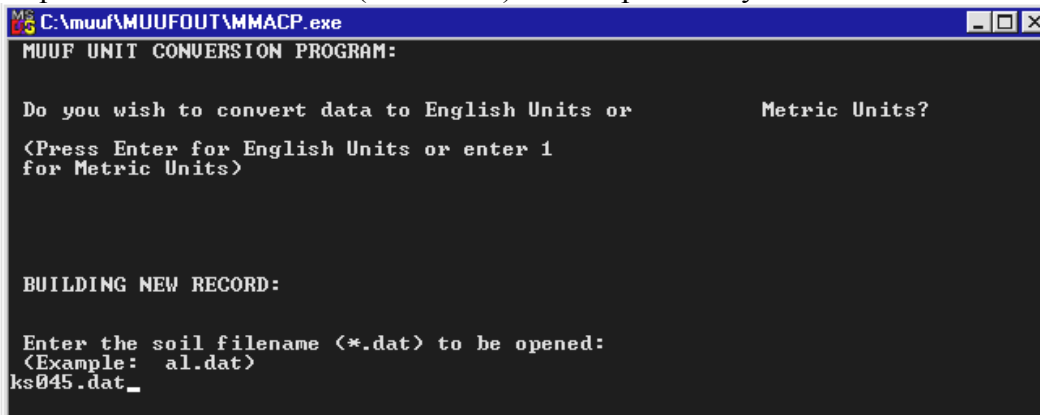
```

C:\muuf\AMUUFOUT\A.exe
MUUF UNIT CONVERSION PROGRAM:

Do you wish to convert data to English Units or Metric Units?

<Press Enter for English Units or enter 1
for Metric Units>
  
```

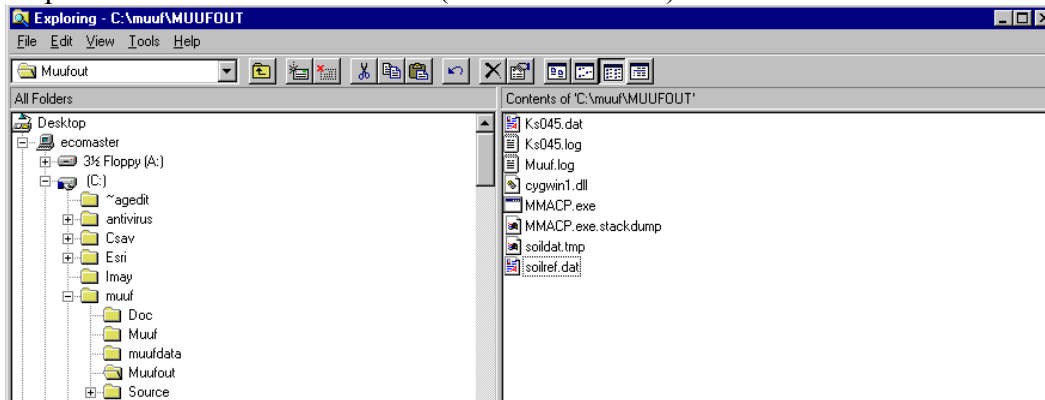
Step 6. Enter the file name (KS045.dat) created previously. Press ENTER.



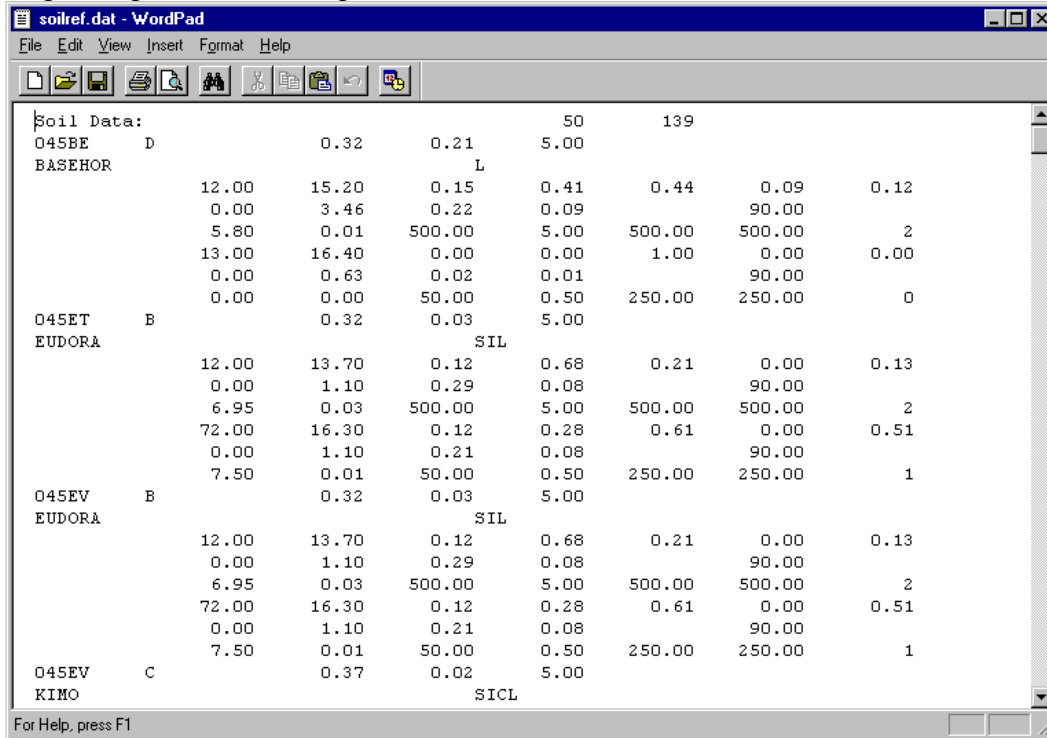
Step 7. Give the county ID (Douglas, 045). Then press ENTER.



Step 8. Locate the soilref.dat file (c:/muuf/muufout).



Step 9. Open it with Notepad.



Note: MUUF program installation

1. Create a muuf directory.
2. Copy muufzip.exe to the directory.
3. Unzip the muufzip.exe.
4. Create a muufdata directory.
5. Copy a desired data (e.g., ks.exe) and then click the data file.
6. Initiate MUUF program in the DOS environment.
7. Select EXHAUSTIVE for the OUTPUT mode.
8. Change to SURRGO in default mode of program configuration.