

Wylie, Allan

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Sent: Tuesday, February 08, 2011 3:18 PM
To: Wylie, Allan; Jim Brannon
Cc: Raymondi, Rick; Bowling, Jon
Subject: MKMOD6

Howdy!

I've posted an alpha of mkmod6 to the web site at
<http://www.prinmath.com/eshmc/mkmod6.zip>
I have both input and oputput files there so it is 125MB.

I ran mkmod as

```
mkmod -o test E101027A
```

RUn time on my laptop is about 3 min 40 sec. This reads the E101227A.* files and writes the output to test.*. That makes it easier to see what is input and what is output, but normally if you run it as

```
mkmod E101027A
```

the output will be named the same as the input. The -s -ss and so on still could be used to make a single output file, but having the multiple outputs is useful for creating a detailed water budget.

The -m FRS mode (on farm calculating returns and using soil moisture) is now the default.

I modified two input files:

In E101027A.fpt I changed the 'R' codes to 'U'. This is really just for my debugging purposes making sure it can recognize a nyew type without errors.

In E101027A.mdl I added two sections to the bottom. The first is the FPT definitions:

```
4
W PPT Wetlands Correction
U WEL Urban Pumping
E WEL Exchange Pumping
M WEL Mud Lake Pumping
```

The first line is the count, the next have the prefix, the output array and the text. The output array has no effect when using -s since all the output arrays are added together before saving.

The next section I added is

```
1
rfx ROF IESW002+IESW008 IESW027+IESW028
```

This creates a new file .rfx which outputs te ROF (runoff) variable by adding IESW002 and IESW008 and then IESW027 and IESW028. You can save these for any of the variables, specifically

DIV - Total diversions
SEEP - Canal leakage
RET - Returns
ROF - Runoff
APP - Applied
ET - Evapotranspiration
CIR - Crop Irrigation Requirement
DEF - Irrigation Deficit
EXS - Irrigation Excess
SM - Soil Moisture
RCH - Recharge
AREA - Acreage
Fsp - Sprinkler Fraction
RATE - Application Rate
EFF - Irrigation Efficiency
OFF - Off-site pumping
FPx - Fixed point types (x is W/E/M/...)

whatever is of interest in debugging. One down side of how I implemented this is that you don't get error messages on syntax to this until the very end, so don't screw this up.

One thing I do want to add is to allow comment lines in the input by starting the line with #. This is trivial to add but I have not done so yet. If we decide to do this, I would like to update especially the .mdl file with more useful information.

We probably should change the .fpt file back to R's but I don't know how big a deal that is - U seems more better.

Please take a look and let me know if you have any other bright ideas so we can finalize this update and send it out to the bigger group.

Best regards
-Willem

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