6.0 Model Operation

The State Model is structured to perform one of four (4) interrelated activities:

> *Base Flows*
>
> *Simulate*
>
> *Report*
>
> *Data Check*

These activities may be executed by requesting the desired option from the screen or through command line arguments. For a description of each option, see Section 3.3 of this documentation. The model may be executed from the CRDSS Graphic User Interface, script or by entering the model's name as follows:

```
        statemod [file] [options]

where:
  file = base file name of the simulation

  Options (1) =
        -v or -version          Print the program version
        -u or -update           Print recent updates
        -base or -baseflow      Perform baseflow option
        -basex or -baseflowx    Perform baseflow option for ungaged areas only.
                        Note: This option assumes gaged flows are natural flows.
        -sim or -simulate       Perform simulate option
                                  with standard reports
        -simx or -simulatex     Perform simulate option
                                   without standard reports

        -rep or -report [options2] Perform report option
        -chk or -check          Perform data check option
```

(1) If omitted, the PC version of the model defaults to requesting the desired option from the screen, while the Unix version prints an error message.

Except for the -report option, each of the above requests are straight forward and require only one command line argument. The -report option allows for one or two additional parameters in order to request the desired report and, as appropriate, desired station without requiring data from the screen by the user. Note, except for the standard output request (-std), the argument name is the same as the output file requested. Following are examples of the report option with second and third parameters supplies:

```
Argument (1)                Result

-report -xnm                Detailed node accounting for all years
                              and Detailed node accounting average
-report -xwb                Water Balance
-report -xwr                Water Right List sorted by basin rank
-report -xdg [-station id] Direct Diversion, Instream Diversion and
                              Gage graph file
-report -xrg [-station id] Reservoir graph file
-report -xwg [-station id] Well graph file

-report -xdc                Diversion comparison file
-report -xrc                Reservoir comparison file
-report -xwc                Well comparison file

-report -xsc                Stream flow gage comparison file
-report -xcu                Diversions by ditch formatted for the CU
                              model
-report -xst                Standard diversion (*.xdd) and reservoir
                              (*.xre) output

-report -xsp                Special parameter report (2).
```

(1) If omitted, the PC version of the model defaults to request the desired option from the screen, while the Unix version prints an error message.

(2) For the special parameter report the output type (e.g. diversion, reservoir, well, stream gage or All) and parameter (e.g. River Outflow) must be specified in the output request file.