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# Appendix: StateMod GUI Release Notes

Version, 07.04.00, 2013-04-17

This appendix provides information about changes that have occurred in StateMod GUI versions.

## StateMod GUI Version History

The following table summarizes the StateMod GUI release history. See the following sections for more detailed information about each version. Only recent versions are documented in detail. Comments for minor versions may be listed under a version that is publicly released. Recent release note items are categorized as follows:

**Bug Fix** – A bug has been fixed. Users should evaluate whether their work is impacted.

**Known Limitation** – A known limitation has been documented and may impact the user. The limitation will be addressed in a future release.

**Change** – An existing feature has been changed.

**Remove** – A feature has been removed.

**New Feature** – A new feature has been added, with functionality that was not previously available.

### StateMod GUI Version History Summary (most current at top)

| StateDMI Version                 | Version Information  | Release Date                |
|----------------------------------|--|-----------------------------|
| 07.03.00 – 07.04.00              | Enhance training documentation. Rebuild software consistent with components from other CDSS tools.   | 2013-04-17                  |
| 07.02.00                         | Improve operating rule editing and allow display on network. Update installer to support Windows 7.  | 2010-12-13                  |
| 07.01.00                         | Updates to be compatible with data sets on CDSS web site. Limitations are noted below.   | 2008-03-19                  |
| 07.00.00                         | New software installer.  | 2007-03-02                  |
| 06.05.00                         | Continue implementing plan stations and call time series.  | 2006-08-22                  |
| 06.04.00                         | Initial implementation of plan stations.   | 2006-08-16                  |
| 6.03.02                          | Full documentation update; add reservoir curve graphs, other maintenance.  | 2006-02-28                  |
| 06.03.01                         | Fix bug in diversions window that would corrupt data if the diversion list was sorted by the user and return flows or rights are viewed, fix graph button being hidden on the delay table window, minimize console output. | 2006-01-20                  |
| 06.03.00                         | Major release including enhanced tabular displays consistent with StateDMI.  | 2004-10-14                  |
| 06.02.00                         | Internal release.  | 2004-08-25                  |
| 06.01.08                         | Graphing tool uses the StateMod binary output file.  | 2003-12-01                  |
| 06.01.07                         | Include demand/supply summary tool.  | 2003-11-07                  |
| 06.00.01 Beta –<br>06.01.06 Beta | Releases to the State for testing and review.  | 2003-10-02 to<br>2003-11-06 |
| 06.00.00                         | Initial Java 1.4.2 release using new graphical components, add –v and –h command line parameters.  | 2003-06-03                  |

| StateDMI Version | Version Information   | Release Date |
|------------------|---|--------------|
| 05.11.00         | Final Java 1.1.8 release.   | 2003-01-31   |
| 05.10.04         | Maintenance release.  | 2002-10-29   |
| 05.10.03         | Increase performance of calls to StateMod.  | 2002-10-20   |
| 05.10.02         | Change to new, more general menu structure, use GeoView if a .gvp file is detected, add baseflow to graphing tool,  | 2002-08-22   |
| 05.10.01         | Fix bug detecting delplt exit status.   | 2002-07-15   |
| 05.10.00         | Add user name to log file. Fix problems running on a server.  | 2002-07-03   |
| 05.09.00         | Add additional support for wells. Update to let delplt work with new parameter names.   | 2002-06-02   |
| 05.08.00         | Minor update.   | 2001-11-21   |
| 05.07.00         | Update to use map display code that is compatible with StateView/CWRAT 02.06.00. Fix bug where some absolute paths in response file were not being handled correctly.   | 2001-10-19   |
| 05.06.01         | Minor update. Tested with StateMod 9.96.  | 2001-09-23   |
| 05.06.00         | Change to new graphing tool. Update GUI to be support current StateMod 9.92 model and be backward compatible with older data sets. Running on NT now shows incremental model screen output.                                     | 2001-08-23   |
| 05.05.00         | General maintenance. Included operational rights 15 and 16 and reworked delay file display to accommodate 240 return values.  | 2000-04-24   |
| 05.04.00         | Improved performance of running StateMod through the GUI. Included 2 new data types in BigPicture plot  | 2000-02-09   |
| 05.03.00         | Included the well data type and daily time series.  | 1999-12-22   |
| 05.02.00         | Added GIS interface, including legend, mouse tracking and big picture plot.   | 1999-09-15   |
| 05.01.00         | Internal release.   |              |
| 05.00.00         | Assuming you are running StateMod 8.14, SMGUI can now be run from the Start menu. Added functionality to allow creating BigPicture plots using ArcView. JRE is now a separate installation. Export from graph window available. | 1998-05-19   |
| 04.03.00         | Work-around implemented for running StateMod on NT platform. Added ability to view historical diversion time series. Allow second scenario to be read. Addressed minor bugs/labeling.   | 1998-11-11   |
| 04.02.00         | Second major PC release. Many enhancements and minor bugs have been addressed.  | 1998-10-03   |
| 04.00.01b        | First major PC release.   | 1998-06-08   |
| 04.xx.xx         | Start development in Java on PCs.   | 1997-06-01   |
| 1.x – 3.x        | UNIX versions of SMGUI.   | 1995 – 1997  |
| -                | Start of development.   | 1995         |

## Known Limitations

- **Known Limitation** Although significant effort has been invested in the operating rules editor, additional discussion needs to occur to determine how best to support the many operating rules, and ensure that formatting is tested. Additional documentation explaining the details of operating rules is needed.
- **Known Limitation** Resources for StateMod GUI development have lagged behind development of the StateMod model. Therefore, the GUI may not be fully consistent with model features. Additional resources need to be applied to ensure this consistency. For example, preliminary support has been added for plan stations; however, StateMod development occurred after initial GUI features were completed.
- **Known Limitation** The StateMod model operates on text input files, which typically are created with the StateDMI and TSTool software. To provide editing capabilities, the GUI reads the input files, allows interactive edits, and rewrites the text files. However, the updated files do not indicate markers for changes, and the original StateDMI and TSTool command files are not updated. Additional resources need to be applied to improve integration.
- **Known Limitation** The StateMod training data set focuses on response file cm2009.rsp, including configuration for the map interface; however, the other response files were not updated. Additional resources need to be applied to StateMod data sets to better integrate the data with StateMod GUI features.
- **Known Limitation** Exiting the StateMod GUI may show dialog indicating that files have changed, when the user has not made any changes. This is due to the GUI cleaning up data, dealing with migration of data from one format or another, or a limitation in editing features for a certain file. If the data set is only being viewed, cancel the request to save data.

## Changes in Versions 7.03.00 – 7.04.00

- **Change** [07.04.00] Rebuild software using updated components consistent with other CDSS tools, essentially a maintenance update.
- **New Feature** [07.04.00] **Chapter 8 – Using the Map** in the documentation has been completed.
- **New Feature** [07.03.00] Operating rules can now be displayed on the map display, to help troubleshoot.
- **New Feature** [07.03.00] Map layers can now be configured using simple text comma-separated-value files. The GUI creates template files indicating stations that do not have coordinates, to allow the files to be completed and supply coordinates.
- **New Feature** [07.03.00] Training materials are now available with the software installation, including a Colorado River dataset used for examples.
- **New Feature** [07.03.00] An attempt has been made to represent all StateMod model files in the GUI, even if full editing/viewing features are limited. This will help ensure that future development can be targeted and all data are represented to users in some form. Basic data viewing features for consumptive use locations have been added.
- **New Feature** [07.03.00] Basic data viewing features for consumptive use locations have been added.
- **New Feature** [07.03.00] All operating rules can be viewed in the editor window. Additional testing is needed to ensure that interactive editing is correct.

### Changes in Versions 7.02.00

- **Change** [07.02.00] Old fixed-format response files are no longer supported. If an old data set needs to be opened, update the response file using the *SmNewRsp* utility program.
- **New Feature** [07.02.00] Operating rules can now be displayed on the network, to help troubleshoot.

### Changes in Version 7.01.00

- The software installer has been updated to install in a versioned location (folder and menus) using a convention like `\CDSS\StateModGUI-07.01.00`. This allows multiple versions of the software to be installed, which is useful during development and in order to archive software versions used with specific modeling efforts. The conventions of the installer are consistent with other common software.
- Documentation is now distributed as a navigable PDF.
- This version of the GUI is distributed with StateMod version 12.200 (2008/03/13).
- The `system\StateModGUI.cfg` file has been added to store StateMod GUI configuration information, including the StateMod and SmDelta programs to be used at run-time.
- Fix bug in the network editor that occurred when the number of annotation labels was greater than the number of nodes. This had caused annotation positions to not be editable.
- Fix bug where diversion properties could not be displayed from the data tree on the main screen.
- Allow unknown operating rule types to be read as simple text by assuming that lines 2+ with a space in character 1 are a continuation of the operating rule. This allows the entire operating rule file to be read. See known limitations below.
- A number of changes have been made in the dependencies of software components. The StateMod GUI is no longer dependent on HydroBase software components. The Batik package is now being distributed to allow saving graphs as Scalable Vector Graphics (SVG) files. It is envisioned that the network and map displays will also be updated to allow saving to SVG.
- The prompt as to whether to read all the data has been removed. Computers are now powerful enough to read all the data.
- The performance of running the StateMod program from the GUI has been improved. Less output from the model is displayed in the GUI feedback dialog and there may be a delay in displaying output as StateMod runs. Full output can still be viewed in StateMod log file. The performance of running the StateMod model from the GUI and command line should be similar.
- **Known limitation:** Operating rule 23 is the last to be fully understood by the software. Enhancements are pending that will correct this. Newer operating rules cannot be fully viewed or edited by the StateMod GUI.
- **Known limitation:** The SmDelta functionality is not fully supported. There appear to have been changes in the program operation that need to be made consistent in the GUI. The GUI has been updated to use “SmDelta” rather than “delplt”.
- **Known limitation:** Annual precipitation and evaporation time series are not recognized by the GUI (monthly data are).
- **Known limitation:** The Stream Estimate Stations list is the same as the Stream Gage list. Additional enhancement needs to occur to separate the *\*.ris* file into two lists for display purposes. Stream gages are associated with historical flow time series and stream estimate stations are associated with proration data in the *\*.rib* file.
- **Known limitation:** Plan stations are not fully supported. Although the plan station file can be read and displayed, enhancements are pending to finalize features consistent with current StateMod specifications.

- **Known limitation:** Some data sets are distributed that have *\*ipy* files with older header formats. StateCU does not recognize water year (all analysis is calendar year). An appropriate header is as follows:  
1950      2005      CYR  
However, the data set may have something like:  
10/1908      9/2004 ACRE WYR  
The StateMod GUI will read the file, but will complain that the file may not be properly formatted. StateMod will read the file.
- **Known limitation:** The StateMod.exe program was previously typically installed in `\cdss\bin`. However, versioned installs of the StateMod GUI now distribute the StateMod program in the GUI *StateModGUI-Version\bin* folder in order to ensure software compatibility. Modelers are also often including the StateMod executable in the *StateMod* folder in data sets, to ensure compatibility with the data set. It is envisioned that the StateMod GUI options will be enhanced to allow users to configure which StateMod executable should be used. In the meantime, use the `system\StateModGUI.cfg` file to configure the location. Running StateMod from the command line will be controlled by the current directory, the `PATH` environment variable, and whether the user has typed the path to the model or has a batch file that does so.

### Changes in Version 7.00.00

- This is the first version to use the new software installer, which will facilitate distribution and installation of the software.
- Fix bug where binary files were not getting read with newer versions of StateMod.

### Changes in Version 6.05.00

- Additional work on plan stations and call time series – these features are preliminary pending finalization of StateMod software features.

### Changes in Version 6.04.00

- Begin adding plan stations – these features are preliminary pending finalization of StateMod software features.

### Changes in Version 6.03.02

- The documentation has been updated to be consistent with the current version of the software.
- Add graphs for the reservoir curves.
- Fix bug where instream flow rights window for an instream flow station was showing all rights in the data set.
- Fix bug where changing a file name in the response file window was causing the file names to be replaced by the data component name.
- Fix bug where well stations that do not have an associated diversion station were always being shown with the first diversion station.
- Fix bug where for diversion stations in the tree, the “show how used” tool was also showing the diversion station data.
- Fixed bug where when editing delplt input, the delete rows button was not working.
- Fixed button where the animation layer properties could not be displayed from the layer list.
- Make a number of changes to enforce network and other data edits being consistent.

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