

TreeAge Pro 2007 Release 1.0 Changes from TreeAge Pro 2006

Scripting/automation [Excel module] – TreeAge Pro Suite and TreeAge Pro Excel both now support a full-featured scripting interface, very similar to the TreeAge Pro Interactive interfaces. The TreeAge Pro 2007 library (TreeAgeProLib) provides macros/scripts access to a variety of modeling and analysis features in the TreeAge Pro application:

- ApplicationObj – used to open or connect to trees, graphs, and other documents
- TreeObj – used to change and analyze tree documents
- MonteOutput – used to output graphs/reports from simulations
- GraphObj – used to output and manipulate graph documents
- TextReportObj – used to manipulate text reports
- TableObj – used to update/output table data
- and much more...

(NOTE: The old DataATLLib.CurrentTree object is no longer available, its functions now handled by TreeObj and ApplicationObj objects in the TreeAgeProLib.)

Import/Export values to Excel [Excel module] – The updated Excel module also includes changes to the Export Variables (from TreeAge) command as well as the Excel add-in's commands for adding/updating variables from the spreadsheet. Exporting a variable to Excel now includes extra information, allowing variables to be renamed from the spreadsheet. Also, when a non-root node is selected in the tree, exporting a variable to Excel includes its node-specific definition (as well as a default definition, if any). New TreeAge menu commands in Excel enable worksheets already including variables and tables to be "refreshed," in order to retrieve newer/modified versions from the tree.

Documents View – The TreeAge Pro window includes a floating window showing a "tree" depicting all open documents, as well as other active windows open for editing variables, tables, and other formulas/expressions. Clicking on a "node" in the Document View will bring up the selected window. The Documents View window can be resized, and closed/reopened (from the Window menu).

User-defined functions – Custom functions can be quickly written in the straightforward but powerful Python language. Previously, using Python scripts in TreeAge was not easy. Now, Python functions can simply be written in a regular variable definition.

For example:

```
def DiscVal(val,yrs,rate=.05):  
    denom = (1+rate)**yrs;  
    return val/denom;
```

Your custom Python functions can access tree variables and functions, Python's powerful built-in functions and objects, as well as the vast array of custom and third-party Python scripts and modules. (See – <http://docs.python.org> and <http://www.treeage.com/support/Python.html>)

C/E sensitivity analysis [Healthcare module] – In cost-effectiveness models, 2-way & 3-way sensitivity analysis and threshold analysis now can use Net Benefits calculations, making cost-effectiveness thresholds easy to identify. Also, a new Net Benefits command under the Analysis menu generates a line graph showing how each strategy's Net Benefits change as the willingness-to-pay increases.

Node Outline pane – The tree window adds a new dockable, hideable pane which displays the currently selected node in text/outline format. The Node Outline pane has its own new button on the TreeAge Pro tool bar. The text outline of a single selected node can be modified, and then the node can be updated with the click of a button. (The syntax for the node outline is the same as the tree outline available in previous versions. To see examples of syntax, simply open a tree and display the Node Outline pane, from the Display menu.)

Variables Report – The Values > Reports > Variables... command now includes new options. For example, node-specific reporting can be done on variables in the tree using options for filtering out undefined variables in the currently selected path.

Variable definition comments – The Define Variable window includes space for annotating the formula contained in a variable definition.

Variables display – The "wrap" option has been improved, to avoid expanding the width of nodes whose variable definitions are short enough not to require wrapping. Also, user-defined Python function definitions (new in v2007) will be displayed completely if the "wrap" option is turned on.

Docked Finder – The Options > Find/Replace tool can now be opened as a dockable window (under the Display menu). The regular Find/Replace tool window is still available, too.

Tables – The global table files directory can be changed within TreeAge Pro. Go to Variables and Tables dialog, and click on the Backup/Move button. Changing the table files location here sets a preference which overrides any TABLE.DIR text file settings. Use the Reset button to revert (deletes the preference setting).

Formula Editor – Actions menu added with a Font... button that allows the user to change the default font for variable definition and formula editing windows. For example, this could be used to display text using an easier-to-read size. Also, the Formula Editor now works to edit probabilities for multiple selected nodes, as well as non-calculation fields (e.g., node labels and text boxes).

Statistics – Statistical reporting runs much faster on very long lists of numbers (i.e., hundreds of thousands of simulation output rows).

Simulations – Virtual memory requirements for storing the running output during very long simulations (or on trees with many outputs) are handled better. Under Windows XP, for example, running more than 1 million iterations on a tree with 150 output columns (e.g., C/E for 5 strategies with ~25 trackers) previously would exceed virtual memory allowed to a program (~1.5GB). A new, user-specified threshold memory size setting (default=500MB) is used to turn on swapping of outputs to temporary files. Note that this requires sufficient space on TEMP folder drive.

Debug pane – A new preference to limit lines of output in debug pane will speed up its operation, especially during simulations. Also, there is an option to turn on/off wrapping of long lines of text.

Distributions – Approximating parameters for Beta, Gamma, and Lognormal distributions is easier.

Influence diagrams – New preferences allow user to control the style of border around either note boxes or arc information notes. Also, arcs between incomplete nodes (e.g., no alternatives) can be displayed as gray dashed lines, like structure-only arcs.

And more.... See Appendix A of the User's Manual for more details.
