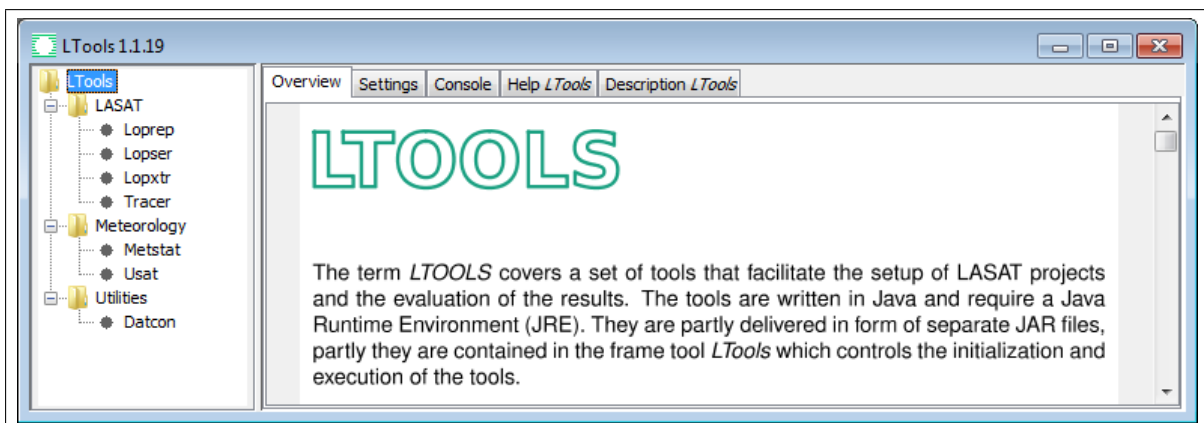


Version 3.2

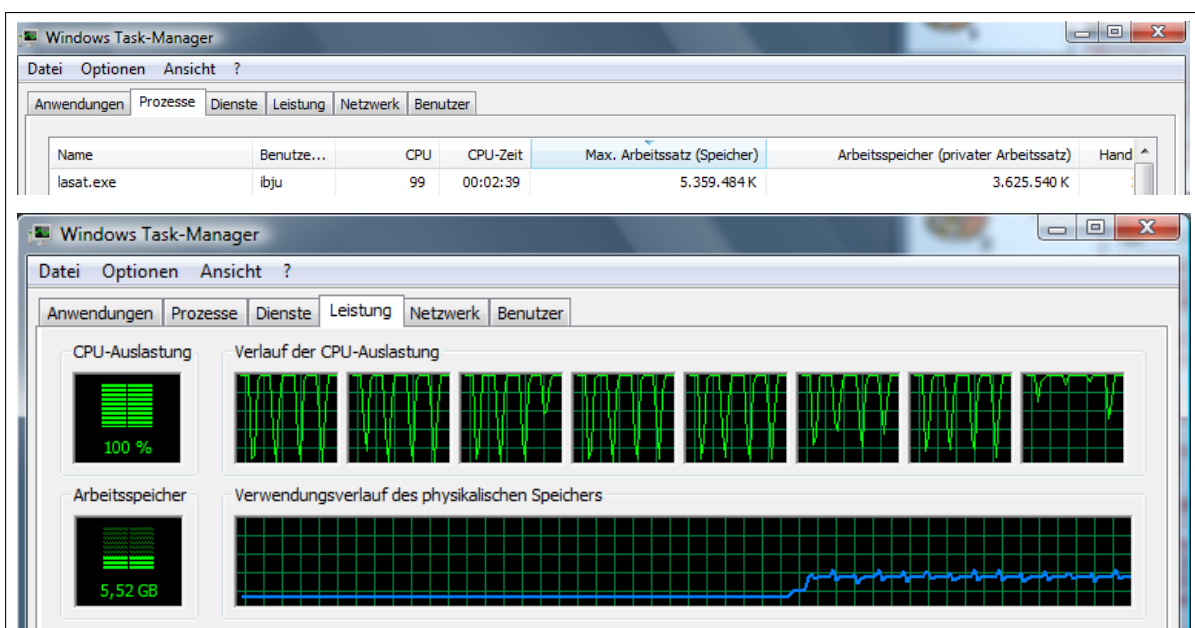
Update LASAT 3.2 contains the following major enhancements:

- Substantial extension of the LASAT tools (*LTools*), including an interactive graphical user interface for every tool (English and German).
- Major source code revision with extension to 64-bit program versions (allowing to access more than 2 GB RAM) and double precision coordinates (omitting the limitation to absolute values smaller 200 000 m).

These improvements should further ease program usage and adjust its core programs to current and future requirements. Additional LASAT tools will be prepared in course of 2011.



Screen shot of the main window of the interactive LASAT tool set.



Screen shots of the task manager during a 64-bit LASAT run that uses 8 processor cores and 5 GB RAM.



Major changes from LASAT 3.1 to LASAT 3.2

64-bit	Program versions for 32-bit and for 64-bit operating systems, the latter allowing to access more than 2 GB of memory. The selection is made during installation.
Coordinates	Particle locations and coordinates internally represented with double precision, removing the limitation of coordinate specifications to absolute values smaller 200 000.
Compiler	Compilation with the latest version of the Intel C compiler (12.0).
Installation	Improved interactive installation program (English and German).
LTools	Interactive user interface for the LASAT tool set (English and German).
LTusat	New LASAT tool for the evaluation and transformation of USAT data.
LTmetstat	New LASAT tool for the statistical evaluation and visualization of meteorological time series of type AKTerm.
LTdatcon	New LASAT tool for the conversion of DMN files (as an alternative to <i>Lasdap</i>).
LTtracer	New LASAT tool for the creation, inspection, and modification of the file with the parameter list of all substances.
LTlopxttr	Options <code>--drop-hour</code> and <code>--drop-day</code> replaced by options <code>--skip-hour</code> and <code>--skip-day</code> . Option <code>-t --tracer</code> does not define a single substance but specifies the file with the parameter list of all substances.
Names	Maximum length of user defined names in definition files extended to 255 characters.
Exponents	2-digit exponents used for scientific notation in formatted result files on Windows systems (as on Linux systems; before: 3-digit).
Lopezet	Exclusion of the 2 boundary cells of inner grids in the evaluation (like the LASAT tools and AUSTAL2000).
Lopgam	Auxiliary files (<i>gam0li.dma</i>) only written on demand.

Version 3.2 is fully backward compatible to version 3.1 (except for the modified options of *LTlopxttr*).

The first three changes may result in a marginally different (as compared to version 3.1) random path for some simulation particles (especially with complex terrain) and in course in a slightly different concentration value for some grid cells. However, the difference is statistically not significant and always within the stated statistical uncertainty. Apart from that, both versions produce identical results.