

## New release of Opus Suite – OPUS10, SIMLOX, and CATLOC

New versions of the Opus Suite tools, OPUS10, SIMLOX, and CATLOC, were released in March 2016. Opus Suite is under continuous development and new versions are released annually to provide users with state-of-the-art analytical capability, relevant new features, increased flexibility, and user friendliness. Some enhancements apply to the whole suite, while others are tool-specific.

### Better operations modelling, faster simulation, and improved integration

The introduction of multiple operation parameters facilitates more accurate and flexible modelling of how system operations drive demand for maintenance activities and item replacements. It means that failure rates and preventive maintenance intervals can be related to multiple units other than operating time. For example, item replacements can be described per kilometer or mile, number of missions, cycles, or rounds fired. It is also possible to define a combination of different operation parameters that simultaneously drive maintenance demands.

A key SIMLOX strength, simulation performance, has been further augmented, with the ability to use parallel replications on multi-core computers, as well as the implementation of several other improvements that provide more efficient executions and memory usage.

An important integration step is the new direct link of OPUS10 and SIMLOX results into CATLOC, and the ability to transfer LORA XT results to CATLOC, further reinforcing CATLOC's position as a central cost workbench within the analytical tool suite.

### Continuous customer driven development

Opus Suite is continuously developed based on user feedback and evolving best practices and technology. Customers with upgrade and support agreements get new versions at no additional cost.

### Key enhancements

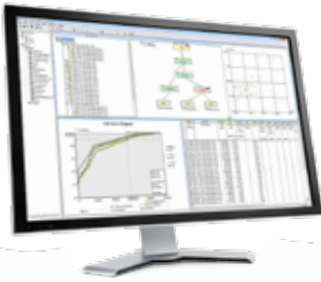
- ✓ Ability to model multiple operation parameters, e.g. calendar time, missions, distance, cycles or rounds fired.
- ✓ Increased SIMLOX performance with parallel replications and more efficient memory usage.
- ✓ Direct link of OPUS10 and SIMLOX results into the CATLOC model.
- ✓ LORA XT (Maintenance Concept Optimisation) can consider several maintenance alternatives at the same location.
- ✓ LORA XT results can be imported into CATLOC.
- ✓ Repair/discard probability can be defined for items replaced in PM and task based CM.
- ✓ Easier and more intuitive modelling of mission dependence.
- ✓ Improved navigation and usability.

# Opus Suite version 2016

The following enhancements are implemented in all three tools:

- ✓ Better overview in the Explorer bar with new options to group input tables by category, and to sort tables and reports in alphabetical order.
- ✓ New option to specify a time-out limit when importing from database.
- ✓ Automatic data conversion of input files saved in previous versions.

Tool specific improvements are described below. Please note that the version numbering is now the same as for Opus Suite, rather than individual for each tool.



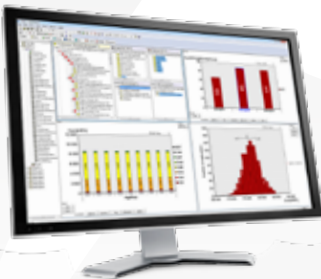
## New functionality in **OPUS10 v2016**

- ✓ Multiple operation parameters makes it possible to describe system operation, failure rates, and preventive maintenance intervals in other units than operational hours. For example calendar time, number of missions, distance, cycles or fired rounds.
- ✓ Station variants in LORA XT Maintenance Concept Optimisation provides the ability to define and consider several maintenance alternatives ("candidates") at the same location.
- ✓ Ability to describe the probability of repair/discard for an item that is replaced in preventive maintenance or task oriented corrective maintenance.



## New functionality in **SIMLOX v2016**

- ✓ Ability to perform parallel replications shortens the simulation time significantly on multi-core machines.
- ✓ Improved performance through more efficient memory usage and faster execution
- ✓ Improved operations modelling with multiple operation parameters (same as in OPUS10).
- ✓ Pre-life modelling has been updated to accommodate multiple operation parameters (described above).
- ✓ Ability to describe repair/discard probability in PM and task-oriented CM (same as in OPUS10).
- ✓ Easier modelling of mission dependence in an operational profile based on sub-profiles. Dependence can now be specified directly on a sub-profile as well as on individual missions.



## New functionality in **CATLOC v2016**

- ✓ Results from OPUS10 and SIMLOX can be linked directly into a CATLOC model. Updates and recalculation in OPUS10 or SIMLOX will automatically be included in CATLOC without an explicit import operation.
- ✓ LORA XT results can be imported into CATLOC for further cost analysis.
- ✓ New autosave option.

More complete descriptions of features in the new release are offered in the document *Opus Suite Upgrade Information*, which is enclosed in the delivery but may also be provided upon request. Contact Systecon or one of our representatives for a copy.