

# EnSight4Matlab: read, process, and write files in EnSight® Gold format from C++ or MATLAB®

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## Software

- [Review](#) ↗
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## Summary

EnSight4Matlab let's you read, process, and write files in EnSight® Gold format (CEI software, Inc 2017) from your C++ or MATLAB® code (MATLAB 2016).

Data in the EnSight Gold format represents a 3D mesh and variable fields defined over the domain of this mesh. The mesh and/or variables may be either static in time or time-varying (transient). The EnSight Gold format is used to save e.g. CFD and CAE data in research and industrial applications, and widely supported by many software tools.

This packages provides a C++ based library to process e.g. CFD data sets in EnSight Format, which you can directly link (statically or dynamically) to your application. Additionally, it provides a language binding for MATLAB to easily use the C++ library in your MATLAB scripts, e.g. for analysis and rapid prototyping.

We have extensively used this library to integrate our own simulations of fiber dynamics (e.g. (Gramsch, Schmeißer, and Wegener 2016)) with CFD data computed by the commercial CFD solver ANSYS® Fluent (ANSYS 2016).

## References

ANSYS. 2016. “Academic Research, Release 17.2.” <http://www.ansys.com/>.

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