

IXPUG In Situ Analysis Hackathon

OLCF

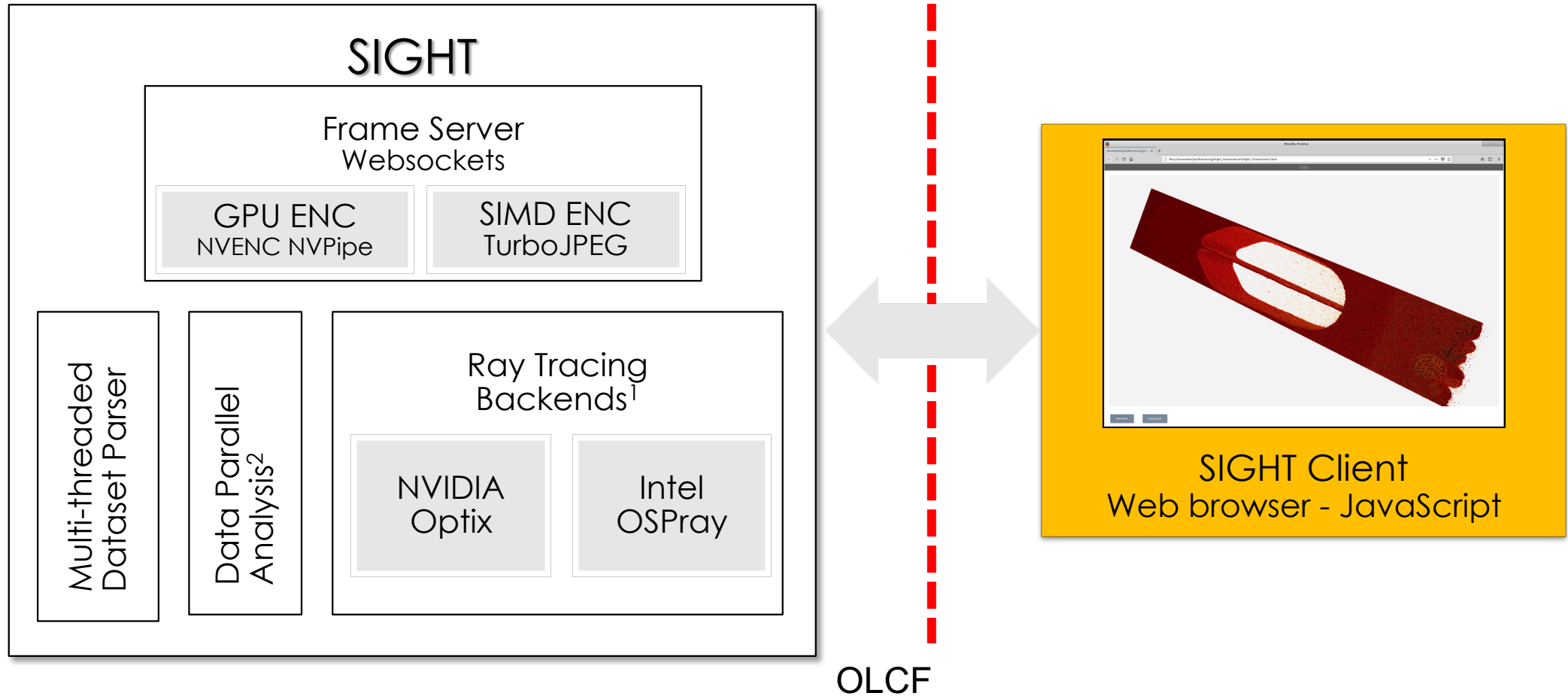
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ENERGY

SIGHT's System Architecture



¹S7175 Exploratory Visualization of Petascale Particle Data in Nvidia DGX-1
Nvidia GPU Technology Conference 2017

²P8220 Heterogeneous Selection Algorithms for Interactive Analysis of Billion
Scale Atomistic Datasets
Nvidia GPU Technology Conference 2018

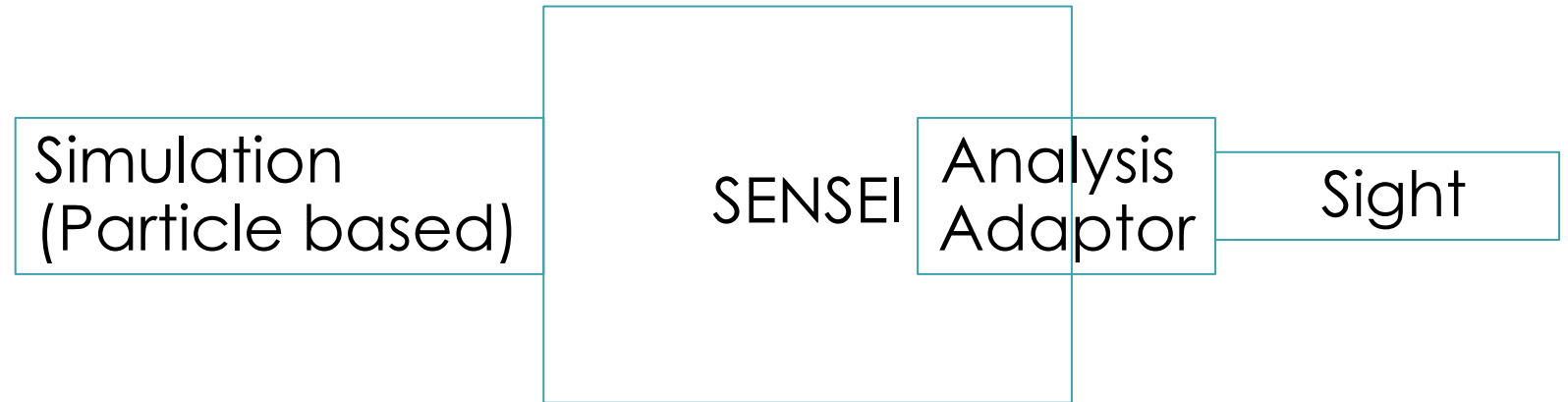
Enhancing SIGHT Frame Server

Simultaneous and independent user views

- Video

<https://youtu.be/0nremmyPyG0?t=71>

Sight-Sensei Integration



- Objective:
 - Provide ray traced remote visualization to particle based simulation codes
- Initial design of Sight's analysis adaptor class
- Extending Sight to support buffers coming from the analysis adaptor class
- Evaluate options for in transit visualization

Sensei + Catalyst with EGL/OpenGL in Summit

- Harvey code (Duke University), ALCF, OLCF, LLNB
 - Software stack needed for performance analysis of In-situ visualization of hemodynamics simulations
 - Simulation runs in GPUs, analysis and visualization on CPU (Power9)
 - New tests: Simulation, analysis and visualization running in GPUs
 - How this affect the simulation performance, find new potential bottlenecks, etc.

Thanks!

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- Acknowledgments

This research used resources of the Oak Ridge Leadership Computing Facility at the Oak Ridge National Laboratory, which is supported by the Office of Science of the U.S. Department of Energy under Contract No. DE-AC05-00OR22725.

Datasets provided by Cheng-Yu Shi and Leonid Zhigilei, Computational Materials Group at University of Virginia, INCITE award MAT130.