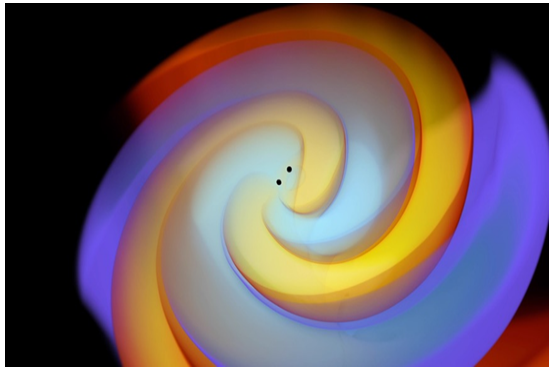
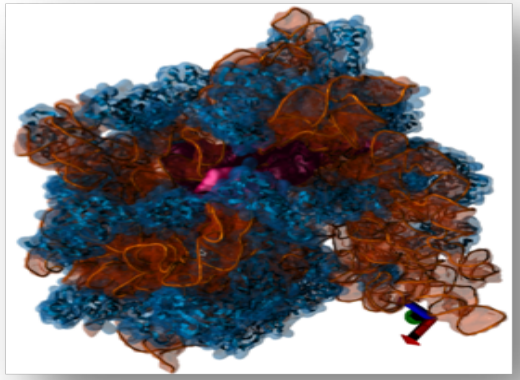
# SDVis - Tackling the Data Explosion Challenge

## Greater Insight



## Saving Money



## Faster Results

## CPU-Based Solution

- Multi-cores
- Massive Memory
- No I/O constraints

## Optimized Open Source Libraries & Software

# Intel® Select Solutions for Professional Visualization

Pre-configured solution for in-situ, post-processing, and professional rendering, providing cost effective, high fidelity, interactive visualization

Solution Configurations

| | Base: 4 Nodes | Plus: 8 Nodes |
|---|---|---|
| | **OS/Sys SW:** CentOS v7.4, OpenHPC, Intel Cluster Checker<br>**Software:** Intel Libraries: Embree, OSPRay, Mesa/OpenSWR; Vis Apps: ParaView, VTK, VisIt; Sim Apps: OpenFOAM | **OS/Sys SW:** CentOS v7.4, OpenHPC, Intel Cluster Checker<br>**Software:** Intel Libraries: Embree, OSPRay, Mesa/OpenSWR; Vis Apps: ParaView, VTK, VisIt; Sim Apps: OpenFOAM |
| | 16 port Ethernet Switch | 16 port Ethernet Switch |
| | 24 port Intel® Omni-Path Switch | 24 port Intel® Omni-Path Switch |
| | 1 Master/Compute Node:<br>2x Intel Xeon 6148 (40C/80T) or higher CPU<br>192GB Memory or greater<br>Optional 6 Port (4k) Display Card<br>16TB SSD HW Raid<br>Omni-Path HFI Card | 1 Master/Compute Node:<br>2x Intel Xeon 8180 (56C/112T) CPU<br>384GB Memory or greater<br>Optional 6 Port (4k) Display Card<br>16TB SSD HW Raid<br>Omni-Path HFI Card |
| | 3 (or more) Compute Nodes:<br>2x Intel Xeon 6148 (40C/80T) or higher CPU<br>96GB Memory or greater<br>Omni-Path HFI Card<br>480GB SSD | 7 (or more) Compute Nodes:<br>2x Intel Xeon 8180 (56C/112T) CPU<br>192GB Memory or greater<br>Omni-Path HFI Card<br>480GB SSD |

NOTE:
SDVis Software Stack Install Package works at 'all scales'
From single node, workstation to largest SuperComputing Clusters

Will be made available July 1

Optimized Open-Source libraries apps & Intel® Xeon Hardware

Provides scalable performance for visualization
Supports interactive rendering up to 1.7 TB 3D model size

# INTRODUCING THE INTEL SELECT SOLUTION FOR PROFESSIONAL VISUALIZATION

## SOLUTIONS AVAILABLE IN 2018 FROM

atípa technologies

DALCO

E4 COMPUTER ENGINEERING

MEGWARE

RSC

## UTILIZING SOFTWARE FROM

Altair

AUTODESK

NICE + amazon web services

EasternGraphics visualize your business

pCon PLANNER

MegaMol™

ParaView

vtk

SURVICE ENGINEERING COMPANY

STINGRAY

## BENEFITING VISUALIZATION LEADERS INCLUDING

***"We are pleased to see Intel make it easier for HPC users to access high fidelity and large scale visualization through it's Intel Select Solution for Professional Visualization"***

bp

Dr. Jim Lin
Computational Science Manager
HPC Team, BP North America, Inc.

***"We congratulate Intel on its launch of the Intel Select Solutions for Professional Visualization that can bring software defined visualization, including "in situ" visualization to more scientists and researchers."***

ctc The Stephen Hawking Centre for Theoretical Cosmology

Dr. Paul Shellard
Director
Stephen Hawking
Centre for Theoretical Cosmology

***"TACC applauds the release of Intel Select Solutions for Professional Visualization that enables the wide availability of high fidelity, interactive visualization for many more users"***

TACC

Dr. Dan Stanzione
Executive Director
Texas Advanced Computing Center

**"Bringing this capability into a turnkey hardware and software package in the Intel Select Solution for Professional Visualization gives TOTAL the opportunity to improve the analysis of simulation results more easily. We fully support this Intel initiative."**

TOTAL

Bruno Conche
PITCSE R&D Visualization Project Leader
Total

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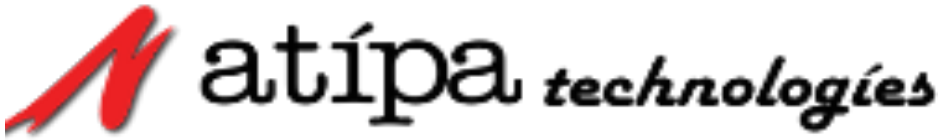

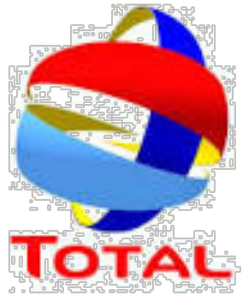


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