

## **Athena**

Large-Scale Data Management, Analysis, Visualization and Reporting



KBR's innovative Athena set of software tools work together to provide large-scale data management, data analysis and visualization, powerful automation, and reporting capability in a team environment. With powerful automated script-generation tools, interactive data sorting, filtering and grouping as well as advanced data analysis algorithms, Athena enables users to manipulate large data sets using KBR software libraries, leveraging the power of SQL, C#, and Python languages.

### **AREAS OF EXPERTISE**

Athena uses large-scale data processing and automation, including data lifecycle management, and allows for rapid software development leveraging third-party libraries. Approved for use in both unclassified and classified environments, the Athena set of software tools are:

**Interactive:** Athena allows drag-and-drop interfaces between data sets, allowing users to draw inferences from data using various plotting and mapping tools, from scatter plots to 3D globe views.

**Versatile:** Data can be quickly and autonomously ingested, combined with other sources, for extreme versatility.

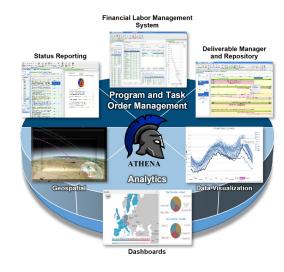
**Scalable:** Athena is scalable across an unlimited number of servers and clients, and manages all forms of structured and unstructured data, generating greater value from existing data sets.

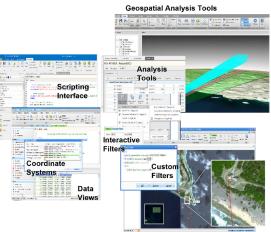
**Dynamic:** With Athena's built-in office tools, users can dynamically create and interact with documents, spreadsheets and drawings. Athena automatically generates reports based on available data, which provides increased productivity by enabling focus on evaluating results and taking action on data presented. This allows rapid response time from data to decision and can turn big data challenges into opportunities.

**Visual:** End-user customizable dashboards, charts, 2D and 3D mapping with high-resolution terrain and support for six degrees of freedom object viewing.

**Agile:** Processes using Continuous Integration (CI), automated testing and static code analysis tools to maximize code reliability and security.

**Customizable:** Unique algorithms available for rapid analysis of radar, missile, command and control, and communications systems.





# **Athena**

#### PROVEN PERFORMANCE

KBR delivers mission-critical, trusted services that help the U.S. maintain its unique and indispensable battlespace advantage. For more than four decades, KBR has continuously provided mission-critical technical and systems engineering services for the PATRIOT missile system. Additionally, KBR supports several other related military critical air and missile defense systems, including the Cruise Missile Defense System (CMDS); Counter-Rockets, Artillery, and Mortar System (C-RAM); and Terminal High Altitude Area Defense System (THAAD). Athena was originally developed to handle large flight test and modeling and simulation (M&S) data sets from the THAAD continuous evaluation. KBR's team of trusted data analysts and software developers have demonstrated experience for combat, material developers and decision-makers:

- Fully automated lifecycle data management processes have provided successful management of hundreds of terabytes of data with zero data loss over a five-year period, providing a highly robust and reliable data platform for multiple weapon systems
- · PATRIOT real-world and flight test analysis and automated M&S verification and validation
- PATRIOT technology protection process, mitigates risk of unintentional export of system critical technology by managing more than 300,000 system documents (specifications, technical drawings, engineering change proposals and technical manuals) supporting Foreign Military Sales (FMS) customers
- THAAD Independent Operational Test and Evaluation support by collecting, handling, processing and analyzing over 15T of data and reducing the reporting timeline to acquisition decision-makers, service leaders and operational commanders by one-third
- Missile Defense Agency test event data processing and distribution, allowing timely and accurate Missile Defense System, THAAD, and AN/TPY-2 Forward-Based Mode radar assessments critical for testing, fielding, and deployment decisions

#### WHY KBR?

As threats continue to evolve, protecting our nation requires cutting-edge technologies and innovative methodologies like Athena to stay ahead of the curve. KBR is partnering with industry-leading technology developers and government partners on defense systems designed to counter or defeat missile, air and other threats on the battlefield.

#### **NEXT STEPS**

Let's talk about your project and data management goals and how KBR can help you achieve them. Contact us to learn more and schedule a consultation at kbr.com/en/contact-us.

#### **ABOUT US**

We deliver science, technology and engineering solutions to governments and companies around the world. KBR employs approximately 28,000 people performing diverse, complex and mission critical roles in 34 countries.

KBR is proud to work with its customers across the globe to provide technology, value-added services, and long-term operations and maintenance services to ensure consistent delivery with predictable results. At KBR, We are the Team Behind the Mission<sup>SM</sup>.

