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WWW.SAS.COM**Keith Holdaway***Principal Solutions Architect**SAS Global Oil & Gas Business Unit*

Keith Holdaway, upstream domain expert for the SAS Global Oil & Gas business unit, provides SAS customers and prospects with consulting expertise based on 15 years of experience as a geophysicist in the geological and geophysical (G&G) space. He graduated with degrees in geology and geophysics from Durham University in United Kingdom.

His work with the Ministry of Petroleum in Saudi Arabia, British Petroleum in the United Arab Emirates and Shell Oil in Oman has provided Holdaway with a wealth of experience processing and interpreting seismic and reservoir data.

While in Dubai, Holdaway also worked as a consultant geophysicist for Geophysical Services Inc. dedicated to the Atlantic Richfield Company, working alongside Schlumberger on the Margham Field. Holdaway's main focus was processing seismic data and correlating the seismic attributes to well logs to ascertain reservoir characterization. He also worked on a vibroseis data acquisition field crew as the chief geophysicist.

Following his move to Muscat, Oman in 1985, Holdaway began working on Shell Oil seismic and reservoir data as a senior geophysicist. In his role, Holdaway processed and interpreted 3D seismic cubes for several local land and marine reservoirs. Holdaway also developed seismic algorithms and implemented soft computing analysis techniques to determine reservoir characterization, and worked alongside geologists and petrophysicists to determine well location.

When he joined SAS in 1997 as a software engineer, Holdaway added C and C++ cross-platform compilers development and Java Virtual Machines research to his areas of expertise. As a principal software developer, Holdaway uncovered poor Java coding practices and established best practices for SAS Java applications from a performance perspective. He also designed architectures for customers across the mid-tier Java space.

In 2008, Holdaway joined the SAS Global Oil & Gas business unit as a domain expert focused on mapping SAS technology to the G&G space to provide significant value to SAS customers. In his role as a principal solutions architect, Holdaway is able to take advantage of both his software development and G&G expertise to enable SAS to penetrate the oil and gas market with solutions that enhance upstream workflows and reservoir characterization.

In addition to representing SAS on the Java Community Process Executive board to help drive future global Java technologies, Holdaway is also an active member of the Society of Exploration Geophysicists, the European Association of Geoscientists and Engineers and the Society of Petroleum Engineers. Holdaway is also a Fellow of the Geological Society of London.

Professional Papers

SPE 127269 Enhance Digital Oil Fields by Plugging the Technological Capability Gap
2010 SPE North Africa Technical Conference and Exhibition Cairo Egypt

SPE 125368 Exploratory Data Analysis in Reservoir Characterization Projects
2009 SPE/EAGE Reservoir Characterization and Simulation Conference Abu Dhabi UAE

SPE 142509 Drilling Optimization in Unconventional and Tight Gas Fields
2011 SPE Middle East Unconventional Gas Conference and Exhibition Muscat Oman

SPE 143701 Automating Decline Curve Analysis in an Integrated Reservoir Management Portal 2011 SPE Digital Energy Conference Woodlands Texas USA

SPE 141110 Automating Well Performance Monitoring of Real Time Data
2011 SPE Middle East Oil and Gas Show and Conference Manama, Bahrain

SPE 149784 Maximize Placement of Wells and Production in Unconventional Reservoirs: Part1 2012 SPE Middle East Unconventional Gas Conference and Exhibition Abu Dhabi UAE

SPE 149785 Oilfield Data Mining workflows for Robust Reservoir Characterization
2012 SPE Intelligent Energy International Utrecht, The Netherlands

SPE 153454 Predictive Analytics: Development and Deployment Data Driven Models
2012 Latin American and Caribbean Petroleum Engineering Conference Mexico City, Mexico

SPE 149787 Maximize Placement of Wells and Production in Unconventional Reservoirs: Part2 2012 SPE/EAGE European Unconventional Resources Conference and Exhibition, Vienna, Austria