AAPG Datapages/Search and Discovery Article #90213 CSPG© 2015 CSPG/CSEG/CWLS Convention 2004, Innovation, Collaboration, Exploration: Building to the Future, Calgary, AB, Canada, May 31-June 4, 2004

A New Client Tool for Editing Borehole Image Interpretations

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ABSTRACT

Electrical imaging and dipmeter devices are micro-electrode-type devices that measure the resistivity of the formations. The micro-resistivity values are a function of the porosity, fluid in the pore spaces, geometry, and matrix. From these micro-resistivity values a false-colour image is generated, which is then used to pick out events such as bedding, fractures, and other stratigraphic or structural features. This interpretation can be somewhat subjective: for example, the earth scientist for whom the interpretation is performed may wish to reclassify features picked and originally classified by the image analyst. Historically this work had to be performed on the analyst's workstation. The advance of PCs has taken image and dip processing from the realm of Unix workstations to Windows PCs. This has enabled a new, Windows based program to be developed that allows a user to easily and quickly edit an interpretation, customising the dip picks and/or picking new features. This product comes on an easily transportable CD-ROM, allowing the client to edit the interpretation on any Pentium III or higher Windows PC, instead of tying the user to Unix based workstations. This continues the progression of high end petrophysical and geophysical applications from powerful workstations to desktop PCs. This gives users the ability to quickly and easily manipulate large sets of data and improves the reconstruction of the subsurface depositional environment.