

Creating Integrated Exploration Presentations: A Brazilian Example

Roberto G. Souza Filho, Senior Geophysicist for **AngloGold's** South American operations, brings a unique perspective to addressing exploration challenges in the interior of Brazil.

Roberto blends his master's degree in Structural Geology with his geophysical skills to create integrated structural interpretations that combine a variety of data and images.

Using a dual-monitor setup with ER Mapper and Geosoft displayed simultaneously, he created this map showing a gold district in Central Brazil, first mined by the Portuguese 300 years ago.



THIS GEOSOFT PRESENTATION COMBINES MAGNETIC DATA FROM A 2 KM WIDE *SERVIÇO GEOLÓGICO DO BRASIL (CPRM)* DATASET WITH ER MAPPER LANDSAT IMAGERY AND COLOUR-SHADED THORIUM VALUES. GEOLOGY HAS ALSO BEEN ADDED USING THE ER MAPPER PLUG-IN FROM WITHIN OASIS MONTAJ.

Some of the old workings (white symbols) are alluvial "garimpos". Others located in lodes parallel to the dominant E-W stretching lineation are related to shear zones.

Euler solutions (circles) describe magnetic sources beneath the predominantly sedimentary strata. Solutions to the south indicate shallow sources and to the north indicate deeper sources. Clustered solutions correspond to geologic boundaries and gold workings. First vertical derivative contours pinpoint major basement structures.