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HOW TO SUCCESSFULLY CREATE AND IMPLEMENT AN END-TO-END BUSINESS  
INTELLIGENCE TOOL THROUGH INTEGRATED SPACE BASED APPLICATIONS

**Abstract**

Due to the recent explosion of space-based data and a great demand for deep analytics in major corporate sectors, market-moving information is of vital importance to enhance business intelligence. The upstream data products created, empower the user by individual accessibility to accurate, independent and visualized multi-sourced data packages. The commercial imagery is integrated into a finance solution, to be used jointly with traditional tools such as market analysis or officially issued quarterly earnings. Business intelligence is enabled in an unprecedented way by providing direct access to information through highly automated end-to-end solutions. Remote sensing data, in its raw format not interpretable, is by minimum manual intervention and analysis made readily accessible. The purpose of this paper is to describe a novel business case built for the implementation of an integrated systems architecture, capable of translating space based data into user-driven solutions in conjunction with existing systems and information streams.

Based on this purpose, a step-by-step approach for the expert system architecture is presented. The state-of-the-art business intelligence corporations, specialized in remote sensing analytics are studied. A novel geolocation is selected for a new prototype financial application, based on the customer-defined areas of interest. The proposed user-driven solution specifically focuses on the development of an algorithm to extract patterns out of space based data into an array of strategic targeted geolocations. The commercially feasible application, based on the specific algorithm for the targeted location is specifically designed for the financial information services for distribution to investment dealers, banks and financial institutions. Essential data acquisition from European and American distributors is analyzed based on several criteria: delay of delivery time, direct accessibility, frequency of revisit times, competitive cost, reliability of service and the level of detail. The main driver is providing access to real-time and accurate information through the shortest supply chain. Digital distribution media is chosen among software, mobile applications, webpages and portals.

Competitive advantage is created by integrating multi-sourced data from geospatial information and transforming the financial end-to-end application into a distinct business value proposition. The proposed analysis shows by creating a direct connection to the customer and real-time and improved accuracy in data feed, more secure investments can be anticipated. Informed analysis and pattern prediction thereby shape the clients decision space. This integrated tool is therefore expected to significantly enhance the usability of space born data for business intelligence and specifically targets stock market trading.