

# Cogito



## Relationship Analytics™

Discover infinitely intricate patterns and distant relationships across your integrated data stores – in seconds

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## Rapid Report

*The latest news from Cogito*

January 2006

# Cogito

Happy New Year!

Right now is a great time to think about what you want to accomplish in the future and how you will make it happen. Here at Cogito we have big plans for 2006 and will use this newsletter to keep you informed as we make progress toward our goals.

In this issue we include an article from a special contributor and Cogito Technical Advisor: Joe Celko. Joe is well-known in the database world, having written six books and presented over 700 articles and speeches on SQL and database topics as well as serving on SQL standards committees for over 10 years.

## Dazzling the Skeptics

*Coleman Barney, CEO*



How does the old headline go? "They laughed when I sat down at the piano...but when I started to play..." If you've ever have one of those...moments you realize what a choice experience it is to face the skeptics and end up dazzling them. Presenting Graph-Based Relationship Analytics to people lets me experience this sensation all of the time.

Just last week I sat down with a fairly senior guy in one of the many intelligence agencies in the government. The meeting had been arranged by another senior guy and it was obvious my new friend was ready to politely listen as I presented him with yet another data mining solution. But, his expression and interest level changed immediately when five minutes into our discussion I made a simple statement. I told him, "Graph-Based Relationship Analytics is the science of examining data in context." He sat up and turned to his peer and said, "Now I see why you wanted me to talk to these guys!"

What my new friend discovered is unlike most other approaches where data is condensed, massaged or peeled out of its natural relationship structure for analysis, graph-based relationship analytics provides views of information “in relation to” everything else. It truly is a new way of “connecting the dots.”

Based on the concept of a graph database where all data associations and relationships are maintained in the corpus, relationship analytics examines how information is linked, grouped and interrelated. Graph-Based Relationship Analytics provides the ability to see how remote and seemingly unrelated data points can be connected.

Analytic methods provide the ability to identify groups or related clusters, identify pathways, look for patterns and see the results of these activities visually. In addition, there are methods of analysis that help quantify strengths of pathways, the degree of relatedness between groups, points of connection between groups and the strength of these connections as well as identify key points for connectedness, transmitting, spanning and linking.

Relationship analytics can be applied to any field where multiple dimensions of data exist and there is a requirement to detect, analyze and visualize links or groups in context.

So, while you may think you’ve heard everything there is to hear about associative techniques, pattern matching, finding hidden relationships, and discovering data links, you owe it to yourself to find out how a graph-based solution will make you reconsider what you thought you knew.

#### [Talk Back to Coleman](#)

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#### **Discovering Relationships in Context**

*Joe Celko, Industry Consultant and Cogito Advisor*

At the heart of relational database design is the assumption that relationships are already known. In fact, this is a prerequisite to establishing the database schema. This assumption makes sense in a production environment, and the rigidity of the schema is a good thing. In production environments, surprises are a bad thing.

Other kinds of data don’t fall so neatly into relational tables. Think of investigative clues available to forensic scientists. These clues may seem disconnected and may well be! As criminologists work to solve a crime, they must determine what is relevant, what is related (if only distantly) and what has real significance. Finding a

network of associations is extremely difficult in a relational database environment.

Fortunately, there is another way to discover relationships in context—using the Cogito Knowledge Center. The forensic scientist in our example could add clues as they are uncovered, creating new relationships as needed. The underlying technology is dynamic—a graph database—allowing investigators to fully analyze data and relationships, however distant.

While SQL and RDBMS were never meant to handle changing data models and complex relationships, the Cogito Knowledge Center is designed to do just that. As a result, the Cogito Knowledge Center, and its ability to view relationships in context, is an ideal solution for investigative and intelligence applications.

Cogito refers to what they provide as Contextual Relevance, I call it cool.

For the complete paper on Discovering Relationship in Context by Joe Celko [click here](#).

*Joe Celko is the author of six books on databases and SQL, Joe also contributes his time as a speaker and instructor at universities, trade conferences and local user groups. Celko joined the ANSI X3H2 Database Standards Committee in 1987 and helped write the ANSI/ISO SQL-89 and SQL-92 standards. He is one of the top SQL experts in the world, writing over 700 articles primarily on SQL and database topics in the computer trade and academic press.*

[Talk back to Joe](#)

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## News and Events

*What's going on in Cogito*

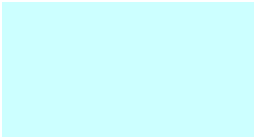
If you haven't been to our web site lately, take a few minutes to make a visit. We have completely redesigned the site to reflect our positioning as a leader in Relationship Analytics.



Here are a few items of note:

- More product and technology sections
- Downloadable white papers and web briefs
- New support and partner sections
- Secure partner portal
- Directions and information about Cogito's new location in Draper, Utah

Cogito has also begun advertising on both Google and Yahoo search pages. We are a



sponsor and paid advertiser in areas related to Cogito's product and solution offerings.

**Talk Back**

### **About Us**

Cogito is a software company that specializes in Graph-based Relationship Analytics and has developed an innovative and patented solution based on mathematical graph theory that provides data analysts and users tremendous power in structuring, querying, analyzing, and viewing data and data relationships. Using the Cogito Knowledge Center, information analysts – security experts, financial analysts, database administrators and researchers – can rapidly search, match, compare and discover patterns in data.

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