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The Snippet Engine Technology

Executive Summary

The Snippet Engine is a new and innovative software technology which dramatically increases the ease of interfacing databases. This new technology allows direct communication between any two remote databases, so that data exchanges and update synchronizations are accomplished in real-time.

This new technology innovation is realized because it enables programmers to create external interfaces which run at the lowest level of the computer's CPU, the CPU-thread. When the communications interface between databases is managed between two real-time threads, simply using a standard TCP/IP port, then any business will have their databases instantaneously synchronized, across servers spread out anywhere in the world. The Snippet Engine provides the modern core technology to bring the entire ERP server chain together.

The Snippet Engine is a unique technology, which has no similarity, nor any competition. The business opportunities for using the Snippet Engine technology for both database servers and applications are infinite.

A "snippet" is a small piece of a larger thing. The Snippet Engine is an innovative software technology that divides any kind of software application into many independently scheduled and executed smaller pieces. The whole application is accomplished as each of its many smaller pieces perform their individual assignments.

To visualize what the Snippet Engine enables, think of an ant hill. Hundreds of small ants all working independently and collectively to accomplish the greater task. Each of the

**Discovery Begins:
By looking at the same thing as everyone else,
but seeing how to make it better.
So It Is With The Snippet Engine's
Innovative Software-Construct.**

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Snippet Engine's software-constructs are like a single ant. The Snippet Engine enables the programmer to create hundreds of small ants, each as a software-construct, each being self-aware, and each doing something slightly differently. Each software-construct is doing what it does to accomplish the greater task. The Snippet Engine enables hundreds/thousands of these little ants, software-constructs, to all work independently and collectively to accomplish the greater task.

The exception to this analogy is that unlike an ant, each Snippet Engine software-construct can instantaneously communicate to any other software-construct **anywhere in the world**, share data, accumulate intelligence, command others, manage sub-tasks, both independently and collectively. **No other software technology enables the programmer to elevate their object oriented constructs into even higher level constructs, each capable of worldwide, cooperative, self-aware execution.**

The Technical Explanation

Think of the Snippet Engine as normal code, that acts like a software-wrapper around normal CPU-core-threads. The CPU-thread is the lowest level code-entity that is executed by a computer. These CPU-threads are the small pieces of the larger application. The Snippet Engine wraps these CPU-core-threads in a new and innovative manner. Each CPU-thread can now perform like a self-aware ant.

The Snippet Engine is like a software-wrapper to allow each CPU-thread, small piece, to independently execute as if it were itself a high level software application. The Snippet Engine wrapper elevates a CPU-thread into a self-contained high level software-entity. These software-entities are a new kind of software-construct, that can be used for both programming and database design.

This means that the Snippet Engine enables the programmer to create any number of these new and innovative software-constructs. Each software-construct executes as a software-entity at the thread-level. Each software-entity can be programmed as if it were a uniquely scheduled high level EXE-application. These new software-entities execute as a CPU-thread, but each has a wrapper around it that makes it behave as if it were a high level application-task.

Each Snippet Engine software-construct has its own thread-level-code, can direct its own scheduling, has its own command queue, can use any kind of communication interface to talk to anything else, has its own data store, and can be created, saved, and deleted as required. The Snippet Engine wrapper will manage thousands of these software-constructs as independent pieces of execution.

The Snippet Engine wrapper is itself a normal application. It is simply a 'C++' program that is compiled, and executed at any time. It can be used as a normal server-process, or

as an icon that is double-clicked. The Snippet Engine wrapper code executes normally, and controls the task of creating, opening, closing, and deleting the numerous Snippet Engine software-constructs that are doing the actual application-work.

Because Snippet Engine software-constructs are independently created, opened, closed, deleted, and executed at the lowest level of a CPU-core, each software-construct can be designed to do any desired task, large or small, just as if they were a separate application.

Because each has its own data store, they can be assigned the task of managing just a single small portion of the business' entire database. For example, 500 of them are created, opened, and closed as needed to manage their individually assigned 500 rows of a single database table. Because each is scheduled and executed at the thread-level, each enjoys a guaranteed system-lock on whatever data it is managing. This system-lock eliminates huge amounts of software overhead typically found in database systems.

Because each software-construct has its own communications queue, and can employ any type of interface, each can directly and instantaneously communicate with any other software entity running anywhere in the world. For example, the Snippet Engine software-construct assigned to manage only employee #1234, can also instantaneously communicate its database changes to any number of external databases, and directly to other Snippet Engine software-constructs, running anywhere in the world. This lowest level data exchange has virtually no overhead. It is not only instantaneous; it is direct, fast, and uncomplicated.

SUMMARY

All of these technical capabilities simply mean that any two databases can now be kept synchronized in real time by simply placing some Snippet Engine software-constructs on each server.

And for applications where the Snippet Engine is used as the entire database, and its server, these capabilities mean that the business Network created will cost less, be much simpler, astronomically faster, providing 24/7 redundant and fail safe reliability, with infinite scalability.

The Snippet Engine is the superior solution, because it is a totally new and innovative technology that simply does things differently. **Databases and applications are not based on technology derived in the 1980s and 90s. The Snippet Engine is new technology, based on modern computers having multi-core operating systems.**

This is the innovation: The Snippet Engine technology enables programmers to use standard TCP/IP connections to communicate instantaneously with any kind of software

running anywhere in the world. More, this communication is between software executing at the lowest level of the CPU's core. This means that there is no overhead between elements of diverse databases. Updates between databases are direct, immediate, and simple. Businesses can now instantaneously share accumulated intelligence. Imagine hundreds/thousands of "ants" executing all over the world. There is no limit to what can be done using the Snippet Engine's new and innovative technology.

The Snippet Engine technology is the latest innovation to Internet communications, and the business opportunities to take advantage of this new technology are infinite.