

## What Makes Inmagic® DB/Text Works Special?

Most organizations do an effective job of managing *numeric* information. They know exactly when to order a particular part or raw material . . . they know how much to budget for next year's travel expenses, and so on.

They have control of this information because they have tools that are designed to manage information that is predictable in size and format, such as dates, telephone numbers, and monetary amounts.

### Most information is textual

But *Textual* information is less “obedient,” varying widely from one instance to the next. And text is far more prevalent in the workplace than numeric information. In fact, according to a Gartner Group study, as much as 90 percent of all information is textual.

In an effort to manage textual information, organizations have tried either standard database management systems or text retrieval systems. But neither is exactly right for the job.

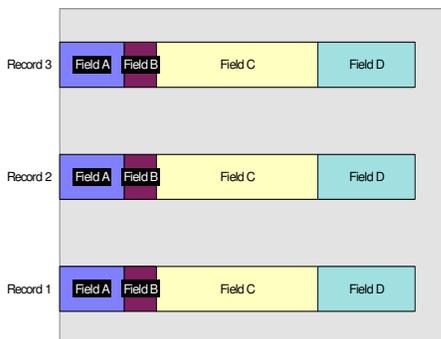
### Standard database systems are too slow

Because standard database systems do not create keyword indexes, searching for textual information is slow. In fact, a simple keyword search can take literally minutes with a database system. This shortcoming also impacts the type of searches that are possible with a database system. For example, searching for phrases (*global warming effects*), word stems (*warm\**), and proximity relationships (*global* within 10 words of *warming*) are either too slow or impossible to execute without extensive programming.

### Standard database systems are too rigid

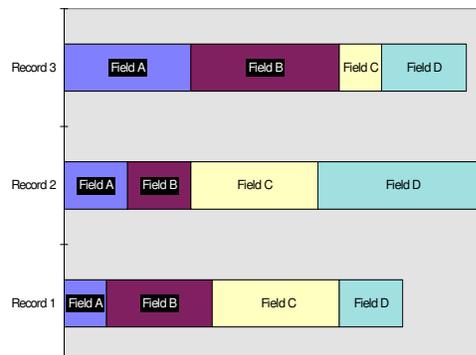
Because they have fixed-length fields, standard databases do a poor job of storing textual information. As a result, information must conform to the database, causing users to abbreviate and/or truncate valuable information.

#### Standard Database Products



Standard database systems have fixed-length fields. As a result, **information must conform to the structure of the database.**

#### DB/Text Works



With DB/Text Works, all fields are unlimited and variable in length, which means the **structure of the textbase conforms to the “shape” of the information.**

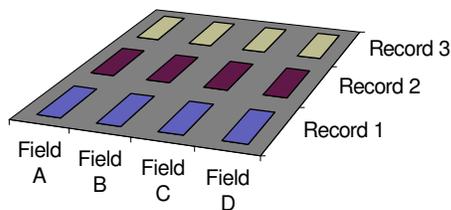
Although many database products introduced “Memo fields” to try to alleviate this problem, you can still encounter problems. For example, you can’t keyword index Memo fields, so searching them is slow.

## Standard database systems are too “flat”

Standard database systems are rigid in another way: they are two-dimensional, structuring information into rows and columns, a framework that cannot deal cleanly with a field that requires multiple entries.

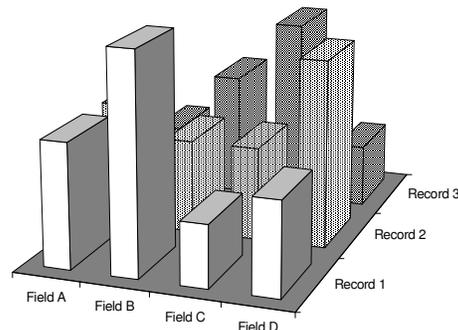
For example, suppose you want to track the purchase history of your customers. With a standard database system, you have three options, each presenting a different problem. One option is to “blob” purchases into a single text string, losing all distinction for reporting and sorting purposes. Another option is to guess at the maximum number of purchases a customer will make and create a field for each (e.g., Purchase 1, Purchase 2, Purchase 3). If you guess too low, you’ll constantly be dumping and reloading records because you have to add another Purchase field to the data structure. If you guess too high, you’ll waste hard disk space because the database allocates space whether it’s used or not. The last option, creating relations between tables, complicates database design and maintenance.

### Standard relational table



The strict row-column orientation of a standard relational database table does not allow for multiple entries in a single field.

### Inmagic® DB/Text Works



DB/Text Works lets you add multiple and distinct entries to any field at any time (repeating “3-D” fields). This simplifies database design and maintenance while ensuring no loss of control for reporting and sorting purposes.

## Text retrieval systems aren't structured enough

Looking for more flexibility and speed, organizations have tried full text retrieval systems, but found that the benefits of speed come at the expense of precision and control.



### Searching is imprecise with full text systems

Because text retrieval systems do not break records to the field level, queries cannot be narrowed by searching two or more fields at the same time. For example, suppose you set up a textbase to manage all internal and external correspondence (letters, proposals, contracts) for a large engineering project. You want to find all letters from Bob Jones. Your search in a text retrieval product would find, among other things, all **letters to** Bob Jones, all **memos to** Bob Jones, all **letters and memos about** Bob Jones, etc. A textbase will allow you to specify that you search only the “Author” field, something full text products can’t do.

### Full text systems can’t write reports

Because fields are the building blocks of reports, and full text systems do not have fields, it’s impossible to create even simple reports. With full text systems, you can print what you find, but you cannot perform fundamental report operations such as calculations, sorts, subsorts, totals, subtotals, and record counts. Nor can you design reports to customize the way information appears.

### The best of both worlds

Like a database system, DB/Text *Works* breaks records to the field level, enabling you to write reports, sort and subsort information, and otherwise manage information with great power and precision. Moreover, users have the added flexibility to add multiple and distinct entries to a field at any time (repeating “3-D” subfields). You can also make “relational-like” links between two or more textbases to eliminate redundant data.

And similar to a text retrieval system, word searches and other types of queries are virtually instantaneous. Because all fields are variable and unlimited in length, you can manage full and abstracted text, as well as other data types, such as dates, images, numbers, computed numbers, and so on.

### Summary Comparison of core capabilities

Product Attribute	Textbase	RDBMS	Full text
Degree of overall structure	High	High	Low
Output control	High	High	Low
Flexibility of content management	High	Low	High
Speed of retrieval	High	Low	High



### **What the analysts say about textbase**

The January 1996 edition of Open Information Systems (published by the Patricia Seybold Group) the lead story was “Textbases: Integrating Access to Text and Structured Data.” According to the report “Textbases are the first step toward integrating database management capabilities with access and manipulation of rich data types. Text is well understood by users, and full-text search is a relatively mature technology...Text-search capabilities have become important to a wide range of information systems, all of which manage at least some text-based data...**Up to now, organizations have been willing to commit only a subset of their documents to an RDBMS because the database manager lacks flexibility, performance, and functionality in accessing and manipulating text.**...The issue is how to give a broad spectrum of users easy access to all relevant documents across the organization without paying the penalty imposed by the DBMS.”

In addition, with respect to full text products the report notes that “An area that many text-search products have not explored adequately is the ability to do something with the documents (besides read them) once they have been retrieved.”

Inmagic’s DB/Text *Works* solves the problems raised with respect to both database systems and full text products by providing robust text management within the structure of a database management system. And that’s why we call DB/Text *Works* a Textbase.

### **About Inmagic**

For over 25 years, Inmagic has been a pioneer in creating advanced information and knowledge management tools and applications. More than 5,000 organizations around the world have placed their trust in Inmagic software to actively manage both physical and virtual assets and gain extraordinary insights from them. Inmagic’s two decades of solving information management challenges for many types of organizations, along with its advanced technology and superb implementation and support, make it an ideal partner to help organizations with their information and knowledge management initiatives.