

# DATABASE BY DESIGN, INC.

## To Fix or Re-Build? When is your database past its prime?

Is your information management system keeping your organization from growing? Do you wish the software would perform faster? Are you storing your data in “creative” ways in order to account for a deficiency in the program? It may be time to upgrade your database in order for your organization to stay on top of its work load.

### Software needs updating too

Just like the computers on which it runs, software doesn't last forever. The programs that you use to manage your information don't degrade, but their usefulness will usually change as the needs of your organization change. Properly designed programs are built so that changes can be easily made at a later time. The following are some signs that can help you determine if it is time to update your database:

- ✓ As time goes on, the program gets progressively slower, especially when searching for data.
- ✓ Additional information needs to be stored, but there is no designated place to store it.
- ✓ Liberal use of the 'Notes' or 'Comments' field to store important information.
- ✓ Parts of the program aren't being used any more, but still require maintenance and data input in order to avoid crashing the entire program.
- ✓ More people need to use the database, but the system can only allow one person at a time, or a handful of users at the most.
- ✓ Programs on other computer systems need access to the information in the database, but there is no good way to get the information out of the database.



### Re-Building is sometimes better

Updating your information management systems can provide several benefits that will positively affect the organization's bottom line. However, sometimes a simple fix or adjustment won't be enough to solve the problem. In fact, there are times when it would actually be better to rebuild the system instead of using “band-aids” to correct the problem. It may seem counterintuitive, but there are times when rebuilding a database system is actually less expensive than trying to fix the existing system. Here are some occasions when re-building provides the best choice:

- ✓ Business processes and work flow have changed significantly since the program's original design.
- ✓ Newer technology is needed in order to update or fix the software, but the age of the software is incompatible with the newer technology.
- ✓ The original program wasn't built with expansion in mind, so adding to it would impair its effectiveness.
- ✓ Poor programming techniques in the original design prevent subsequent programmers from making improvements without breaking other parts of the program.

### When to Fix/Adjust, and when to Re-Build

So if you know you need an adjustment to your database, how will you know if it is better to fix it or rebuild it? Sometimes you will need the help of a programmer to determine the feasibility of either choice. In addition to the information from the programmer, here are some things to consider when determining the best way to update your system:

<b>Fix or Adjust It If...</b>	<b>Re-Build It If...</b>
<b>Objective Evaluations</b>	
We can add users to the system with no perceptible effect on performance.	Performance becomes extremely slow if we have more than three users on the system at any given time.
The system can handle hundreds of Megabytes or even Gigabytes of data with no noticeable difference in performance.	The database needs to be 'archived' any time it grows to a certain size. Otherwise, the system slows to a crawl. Sometimes, the system performance doesn't change, but searching on <b>any</b> amount of data takes a long time.
<b>Subjective Evaluations</b>	
The original programmer was easy to contact when we needed him/her. Answers to our questions made sense. The programmer promptly responded to questions and requests. He/she appeared eager to help solve problems.	The original programmer seemed bothered by questions and requests. Seemed more concerned about his/her own issues than ours.
The original program matched or exceeded our expectations. The programmer made suggestions that we hadn't considered.	The program barely accomplishes what is required of it. It doesn't fit our work flow very well. It's not intuitive to use.
The program has been able to handle new kinds of data without modification. When we change our business process, the program still fits our needs.	We haven't changed what we store or how we use the system because doing so would cause all kinds of problems. We have to adapt our growing needs to fit the program.
Cosmetic changes to reports or entry screens sometimes require a programmer. Otherwise, we can change our choice lists and program defaults ourselves.	Any time we need a change, we have to consult with the programmer first. Sometimes, we have the programmer change some of our data so that we can make the system work again.

Having an information management system that will grow with your organization is a critical part of the success of your organization. Make sure that this system is well designed from the start. Doing so will make modifications later on easier to implement. At Database by Design, Inc., we always look to the future growth of your organization when designing and adjusting database systems. Contact us so we can help you increase the functionality of your database programs!

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**Next Month's Topic:** Addicted to Java - Explore how Java Applets, Flash, and other technologies can add to the database driven portion of your website.