

Success Stories: Leaving Your Spreadsheet Behind

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Introduction

It's both sad and amazing that in our Internet connected world today a large percentage of businesses are still literally running their organization on an application that was never meant for the task. It was built to handle only most simple, mundane data tasks. Yes, the venerable Microsoft Excel, a program meant to be a simple number cruncher, is being used in business as a process management tool and often to track critical business information. For companies that are open to improving on these processes, replacing their antiquated spreadsheet data results in great productivity gains, often by as much as a 10 to 1 improvement.

The original reliance on Microsoft Excel starts innocently enough. Some part of a business' information can't be managed by whatever existing system they have (maybe it's even paper and pencil), and so Excel is used to fill that gap. However, what starts as a quick and simple way to gather data evolves into an unwieldy and time consuming set of information management habits.

This paper presents case studies and a solution to businesses who's processes don't fit within a standard off-the-shelf program and Excel appears to be the only way to track/maintain data.

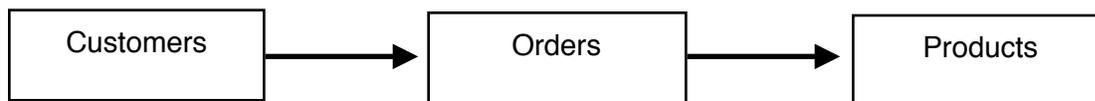
It's such a slippery slope. You are just trying to track some data and Excel is simple to use. You open it, you get a blank spreadsheet and you start to fill out worksheets. And it just makes sense...to organize simple data in columns and rows. Heck, the truth is Excel was actually cribbed (or copied) from an even earlier spreadsheet application called Visicalc which was available on Osbourne PCs in the 1980's - before Microsoft brought out their DOS-based platform. So the metaphor of a data entry via columns and rows has been around a LONG time.

And ANYTHING can be tracked in excel. Whether it's sales figures or baseball statistics, it just makes sense to line up "what" you want to track and put the "number" you are tracking right next to it. Adding up the total, summarizing by type, are all easily done with a few mouse clicks.

With Excel you can also quickly get into a certain level of complexity. Excel offers instant access to calculations, conditionally formatting values, formulas, charts, and even somewhat of a programming language utilizing “macros”. All of this allows millions of users to analyze and visualize simple sets of data very effectively.

But beyond these simplistic functions users face a wall of limits. Many are unaware of how they could be empowered by more powerful tools. They continue to use excel almost without realizing how it hampers their ability to go further with their data. They understand that Excel is at its heart a spreadsheet and it will never be able to productively work with their data as other applications could. Those applications are not out of reach, they exist today and do not cost hundreds of thousands of dollars to implement.

A database system may sound complex but the goal is simple; to unify multiple parts of a business’ information in one place. In addition, this data can be easily related and shared for collaboration. In the simplest example we have something like this:



You can have many customers, any of whom can order many products. One customer, to many orders to many products. In Excel, these would be three separate spreadsheets, not easily linked together. In a database, they are linked as “tables” within a single file.

Here is another example where Excel is very different from a database. With Excel, the data and the access to it is in one place. Whether you are viewing it on screen or printing it, the data typically looks the same. With a database, the data is stored in one place and then accessed when needed separately, such as on screen to enter an order, and via a printer to print a formatted invoice. In I.T. parlance this is called a data interface, where users access their data via different interfaces. For a database this is literally a no-brainer, and typically a database’s data and its interface are stored separated. For an Excel user, this concept will seem foreign, even frustrating. Again, there are tools out there now that will let you migrate from Excel to a database seamlessly and relatively inexpensively.

Often someone trying to display Excel data will highlight a row or “format” it by coloring it. Again, this seems like such a productive way to show that one part of the data is different than the others. Maybe you use LOTS of

colors to define all sorts of these disparities. Suddenly your data looks like a *rainbow* of productivity. Here's the catch though; by applying a color to that data you're not actually defining anything. When you pass that data to another user they may or may not understand the purpose of your color coding and if they want to manipulate it for their purposes you are just causing more confusion. And that's the real rub; with excel, as we described above, data generally resides in one place and when you send it to another user, well, now they have that data, or a copy of it. For an I.T. person I just said the worst words possible - copy. With Excel, everyone potentially has a copy of the data.

Chart 1 - Excel to Database Comparison:

Following is a checklist comparing Excel to database systems:

	Excel	Database
Quick Up And Running	√	
Easy Calculations	√	
Document-Centered	√	
Quick Charting	√	
Easy To Sort Data	√	
Ability to relate data	√	√
Ability to Relate Data in One To Many Relationships		√
Automate tasks via Macros	√	
Automate processes via programming		√
Automate communications via emails / events		√
Scale past 100,000 records		√
Designed For Collaboration		√
Ability to create complex searches		√

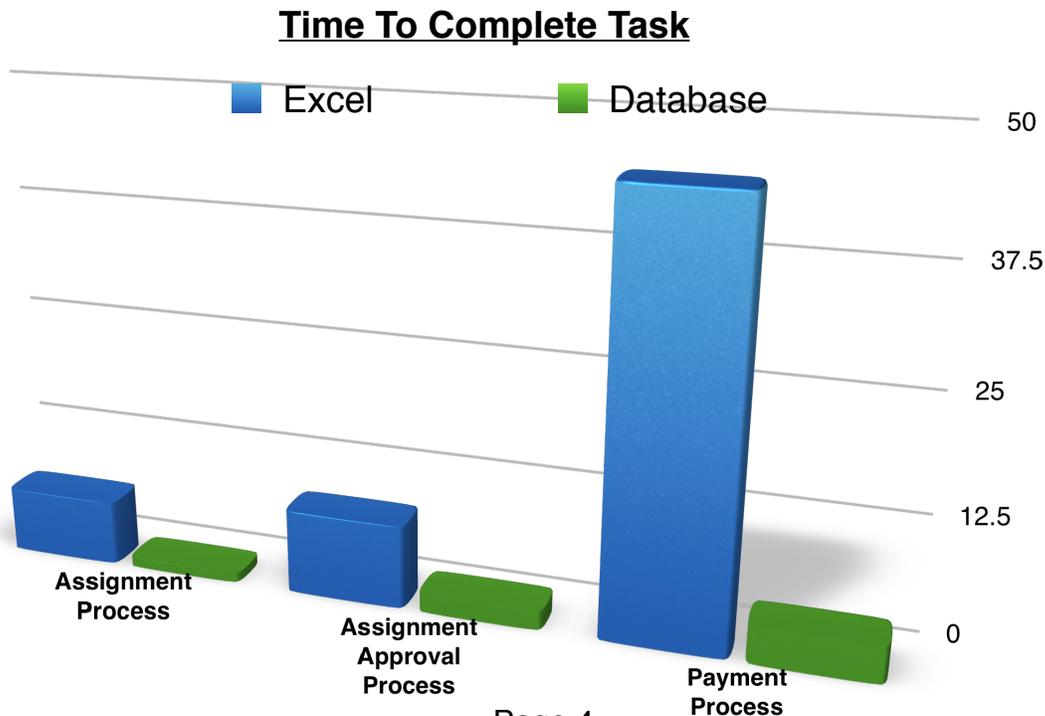
Case Study - Connecticut Office of Public Defenders:

The Connecticut Office of Public Defenders office manages assignments of state-wide public defenders for indigent defendants. Prior to implementing their new system Excel was used to store data for every business process and as a forms management system. A court office would request and track an assignment with a spreadsheet. The office making the assignment would track the assignment on a separate spreadsheet and create an individual excel form for the assigned attorney for case-tracking. The attorney would be emailed the Excel form, fill it out and return it. Then the finance office received the excel form from the attorney and tracked payments in another Excel file. With this system it would typically take a week to arrange an assignment and normally sixty days for payments to be completed.

By developing a simple online database that tracks the assignment and payments in one central location all users have access to their relevant data at any time. The assignment process is now completed typically in less than an day and the payment process in less than three. However the true productivity gain is in having all of this data available.

Chart 2 - Excel to Database Comparison:

Following is a chart displaying the difference in time to complete tasks between Excel and the new database.



Case Study - EB Display:

EB Display is a worldwide manufacturer of retail displays. They utilized Microsoft Excel heavily in every department of the organization and as a means to track project and production information. The sales department would have one excel spreadsheet with a list of leads. When a lead became a customer they would create an excel spreadsheet for that project and pass it to the project management team. The project management team had a spreadsheet listing each of the projects they were working on. They tasked the project to multiple departments, duplicating the project spreadsheet as necessary. Each department, Creative, Engineering, R&D, had their own project spreadsheets. Finally, when the project was ready for production, you guessed it, another project form and another spreadsheet.

All in all, EB Display was using over 10 spreadsheets within each department, and the average job had 15 spreadsheet forms created.

There was no automation when using Excel. If a project needed a change, a new note was adding to the Excel project spreadsheet and it was emailed by the person making the change to everyone working on the project.

You can imagine how a database unified the organization. All data for a project is stored in a single place and the entire organization has access to two screens that display all of the information for a project. When a new note is added or a change occurs, the status for the project changes and an email is automatically sent to the team working on the project.

With their new database EB Display has seen significant increases in their productivity. The company is estimating that they will now be able to handle up to four times the number of projects with the same number of staff.

Making the Switch - Considerations:

Once you have come to conclusion that you may be one of the many that have succumbed to Excel overuse, there are some simple tasks that can get you ready to consider marking the switch to a database. (Yes, all of these lists can be created in Excel).

1. List the business processes by department that use Excel
 - Do this in the most simplistic terms, such as "Sales department tracks orders."
2. List the leader of the teams that are involved with these processes.
3. List the information being tracked in each spreadsheet.
 - Again use the most simplistic terms, such as "Sales department, order number, customer name, sales total" BUT try to give consideration to any time information is being entered more than one time by the same or different departments.
4. Reach out to your I.T. resources to discuss this effort and your suggestion to switch to a database solution.

Conclusion:

In conclusion, spreadsheets are a simple, easy way to store data but when the volume of data, required functionality, day to day management and/or number of users increases the spreadsheet may not be the ideal solution. Many companies see a 10 to 1 increase in productivity, not to mention access to real-time, accurate data, reporting, tracking and analysis that isn't possible with spreadsheets. If you are currently tracking business processes with spreadsheets, take a moment to quickly review how the ability to enter and access the same data by multiple users and get real-time information on your business processes may benefit your company. Are there redundancies in your processes that will result in time and labor savings? We recommend you conduct a time/cost study, to get a real cost of your current processes then talk to your IT department or Adatasol to find out how quickly a custom database solution would pay for itself.