

ISSUES TO CONSIDER WHEN PURCHASING OR CREATING SOFTWARE

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When selecting software to fit a specific need, such as tracking an employee involvement program, it often can be purchased off-the-shelf from a vendor. Otherwise it must be custom created for the user, using internal programmers or consultants. When purchasing software from a vendor, it is critical to select someone with a good track record, a solid customer base, accessible customer support and viable products. Make sure to test drive their products, before making a purchasing decision.

CREATING SOFTWARE INTERNALLY

Creating software internally is sometimes a consideration of organizations when reviewing a purchase of the Simplified Idea Management (SIM) software, produced by Total Quality Systems in Maple Grove, Minnesota. The most common reason for this is flexibility and perceived lower cost.

The real cost of creating an internal software package will be many times over what SIM will require. Usually the internal costs are hidden to the decision maker. A software developer, from their information systems department, may cost them nothing or pennies on the dollar. However, the actual cost to the organization is much more. Often using "external" dollars, to purchase a product, is difficult to approve, even if the internal costs are many times the purchase price. Yet if an organization is truly striving to reduce costs for the entire organization, we need to look at all of the costs. This includes not only the development time but also the testing time (which normally takes the most time), training and documentation.

Another issue when creating software internally is that the user wants to start out with just a simple system. A basic tracking list is very easy to design in any database language, though it is nothing more than a simple list. A simple tracking system will not have enough horsepower to provide the management reports necessary to support an employee involvement process. A single, well designed report can take several days to properly design and fully test. Complex reports can take even longer. Without adequate reporting, management will be poorly informed about the process, leaving it vulnerable when budget cuts hit the organization. Thus the simple system may prove totally inadequate, even for pilot testing, since it isn't tracking the data needed by decision makers -- it is important to balance ease-of-use with the data needs of management.

The SIM software includes the knowledge base of hundreds of customers. It is the result of benchmarking many excellent programs throughout North America. Reports are designed around award winning programs, that have proven themselves. Different versions, of SIM, are available, based around the size of the program and types of programs being managed. Easy to use entry screens are available, if employees will directly enter their own data into the computer.

Some organizations are being forced to have everything written in one computer language (i.e. LOTUS NOTES, ACCESS or ORACLE). This often is done to have uniform data platforms. Systems, such as LOTUS NOTES, are only a way of displaying information. There is no specific design that fits a specific need, included with the system. This forces all software in the organization to be custom written. This dramatically increases, the costs of producing software in the organization.

Useful, ready-to-use, software tools are available. They are designed to fit specific applications, such as SIM. Before purchase, the tool should be properly reviewed, insuring they fit the end-user's needs. A good analogy is whether to purchase a car from a dealer (SIM) or putting together a kit-car (creating the system in-house). If the ready-to-use system meets the user's needs, it will be least costly and take less time to implement. A well designed application, such as SIM, will have data files in a standard format (SIM uses XBASE type files) and/or export data to a standard data format, allowing integration with other software systems. The design will also reflect input from best practice processes, from a wide array of customer.

It is important to fully review the costs to create a simple tracking system. The estimates below include testing time, often overlooked when time estimates are made on the time needed to create a software system.

- A basic tracking system, with minimal reporting may take 200 hours to create in ACCESS (or about \$10,000 at a \$50 hour burden rate). This tracking system usually will prove inadequate in providing management. If the system is to be successful, the software will be modified over the years to fit what people really need.
- A middle range system, designed in ACCESS may take 400-500 hours to create (or \$20,000-25,000 at a \$50 burden rate).
- Proper user documentation can take an additional 40-80 hours to create (or \$2,000-4,000 at \$50 burden rate).
- Training for the end-user may be necessary, especially if they are going to be involved in writing or testing the software. If they are writing the software (even if using MACROS), good software development concepts need to be learned.

NETWORKING

The ability to share information between other professionals performing the same tasks is usually desirable and often mandated by our supervisors. Many good organizations exist to support the sharing of knowledge, including: AQP, ASQC and the Employee Involvement Association. At Total Quality Systems, we try to connect customers together with similar programs or issues so they can network. Our in-depth knowledge of our customers, through working with them on a consulting basis or the SIM tracking software, allows us to fit like-minded people together. It is one of many services that we provide to our customers.

BENCHMARKING

The process of benchmarking allows us to compare our processes against other “best practice” organizations. It is important to do this with the software you will purchase and the overall employee involvement program it is monitoring. To do a really effective job of benchmarking usually requires visiting several sites. Often this will require travel, to visit the “best practice” organizations that relate well to your organization. One advantage Total Quality Systems provides through our SIM software or our consulting services is the knowledge of over 100 organizations processes. This knowledge is invaluable and works its way into our highly effective SIM tracking software.

A TOTAL SOLUTION

Beside providing the SIM tracking software, Total Quality Systems can work with you to find a “total solution” for your employee involvement program. This could include: program design, promotional materials (including videos), recognition/award materials and training. We also can work with you to integrate many of your quality programs, so they work together to improve the strength of your organization and the people working for it. Our SIM tracking software is designed to track several types of processes, including:

- Employee suggestion programs
- Continuous improvement
- Quality improvement teams (or any related team process)
- Monitor team effectiveness using surveys
- Customer ideas
- Vendor feedback.