Selecting EH&S Software for the Long Term

Introduction

This brief paper offers practical advice for the selection of a software package to organize and manage your organization's environmental, health and safety data and compliance reporting. To help first-time software buyers avoid mistakes and ensure a sound software decision over the long term, it is important to approach the new software purchase methodically. Even an organization making a replacement software purchase can benefit from a well-planned review process.

In-house System vs. Commercial Software

For many companies, the first decision in the software buying process is whether to purchase an existing package or to develop software in-house. Developing an in-house system is an alternative that initially can sound attractive. After all, the software can be customized to your operations and no capital outlay takes place.

A custom system effort has been estimated to easily cost the company five to ten times the purchase price of an equivalent off-the-shelf system. The end product's quality depends on the facility's experience with both complex environmental regulations and software development. Significant resources are required to continually research, track and incorporate the ever-changing compliance reporting requirements. Many choose to abandon an in-house effort after encountering one or more insurmountable obstacles.

Determine and Prioritize your Needs

1.   *What do you need the software to do?* Determine for yourself which features are "must haves" and which are "nice to have", but not necessary. Compile a list of software capabilities and features, and then prioritize those as immediate needs, future needs and future wants. If you can't prioritize the desired capabilities, you may be distracted during the search process by features that don't provide the most value to your data management tasks in the long term.

Collect Software Package Information

2.   *What programs are available?* There are many sources from which to compile a list of EH&S software programs, such as software buyer's guide issues of environmental compliance magazines, software industry compilations, and Internet sites. Below are a few names and sources to get help you begin your search.

Magazines with environmental software Buyer's Guide issues or features. While nearly all of the magazines listed below offer a Buyer's Guide or Product Directory on their websites, you may find the information in the magazine's hardcopy Buyer's Guide

issue to be more useful, as the printed magazine allows you to view many products and features at the same time.

- Environmental Protection (http://www.eponline.com) From the website, click on the Product Directory navigation button.
- Pollution Engineering (http://www.pollutionengineering.com) Click the navigation button, Buyer's Guide.
- Occupational Health & Safety (http://www.ohsonline.com) Click on the Product Directory navigation button.
- Industrial Safety & Hygiene News (http://www.ISHN.com) Click on the Buyer's Guide link.
- The Synergist (http://www.aiha.org/Content/AccessInfo/synergist/)

Donley Technology is an independent clearinghouse for environmental software information. Donley offers EH&S Software News, an environmental compliance software newsletter, the on-line resource EHSsoftserve.com, a database of EH&S software information, and Donley special reports for specific subject categories, such as MSDS Software Report, the EH&S Management Information Systems Report, and EH&S Compliance Auditing and Tracking Software Report. The web address is http://www.Donleytech.com and the telephone number is (804) 224-9427.

Various **EH&S Internet portals** provide a wide range of product information (including software) for the EH&S professional.
- The Environmental Yellow Pages (http://www.enviroyellowpages.com)
- Environmental Expert Business Center (http://www.environmental-center.com)
- MSDS-SEARCH (http://www.MSDSsearch.com)
- American Institute of Civil Engineers (http://www.aiche.org)

Evaluation Considerations

After you have compiled a list of software packages to review, there are many factors to consider in your evaluation.   The first choice is simply whether you want to install the program locally at your location or use the program as an "Online Service."

3.   *Is the software offered both with an "Online Service" option as well as the traditional locally installed modules?* Let's face it, the work environment has changed: people can work at home, smaller staffs might require EH&S professionals to travel to different plant locations, and high-speed laptop or desktop connectivity has permeated almost all home and work locations   Many times, potential buyers need to have option to be able to do their work from any computer in any location. The real decision here is whether you have the choice of options? And, if you decide to go with one option, does the software have the technology and flexibility to seamlessly move the data between the options so that you incur no additional workload should you ever decide to change from one option to the other.

Online Services have many compelling attributes:

-   Low initial costs
- Quick updates, the software is always current
- Ability to access the program from any workstation.

Any decision to subscribe to an "Online Service" vs. buying locally installed software should be dictated by your requirements, but this decision also requires serious research to ensure you receive the same level of technical service, that database backups are done reliably on a timely basis, that Business Continuance/Disaster Recovery issues as it pertains to your data are handled sufficiently, and that there are no issues with security.

Once you have made the decision to explore either the "Online Service" or the locally installed option, you have additional factors to evaluate, depending on your choice.

4. *What are the hardware requirements? Will you have to buy additional hardware to use with this software package? How much will this cost?* Obviously, with an "Online Service", the hardware cost should be wrapped up in the monthly/yearly fee. Any decision for "specialized" hardware, such as RAID disk, duplexed disk, etc., should be reflected with a higher monthly/yearly price. You should not be buying hardware for your service vendor.

5. *How long has the software package been in existence? Has it undergone many alterations?* Like people, software products go through a life cycle. A very "young" package likely still has bugs or awkward spots to work through. Make sure your selected package will be able to survive the rigors of annual updates necessary to keep the package supported and useful. You should also inquire about any recent changes in ownership of the software package. When one vendor sells a software package to another, there are potential pitfalls for the buyer if the new vendor plans to re-write the software or absorb the package into its own product offerings.

6. *Specifically, what does each program do?* A program that does much more than you need is probably overpriced. Conversely, a program that fits you just right may not be expandable. When weighing the value of single or multiple purpose packages against your organization's needs, consider that there are long-term advantages to a system that is both integrated and modular. Integrated means chemical data is shared between modules, so you can access the data whether doing a SARA report or defining a manifest. Compliance reporting will likely become more stringent and complex, and in the future you will want computer assistance in another area of compliance reporting. Having the option to expand by adding modules and using the data already entered will be a great advantage.

7. *Is the program easy to use?* A program that is everything you want and yet is hard to run is almost worthless.

8. *Will you have to hire additional staff to operate this program?* Some very large EH&S software vendors recommend that clients who purchase their software add new staff members to operate the software and create reports. Be sure that you factor additional personnel costs with the overall software purchase price.

9. *Compare input to output. Can you use the data entered for more than just one report? Will the package produce all the reports you need?*

10. *Can the data be used in any other programs? How easily can you transfer the data? Often a more important question, can data from other systems be easily imported into the program?* The ability to import data from existing company systems can save laborious data entry in both initial data population and on-going data entry tasks. If you already have relevant data in a purchasing or accounting system, the ability to easily import it into your EH&S software package can significantly reduce data entry tasks.

11. *Can data be entered directly from manufacturers or from "clearing house" sites on the web?* The ability to load data directly from either a manufacturer or "clearing house" website without manual data entry will save considerable time for new entries or updates. You might be able to simply "cut and paste" from data sources, but transfer methodologies using techniques exploiting software technology like "XML" will significantly decrease or eliminate time spent on data entry and data update, making these formerly tedious and time-consuming jobs almost automatic. Ensure that your software choice is compatible with these technologies.

12.   *How much technical support is available? When and how (telephone, fax, e-mail, website) can you reach technical support? How responsive is technical support? What is the standard response time for technical support issues?* Even if a product is at its peak, and is being actively marketed, poor-quality technical support has prompted existing users to seek other software. Technical support is not adequate if, for example, bugs are not fixed in time, support personnel are hard to reach, or are unfamiliar with the package once reached.

13.   *Is a demo available?* When reviewing the demo, be sure that you get a clear sense of the software and its operation. It is easy to be dazzled by a visually appealing demo, but it is most important to learn about the actual functions of the package.

14.   *Can the company send you a full set of operating instructions or a complete user manual? Do the instructions make sense?*

15.   *What is the installation and set-up process? Is an "installation team" required? If so, what are the costs and the timeframe for installation and set-up?*

16.   *Has the program been reviewed by any trade publications? Can they provide a complete copy of the review?*

17.   *Is the documentation clear? Are examples provided?*

18.   *What help is provided on-screen?*

19.   *Can you back up the program? How easy or cumbersome is the process?*

20.   *Can the company provide training? Is training required to use the system? How much training is provided? Is there an extra cost for training? Can the training be performed at your site?*

21.   *When was the program last updated? How frequent are the updates? What is the upgrade policy?* With some software packages, the annual software license or upgrade fee may be 30-70% of the purchase price of the package. When gathering information about the provider's upgrade policy, be aware that some software providers require that the user re-purchase the entire program if the license has lapsed.

22.   *Does the company sell its own software or does it sell someone else's? Have they developed any other programs?*

23.   *How qualified is the vendor? How likely is it you can get assistance from them? What is the vendor's experience in the EH&S software industry?*

24.   *Should you choose a large vendor or a small vendor?* A smaller company can more easily respond to fast-paced changes in legislation, while a larger vendor has more capital for launching a system. More important than size, however, is whether the vendor is committed to the software product, and has the background, ability and good financial standing to back up the commitment.

25.   *What is the vendor's track record with EPA approval?* The EPA has a process for annually approving the magnetic and printed formats of the toxic release Form R report. The exact report format is important to the EPA, and by extension to you, because the data uploaded to a central computer cannot contain any ambiguities. Using an approved system to generate your

report reduces your format error rate. If the package is not EPA-approved, or is not approved before the report deadline, you will have to hand key the data into the EPA's Form R report template software or transcribe the computerized data onto paper forms for submission.

26.   Can a list of users be provided? Telephone numbers?

27.   Can the system be modified in house? What level of technical background is needed to provide this modification?

28.   Will the vendor provide custom enhancements to the software package if you require it? If it is important to be able to effect future changes in the selected package, confirm that (a) the vendor is willing and able to consider enhancement requests, and (b) customization rates for specialized requests are reasonable.

29.   Is the vendor aware of competitors in their field? How do they compare their product to the competitors?

30.   Is the company continually developing its software to offer new features and to incorporate new technologies?

31.   What programs will it interface with (Excel, Access, e-mail, internet browsers, enterprise resource planning systems)? Can the program interface with other computers?

32.   How many records can it handle? How many parameters?

Price vs. Value

One of the most important components of your software selection process is likely to be price. However, evaluating this component may not be as straightforward as it seems.   Price is a complex market entity. To your company, the value of the time you spend using the package and value of the data entered into the system over the years, will greatly exceed the initial software investment. Timesaving features will, therefore, return a handsome dividend.

An easy-to-use system gives you the flexibility to involve staff in the software without requiring extensive training. It can be very disappointing, on the other hand, to be the owner of software with a fixed configuration that cannot be extended, software unable to make the annual update transition, or software with bugs that may or may not get fixed before the reporting deadline.

Comparing the initial purchase price alone could be penny wise and pound-foolish. The package's long term value to you is a far superior yardstick.

Conclusion

We hope that this information will be of use in your search for the EH&S software package that best meets the needs of your organization, now and in the future.

For More Information

Please feel free to contact one of our **MIRS™** Product Consultants, at 734-973-3000, with any questions or to obtain more information.

*A V Systems has been developing high quality, easy-to-use EH&S software since 1988. **MIRS™** software has been the choice of clients as Ford Motor Company, General Motors, U.S. Department of Defense, Kraft Foods and hundreds of others.*