



FEATURE ARTICLE

The Hardware Life Cycle

How do you know when it is time to replace or upgrade your equipment? Do you wait as long as you can, hoping that disasters such as a server failure or filled hard drives never happen? Or maybe you really like Windows XP and can't bear the thought of a new operating system (OS)? Maybe you don't think that you can afford to budget that new equipment? But can you afford to lose your emissions data? How much would that cost?

For some, having an IT department means that plans are in place to continuously upgrade hardware and software every few years, in a proactive manner. Others may not have a dedicated IT department, but that doesn't mean their equipment will last forever or that operating in a reactive mode will cost less. On the contrary, if preventative maintenance is not performed, the mean time before failure (MTBF) of the hardware happens that much faster and the costs of replacement will occur sooner than you are prepared for and usually at the worst possible time. Think about your CEMS equipment. Why do you perform preventative maintenance? You perform preventative maintenance to prolong the life of the expensive CEMS equipment. You do it to protect your investment. The same holds true for servers, software and data controllers.

What does it mean to perform preventative maintenance on your server(s)?

- The first step is to put together a plan and a budget. Define who is responsible for the system and set aside time in their schedule. Define the routine tasks that need to be performed and how often they should occur.
- Things to consider include Windows® service packs, SQL updates, SQL database maintenance, backups, ESC|StackVision updates and data controller firmware updates.
- Don't forget to budget for technology updates that are necessary but occur less often. Account for new server hardware, new OS and new software versions such as Windows® Server 2008 and Microsoft® SQL Server 2008 every few years.

Everyone knows that the 8816s were reliable, but they weren't immune to failures. Think about the advantages and new capabilities of the 8832. What might be available in the next-generation product? When replacing your hardware, anticipate the performance improvements and efficiencies your company will gain. Each generation of the data controller has increased the memory capacity and has allowed you to store more data. As technology advances, the costs decrease compared to the performance benefits that you receive.

What can ESC do to help you? ESC offers services that help to successfully plan and execute a hardware upgrade. We also provide training opportunities to share our knowledge with you. We can even help with your preventative server maintenance. We have already helped several companies upgrade their servers and move StackVision, and its database(s), from the old server to the new server. Contact your Senior Account Executive to find out more about how ESC can assist you to ensure a proactive approach for maintaining your DAS.



From the Desk *of the* President

I hope this article finds everyone in good shape relative to their preparations for first quarter reporting using the XML schema. We still have three important XML related dates to be aware of:

- Mid-March 2009 – first quarter Production Tool available
- Late March/early April – ESC|StackVision update with XML software modifications required for first quarter ECMPS EDR submissions
- April 30, 2009 – deadline to submit (may be submitted with critical errors for 30-day extension)

If you still have doubts surrounding your ability to successfully report in April, please do not hesitate to give me a call and let's get these doubts resolved now.

In transitioning to reporting in the XML schema, we find "new" software on both the submitter's (source DAS) end and the receiver's (EPA ECMPS) end. Therefore, we should anticipate that 2009 will be fraught with lessons learned on both ends of the submission. In addition to familiarizing ourselves with the new XML schema, we must also learn to use EPA's ECMPS Client Tool to import, evaluate and submit data as well as troubleshoot for solving errors. Our goal should be to move as far up the learning curve now as we can in order to make it easier for future changes which we expect on both ends. The ESC|SafePassage Program – A Smooth Transition to XML and the ESC|University Using ECMPS workshop are two excellent ways to overcome the learning curve.

Along with the creation of a learning curve related to the new reporting schema, the transition to XML reporting is also causing the breakage of pre-existing data connectivity "links" to the emissions database. These links were previously put in place to connect in-house analysis and reporting tools with the emissions data. These links must be re-established in order to properly interface with the new reporting schema. Give me a call and I will introduce you to ESC|DataLink, the perfect fix for these broken links.

Although the challenges for 2009 are many and not trivial, we have listened to your anticipated needs and have put several products and services in place to assist you. With a dedicated staff of over 100 CEMS DAS professionals, ESC is ready to make your 2009 a very successful year. Let me know how we are doing!

Jack R. Missimer Ph.D., P.E.

From the Desk of the CTO

Mark Shell

ESC|StackVision State Mercury (Hg) Modules

The Federal Clean Air Mercury Rule (CAMR) was vacated in February 2008. As a result, many states have instituted new state-level rules to regulate and report mercury emissions. Some of these rules have been published while others are pending. Seventeen states either already require mercury monitoring or will do so by the end of 2009. Although ESC is tracking these requirements and working closely with both sources and the regulators, specific reporting requirements for mercury remain confused and ambiguous in many of these states. It appears that there will not be a common reporting methodology or reporting format. The states differ on requiring Bias Adjustment Factors (BAFs), missing data substitution algorithms, units of measure and value reported (i.e. concentration, total mass, % reduction, emission rate, etc.). Not to mention that averaging intervals, variations in QA requirements and reporting frequency will also differ among states. Although some states have adopted certain provisions of the CAMR requirements, the Federal EPA has stated that they will not accept mercury data as part of their XML data transmittal via the ECMPS tool.

Unfortunately, it appears that ESC will not be able to provide a “one-size-fits-all” software solution for mercury reporting in ESC|StackVision as we once anticipated with CAMR. We have been forced to approach each state’s requirements one at a time to determine how to best implement the reporting for that state and how to write state-specific reporting software. This state-specific mercury calculation and reporting software will be available to sources in each state as an add-on module to StackVision. Since these modules address new state programs, they are typically not included in the standard “Sentry-level” ESC Support agreement, but are included at no additional charge for those customers with “Fortress-level” agreements. Check your agreement for specifics. If you have state mercury requirements, be sure to discuss these with your Senior Account Executive.

Technology Planning

Just a reminder about technology planning...If you haven’t read the article about Technology Planning in the December 2008 edition of the ESC Newsletter, you may consider taking the time to look it over. It can be found on the ESC website at <http://envirosys.com/newsevents/newsletter.aspx>. The article discusses important transition items that require planning on your part. You will need to plan to transition to Microsoft® SQL Server 2008 in the second half of 2009. Additionally, you will need to move to one of ESC’s supported connectivity (data transfer) methodologies if you are currently relying on one of the data transfer options that will be obsolete by the end of 2009.



February was a very exciting month for ESC|University! As we continue to hear your traveling challenges, ESCU is constantly revamping their course offerings, ensuring that attendees get the training they need even in these difficult times. Based on customer feedback, ESC was able to schedule additional February courses in a mutually desirable location. If you have a training need, but can’t attend one of the scheduled offerings, contact us and let us know!

Once again in February, ESC offered the Data Aggregation/Parsing and Connectivity webinars. Designed to raise awareness, these webinars educate customers on current market needs while exploring challenges and discussing possible solutions. If you are interested in these topics and were unable to attend the webinars, please contact your Senior Account Executive to reschedule.

With spring comes a new package of ESCU offerings. Don’t miss the following courses offered in March:

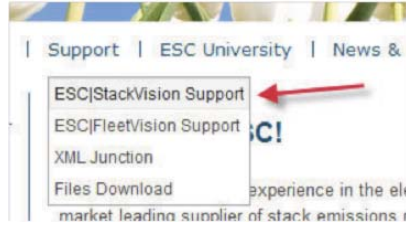
- ESC|StackVision Data QA/Certification Workshop – March 9-10 in Dallas, TX
- ESC|StackVision Version 2.3 Condensed Configuration Workshop – March 10 in Knoxville, TN
- CEMS New User with ESC|StackVision Class – March 16-17 in Harrisburg, PA
- ESC|StackVision Data Management with NERC CIP Workshop – March 11 in Dallas, TX
- IT Planning Workshop – March 12 in Knoxville, TN
- Understanding Permit Requirements with ESC|StackVision Workshop – March 12 in Dallas, TX
- PADEP Revision 8 Regulations Workshop – March 18 in Harrisburg, PA
- PADEP Mercury (Hg) Regulations Workshop – March 19 in Harrisburg, PA

Make the most out of your traveling budget by attending multiple workshops in the same location! For a complete listing of ESCU courses, including schedules and descriptions, visit <http://envirosys.com/escuniversity/default.aspx>.

Tips & Tricks The New Support Area

ESC's Support area on the website has a new look, new organization and new functionality.

To access StackVision Support, select ESC|StackVision Support from the Support dropdown menu in the top navigation bar.



The new compact layout simplifies access to your most needed functions.

- 1 When you need to report an issue or view the status of a case that you have already reported, the new Customer Access Portal is available 24 hours a day, 7 days a week.
- 2 Go directly to the StackVision Downloads area to download new releases, service packs, utilities and documentation.
- 3 Receive help from your peers or offer advice in the ESC Online Community.
- 4 Visit the XML Junction for information that is useful when transitioning to XML reporting.
- 5 Users can also find other helpful ESC|StackVision-related links in this area such as License Key Requests, Technical Information Letters (TILs), Technical Advisory Groups and access to the ESC|KnowledgeBase.

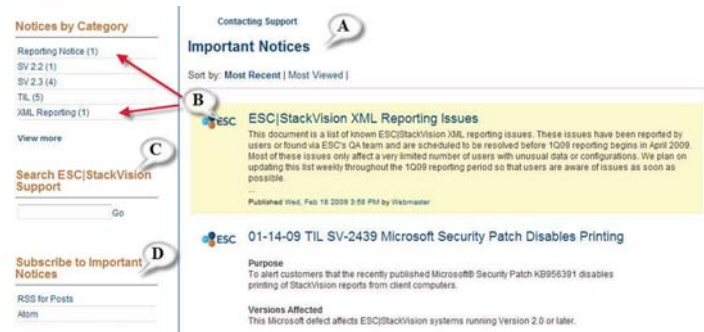
Technical Information Letters (TILs) are important notices about



issues and known defects in the software. ESC heard your complaints when you said that the TILs were hard to locate in the

KnowledgeBase. You asked for a better location and a better method for determining whether or not TILs affected you...we listened. As part of our remodeling efforts, TILs, Reporting Notices and other important announcements that affect your data or your ability to report are now being posted on the StackVision Support page.

- A The **Important Notices** section is located on the lower part of the page. Each entry clearly displays a title and description, allowing you to conveniently determine whether the issue affects you or not. If you would like to view the entire notice, simply click on the title.
- B Each item is tagged with appropriate categories so that you can easily view related items, such as TILs, notices related to particular versions of ESC|StackVision, or drill deeper to view all of the TILs for a particular version. If an item belongs in more than one category, it will be tagged appropriately.
- C If you are not sure which category a topic belongs in, you can search the ESC|StackVision Support area.
- D For your convenience, Important Notices can automatically be delivered directly to your Microsoft® Outlook or other feed-reading software. If you would like to subscribe to the Important Notices, you can do so by choosing the appropriate option under "Subscribe to Important Notices" on the left side of the page. By doing so, you will receive the same summary that is visible on the Support page. A single click will bring you directly to our website, allowing you to read the full notice. (You will be asked to enter your username and password if you are not currently logged into our site.)



Customer Access Portal: Prepare for Launch in 3, 2, 1...

ESC is excited to launch the Customer Access Portal (CAP) in March. We discussed all of the possible uses for the newest ESC Support tool in the January edition of the newsletter. For customers who choose to utilize CAP, we are confident that they will recognize it as a significant step forward in improved communication, case organization and access into our processes that provide resolution to your DAS and reporting dilemmas.

The portal will be conveniently located in the Support section of the ESC website, reducing the amount of time it takes for customers to convey their issues. All details required for a case can be quickly entered, uploaded and submitted just moments after the problem is encountered. For example, users can utilize the "ALT-PrintScreen" feature on their keyboard to capture screen shots of the DAS and attach them to the case. CAP users can also attach a copy of a report to the case record, illustrating their issue.

Portal users will be able to see what the Support Agents see because the systems use the same information. This feature enables our customers to review the case details which include descriptions, attachments, status, urgency, emails, case history and case comments that have been added since the case was initiated. The availability of all of this information is bound to reduce ambiguity and misinterpretations of case details.

The portal benefits everyone! Providing this increased level of access to our customers allows them to look into our processes, giving them a better idea of where their case resides in the queue. We all know that the environmental industry can be complex and the problems each of our customers encounter are varied due to the software's ability to be configured for each installation. If there is a discrepancy between the issue that you need fixed and the one that we are trying to resolve, it will be identified earlier when the portal is used to open cases.

CAP also provides a historical record of cases for each customer. We have heard antidotal stories of people keeping old Support case emails in an archive or printing out resolutions to keep a paper file in order to reference these in the future. Other people have shared stories of opening similar cases for a plant that had the same configuration and encountered the same issue resolved two weeks earlier at a sister plant. The portal eliminates the need to archive emails and open new cases which have already been resolved at sister facilities. Resolutions of old cases can be reviewed for future reference. Using printer-friendly views, users can review summary details from past cases. With the right permissions, customers can access all open and closed cases for each of their company's sites. You're only a login away from seeing your case history back to November 2008!

Users can also obtain a status report of all open cases from the portal, eliminating the need to place additional calls about where your case resides in the process. By doing so, users have access to real-time information about their cases and Support Agents can focus more attention on resolving cases rather than fielding phone calls regarding case status.

Additional features, including a Knowledge Base and the ability to view your position in queue, are still to come this year! Once the Knowledge Base is available, users will be able to utilize this feature in order to submit a case and search the database for possible solutions. Similar to a Google search, the most relevant information will be returned for review and will

likely contain solutions to your question. Currently being worked on, this feature will be deployed in the upcoming months. Check for new portal features regularly as we will continue to listen and incorporate your comments in order to increase the effectiveness of the portal.

We are proud to bring this tool to our valued customers at no additional charge. In order to reap the benefits of CAP, you must be a registered user of **envirosys.com** and have a valid DAS maintenance contract.

CAP was constructed in cooperation and with guidance from the ESC Support Technical Advisory Group (TAG). We are very thankful for their time and input.



Version 2.3 Service Pack 4

Preparation continues for April as the deadline for ECMPS XML reporting is right around the corner! All ESC|StackVision 40 CFR 75 customers should be on StackVision Version 2.3 Service Pack 3 by now. If you are not, please visit the StackVision Support website (<http://envirosys.com/esc/vsupport/>) and request a license key and download the release.

Exclusively focused on XML, Service Pack 4 will become available during the second half of March and will be required for XML reporting. Be on the lookout for Service Pack 4 Release Notes as they will be posted to the ESC website within the next two weeks. If you have any questions regarding SP4, don't hesitate to contact our Software Support staff.

StackVision Version 2.4 will be launched in May and contains new, much improved RATA and Cylinder Management tools. Designed in conjunction with their respective Technical Advisory Groups (TAGs), ESC is very excited about the much anticipated rollout. In order to focus all of our Support efforts on XML reporting, we have delayed the release until May.

Thanks to all of those who participated in the StackVision Readiness Program! Customers who were already official 2008 submitters were asked to download and run a small program. After doing so, they emailed their results back to ESC. Participation was great and gave our Software Quality Assurance team a mountain of invaluable data to verify our latest software release. We are committed to consistently improving our processes to serve you better.

The Product Development team is excited to announce that ESC|FleetVision Version 2.0 is on schedule for a March launch. Among other benefits, FleetVision Version 2.0 allows users to directly connect to the StackVision servers in order to access all data. Additionally, it also lets users import XML EDRs. If you have any questions regarding FleetVision or would like to request more information, contact your Senior Account Executive.