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Enterprise Content Management for your Growing Laboratory

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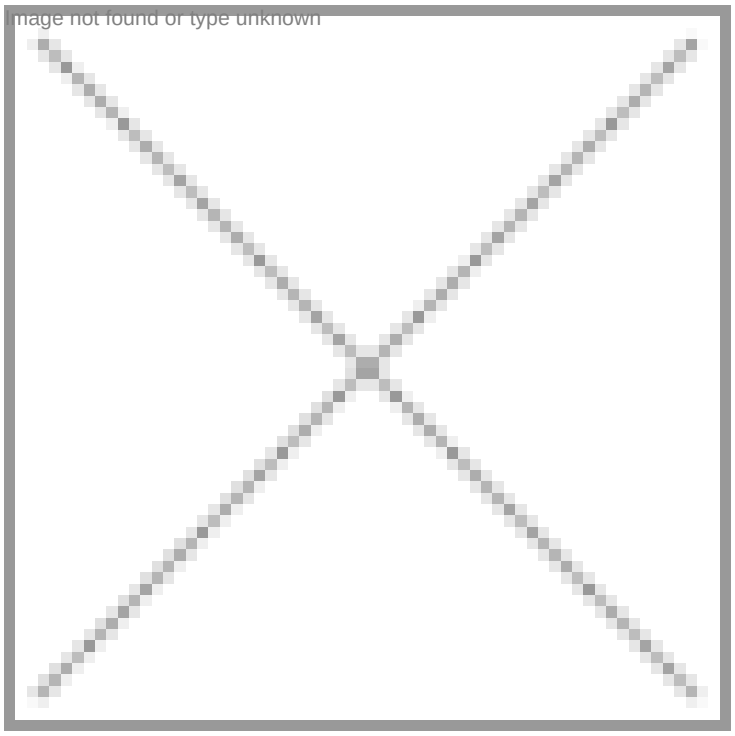

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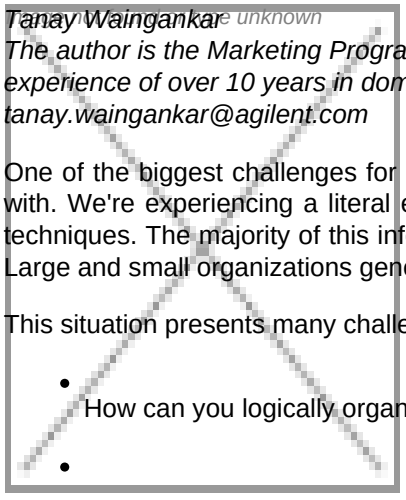

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One of the biggest challenges for life sciences companies today is dealing with the sheer volume of data they need to work with. We're experiencing a literal explosion of data with advancements in scientific research and high throughput analytical techniques. The majority of this information is unstructured and heterogeneous, making it difficult to organize, find and reuse. Large and small organizations generate millions of electronic files each year, which is spread across many disparate silos.

This situation presents many challenges.

- How can you logically organize this data?
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How can you make all the data "safe" and secure?

- How can you make all the different data searchable and shareable?
- How can you make all the data viewable from different places?
- How can you handle laboratory data as part of your company's business processes?

Clearly a powerful way of organizing and harnessing data for easy access, retrieval and re-use is needed in today's competitive business environment. The best solution for this "information overload" challenge is a solid "Enterprise Content Management" strategy.

The Value of Content Management

A content manager such as Enterprise Content Management can solve these issues. It's an electronic library that provides a secure, central repository to store all of your information, with rich content services to capture, manage, collaborate, archive and reuse information. Records placed in the repository are automatically indexed, allowing for rapid searching and retrieval. Content Management Systems can help your organization gain control of critical information while improving compliance, enabling collaboration and protecting intellectual property.

An ECM has the unique ability to manage data generated from analytical instruments and measurement devices as well all types of documents including word processing, spreadsheets, PDF files, graphics, images, email, HTML files and more. Since it's web based, you can access any file, anytime from anywhere for review, collaboration and reporting. This can be from any point on your intranet, or externally over the Internet. Obviously you need to get data into the ECM for it to be useful. You can add data manually through the web client, or from within MS Office Applications. Data can be transferred directly from another system such as LIMS. It can be automatically uploaded through a scheduler â€“ for example anytime a new file is created or changed. Or you can even "print" files in PDF format directly to the ECM. Organizing the data for easy access is just as important as getting it in there. Content is organized in an intuitive, flexible structure of Locations, Cabinets, Drawers and Folders that is easy to visualize. Each Location can contain an unlimited number of Cabinets, Drawers and Folders. There's also an upper level structure of accounts that allow you to configure multiple hierarchies on the same system. Accessing the data is also intuitive. Built in data viewers allow you to view a wide variety of content without having to load the native application on your PC. These viewers support a wide variety of files from commercial data systems. Right clicking on a file brings up a menu of content management services.

Indexing data for easy retrieval

While the content hierarchy makes it easy to browse data, you won't always know where information is especially as the volume grows. This is where indexing comes in. When a file is imported to the ECM, information is automatically extracted and saved to a database. This extraction contains basic information on the file to identify where it came from, who placed it there and when it was created, but also a rich set of metadata to describe the content and make it easy to find later on. You can expand the extraction service to glean more information for searching â€“ and then automatically re-key the files in the repository. Since the files are indexed with this rich set of information, you can search the data to quickly find exactly what you need â€“ regardless of location or file type.

Keeping your content secure & compliant

One of the major benefits of ECM is keeping your content secure and helping you maintain regulatory compliance. There's a complete feature set to satisfy the requirements of 21 CFR Part 11, including login security, a complete audit trail of system activities, electronic signatures, secure file transfers, version control, and check in/check out. Another level of security comes with the new SAFE (Secure-Access-for-Everyone) standard, a consortium of biopharma companies developed this as a global standard for legally binding electronic signatures

Managing the complete lifecycle of electronic records

As your content ages and the need for immediate access diminish, the ECM can automatically migrate your electronic content from on-line storage to secondary or off-line storage devices. Record retention features provide the final stage in content management; destruction based on corporate and regulatory regulations. File expiration policies are event-driven

with configurable retention periods. Another challenge we're all faced with is preserving legacy data for long periods of time. Data often has to be kept long after the system that created it becomes obsolete. The typical solution is to keep an instance of this system alive to store and view the data when needed. With ECM you can convert this data to a TNF, and place it in the ECM for long-term storage and reuse. TNF converters are available for various formats, with more in development.

ECM architecture that grows with you from single laboratory...to global deployment

To make an ECM useful across your company, the architecture needs to be scalable and have the flexibility to adapt as your needs change. The complete system can fit on a single server....Or scale it up to a large global implementation. Modules such as the database, web server, application server, or file transfer server can be installed on separate machines. These functions â€“ individually or together â€“ can operate a single server, or be load balanced across a server farm. This gives you freedom to configure the system to meet your needs.

Things to remember

Provides a secure, central repository and rich content services for capturing, managing, archiving, collaboration and re-use of business critical information

- Improves compliance with corporate and regulatory requirements for managing electronic records
- Enhances productivity, increases operational efficiency and streamlines laboratory business processes